

DRAFT

SUBSEQUENT ENVIRONMENTAL IMPACT REPORT TAJIGUAS LANDFILL CAPACITY INCREASE PROJECT

Volume 1 (Subsequent EIR)
Santa Barbara County EIR No. 23EIR-00001
SCH No. 2023030563



LEAD AGENCY:

SANTA BARBARA COUNTY

**Resource Recovery &
Waste Management Division**
Innovative Environmental Solutions



PREPARED BY:

Padre Associates, Inc.

September 2023

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FOR THE
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LIST OF ACRONYMS, SYMBOLS and TERMS

AD	Anaerobic Digestion
amsl	Above mean sea level
BMP	Best Management Practice
Bypass waste	Municipal Solid Waste that cannot be processed at the ReSource Center Facilities and is transported directly to the Landfill for burial (may include non-recyclable construction & demolition materials, non-friable asbestos, large dead animals, treated wood waste, and grit/sludge from water treatment facilities)
CalRecycle	California Department of Resources, Recycling and Recovery
CARB	California Environmental Protection Agency Air Resources Board
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CH ₄	Methane
CNDDB	California Natural Diversity Data Base
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide, equivalent (greenhouse gases)
Commingled	Recyclables of various types combined in a single load (typically from residential blue bins)
CRLF	California Red-legged Frog
CWA	Clean Water Act
dBA	Decibel: A - weighted
EIR	Environmental Impact Report
ESA	Endangered Species Act (Federal)
GHG	Greenhouse Gases
GLCRS	Groundwater Leachate Collection and Recovery System
HCP	Habitat Conservation Plan

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HDPE	High Density Polyethylene
ITP	Incidental Take Permit
IWMF	Integrated Waste Management Facility
LEA	Local Enforcement Agency
LFG	Landfill Gas
MMCO _{2e}	Metric Tons Carbon Dioxide Equivalent (greenhouse gases)
MRF	Materials Recovery Facility
MSW	Municipal Solid Waste, includes all of the solid wastes that are generated from residential (homes and apartments) sources, commercial and business establishments, institutional facilities, construction and demolition activities, municipal services, and treatment plant sites. Hazardous wastes are generally not considered MSW.
N ₂ O	Nitrous Oxide
NAHC	Native American Heritage Commission
NOI	Notice of Intent
NOP	Notice of Preparation
NO _x	Oxides of Nitrogen
NPDES	National Pollutant Discharge Elimination System
Organic Waste	Food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste.
PFAS	Perfluorinated and Polyfluorinated Substances
Pila Creek Inundation Area	The anticipated inundation area behind the Pila Creek flow control structure for the 100-year flood event.
PM _{2.5}	Particulate Matter with an aerodynamic diameter of 2.5 microns or less
PM ₁₀	Particulate Matter with an aerodynamic diameter of 10 microns or less
PSD	Prevention of Significant Deterioration
Residual Waste	Waste that requires burial in the Landfill after processing through the MRF, ADF or CMU. Largely composed of plastic and film plastic waste.
ROC	Reactive Organic Compounds
RRWMD	Santa Barbara County Public Works, Resource Recovery and Waste Management Division
RWQCB	Regional Water Quality Control Board

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SBCAPCD	Santa Barbara County Air Pollution Control District
SCCAB	South Central Coast Air Basin
SCRTS	South Coast Recycling and Transfer Station
SLAMS	State and Local Air Monitoring Stations
SWFP	Solid Waste Facility Permit
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
SYVRTS	Santa Ynez Valley Recycling and Transfer Station
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VMT	Vehicle Miles Travelled
WDR	Waste Discharge Requirement

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D	Technical Project Description
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F	Supplemental Phase I Archeological Survey
G	Geotechnical Evaluations Report
H	Hydrology and Hydraulic Analysis Report
I	Hydrogeologic and Water Supply Impact Analysis Report

1.0 INTRODUCTION

1.1 DOCUMENT PURPOSE AND LEGAL AUTHORITY

The California Environmental Quality Act (CEQA) requires that local, regional, and State agencies and special purpose districts prepare an Environmental Impact Report (EIR) for any discretionary action that may have the potential to significantly affect the quality of the environment. The Santa Barbara County Public Works Department, Resource Recovery & Waste Management Division (RRWMD) has prepared this Subsequent EIR for the proposed Tajiguas Landfill Capacity Increase Project (or Capacity Increase Project) to comply with the provisions of CEQA.

In accordance with Section 15121 of the State CEQA Guidelines, the purpose of this EIR is to serve as an informational document that:

"...will inform public agency decision-makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project..."

The Tajiguas Landfill has been in operation since 1967, pre-dating both the California Coastal Act enacted in 1976 and CEQA enacted in 1970. Since CEQA was enacted the Tajiguas Landfill has been expanded three times. Most recently, the Santa Barbara County Board of Supervisors certified an EIR (01-EIR-05) for, and approved, the Tajiguas Landfill Expansion Project (Front Canyon Expansion) on August 13, 2002. All applicable permits to construct and operate the expansion were received in 2003. The Tajiguas Landfill Expansion Project consisted of the horizontal and vertical expansion of the Landfill outside of the Coastal Zone, providing 8.2 million cubic yards (mcy) of additional waste disposal capacity for a total permitted capacity of 23.3 mcy. On December 5, 2006, the Board of Supervisors approved an Addendum to 01-EIR-05 for minor changes to the approved Tajiguas Landfill Expansion Project. The changes included elimination of the Coastal Zone Southeast Corner Modification and reconfiguration of the North Slope borrow/stockpile area.

Reconfiguration of the waste footprint associated with the Expansion Project (Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project) was proposed to reduce earthwork requirements and improve waste disposal operations. A Subsequent EIR (08EIR-00000-00007) was prepared for this project and certified by the Board of Supervisors on May 5, 2009. Waste disposal is currently occurring in the permitted area of the expansion and reconfiguration. Collectively, the approved and permitted Tajiguas Landfill Expansion Project as modified in 2006, and again in 2009 is herein after referred to as the "Tajiguas Landfill Project".

The Tajiguas Resource Recovery Project (now the ReSource Center¹) consisting of a Materials Recovery Facility (MRF), Anaerobic Digestion Facility (ADF) and Compost Management Unit (CMU) was implemented to comply with state and federal recycling and greenhouse gas reduction requirements, increase the recovery of recyclable materials in the incoming waste stream (including organics), thereby reducing the amount of solid waste buried, and produce green energy. The Tajiguas Landfill and ReSource Center are both permitted (Tajiguas Resource Recovery Project and Sanitary Landfill) under a single Solid Waste Facility Permit issued by CalRecycle.

A Subsequent EIR (12EIR-00000-00002) was prepared for the ReSource Center and certified by the Board of Supervisors on July 12, 2016. A CEQA Addendum pursuant to CEQA Guidelines Section 15164 was prepared for changes to the ReSource Center project description, including relocation of the ADF, and was considered by the Board of Supervisors on November 7, 2017. The ReSource Center was approved as a publicly financed design, build, operate and transfer project. The facilities are operated by a private vendor under contract to the County. The ReSource Center has been constructed and is now in the limited operations phase.

The County is now proposing to construct a limited Capacity Increase Project that would be located largely in areas previously disturbed by permitted Landfill operations. The project would provide 566,440 cubic yards of capacity and increase the permitted design capacity from 23.3 mcy to 29.4 mcy, the permitted disposal area from 118 acres to 132.25 acres, the maximum elevation from 620 feet above mean sea level (amsl) to 650 feet amsl, include a minor change to the operating hours for waste receipt at the Landfill scale house and change the permitted tons allowed to be received from a daily maximum to a weekly maximum.

The State CEQA Guidelines provide guidance on the appropriate document for revisions to a previously certified EIR. Section 15162 requires that no subsequent EIR shall be prepared for a project unless the Lead Agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following:
 - (A) The project will have one or more significant effects not discussed in the previous EIR;

¹ CalRecycle has not yet approved the name change for the project from the Tajiguas Resource Recovery Project to the ReSource Center.

- (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
- (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
- (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

As discussed in the Notice of Preparation, the proposed project increases the capacity of the Tajiguas Landfill Expansion Project analyzed in 01-EIR-05 and has the potential for significant impacts that would be new or substantially different as compared to past EIRs prepared for Landfill operations. Therefore, the Lead Agency (Santa Barbara County) has determined that a Subsequent EIR is the appropriate CEQA document to address the environmental impacts of the proposed project.

1.2 GENERAL OVERVIEW AND BACKGROUND

The RRWMD is responsible for the management of solid waste resources in Santa Barbara County. RRWMD's mission is to protect public health by providing County residents with cost effective, innovative, and environmentally sound solutions in waste management. RRWMD provides an integrated waste management system consisting of recycling programs for: metals, construction debris, dirt, rock, mattresses, textiles, carpet, tires, blond wood, drywall, processing of commingled recyclables, organic waste collection and processing, programs for residential and small business hazardous waste, sharps and pharmaceutical collection, electronic waste collection and recycling, education, the operation of four recycling and transfer stations, the operation of a community hazardous waste collection center, operation of the Tajiguas Landfill, and management of nine closed landfills. Under contract to RRWMD, the ReSource Center is operated to comply with state requirements to increase recycling, reduce GHG emissions, generate green energy and minimize landfill disposal. In addition, the RRWMD is responsible for administering the franchise agreements for the collection of solid waste materials from residents and businesses in the unincorporated areas of the County by private solid waste collection firms, as well as the enforcement of local solid waste management ordinances. RRWMD is also responsible for preparing and submitting solid waste management plans and annual reporting to CalRecycle for the County as a whole, including each of the cities within the County.

1.3 OVERVIEW OF THE COUNTY'S EXISTING WASTE MANAGEMENT SYSTEM

The following sections describe how municipal solid waste (MSW) and recyclables are currently collected and managed within the Tajiguas Landfill (Landfill) watershed and provide background information on the composition and volume of the MSW disposed of at the Landfill.

1.3.1 MSW Collection and Recyclable Materials Management

Since 1967, the County of Santa Barbara has been primarily responsible for waste management and disposal for the communities that are currently served by the Landfill. Almost all residents of these communities are a part of a three (or four) bin curbside collection system that includes:

- Trash (MSW) in a brown or gray bin.
- Commingled recyclables in a blue bin.
- Green-waste in a green bin.
- Food scraps in a source-separated food scraps collection container (currently yellow bin) (select businesses and multi-family residential land uses).

On the South Coast (including the cities of Santa Barbara and Goleta), all brown bin trash (MSW) and blue bin recyclables (commingled recyclables) are collected and then brought to the ReSource Center at the Landfill for sorting, recycling, composting, and disposal. In some cases, MSW collected is consolidated at the Marborg Industries MRF/Transfer Station in the City of Santa Barbara and brought to the Landfill in larger capacity trailer trucks. Source-separated green-waste is collected and delivered to the Landfill to be processed into mulch. Some of this mulch is distributed to residents, schools, parks and agricultural operations. Also, a portion of the mulch is delivered to the ReSource Center CMU for incorporation into digestate, as part of the composting operation.

In the Santa Ynez Valley, MSW and commingled recyclables are collected from residents and businesses in the City of Buellton and these materials are delivered to the ReSource Center for processing. Recyclables are shipped off-site for sale, organics are delivered to the ADF and processed into compost, and residual waste is buried at the Tajiguas Landfill. Green-waste collected in Buellton is either delivered directly to the Tajiguas Landfill to be processed into mulch, or to the Santa Ynez Valley Recycling and Transfer Station for consolidation and then to the Tajiguas Landfill for processing.

In the City of Solvang and the unincorporated area of Santa Ynez Valley, waste materials are collected from residents and businesses and the MSW and commingled recyclables are delivered to the ReSource Center for processing. Recyclables are shipped off-site for sale, organics are delivered to the ADF and processed into compost, and residual waste is buried at the Tajiguas Landfill. In the unincorporated Santa Ynez Valley and the City of Solvang, green-waste is delivered to the Engel & Gray composting facility for processing.

In the unincorporated Santa Maria Valley, waste materials are collected from residents and businesses and MSW is delivered to the Santa Maria Regional Landfill for burial, commingled recyclables are delivered to the ReSource Center for processing and then shipped off-site for sale and mixed organics (yard waste and food scraps) are collected and delivered to the Engel & Gray composting facility for processing.

In the unincorporated Lompoc Valley, waste materials are collected from residents and businesses and MSW is delivered to the City of Lompoc landfill for burial, commingled recyclables are delivered to the ReSource Center for processing and then shipped off-site for sale and mixed organics (yard waste and food scraps) are collected and delivered to the Engel & Gray composting facility for processing.

As specified in Solid Waste Facility Permit (SWFP) 42-AA-0015 (see Appendix C), the Landfill is prohibited from accepting any hazardous waste or constituents at hazardous concentrations, except for treated wood waste or waste that is hazardous due only to its asbestos content. Wastes that are prohibited include, but are not limited to:

- Radioactive wastes.
- Designated wastes.
- Hazardous wastes, except treated wood waste and waste that is hazardous due only to its asbestos content (asbestos containing greater than 1 percent friable asbestos is considered hazardous, but may be discharged as allowed by Specification C.23 of the Landfill's Waste Discharge Requirements [WDR]).
- Chemical and biological warfare agents.
- Waste solvents, dry cleaning fluids, paint sludge, pesticides, phenols, PCBs, and acid and alkaline solutions.
- Oils or other liquid petroleum products.
- Wastes that have the potential to reduce or impair the integrity of the Landfill's containment structures or commingled wastes that could produce violent reaction, heat or pressure, fire or explosion, toxic byproducts or reaction products.
- Wastes that require a higher level of containment than provided by the Landfill.
- Liquid or semi-solid waste containing less than 50 percent solids by weight, including landfill liquids (except as allowed by Specification C.14 of the Landfill's Waste Discharge Requirements) and sludge (except as allowed by Specification C.25 of the Landfill's Waste Discharge Requirements).
- Tires and treated automobile shredder waste.
- Medical waste (as defined in the California Health and Safety Code, Division 104, Part 14, Section 117690) except as identified in the Joint Technical Document and approved amendments thereto and as approved by other federal, state, and local agencies.

Medical waste is a type of hazardous waste that may include sharps waste and unwanted medications. As defined in the California Health & Safety Code, sharps waste includes hypodermic needles, contaminated syringes, acupuncture needles, root canal files, broken pipettes and blood vials, and trauma scene waste. For residents who generate sharps waste at home, the County provides free storage containers and collects the full containers at its Public Health clinics. The Public Health Department contracts with a medical waste company to pick up and dispose of the waste. Also included in the County's exclusive franchise agreement for solid waste collection is the provision of postage pre-paid used sharps collection containers provided free of charge.

The Santa Barbara County Board of Supervisors passed the Santa Barbara County Safe Drug Disposal Ordinance in June 2016, which requires any producer of prescription and over-the-counter drugs offered for sale in Santa Barbara County to participate in an approved drug stewardship program for collection and disposal of unwanted medications. Forty-seven drug drop-off locations are provided in the County, mostly at CVS, Savon, Rite-Aid and Vons pharmacies. The collected medications are sent to an out-of-county facility for incineration.

Hazardous Household Waste (HHW) collection and recycling is offered on Fridays to businesses (by appointment) and on the weekends to County residents at the Community Hazardous Waste Collection Center operated at the University of California at Santa Barbara campus, under contract with the County. HHW is also collected at annual events held throughout the County. Recyclable and less hazardous materials (i.e., antifreeze, batteries, motor oil, oil filters, and latex paint), are collected through Antifreeze, Batteries, Oil and Paint programs at area transfer stations operated by the County and the private haulers.

Electronic waste and large appliances such as refrigerators and hot water heaters are collected for recycling at the County owned and operated recycling and transfer stations as well as facilities operated by the private haulers.

1.3.2 Waste Characterization

The Landfill receives various substreams of waste for disposal, including: residential and commercial waste collected by contracted and franchised haulers as described above, waste from four area transfer stations, residuals from the commingled recyclables, residuals from MSW and residuals from finished compost screening operation processed at the ReSource Center, self-hauled waste (i.e., waste delivered by anyone other than a contracted or franchised hauler, including waste hauled by individuals, businesses or government agencies) and other waste including dead animals (farm animals such as horses and cows) and hard to handle materials and grit.

The City of Santa Barbara (largest solid waste source served by the Landfill) completed a Waste Characterization Study in 2022 (Cascadia Consulting Group, 2022) based on sampling conducted in April and August 2022. Table 1-1 provides a summary of waste characterization by sector.

Table 1-1. Percent Composition of Waste Generated by the City of Santa Barbara Disposed at the Tajiguas Landfill

Material	Commercial	Single-Family Residential	Multi-Family Residential
Paper	23	29	23
Plastic	15	12	11
Glass	4	10	9
Metal	5	4	3
Organic	41	32	37
Inerts and other (concrete, rock, soil, carpet, wallboard)	4	1	4
Hazardous waste	0	0	1
Special waste (tires, mattresses, furniture, bulky items)	1	0	0
Miscellaneous (textiles, diapers, e-waste)	7	12	12

1.3.3 Landfill Waste and Traffic Volumes

Landfill waste and traffic volumes from the period of 2013 through 2022 are presented in Table 1-2. The highest annual amount of waste received (310,989.96 tons) was in 2018, caused in part by disposal of disaster-related debris (Thomas Fire flood damage and debris flows). The peak vehicles per day recorded at the scale house was 163 in 2016.

Table 1-2. Summary of Annual and Daily Solid Waste Received and Disposal Vehicles

Year	Total Tons Received ^a	Peak Total Tons/Day	Average Tons/Day	Peak Vehicles per Day ^b	Average Vehicles/Day	Notes
2013	246,078.00	2,207 ^c	802	161 ^c	61	Peak day waste limit exceeded on July 29 and 30 due to acceptance of earth material from San Jose Creek clean-out
2014	235,397.80	1,150 ^c	767	85 ^c	58	
2015	252,624.32	1,335	823	87	59	

Year	Total Tons Received ^a	Peak Total Tons/Day	Average Tons/Day	Peak Vehicles per Day ^b	Average Vehicles/Day	Notes
2016	297,945.00	2,663	967	163	67	Peak day waste limit exceeded from September 30 through November 9 due to acceptance of earth material from the Gaviota Road project
2017	276,297.00	1,424	906	93	61	
2018	310,989.96	1,708 ^c	1013	108 ^c	67	Peak day waste limit exceeded due to disposal of Thomas Fire-related debris
2019	289,507.00	1,333	934	88	60	
2020	285,027.68	1,439 ^c	922	92 ^c	60	
2021	263,451.97	1,474	890	100	61	
2022	308,277.24	1,516	1007	107	72	
Average	276,559.60	--	903	--	63	
Permitted	--	1,500		184^b		

^a Includes all material received (bypass, green-waste, commingled recyclables, mixed MSW, dirt)

^b Does not include employee vehicles, contractors, deliveries, regulatory agencies and other visitors (50 vehicles/day permitted).

^c Days where peak volumes/day and peak vehicles/day occurred on the same day.

1.4 BACKGROUND ON THE TAJIGUAS LANDFILL

The Landfill is a Class III non-hazardous solid waste disposal facility located in Santa Barbara County, California approximately 26 miles west of the City of Santa Barbara (see Figures 3-1 and 3-2). The Santa Barbara County Public Works Department, RRWMD is the owner and permitted operator of the Landfill. The total Landfill project site area is 497 acres, with a permitted operational area of 357 acres, a total permitted waste footprint of 118 acres, and a permitted capacity of 23.3 mcy (Figure 3-3). The permitted maximum tonnage is 1,500 tons per day and the permitted traffic volume is 184 vehicles per day and an additional 50 vehicles per day of miscellaneous traffic. The permitted waste area is comprised of both lined and unlined (pre-Subtitle D) areas. MSW currently delivered to the Landfill is generated by the cities of Santa Barbara, Goleta, Buellton and Solvang, the unincorporated areas of southern Santa Barbara County, and the Santa Ynez and Cuyama Valleys. MSW is transported to the Landfill from the South Coast Recycling and Transfer Station, the Santa Ynez Valley Recycling and Transfer Station, the New Cuyama Transfer Station, and the Ventucopa Transfer Station, all operated by RRWMD.

Private waste collection companies and limited numbers of private companies also haul solid waste to the Landfill directly. Green-waste is brought directly to the Landfill by the franchise waste haulers (only MarBorg Industries at this time) and is also transferred in County transfer trucks from the South Coast Recycling and Transfer Station (SCRTS) and Santa Ynez Recycling and Transfer Station (SYVRTS). Currently, the Landfill is permitted to accept a maximum of 1,500 tons per day of MSW, recyclables, and green-waste.

The ReSource Center, consisting of the MRF, ADF and CMU, operates on the Landfill property owned by the County. The MRF is operated under contract to the County by MSB Investors with MarBorg Industries as a subcontractor to MSB Investors. The ADF and CMU are operated under contract to the County by MSB Investors. All MSW entering the Landfill property passes through the Landfill scale house. Waste streams entering the Landfill property include:

- Bypass waste, such as special waste (i.e., non-recyclable construction & demolition waste, non-friable asbestos, large dead animals, treated wood waste, and grit/sludge from water treatment facilities) is unloaded at the Landfill working face for immediate disposal.
- Green-waste is unloaded at the green-waste processing deck for sorting and grinding to produce mulch, which is transported to the SCRTS and SYVRTS for distribution to the public and commercial landscaping companies. Approximately 25 to 40 percent of the mulch may be added to the digestate produced by the ADF to facilitate compost production.
- Comingled source-separated recyclables (including blue bin material) are unloaded at the MRF for further sorting.
- All other waste is unloaded at the MRF for sorting and processing.
- Dirt and asphalt grinding may be received and used for daily cover, or in the case of asphalt grindings, for providing all weather surfaces.

Non-recyclable and non-compostable residue (residual waste) produced by sorting at the MRF is transported to the Landfill working face for disposal. The Landfill also receives residual wastes from the ADF and CMU (mostly plastics) for burial.

1.5 PURPOSE AND NEED

The purpose of the project is to increase capacity to regain landfill life that was expected to be provided by the waste diversion from operation of the ReSource Center and avoid costs associated with the off-site transport and disposal of residuals concurrent with debt service on the ReSource Center (debt service will be complete in December 2038). For numerous factors the current remaining capacity and associated Landfill service life has been reduced compared to what was analyzed in the ReSource Center Subsequent EIR as discussed below.

1.5.1 Current Remaining Landfill Capacity Estimate

The functional capacity of landfills is typically measured as permitted airspace, or the amount of volume available to bury solid waste. The total permitted airspace for the Landfill is 23.3 mcy. The current (April 2022) estimated remaining capacity is 1.68 mcy (includes final cover for remaining fill areas). As of April 2022, the Landfill has a projected remaining life of approximately 3.9 years, or through approximately March 2026. While capacity is a fixed volume, landfill life is variable and can be affected by several factors, including:

- Variations in annual tonnage of solid waste generated by the community and delivered for management and burial.
- Waste compaction during burial, which depends on composition.
- Use of alternative daily covers (such as tarps instead of soil, which saves landfill airspace).
- Decomposition and settlement of buried waste (affected by waste composition, moisture content, placement density, consolidation of the waste under loads imposed by overlying fill, and biological and chemical decomposition).

Forecasting since the initiation of operation of the ReSource Center is difficult since the density or compaction rate of the residual material after processing is not fully known. If the residual material is denser than existing waste or if the current acceptance of non-committed waste material is modified, then the current projection of reaching capacity in 2026 will change. However, the change (if any) would be on the order of a few years.

1.5.2 Factors Causing Reduced Landfill Life

The Landfill life has been reduced as compared to earlier projections for the following reasons:

1. Delays in initiating construction of the ReSource Center associated with a Coastal Zone Boundary discrepancy and litigation of the Subsequent EIR (about 1.5 years). Assuming the ReSource Center would have diverted 50 percent of incoming solid waste from burial, the amount of waste buried was doubled during this period as compared to projections.
2. Delays in completing construction of the ReSource Center due to COVID-19 (staffing and supply chain issues) for about one year. Assuming the ReSource Center would have diverted 50 percent of incoming solid waste from burial, the amount of waste buried was doubled during this period as compared to projections.
3. The actual amount of solid waste received at the Landfill was about 30,000 tons greater per year than projected from 2016 through 2019.

4. The Subsequent EIR prepared for the ReSource Center included an assumption that 60 percent of the MSW delivered to the Landfill would be recovered and not buried. While it is still expected that the ReSource Center will recover close to 60 percent of the material it processes, more attention has been paid to the different types of solid waste that is delivered to the transfer stations as well as MarBorg's transfer station. This has resulted in an increase in the amount of solid waste that bypasses the ReSource Center because it is not processable. The bypass waste is greater than originally projected and has reduced the life of the Landfill.

1.6 PRIOR ENVIRONMENTAL DOCUMENTS

1.6.1 Prior Tajiguas Landfill Environmental Documents

As noted above, the Tajiguas Landfill began operation in 1967, prior to the enactment of CEQA in 1970. Following the enactment of CEQA, the following environmental documents were prepared for previous projects at the Landfill. In 1987, an EIR was prepared and certified for a proposed lateral expansion of the Landfill into the northern portions of Cañada de la Pila (87-EIR-08). An addendum to 87-EIR-08 was prepared in 1988 and adopted by the County on July 21, 1988, for a vertical expansion of the existing waste footprint to an elevation of 500 feet above msl. The lateral expansion reviewed under the 1987 EIR was never implemented but the vertical expansion was completed.

To provide an interim increase in capacity, on August 3, 1999, the Board of Supervisors directed the RRWMD to proceed with the Landfill Bench Plan. The Bench Plan increased the permitted disposal design capacity of the Landfill from 12.0 to 15.1 mcy by re-grading and filling the outside faces of the Landfill. The Bench Plan project was determined to be within the scope of the analysis of 87-EIR-08 and the July 21, 1988 addendum.

1.6.2 Environmental Documents for Current Landfill Operations

Following the Tajiguas Landfill Bench Plan project, the County moved forward with a proposal for a vertical and lateral expansion of the Landfill to increase the volume of waste that could be disposed of at the Landfill and to extend the Landfill life by approximately 15 years (referred to as the Tajiguas Landfill Expansion Project). On August 13, 2002, the Board of Supervisors certified an EIR (01-EIR-05) for, and approved, the Tajiguas Landfill Expansion Project (Front Canyon Expansion²).

The expansion, as permitted, consists of a 40-acre horizontal expansion (for a total permitted area of 118 acres) and 120-foot vertical expansion (for a maximum height limit of 620 feet above msl) of the Landfill outside of the coastal zone, providing 8.2 mcy of additional waste disposal capacity for a total capacity of 23.3 mcy³.

² Two landfill configurations (Front Canyon and Back Canyon) were analyzed in the EIR at project level of detail.

³ It should be noted that 01-EIR-05 analyzed a larger horizontal and vertical expansion than what was ultimately permitted.

Some modifications to the Landfill design/operations occurred following the expansion approved in 2002. On December 5, 2006, the Board of Supervisors approved minor changes to the approved Tajiguas Landfill Expansion Project. The changes included elimination of the Coastal Zone Southeast Corner Modification and reconfiguration of the North Slope borrow/stockpile area. These project changes were analyzed in a November 8, 2006 Addendum to 01-EIR-05 (CEQA Guidelines Section 15164).

In 2007, the County proposed a change in the location of the green-waste processing area and found, pursuant to State CEQA Guidelines Section 15162 (Planning and Development 15162 determination letter dated April 19, 2007), that no substantial changes were proposed in the project, no substantial changes occurred with respect to the circumstances under which the project was undertaken, and no new information of substantial importance was received with respect to the project or the mitigation measures, and therefore no new Environmental Impact Report was required for the approval of the proposed change to the Tajiguas Landfill Expansion Project associated with relocating the green-waste processing area.

On May 5, 2009, the Board of Supervisors certified a Subsequent EIR (08EIR-00000-00007) for, and approved, the Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project. The project involved the reconfiguration of the waste footprint approved as a part of the Tajiguas Landfill Expansion Project which provided a number of engineering and environmental benefits and the comprehensive restoration of native habitats on the County-owned Baron Ranch to benefit the federally threatened California red-legged frog. The reconfiguration did not modify any of the operational parameters (e.g., refuse capacity, operating hours, environmental protection systems) reviewed in 01-EIR-05.

On March 18, 2014, Pursuant to State CEQA Guidelines Section 15162 (Planning and Development 15162 determination letter dated December 19, 2013), the Board of Supervisors found that no substantial changes were proposed in the project, no substantial changes occurred with respect to the circumstances under which the project was undertaken, and no new information of substantial importance was received with respect to the project or the mitigation measures, and therefore no new Environmental Impact Report was required for the approval the Tajiguas Landfill Phase 3B Groundwater Protection System including a proposed change in the location of temporary soil stockpiles for the project.

A CEQA 15162/15164 determination letter dated September 25, 2014, was accepted by the County Board of Supervisors on June 23, 2015 for modification to the Baron Ranch Restoration Plan associated with the Reconfiguration Project, which found that this modification did not warrant any additional environmental analysis.

An Addendum dated February 12, 2018 to 08EIR-00000-00007 was prepared to address a change in the approved reconfiguration project to substitute 400-foot section of 20-foot-wide reinforced concrete channel with 400 feet of buried 48-inch corrugated HDPE pipe; retrofit the existing temporary flow control structure to serve as permanent control structure, construct a 420-ft section of earthen channel with 20-foot wide bottom and 2:1 side slopes to convey flow control structure spillway discharge and surface runoff to the 48-inch culvert.

1.6.3 ReSource Center Environmental Documents

On July 12, 2016, a Subsequent EIR (12EIR-00000-00002), EIR Revision Letter and Errata dated May 27, 2016 was certified by the Board of Supervisors for the operation of the TRRP (now known as the ReSource Center). An Addendum to 12EIR-00000-00002 (dated August 11, 2017, revised October 26, 2017) was prepared for the Revised Tajiguas Resource Recovery Project and considered by the Board of Supervisors on November 14, 2017.

Since approval of 12EIR-00000-00002 and the Addendum, several CEQA 15162 determinations have also been prepared to address minor changes in the ReSource Center project description as the final engineering design was completed and start-up operations have begun. The findings of the approved CEQA 15162 determinations indicate the minor project modifications did not warrant any additional environmental analysis or a subsequent environmental document. A second Addendum to 12EIR-00000-00002 dated (August 15, 2023) has been prepared to address replacement of the MRF biofilters with a new air management system as a result of damage from the Alisal Fire, addition of a Gore Cover System at the CMU and other minor engineering and operational changes.

1.6.4 Relationship to the Current Project and Incorporation by Reference

The proposed project represents a continuation of waste management/disposal activities at the Tajiguas Landfill that have occurred for over 50 years. The proposed project will continue to utilize and build upon infrastructure analyzed and permitted through the prior CEQA reviews, will provide landfill gas for beneficial reuse on and off-site and, will continue to receive bypass waste and residual waste to support ReSource Center operations required by State legislation.

The Tajiguas Landfill Expansion Project EIR (01-EIR-05) certified by the Board of Supervisors on August 13, 2002, the November 8, 2006 Addendum accepted by the Board of Supervisors on December 5, 2006, and the Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project Subsequent EIR (08EIR-00000-00007) certified by the Board of Supervisors on May 5, 2009 and the ReSource Center Subsequent EIR (12EIR-00000-00002), Revision Letter and Addendum are herein after referred to as the "Tajiguas Landfill Environmental Documents". These prior documents contain information of continued value for the proposed project.

Pursuant to State CEQA Guidelines Section 15150, the Tajiguas Landfill Environmental Documents are hereby incorporated by reference and, as appropriate, the analyses from these prior documents will be incorporated into this subsequent EIR. These documents are available for review on-line at "www.countyofsb.org/1165/Environmental-Documents".

1.7 TAJIGUAS LANDFILL PERMITS

Landfill operation, design, and permitting requirements are contained in Title 27 of the California Code of Regulations.

1.7.1 CalRecycle/Local Enforcement Agency

Pursuant to Title 27 of the California Code of Regulations, all proposed or active solid waste disposal facilities (landfills) are required to obtain a full SWFP to operate, unless an exemption is granted by the Local Enforcement Agency (LEA). SWFP No. 42-AA-0015 for the Landfill and ReSource Center was issued on February 2, 2017 and the most recent 5-Year Permit Review was conducted and approved by the Santa Barbara County Environmental Health Services (acting as the LEA) in February 2022. The Landfill's current SWFP establishes operating parameters for the Landfill and ReSource Center.

1.7.2 California Regional Water Quality Control Board

Pursuant to Title 27 of the California Code of Regulations, all proposed or active solid waste disposal facilities (landfills) are required to obtain WDRs to operate. WDR Order and associated Monitoring and Reporting Program No. R3-2010-0006 for the Landfill was last issued by the Central Coast Regional Water Quality Control Board (CCRWQCB) in 2010. The Landfill's enrollment in the 2020 General WDR Order No. R3-2020-0001 for active Class III landfills in the Central Coast region was scheduled for March 1, 2022 and enrollment is pending revisions to the Landfill's Joint Technical Document and is anticipated to be completed in 2023. The Monitoring and Reporting Program among other requirements, requires the monitoring of groundwater south of the Landfill using a series of groundwater monitoring wells and a groundwater/leachate interceptor trench.

In addition to the WDR and Monitoring and Reporting Program for the disposal of waste, the following permits were issued to the Landfill, MRF and CMU:

- State Water Resources Control Board (SWRCB) Water Quality Order No. 2014-0057-DWQ National Pollutant Discharge Elimination System (NPDES) Industrial General Permit No. CAS000001; Notice of Intent for enrollment on May 21, 2015 (for the landfill) and on March 17, 2022 (for the ReSource Center).
- CCRWQCB Order No. WQ 2014-0153-DWQ General WDRs for small domestic wastewater treatment, and MRP Order No. R3-2020-0102 issued January 29, 2021 (for the MRF).
- CCRWQCB Order No. WQ 2016-0068-DDW General WDRs for water reclamation and recycled water use, and MRP Order No. R3-2020-0104 issued January 29, 2021 (for the MRF).
- SWRCB Order No. WQ 2020-012-DWQ General WDRs for commercial composting operations enrollment as a Tier II composting operation issued on June 11, 2021 (for the CMU).

1.7.3 Santa Barbara County Air Pollution Control District

Air pollutants generated by operation of the Landfill are regulated by the Santa Barbara County Air Pollution Control District (SBCAPCD), which include landfill gas emissions (associated with buried waste decomposition), fugitive dust and odors. The Landfill employs a landfill gas collection and control system. This system collects landfill gas and routes the gas to treatment systems. Following treatment, the landfill gas is combusted in the MRF and ADF engines and flares. The landfill gas collection and control system is permitted under Part 70 / Reevaluation No. 9788-R4.

The MRF, ADF and CMU are permitted under Authority to Construct Modification (ATC Mod) 14500-05. This ATC Mod was issued final by SBCAPCD in February 2022. ATC Mod 14500-05 superseded ATC Mod 14500-02 and ATC Mod 14500-07 as well as directly incorporated ATC Mod 14500-04.

ATC Mod 14500-09 was issued final by SBCAPCD in August 2022 for deodorizing misting systems. ATC 15993 for a compost screening system was issued on April 12, 2023. ATC 16050 was issued by SBAPCD on February 12, 2023 for a compost aeration system pilot project. A modification to ATC 16050 was issued final on April 5, 2023 for an additional pilot compost aeration system.

The ATC Mod 14500-10 permit application has been submitted to the SBCAPCD and is currently under review. This permit application is to update ATC Mod 14500-05 emissions, equipment, process descriptions and conditions to accurately reflect the as-built facility.

A Permit to Operate (PTO) application was submitted to SBCAPCD by Mustang Renewable Power Ventures, LLC on June 30, 2023 and is currently under review. Once approved, the PTO will supersede and combine conditions from the various ATC permit modifications.

1.7.4 Resource Agency Permits

In addition to the permits listed above, the Landfill operates under resource agency permits for incidental take of endangered species associated with Landfiill and ReSource Center operations, maintenance and closure and post closure maintenance activities and maintenance activities conducted in Pila Creek including:

- United States Fish and Wildlife Service Incidental Take Permit No. ESPE0050095 (ITP) and Habitat Conservation Plan (HCP) issued on September 30, 2022 to address potential take of the threatened California red-legged frog and the southwestern pond turtle. This permit has a 50-year term and includes the Capacity Increase Project.
- United States Army Corps of Engineers - Nationwide Permit 31 Verification, File No. SPL-2019-00373-AJS, re-verified on March 3, 2022.
- California Department of Fish and Wildlife - Lake and Streambed Alteration Agreement No. SAA 1600-2018-0337 issued on February 9, 2022.

- RWQCB - 401 Water Quality Certification No. 34219WQ14, issued August 28, 2019.

1.7.5 Other Permits

- Restroom facilities located at the MRF are supplied by a water well that is permitted as a Non-transient, Non-community Water System. The Santa Barbara County, Public Health Department, Environmental Health Services issued a Domestic Water Supply Permit on December 2, 2020 to operate a public water system in accordance with the California Health and Safety Code, Section 116525.
- The Landfill (ID FA0006416) and ReSource Center (ID FA0016367) are also permitted by the Santa Barbara County Certified Unified Program Agency for operating aboveground fuel storage tanks, and handling and storing hazardous materials.

1.8 PROJECT BENEFITS

Implementation of the proposed project would provide the following benefits:

- Provides a long-term waste management plan (to approximately 2038).
- Provides the most cost-effective means of managing the region's waste through approximately 2038.
- Meet the mandate of the California Integrated Waste Management Act of 1989 by contributing to the required 15 years of assured disposal capacity (2023-2038).
- Provide disposal capacity for disaster-related debris, such as from fires, floods, and earthquakes.
- Extend and increase the implementation of advanced waste recovery technologies, including the use of renewable landfill gas to produce green power (which would decline when the Landfill reaches its permitted capacity and waste burial ceases).
- Increase the efficiency of waste burial operations (increasing the amount of solid waste per unit volume of airspace) through additional settlement of existing buried waste associated with increasing the elevation of the permitted disposal area.
- Contributes to the local economy by continuing to provide local jobs for staff and contractors supporting Landfill operations.
- Provide continued employment of Landfill staff in a safe and humane work environment.

1.9 PROJECT OBJECTIVES

The objectives for the project are to meet local and regional solid waste disposal and recycling needs, including the following specific objectives:

- Regain Landfill service life that was planned to be provided by enhanced recovery of recyclable materials and associated reduction in burial of solid waste provided by the ReSource Center.
- Avoid the ratepayer burden of paying for debt service for the ReSource Center simultaneously with cost for transportation and disposal of residual waste (post-Resource Center processing) at an alternative landfill.
- Maximize disposal opportunities at the Landfill and avoid environmental impacts associated with off-site hauling and disposal when the Landfill reaches its current permitted capacity.
- Provide local facilities for an efficient, combined resource recovery and disposal operation to reduce or eliminate the need for solid waste to be delivered to multiple locations for residuals disposal.

1.10 PROJECT APPROVALS, PERMITS, AND LEAD RESPONSIBLE AND TRUSTEE AGENCIES

Project implementation may require RRWMD to obtain permit amendments, modifications and/or other forms of approval from Federal, State, and local agencies. In addition, these agencies would need to consider the Subsequent EIR prepared for the proposed Capacity Increase Project in their approvals. Agencies/jurisdictions expected to have a role in approving/permitting the project may include, but are not limited to:

- Santa Barbara County Board of Supervisors: certification of the CEQA document and CEQA findings, project approval, approval of an amendment to the Santa Barbara County Countywide Integrated Waste Management Plan.
- Santa Barbara County Environmental Health (LEA): revision to the Landfill's current SWFP with concurrence from CalRecycle.
- SBCAPCD: potential modifications to the Landfill's operating permits (PTO No. 9788-R4) to address changes in landfill gas collection, treatment and control.
- RWQCB: potential changes in the Landfill's Monitoring and Reporting Program to address the proposed Lower North Sedimentation Basin; and a Section 401 Water Quality Certification for proposed modification of the flow control structure in Pila Creek.
- ACOE: Section 404 nationwide permit verification for proposed modification of the flow control structure in Pila Creek.
- CDFW: Streambed Alteration Agreement for proposed modification of the flow control structure in Pila Creek.

- USFWS: potential changes to the HCP and ITP for the Tajiguas Landfill and ReSource Center.⁴

The State CEQA Guidelines define "lead", "responsible", and "trustee" agencies. The project proponent is the Santa Barbara County RRWMD, and the Santa Barbara County RRWMD is the Lead Agency for the purposes of the California Environmental Quality Act.

Responsible agencies are defined as non-Federal public agencies that have discretionary approval power over certain aspects of the project. These agencies may utilize this Subsequent EIR in their decision-making process. Responsible agencies for the proposed project may include CalRecycle, Santa Barbara County Environmental Health Services (LEA), the SBCAPCD, RWQCB, and CDFW.

Trustee agencies refer to agencies having jurisdiction by law over the natural resources affected by a project which are held in trust for the people of the State of California. Based upon this definition, the California Department of Fish and Wildlife and U.S. Fish and Wildlife Service, which have jurisdiction over biological resources that may be impacted by the proposed project, are trustee agencies.

1.11 SCOPE AND CONTENT

A Notice of Preparation (NOP) was distributed to responsible and trustee agencies, and members of the public on March 23, 2023 (see Appendix A) for a 30-day comment period. The comment period closed on April 21, 2023. The NOP was mailed or emailed to occupants and property owners within 1,000 feet of the exterior boundary of the Landfill property, to other permitting agencies by certified mail, to community groups based on lists compiled by the County Planning and Development Department, and to members of the Board of Supervisors. A copy of the NOP was also posted electronically on the State Clearinghouse CEQAnet website, RRWMD website and a printed copy was posted at the Clerk of the Board of Supervisors. A virtual public scoping meeting was held on April 10, 2023 via the Zoom application to accept input on the scope and content of this Subsequent EIR. Public testimony was provided in this meeting by Dustin Smith, Mariah S., Tina Segal, Doug Kern (representing the Gaviota Coast Conservancy) and Bruce Hendricks. Concerns expressed included odors associated with current ReSource Center operations, increased dust, litter, visual impacts, water quality and wildfire hazards associated with the proposed project, a resolution regarding landfill expansion, and consideration of alternatives that include terminating operation of the existing ADF/CMU.

RRWMD received comment letters and/or emails in response to the NOP from the following nine agencies or interested parties:

⁴ The Landfill's HCP currently includes a capacity increase project as a covered activity, but final design may require minor revisions or an amendment to the document.

- **Mariah S. email dated April 12, 2023 (Arroyo Quemada Lane resident).** This email expressed concerns about compost odors, dust, health effects and litter associated with existing Landfill and ReSource Center operations and the potential for increased impacts due to the increase in proposed increase in the landfill height.
- **Jeffrey Pion email dated April 22, 2023⁵ and letter (Arroyo Quemada Lane resident).** The email expressed concerns about odors associated with existing Landfill and ReSource Center operations. Mr. Pion's April 21, 2023 letter (and attached October 1, 2022 letter) expressed concerns about odors associated with existing Landfill and ReSource Center operations at the Arroyo Quemada area and other offsite areas, potential health effects of the odors, and litter and dust from the Landfill during high winds and the potential for increased impacts due to the increase in proposed increase in the landfill height.
- **Bruce Hendricks email dated March 24, 2023 (Arroyo Quemada Lane resident).** The email expressed concerns about odors associated with existing Landfill and ReSource Center operations, potential health effects of the odors, litter and dust from the Landfill, and existing stormwater run-off effects on the beach. Mr. Hendricks also expressed concerns about the proposed project with regard to increased gas emissions, disturbance of native vegetation, loss of habitat, impacts to migratory birds, fire hazard and increased use of hazardous materials.
- **Brad Jones and Julie Black email dated March 27, 2023 (Arroyo Quemada Lane residents).** This email agreed with Mr. Hendricks' and Mr. Pion's comments and concerns about odors and dust associated with existing Landfill and ReSource Center operations.
- **Santa Barbara County Public Health Environmental Services Division email dated April 20, 2023 (Norma Campos Bernal).** This email provided clarification concerning the number of odor complaints received by the Environmental Services Division, and noted odors were recorded from a green-waste pile on April 7, 2023 which may have contributed to odor complaints.
- **California Department of Resources Recycling and Recovery letter dated April 18, 2023 (Gina Weber).** This comment letter noted that the ReSource Center is not the formal project title as listed on the Solid Waste facility Permit, and requested clarification of some details of the project description provided in the NOP.

⁵ Received after the close of the comment period but the comments have been included in the Subsequent EIR.

- **California Department of Fish and Wildlife letter dated April 20, 2023 (Erinn Wilson-Olgin).** This comment letter provided recommendations regarding field surveys, analysis, avoidance and mitigation for impacts to biological resources including burned native vegetation, sensitive habitats, California red-legged frog, southwestern pond turtle, Crotch's bumblebee, rare plants, and special-status reptiles and birds.
- **Santa Barbara County Air Pollution Control District letter dated April 21, 2023 (Emily Waddington).** This comment letter provided recommendations regarding issues to be assessed in the Subsequent EIR, including County attainment status, health risk, attainment of air quality standards, increase in criteria pollutant emissions, odor impacts, asbestos demolition reporting, and climate change/greenhouse gas impacts.
- **Gaviota Coast Conservancy letter dated April 21, 2023 (Ana Citrin, Law Office of Marc Chytilo).** This comment letter noted the Board of Supervisors resolution regarding landfill expansion and requested the Subsequent EIR discuss/address solid waste diversion rates, project objectives, cultural, biological, visual and recreational resources of the Gaviota Coast, mitigation to offset impacts and prevent future expansions, and enhanced source separation and waste reduction/prevention as project alternatives.

The NOP and response letters are attached as Appendices A and B, respectively. Based on preliminary environmental review and concerns identified in comment letters submitted in response to the NOP and at the public scoping meeting, the Subsequent EIR is focused on the following issue areas:

- Aesthetics/visual resources
- Air quality/greenhouse gas emissions
- Biological resources
- Cultural and tribal resources
- Geologic processes
- Hazards and hazardous materials
- Land use (including recreation)
- Noise
- Nuisance
- Transportation/traffic
- Water resources

This Subsequent EIR addresses the issues above and identifies any significant environmental impacts particularly where modifications to the approved project substantially change previously disclosed impacts or create new impacts. The Subsequent EIR also recommends feasible mitigation measures, where possible, that would reduce or eliminate significant environmental effects.

The discussion of project alternatives in this Subsequent EIR has been prepared in accordance with Section 15126(d) of the State CEQA Guidelines. This Subsequent EIR examines the impacts of the proposed project, two alternative capacity increase waste fill plans, and the "No Project" alternative (including export of solid waste to other landfills) for each issue area. The "environmentally superior" alternative is identified in Section 5.4 of this Subsequent EIR.

The level of detail contained throughout this EIR is consistent with the requirements of CEQA and recent court decisions. The State CEQA Guidelines provide the standard by which the adequacy of this EIR is based.

The Guidelines state:

"An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure."
(Section 15151).

1.12 MITIGATION MONITORING PLAN

Pursuant to Public Resources Code Section 21081.6, a Mitigation Monitoring Plan has been incorporated into this Subsequent EIR to ensure the implementation of the mitigation measures identified. The Plan will be adopted by the Santa Barbara County Board of Supervisors in conjunction with the findings required under CEQA, when the Board certifies the Subsequent EIR and approves the proposed project.

1.13 CERTIFICATION OF THE FINAL SUBSEQUENT EIR

The Draft Subsequent EIR will be circulated for review by public agencies and interested members of the public for a minimum period of 45 days. A Final Subsequent EIR will be prepared and comprised of the Draft Subsequent EIR revised as necessary in response to public comments, regulatory and trustee agency comments, a list of persons, organizations, and public agencies that commented on the Draft Subsequent EIR pursuant to State CEQA Guidelines Section 15132.

RRWMD is the Lead Department under the County's Guidelines for the Implementation of the California Environmental Quality Act (County CEQA Guidelines) (September 2020) and is the County department of which the Board of Supervisors is the governing Board, and which has the principal responsibility for carrying out, approving, or causing the approval by a decision-making body of the project. The County Planning and Development Department is the Environmental Hearing Officer pursuant to the County's CEQA Guidelines. The County Board of Supervisors has discretionary approval authority for the project and will be required to certify that the Subsequent EIR has been prepared in compliance with CEQA and to adopt required findings if the Board approves the project.

2.0 SUMMARY

This section has been prepared in accordance with Section 15123 of the State CEQA Guidelines, and is divided into three components. The first summarizes the characteristics of the proposed project, and the second identifies environmental impacts, mitigation measures and residual impacts. The third component is a summary and comparison of the alternatives considered.

2.1 PROJECT SYNOPSIS

2.1.1 Project Proponent and Lead Agency

The project proponent and Lead Agency is the Santa Barbara County Public Works Department, Resource Recovery & Waste Management Division (RRWMD), located at 130 E. Victoria Street, Santa Barbara, California 93101.

2.1.2 Location

The Tajiguas Landfill is located in a coastal canyon known as Cañada de la Pila, approximately 26 miles west of the City of Santa Barbara. The Tajiguas Landfill is approximately 1,600 feet north of U.S. Highway 101. The location of the Tajiguas Landfill is shown on the Regional Location Map (Figure 3-1) and on the Vicinity Map (Figure 3-2). The street address of the Tajiguas Landfill is 14470 Calle Real, Santa Barbara, California 93117.

2.1.3 Project Description

2.1.3.1 Overview

The purpose of the project is to extend the life of the Landfill that was projected to be provided through diversion associated with operation of the ReSource Center and reduce the rate-payer burden associated with paying debt service concurrently with off-site transport and disposal of residual and bypass waste. As of April 2022, based on numerous factors, the Landfill is currently projected to reach capacity in 2026. Additional information regarding current Landfill capacity estimates and factors responsible for reduced Landfill life is provided in Section 1.5.

RRWMD is proposing to increase the current Landfill capacity to accommodate projected waste burial needs through approximately December 2038 (concurrent with completion of debt service on the ReSource Center) based on the ReSource Center being fully operational during this time period. The required increase to the capacity of the Tajiguas Landfill to reach the completion of debt service for the ReSource Center in December 2038 was calculated at approximately 6.1 million cubic yards, using two primary modeling assumptions.

The first assumption was the overall diversion of MSW received at Tajiguas Landfill at 31.35 percent (based on data from limited operation of the ReSource Center and a conservative increase in diversion). The other variable relates to the incoming tonnage of MSW, which was modeled utilizing recent average annual MSW received, with an applied annual growth factor of one percent based on historic scale house data.

As the ReSource Center is currently in the process of completing commissioning and acceptance testing, its actual diversion rate is still being determined and could vary due to waste composition in future years. If the ReSource Center achieves its contracted diversion requirement the additional Landfill life could be extended approximately 3 years beyond the December 2038 date included in the EIR. The possible addition of 3 years does not affect the CEQA analysis date.

The proposed Capacity Increase Project area is located outside of the Coastal Zone; however, existing access roads, ancillary facilities, and environmental control systems/facilities located in the Coastal Zone would continue to be used to support the historic landfill operations and ongoing landfilling activities in the inland area.

No changes to Landfill operations would occur, including site access, site security, scale house operations (except hours of waste receipt), waste handling, waste disposal, daily cover, maintenance activities, and green-waste processing and distribution. The proposed change to a weekly waste receipt limit in place of a daily limit would not involve any change to Landfill operations.

No changes to the ReSource Center facilities or operations are proposed. Relocation of some ReSource Center utilities/infrastructure would be required to eliminate conflicts with the proposed Phase IV fill area, as described in Section 3.8.5. Proposed changes to Landfill operations are summarized in Table 3-2.

2.1.3.2 Landfill Disposal Area Changes

The proposed approximate 14.25-acre Capacity Increase Project would provide approximately 6.1 million cubic yards (mcy) of additional airspace for burial of solid waste, which includes bypass waste and residual waste (non-recyclable and non-compostable residue produced by sorting at the MRF, and residue from the ADF and CMU [mostly plastics]). The 6.1 mcy additional air space would provide approximately 5.0 mcy of net capacity increase.

The proposed project would increase the permitted height, disposal area footprint, and design capacity of the Landfill to extend the estimated closure year to approximately 2038. The area proposed for the increase in permitted height and disposal area is shown in Figures 3-4 and 3-5. The increased capacity would be provided by increasing the maximum elevation of the Landfill by approximately 30 feet, from 620 to 650 feet above mean sea level (see contour lines in Figure 3-5). In addition, the permitted disposal area footprint would be expanded to the north and east by approximately 14.25 acres, which would increase the total permitted disposal area from 118 acres to 132.25 acres (see red contours in Figure 3-5). There would be no change to the overall permitted operational area of 357 acres.

The addition of approximately 6.1 mcy of airspace would increase the permitted total design capacity from approximately 23.3 mcy to approximately 29.4 mcy. As of April 2022, the existing (gross) remaining capacity was approximately 1.68 mcy. These proposed changes would require the existing Joint Technical Document (JTD) and Partial Final/Preliminary Closure and Post-Closure Maintenance Plan be updated to support a Solid Waste Facility Permit (SWFP) Revision to reflect these project element changes.

The proposed new disturbance footprint, including the total excavation area and the refuse fill area (not including the proposed Lower North Sedimentation Basin), is approximately 56.4 acres of which approximately 1.5 acres is comprised of a previously undisturbed area (see Figures 3-3 and 3-4). An additional 12.6 acres is comprised of previously disturbed Landfill and cut slopes that have been revegetated with native plant species, along with approximately 4.6 acres of disturbed unvegetated areas (i.e., the North Sedimentation Basin and surrounding areas) (see Table 3-5).

2.2 ALTERNATIVES

2.2.1 Alternatives Identified But Not Subject to Detailed Analysis

As discussed in Section 5.2, the following alternatives were identified during the initial CEQA review process but were determined not to be feasible and are not studied in further detail in the Subsequent EIR:

- Improved source separation, including organics and recyclables
- Expanding curbside organics collection
- Increased sorting and separation at the County transfer stations

2.2.2 Alternatives Subject to Detailed analysis

The following five alternatives were subject to detailed analysis:

- A. **No Project Alternative:** The No Project alternative includes continued disposal of MSW at the existing, permitted Landfill until the current permitted disposal capacity is reached in approximately March 2026 (see Table 5-1). As the County is required to provide waste disposal services for the communities currently served by the Landfill, after approximately March 2026 the County would need to provide other disposal options. State CEQA Guidelines Section 15126.e.3.C states: “After defining the no project alternative...the lead agency should proceed to analyze the impacts of the no project alternative by projecting what would reasonably be expected to occur in the foreseeable future if the project was not approved, based on current plans and consistent with available infrastructure and community services.” Consistent with this direction, absent implementation of the proposed project, the County would need to export waste to other landfills (see Alternatives D and E).
- B. **Reduced Project Alternative – Vertical Only Capacity Increase:** This Alternative involves increasing the maximum elevation of the permitted waste disposal area to 655 feet above mean sea level to provide additional airspace for waste disposal, with no change in lateral footprint. This Alternative would provide approximately 2,153,920 cubic yards of additional airspace, a projected site life of approximately 9.6 years from April 2022 accounting for the existing remaining airspace, and an approximate closure date of November 2031 (see Table 5-1).
- C. **Reduced Project Alternative – Horizontal Only Capacity Increase:** This Alternative involves an approximately 4.5 acre horizontal increase in the disposal area to provide additional airspace for waste disposal, with no change in maximum disposal area elevation. The Alternative would provide approximately 2,664,000 cubic yards of additional airspace, a projected site life of approximately 10.8 years from April 2022 accounting for the existing remaining airspace, and an approximate closure date of March 2033 (see Table 5-1).
- D. **No Project Alternative (Scenario 1) - Waste Export to the Chiquita Canyon Landfill:** The County waste would continue to be disposed of at the Landfill until the currently permitted capacity is reached (~March 2026) and then all solid waste requiring burial from the Landfill watershed would be exported to the Chiquita Canyon Landfill located in western Los Angeles County off Route 126. The Chiquita Canyon Landfill is a private landfill operated by Republic Services of California approximately 95 road miles east of the Tajiguas Landfill.

- E. No Project Alternative (Scenario 2) - Waste Export to the Chiquita Canyon Landfill and Santa Maria Regional Landfill OR Integrated Waste Management Facility:** The County waste would continue to be disposed of at the Landfill until the currently permitted capacity is reached (~March 2026) and then export of non-recyclable waste generated in the Santa Barbara area to the Chiquita Canyon Landfill and export of non-recyclable waste from the SYVRTS and bypass and residual waste from the ReSource Center to the Santa Maria Regional Landfill until the City of Santa Maria's planned Integrated Waste Management Facility (IWMF) is operational (anticipated to be 2027-2028, but currently undergoing revised environmental review and permitting). The Santa Maria Regional Landfill is approximately 52 road miles north of the Tajiguas Landfill via U.S. Highway 101, and the IWMF is approximately 39 road miles via U.S Highway 101.

2.3 AREAS OF KNOWN CONTROVERSY

CEQA Guidelines Section 15123 requires disclosure of the controversial project issues known to the Lead Agency, including those raised by agencies and the public. Controversy associated with the Tajiguas Landfill is typically associated with its continued operation in a coastal location in the Gaviota Coast Rural Region, an area recognized for its natural and cultural importance. Other areas of known controversy include impacts (odors, dust and litter) associated with operation of the ReSource Center ADF and CMU, located on the Landfill property, waste diversion efforts, and extension of the landfill life and consistency of the project with a prior resolution to limit landfill expansion. Other issues of concern are included in the summary of responses to the Notice of Preparation (see Section 1.11).

2.4 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Table 2-1 summarizes the identified environmental impacts for each resource/issue area analyzed in the Subsequent EIR, recommended mitigation measures and the residual level of significance after mitigation is implemented. Environmental impacts are classified as follows pursuant to the County's Guidelines for the Implementation of the California Environmental Quality Act of 1970, as amended:

- Significant and unavoidable impacts: significant adverse impacts that cannot be fully mitigated for which the decision-maker must adopt a statement of overriding consideration, if the decision-maker decides to approve the project.
- Significant but mitigable impacts: significant adverse impacts that can be avoided or feasibly mitigated to an insignificant level, and for which the decision-maker must adopt mitigation measures.
- Insignificant impacts: adverse impacts that are insignificant.
- No impact: no adverse impact will result from the project.
- Beneficial impacts. Impacts beneficial to the environment.

The proposed project is anticipated to result in three significant and unavoidable impacts, associated with adverse effects to Crotch's bumblebee, construction-related GHG emissions and operational GHG emissions (related to landfill gas). Therefore, a statement of overriding considerations would be required for the proposed project.

Implementation of the proposed project would extend the operating life of the Landfill from approximately 2026 to approximately 2038. This would result in delaying full closure of the Landfill and extending the duration of time over which some previously disclosed Landfill impacts would occur. CEQA Findings were adopted for the Tajiguas Landfill Project and a Statement of Overriding Considerations was prepared for the significant and unavoidable impacts. The Findings and Statement of Overriding Considerations would remain applicable to the impacts associated with extending the Landfill's life.

2.5 COMPARISON OF ALTERNATIVES

The following section provides a brief description of the relative impacts of the alternatives and a comparison to the proposed Tajiguas Landfill Capacity Increase Project. More detailed information is provided in Section 5.3 of this Subsequent EIR, including Table 5-6, which compares the relative magnitude of each impact for each alternative to the proposed project.

2.5.1 Alternative A – No Project

This Alternative would not meet any of the project objectives. The No Project Alternative would involve continued waste disposal at the Tajiguas Landfill until the permitted capacity is reached in approximately 2026. The No Project Alternative would not result in any new impacts, while existing impacts associated with current operation of the Landfill would continue to occur. Most of these existing impacts would be terminated when the Landfill reaches capacity, and closure activities are completed. Landfill gas would continue to be emitted for decades after closure as waste decomposes over time. However, some form of waste disposal project would need to be implemented prior to Landfill closure, to continue to meet the solid waste disposal needs of the Tajiguas Landfill watershed.

State CEQA Guidelines Section 15126.6(e)(3)(C) states: "After defining the no project alternative...the lead agency should proceed to analyze the impacts of the no project alternative by projecting what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services." Therefore, as an alternative to the proposed project and as a likely consequence of the No Project Alternative, the County of Santa Barbara will need to consider other waste management alternatives such as waste export to other landfills. The impacts of waste export alternatives (Alternative D [export to the Chiquita Canyon Landfill] and Alternative E [export to the Chiquita Canyon Landfill and Santa Maria area landfills]) are identified in Section 5.3.

2.5.2 Alternative B: Reduced Project Alternative - Vertical Only Capacity Increase

The project's objectives are listed in Section 1.9. Alternative B would extend the Landfill's service life, reduce impacts associated with disposal of bypass and residual waste at other landfills and extend the efficient resource recovery and residuals disposal operation associated with the co-located ReSource Center. However, the smaller capacity increase associated with Alternative B would limit the extension of Landfill life to about 5.7 years as compared to about 12.75 years for the proposed project (see Table 5-1).

Alternative B would not meet the project objective of avoiding ratepayer financial burden because debt service for the ReSource Center would be ongoing when the Landfill's capacity is reached and export to another landfill would be required. In addition, Alternative B would not fully regain Landfill life that was planned to be provided by solid waste diversion associated with operation of the ReSource Center.

A discussion of the impacts of Alternative B as compared to the proposed project is provided in Section 5.3 and summarized below:

2.5.2.1 Visual Resources/Aesthetics

Neither the proposed project nor Alternative B would result in significant aesthetic impacts. Impacts to public views from the Upper Outlaw Trail would be reduced because of the reduced disturbance area and the reduced site life which would result in closure and the revegetation of the slope earlier than the proposed project. The taller (655 ft vs 650 ft msl) waste disposal area would be offset by a smaller footprint at closure. The extension of Landfill life associated with implementation of Alternative B would also extend previously identified significant and unavoidable aesthetics impacts further in time, but these impacts would be slightly less than the proposed project since the time extension would be shorter.

2.5.2.2 Air Quality/Greenhouse Gas Emissions

Related to construction activities, air pollutant and GHG emissions associated with Alternative B would be less than the proposed project as Alternative B would not require excavation of a lateral disposal area or the need for blasting activities.

Related to operations, the smaller capacity increase associated with Alternative B would limit the extension of Landfill life to about 5.7 years as compared to about 12.75 years for the proposed project. Therefore, while in the short-term emissions and health risk associated with Alternative B would be comparable to the proposed project, in the long-term, after the Landfill reaches capacity, the non-processable and residual waste would still need to be disposed in alternative locations, as identified under Alternatives D and E. However, under Alternative B, this would simply occur in 2031 as compared to 2026. Therefore, mobile-source emissions under Alternative B would be similar to Alternatives D and E beginning in 2031.

Under Alternative B, less waste would be disposed of at the Landfill; thus, fugitive GHG and ROC emissions at the Tajiguas Landfill would be lower than the proposed project after Landfill closure in 2031. However, combined GHG emissions from construction, landfill gas fugitives and landfill gas combustion would exceed the threshold, and is considered a significant and unavoidable impact.

Following Landfill closure, these emissions would occur at one of the other alternative disposal locations. Therefore, under Alternative B, the total GHG and ROC emissions from landfill gas is likely to be similar regardless of which landfill it is placed, as the total mass of waste and the decomposition would be similar at the Tajiguas Landfill or another nearby landfill.

2.5.2.3 Biological Resources

Alternative B does not involve expansion into a new waste disposal area with associated vegetation removal. Implementation of Alternative B would avoid significant but mitigable impacts to nesting birds, rare plants and mature oak trees, and significant and unavoidable impacts to Crotch's bumblebee associated with the proposed project. Impacts to CRLF would remain significant, but less than the proposed project because additional vegetation removal in upland dispersal habitat would not occur.

The extension of Landfill life associated with implementation of Alternative B would also extend previously identified significant and unavoidable biological resources impacts further in time, but these impacts would be reduced as compared to the proposed project since the time extension would be shorter.

2.5.2.4 Hazards & Hazardous Materials

Similar to the proposed project, small quantities of hazardous materials could be accidentally released during construction and result in soil contamination. However, hazardous materials handling procedures and worker safety procedures would be implemented as required by applicable regulations. Due to the small amounts of hazardous materials used during construction activities and the implementation of applicable regulations, potential impacts associated with use of hazardous materials for construction purposes would be less than significant but similar to the proposed project. The potential for hazardous materials (associated with fueling and maintenance activities) to be encountered during construction of waste disposal areas over the existing maintenance and storage area would not occur.

Similar to the proposed project, Alternative B would be exposed to wildfires and could be a source of fire from hot loads (see Section 4.4.1.5). The impact would be reduced as compared to the proposed project due to the reduced operating period.

2.5.2.5 Geologic Processes

The Alternative B vertical expansion would require construction of new waste fill slopes to accommodate a larger and taller waste mass. A project-specific slope stability analysis has not been conducted for Alternative B. Since the total elevation and mass of waste fill slopes would be similar to the proposed project over the existing waste footprint it is expected that slope stability could be achieved by the construction of a toe berm along the western margin and possibly the northern margin of the waste fill area (Geosyntec Consultants, 2023). A suitable toe berm(s) has not been designed to date; therefore, slope stability impacts associated with Alternative B are considered potentially significant but mitigable. In contrast, slope stability impacts associated with the proposed project are considered less than significant as a toe berm has been designed and would be implemented.

Because no new grading or excavation would occur in association with Alternative B, erosion and sedimentation impacts would be reduced as compared to the proposed project. The extension of Landfill life associated with implementation of Alternative B would also extend previously identified less than significant erosion and sedimentation impacts further in time but would be less than the proposed project since the time extension would be shorter.

2.5.2.6 Cultural Resources

Implementation of Alternative B would not require disturbance of areas at the Landfill property that have not been previously excavated. Therefore, discovery of unreported cultural resources and associated impacts to such resources is not anticipated and potential cultural resource impacts would be less than the proposed project.

2.5.2.7 Noise

The Alternative B vertical expansion would require construction of waste fill slopes to accommodate a larger and taller waste mass. Additional construction activities associated with Alternative B would be located within existing waste disposal areas, such that changes in the existing noise contour are not anticipated and the County's 65 dBA CNEL noise standard would not be exceeded at any noise-sensitive land uses. Because construction activities would be reduced and blasting would not be required, noise impacts would be less than the proposed project.

Construction-related heavy equipment operation associated with Alternative B would generate additional vibration. However, construction activities would not generate vibration levels detectable at other land uses. Because construction activities would be reduced and blasting would not be required, vibration impacts would be less than the proposed project.

2.5.2.8 Land Use

Similar to the proposed project, with implementation of mitigation, Alternative B would result in less than significant land use conflicts and would not be inconsistent with applicable plans and policies.

2.5.2.9 Transportation

Similar to the proposed project, a small increase in waste disposal traffic volumes would occur over the extended life of the Landfill. However, the U.S. Highway 101/Landfill access road intersection does not have any substantial safety concerns, and any reduction in traffic safety associated with Alternative B would be the same as the proposed project and less than significant.

2.5.2.10 Water Resources

Alternative B would not result in the modification to the North Sedimentation Basin or encroach into the Pila Creek Inundation Area and would not result in any change to drainage or downstream insignificant flooding impacts associated with the proposed project. Less than significant groundwater pumping-related impacts and construction stormwater runoff impacts would be reduced as compared to the proposed project. Surface water quality impacts associated with operations would be less than significant, similar to the proposed project, with compliance with WDRs and the industrial stormwater regulations. Groundwater impacts associated with Alternative B would be similar to the proposed project as both require waste to be placed over groundwater protection system (liner). Alternative B would not require construction of new base or slope liners but would place waste over existing lined areas.

Any encroachment of a toe berm required for slope stability mitigation into the Pila Creek Inundation Area would need to be identified and modifications to the flow control structure implemented to prevent increases in peak downstream stormwater flows. Impacts would be similar to the proposed project.

2.5.2.11 Nuisance

As with the proposed project, existing measures would continue to be implemented to reduce nuisances associated with Landfill operations. Therefore, Alternative B would have the same impact as the proposed project.

2.5.2.12 Summary

Alternative B would have the following impacts:

Significant and Unavoidable Impacts

- GHG emissions (construction and extended Landfill operation).
- Visual resources impacts associated with extending the life of the Landfill (extends significant and unavoidable visual impacts identified for the Tajiguas Landfill Expansion Project in 01-EIR-05).

- Biological resources impacts related to loss of foraging and breeding habitat for sensitive wildlife associated with delaying Landfill closure and revegetation.

Significant but Mitigable Impacts

- Potentially unstable waste fill slopes.
- Residential and recreational land use conflicts.
- Impacts to CRLF migrating through the Landfill property.
- Biological resources impacts related to sensitive bird species, tidewater goby, invasive plants, nuisance birds, ringtail and mountain lion associated with extending the life of the Landfill.
- Hazards and hazardous materials impacts associated with extending the life of the Landfill.
- Cultural resources impacts associated with extending the life of the Landfill.
- Nuisance impacts associated with extending the life of the Landfill.

2.5.3 Alternative C: Reduced Project Alternative – Horizontal Only Capacity Increase

The project's objectives are listed in Section 1.9. Alternative C would extend the Landfill's service life, reduce impacts associated with disposal of bypass and residual waste at other landfills and extend the efficient resource recovery and residuals disposal operation associated with the co-located ReSource Center. However, the smaller capacity increase associated with Alternative C would limit the extension of Landfill life to about 6.9 years as compared to about 12.75 years for the proposed project (see Table 5-1). Alternative C would not fully meet the project objective of avoiding ratepayer financial burden because debt service for the ReSource Center would be ongoing when the Landfill's capacity is reached and export to another landfill would be required. In addition, Alternative C would not fully regain Landfill life that was planned to be provided by solid waste diversion associated with operation of the ReSource Center.

A discussion of the impacts of Alternative C and comparison to the proposed project is provided below:

2.5.3.1 Visual Resources/Aesthetics

Neither the proposed project nor Alternative C would result in significant aesthetic impacts. Impacts to public views from the Upper Outlaw Trail would be reduced as compared to the proposed project because of the reduced disturbance area and the reduced site life which would result in closure and the revegetation of the slopes earlier than the proposed project.

2.5.3.2 Air Quality/Greenhouse Gas Emissions

Related to construction activities, air pollutant and GHG emissions associated with Alternative C would be lower than under the proposed project as Alternative C would require less earthwork because the excavation area would be smaller and there would also not be a need for blasting activities.

Related to operations, the smaller capacity increase associated with Alternative C would limit the extension of Landfill life to about 7.9 years as compared to about 12.75 years for the proposed project. Therefore, while in the short-term emissions and health risk associated with Alternative C would be comparable to the proposed project, in the long-term, after the Tajiguas Landfill reaches capacity, the non-processable and residual waste would still need to be disposed in alternative locations, as identified under Alternatives D and E.

Under Alternative C, less waste would be disposed of at the Landfill; thus, fugitive GHG and ROC emissions at the Tajiguas Landfill would be lower than the proposed project after Landfill closure in 2033. However, combined GHG emissions from construction, landfill gas fugitives and landfill gas combustion would exceed the threshold, and considered a significant and unavoidable impact.

Following Landfill closure, these emissions would occur at one of the other alternative disposal locations. Therefore, under Alternative C, the total GHG and ROC emissions from landfill gas is likely to be similar regardless of which landfill it is placed, as the total mass of waste and the decomposition would be similar at the Tajiguas Landfill or another nearby landfill.

2.5.3.3 Biological Resources

Alternative C involves a smaller expansion into a new waste disposal area and avoids loss of rare plants and mature oak trees associated with the proposed project. In addition, implementation of Alternative C would have lesser impacts to wildlife habitat, nesting birds, special-status bird species, CRLF and Crotch's bumblebee than the proposed project. Impacts to CRLF would remain significant, but less than the proposed project because vegetation removal in upland dispersal habitat would be reduced. Impacts to Crotch's bumblebee would remain significant and unavoidable, but less than the proposed project because habitat removal would be reduced.

The extension of Landfill life associated with implementation of Alternative C would also extend previously identified significant and unavoidable biological resources impacts further in time, but these impacts would be reduced as compared to the proposed project since the time extension would be shorter.

2.5.3.4 Hazards & Hazardous Materials

During construction activities required for the lateral expansion, small quantities of hazardous materials (i.e., fuel, engine oil, lubricants, hydraulic fluid, engine coolant) could be accidentally released and result in soil contamination. However, hazardous materials handling procedures and worker safety procedures would be implemented as required by applicable regulations. Due to the small amounts of hazardous materials used during construction activities and the implementation of applicable regulations, potential impacts associated with use of hazardous materials for construction purposes would be less than significant.

The potential for hazardous materials (associated with fueling and maintenance activities) to be encountered during construction of waste disposal areas over the existing maintenance and storage area would not occur.

Similar to the proposed project, Alternative C would be exposed to wildfires and could be a source of fire from hot loads (see Section 4.4.1.5). The impact would be reduced as compared to the proposed project due to the reduced operating period.

2.5.3.5 Geologic Processes

The Alternative C lateral expansion would require construction of new waste fill slopes. A slope stability analysis has not been conducted for Alternative C; however, it is expected that a toe berm would be required along the western margin and possibly the northern margin of the waste fill area to address slope stability concerns (Geosyntec Consultants, 2023). A suitable toe berm(s) has not been designed to date; therefore, slope stability impacts associated with Alternative C are considered potentially significant but mitigable. In contrast, slope stability impacts associated with the proposed project are considered less than significant as a toe berm has been designed and would be implemented.

2.5.3.6 Cultural Resources

Implementation of Alternative C would not require disturbance of areas at the Landfill property that have not been previously excavated. Therefore, discovery of unreported cultural resources and associated impacts to such resources is not anticipated.

2.5.3.7 Noise

The Alternative C lateral expansion would require construction of new waste fill slopes. Since additional construction activities associated with Alternative C would be located within existing heavy equipment activity areas, changes in the existing noise contour are not anticipated and the County's 65 dBA CNEL noise standard would not be exceeded at any noise-sensitive land uses. Because construction activities would be reduced and blasting would not be required, noise impacts would be less than the proposed project.

Construction-related heavy equipment operation associated with Alternative C would generate additional vibration. However, construction activities would be located north of the existing waste fill area (farther from residences) and would not generate vibration levels detectable at other land uses. Because construction activities would be reduced and blasting would not be required, vibration impacts would be less than the proposed project.

2.5.3.8 Land Use

Similar to the proposed project, with implementation of mitigation, Alternative C would not result in significant land use conflicts or be inconsistent with applicable plans and policies.

2.5.3.9 Transportation

Similar to the proposed project, a small increase in waste disposal traffic volumes would occur over the extended life of the Landfill. However, the subject intersection does not have any substantial safety concerns, and any reduction in traffic safety associated with Alternative C would be less than significant.

2.5.3.10 Water Resources

Alternative C would not result in the modification to the North Sedimentation Basin or encroach into the Pila Creek Inundation Area and would not result in any change to drainage or downstream insignificant flooding impacts associated with the proposed project. Less than significant groundwater pumping-related impacts and construction stormwater runoff impacts would be reduced as compared to the proposed project. Surface water quality impacts associated with operations would be less than significant, similar to the proposed project, with compliance with WDRs and the industrial stormwater regulations. Groundwater impacts associated with Alternative C would be similar to the proposed project as both require waste to be placed over groundwater protection system (liner).

Any encroachment of a toe berm required for slope stability mitigation into the Pila Creek Inundation Area would need to be identified and modifications to the flow control structure implemented to prevent increases in peak downstream stormwater flows. Impacts would be similar to the proposed project.

2.5.3.11 Nuisance

As with the proposed project, existing measures would continue to be implemented to reduce nuisances associated with Landfill operations. Therefore, Alternative C would have the same impact as the proposed project.

2.5.3.12 Summary

Alternative C would have the following impacts:

Significant and Unavoidable Impacts

- GHG emissions (construction and extended Landfill operation).

- Impacts to Crotch's bumblebee.
- Visual resources impacts associated with extending the life of the Landfill (extends significant and unavoidable visual impacts identified for the Tajiguas Landfill Expansion Project in 01-EIR-05).
- Biological resources impacts related to loss of foraging and breeding habitat for sensitive wildlife associated with delaying Landfill closure and revegetation.

Significant but Mitigable Impacts

- Potentially unstable waste fill slopes.
- Residential and recreational land use conflicts.
- Impacts to nesting birds in the lateral capacity increase area.
- Impacts to CRLF migrating through the Landfill property.
- Biological resources impacts related to sensitive bird species, tidewater goby, invasive plants, nuisance birds, ringtail and mountain lion associated with extending the life of the Landfill.
- Potential discovery of contaminated soils during construction.
- Hazards and hazardous materials impacts associated with extending the life of the Landfill.
- Cultural resources impacts associated with extending the life of the Landfill.
- Nuisance impacts associated with extending the life of the Landfill.

2.5.4 Alternative D: No Project Alternative (Scenario 1) - Waste Export to the Chiquita Canyon Landfill

Project objectives are listed in Section 1.9. Alternative D would not meet any of the project objectives as it involves solid waste transportation and disposal off-site. It would not regain Landfill service life, would impose a significant burden on the rate payer, would result in environmental impacts associated with transportation and disposal at another landfill and eliminate the efficiency of the currently co-located Landfill and ReSource Center.

While this Alternative does not meet the project objectives, it is a potential outcome of the No Project Alternative, and the impacts of this Alternative are summarized below provide full public disclosure.

Transportation to and disposal of additional waste at the Chiquita Canyon Landfill under Alternative D may increase impacts including:

- Increased air pollutant and GHG emissions from heavy equipment and vehicles at the Chiquita Canyon Landfill associated with additional disposal activities.

- Increased air pollutant and GHG emissions from vehicles on roadways between the ReSource Center, SCRTS, SYVRTS and the Marborg Construction & Demolition Recycling and Transfer Facility and the Chiquita Canyon Landfill.
- Increased fugitive dust associated with additional disposal activities at the Chiquita Canyon Landfill.
- Increased vehicle miles travelled associated with solid waste export to the Chiquita Canyon Landfill (approximately 1.4 million miles in 2026).
- Potential for increased noise from heavy equipment and vehicle activity associated with additional disposal at the Chiquita Canyon Landfill.
- Potential for increased water use for dust control at the Chiquita Canyon Landfill.

2.5.5 Alternative E: No Project Alternative (Scenario 2) - Waste Export to the Chiquita Canyon Landfill and Santa Maria Regional Landfill OR Integrated Waste Management Facility

Project objectives are listed in Section 1.9. Alternative E would not meet any of the project objectives as it involves solid waste transportation and disposal off-site. It would not regain Landfill service life, would impose a significant burden on the rate payer, would result in environmental impacts associated with transportation and disposal at another landfill and eliminate the efficiency of the currently co-located Landfill and ReSource Center.

While this Alternative does not meet the project objectives, it is a potential outcome of the No Project Alternative, and the impacts of this Alternative are summarized below provide full public disclosure.

Transportation to and disposal of additional waste at the Chiquita Canyon Landfill under Alternative E may increase impacts including:

- Increased air pollutant and GHG emissions from heavy equipment and vehicles at the Chiquita Canyon Landfill associated with additional disposal activities.
- Increased air pollutant and GHG emissions from vehicles on roadways between the SCRTS and the Marborg Construction & Demolition Recycling and Transfer Facility and the Chiquita Canyon Landfill.
- Increased fugitive dust associated with additional disposal activities at the Chiquita Canyon Landfill.
- Increased vehicle miles travelled associated with solid waste export to the Chiquita Canyon Landfill (approximately 0.4 million miles in 2026).
- Potential for increased noise from heavy equipment and vehicle activity associated with additional disposal at the Chiquita Canyon Landfill.
- Potential for increased water use for dust control at the Chiquita Canyon Landfill.

Transportation to and disposal of additional waste at the Regional Landfill or Santa Maria IWMF under Alternative E may increase impacts including:

- Increased air pollutant and GHG emissions from heavy equipment and vehicles at the Regional Landfill or Santa Maria IWMF associated with additional disposal activities.
- Increased air pollutant and GHG emissions from vehicles on roadways between the ReSource Center/Tajiguas Landfill and SYVRTS and the Regional Landfill or Santa Maria IWMF.
- Increased fugitive dust associated with additional disposal activities at the Regional Landfill or Santa Maria IWMF.
- Increased vehicle miles travelled associated with solid waste export to the Regional Landfill or Santa Maria IWMF (approximately 0.5 million miles in 2026).
- Potential for increased noise from heavy equipment and vehicle activity associated with additional disposal at the Regional Landfill or Santa Maria IWMF.
- Potential for increased water use for dust control at the Regional Landfill or Santa Maria IWMF.

2.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The following five alternatives were analyzed in detail and were considered in the identification of the environmentally superior alternative.

- A. No Project Alternative
- B. Reduced Project Alternative – Vertical Only Capacity Increase
- C. Reduced Project Alternative – Horizontal Only Capacity Increase
- D. No Project Alternative (Scenario 1) - Waste Export to the Chiquita Canyon Landfill
- E. No Project Alternative (Scenario 2) - Waste Export to the Chiquita Canyon Landfill and Santa Maria Regional Landfill OR Integrated Waste Management Facility

As noted in Section 5.3, although some of these alternatives may not meet all of the project objectives, and may have economic, legal or other issues that may affect their overall feasibility, these alternatives are considered to be technically feasible, and none were eliminated from consideration in this EIR when determining the environmentally superior alternative.

Section 15126.6(e)(1) of the State CEQA Guidelines requires identification and evaluation of the No Project Alternative and Section 15126.6(e)(2) states that “if the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” (emphasis added). Under the No Project Alternative, continued disposal at the Tajiguas Landfill through to approximately 2026 would not result in any new impacts. However, solid waste disposal would be required following Landfill closure, which would require export to another landfill and is addressed under Alternatives D and E.

After capacity is reached in approximately 2026, continued landfilling of waste under the No Project Alternative through waste exportation (Alternatives D and E) would contribute to significant and unavoidable impacts at the other landfill sites. Waste export would also increase haul distances, VMT and associated air pollutant and GHG emissions. Further, Alternatives D and E are considered financially infeasible (see Sections 5.3.4.3 and 5.3.5.3), would not meet any of the project objectives, and are not considered environmentally superior.

Therefore, of the remaining alternatives studied (B and C), Alternative B (Reduced Project Objective – Vertical Only Capacity Increase) is considered to be the Environmentally Superior Alternative. As analyzed above and summarized in Table 5-6, the proposed project and Alternative C would have greater impacts than Alternative B because it avoids lateral expansion and reduces on-site environmental impacts. Implementation of Alternative B would avoid most biological impacts associated with the proposed project (loss of sensitive plant community, loss of habitat for common wildlife species, construction impacts to breeding birds, loss of rare plants, impacts to Crotch's bumblebee, loss of mature oak trees and impacts to special-status bird species), including significant and unavoidable impacts to Crotch's bumblebee. However, due to the reduced Landfill service life from December 2038 to November 2031, implementation of Alternative B would ultimately require export of solid waste and associated off-site impacts.

Both reduced capacity alternatives (B and C) would not fully meet the project objectives. In particular, the project objective of avoiding ratepayer financial burden would not be met because there would be about 5.5 to seven years of debt service for the ReSource Center remaining after the Alternative B and C site lives are reached associated with the fees for transportation and tipping at an off-site landfill. In addition, neither Alternative B or C would regain Tajiguas Landfill life that was planned to be provided by solid waste diversion associated with operation of the ReSource Center. These two project objectives are critical to the implementation of any capacity increase project.

In conclusion, Alternative B is identified as the environmentally superior alternative when compared to the other alternatives. However, Alternative B does not meet two critical project objectives and would provide only approximately 5.7 years of additional Landfill life, at which point off-site export of waste would be required and transportation-related impacts and contributions to off-site landfill disposal impacts would occur. In addition, off-site export is considered financially infeasible and prohibitive since the annual cost of waste management would be greater than eight times that of the proposed project. The proposed project with the mitigation identified in this EIR reduces impacts to the maximum extent feasible and meets operational, engineering and financial objectives associated with continued management and disposal of the community's waste.

Table 2-1. Summary of Project-Specific Environmental Impacts and Mitigation Measures

DESCRIPTION OF IMPACT	MITIGATION MEASURES and RESIDUAL IMPACTS
Significant and Unavoidable Impacts	
<p>Impact AQ-5: Construction of new disposal areas and extended Landfill operations would generate greenhouse gas emissions that would contribute to global climate change – Significant and Unavoidable Impact.</p> <p>Continued management and disposal of residual waste from the communities served by the Tajiguas Landfill would result in GHG emissions. Table 4.2-12 provides an annual summary of GHG emissions associated with implementation of the proposed project, and includes construction-related GHG emissions, project-related increases in landfill gas-related GHG emissions associated with increased waste in place (fugitives not captured and treated), indirect GHG emissions associated with combustion of landfill gas in engines and flares, and GHG emissions from increased waste disposal truck trips. Note that GHG emissions would start to decline about one year after proposed Landfill closure in 2038. Annual GHG emissions would exceed the significance threshold in all years except 2025 and 2026. Project-related increases in GHG emissions from managing and landfilling the community's waste would exceed the County's threshold and are considered a significant impact.</p> <p>Project-related long-term GHG emissions are primarily a consequence of continuing to bury the community's waste in the Landfill. As a significant GHG reduction project in the County, operation of the ReSource Center has and will continue to substantially reduce the amount of solid waste buried, and the associated GHG emissions generated by waste decomposition (landfill gas). The Landfill complies with all applicable regulations to reduce, collect and manage GHG emissions. No additional control measures are available to further reduce GHG emissions generated by waste decomposition; therefore, this impact is considered significant and unavoidable.</p>	<p>MM AQ-1: Construction-related GHG Emissions Reduction. The following measures shall be implemented during construction activities to reduce GHG emissions to the extent feasible.</p> <ul style="list-style-type: none"> • All portable diesel-powered construction equipment greater than 50 brake horsepower shall be registered with the State's portable equipment registration program OR shall obtain an SBCAPCD permit. • Fleet owners of diesel-powered mobile construction equipment greater than 25 hp are subject to the CARB In-Use Off-Road Diesel-Fueled Fleets Regulation (Title 13, California Code of Regulations §2449). Off-road heavy-duty trucks shall comply with the State Off-Road Regulation. • Off-road vehicles subject to the State Off-Road Regulation are limited to idling no more than five minutes. • Idling of heavy-duty diesel trucks during loading and unloading shall be limited to five minutes, unless the truck engine meets the optional low-NOx idling emission standard, the truck is labeled with a clean-idle sticker, and it is not operating within 100 feet of a restricted area. • Diesel equipment meeting the CARB Tier 3 or higher emission standards for off-road heavy-duty diesel engines should be used to the maximum extent feasible. • On-road heavy-duty equipment with model year 2010 engines or newer should be used to the maximum extent feasible. • Diesel powered equipment should be replaced by electric equipment whenever feasible. Electric auxiliary power units should be used to the maximum extent feasible. • Equipment/vehicles using alternative fuels, such as compressed natural gas, liquefied natural gas, propane or biodiesel, should be used on-site where feasible. • Catalytic converters shall be installed on gasoline-powered equipment, if feasible. • All construction equipment shall be maintained in tune per the manufacturer's specifications. • The engine size of construction equipment shall be the minimum practical size. • The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at any one time. • Construction worker trips should be minimized by requiring carpooling and by providing for lunch onsite. • Construction truck trips should be scheduled during non-peak hours to reduce peak hour emissions whenever feasible. • Proposed truck routes should minimize to the extent feasible impacts to residential communities and sensitive receptors. • Construction staging areas should be located away from sensitive receptors such that exhaust and other construction emissions do not enter the fresh air intakes to buildings, air conditioners, and windows. <p><u>Residual Impacts:</u> Implementation of MM AQ-1 would reduce Impact AQ-5 to the extent feasible; however, residual emissions would remain significant.</p>

Table 2-1. Continued

DESCRIPTION OF IMPACT	MITIGATION MEASURES and RESIDUAL IMPACTS
Significant and Unavoidable Impacts	
<p>BIO-6: Project implementation could result in the loss of occupied habitat for Crotch's bumblebee, potential loss of individuals and loss of nests within the vegetated areas of the proposed Capacity Increase Project area as a result of construction activities – Significant and Unavoidable Impact.</p> <p>Five Crotch's bumblebees were observed within the Capacity Increase Project area. The proposed project is likely to result in take of this species, potentially including loss of individuals, nests and habitat, and is considered a significant impact.</p>	<p>MM BIO-4a: Crotch's Bumblebee Training and Construction Phasing. A Crotch's bumblebee environmental awareness training for all operations staff and construction contractors involved in the project shall be conducted prior to the start of construction. The training shall be conducted by a qualified biologist and include general and site-specific information such as: avoiding unnecessary disturbance or damage to floral resources and potential nest sites outside of the project area; discussion of federal and state regulations that protect candidate bumble bees, their legal implications, and the necessity of compliance; and protocols for reporting sightings of candidate bumble bees on site.</p> <p>Where feasible, vegetation removal and/or grubbing of coastal sage scrub vegetation (including black sage scrub, California buckwheat scrub and California brittle-bush scrub (see Figure 4.3-2) within the Capacity Increase Project area shall be phased to minimize impact. For example, since the project area provides documented foraging habitat and potential suitable nesting habitat, to avoid impacts during the colony active period and to discourage future foraging and nesting in the project disturbance area, construction would be phased as follows:</p> <ul style="list-style-type: none"> Initial vegetation grubbing to remove the foraging resources and dozer track-walking to compact the slopes (thus remove animal burrows and soil cavities representing potential nesting venues) would be completed during late fall/winter (November through February) when bumblebee nests are abandoned (mated queens have left the nest, the old queen, workers and males have died as a part of their natural life-cycle) and foraging by bumblebees is not occurring. Subsequent construction activities would occur in the spring/summer after the initial foraging and nesting habitat removal has been completed and due to the absence of forage and nesting resources Crotch's bumblebees would be unlikely to be present. <p>If construction impacts cannot be avoided through construction phasing, RRWMD shall consult with CDFW regarding other feasible avoidance measures and shall obtain an Incidental Take Permit if determined to be necessary.</p> <p>MM BIO-4b: Crotch's Bumblebee Habitat Replacement. To mitigate for the loss of foraging habitat, habitat replacement shall be conducted by:</p> <ul style="list-style-type: none"> Inclusion of deerweed (<i>Acmispon glaber</i>), native sages (<i>Salvia</i> spp.), native thistles (<i>Cirsium</i> spp.), native snapdragons (<i>Antirrhinum</i> spp.), native phacelias (<i>Phacelia</i> spp.), native lupines (<i>Lupinus</i> spp.) native milkweeds (<i>Asclepias</i> spp.), native buckwheat (<i>Eriogonum</i> spp.) and native clovers (<i>Trifolium</i> spp.) in seed mixes applied to the cut slopes that will not be a part of the capacity increase area as part of erosion control. Restoration/enhancement of 10.2 acres (at a minimum 1:1 ratio) of non-native or disturbed native vegetation at the Landfill and/or Baron Ranch using the above plant species and others suitable as pollen and/or nectar sources for Crotch's bumblebee. Where feasible, foraging resources shall be planted in continuous single species patches (rather than intermixing the species) to provide readily available contiguous nectar sources to improve foraging success. Plant selection to provide bumblebee foraging resources shall consider the use of species with non-overlapping peak flowering periods to ensure a constant availability of pollen and/or nectar sources during the foraging and nesting period.

Table 2-1. Continued

DESCRIPTION OF IMPACT	MITIGATION MEASURES and RESIDUAL IMPACTS
Significant and Unavoidable Impacts	
Impact BIO-6: Project implementation could result in the loss of occupied habitat for Crotch's bumblebee, potential loss of individuals and loss of nests within the vegetated areas of the proposed Capacity Increase Project area as a result of construction activities – Significant and Unavoidable Impact.	<ul style="list-style-type: none">• To support nesting, creation of potential nesting habitat using piles of field stones, brush, hay, or logs that supply dark, dry cavities for bumblebees to nest.• Avoiding the use of pesticides such as glyphosate on restored areas or other areas of potential habitat at the Landfill and at Baron Ranch.• Reducing foraging competition and potential for spread of disease by eliminating the placement of honeybee hives at Baron Ranch.
Five Crotch's bumblebees were observed within the Capacity Increase Project area. The proposed project is likely to result in take of this species, potentially including loss of individuals, nests and habitat, and is considered a significant impact.	<p>MM BIO-4c: Crotch's Bumblebee Habitat Usage Study. A Habitat Usage Study shall be developed and implemented to determine the post-restoration bumblebee use of the habitat replacement areas discussed in MM BIO-4b.</p> <p>Residual Impact: Implementation of MM BIO-4 would reduce biological resources Impact BIO-6 to the extent feasible. However, because of the timing requirements for construction of the Capacity Increase Project and difficulty in detecting individuals, nests, and overwintering mated queens a take of Crotch's bumblebee may occur. Therefore, impacts to this species may be potentially significant and unavoidable.</p>

Table 2-1. Continued

DESCRIPTION OF IMPACT	MITIGATION MEASURES and RESIDUAL IMPACTS
Significant but Mitigable Impacts	
<p>Impact BIO-2: Project implementation would result in the removal of a plant community (California brittle-bush scrub) within the proposed Capacity Increase Project area that is vulnerable to extirpation, would remove other restored native vegetation that was proposed to meet biological mitigation requirements for the 2002 Landfill Expansion Project – Significant but Mitigable Impact.</p>	<p>01-EIR-05 Mitigation Measure Mitigation Measure BIO-7 would continue to apply to revegetation of disturbed areas and the Landfill closure slopes to mitigate for native vegetation impacts associated with the Tajiguas Landfill Project and the proposed Capacity Increase. In addition, MM BIO-1(a) and BIO-1(b) would be implemented to minimize impacts to adjacent habitats.</p>
<p>Plant communities would be removed as part of construction of the Phase IV waste fill area, including 1.63 acres of black sage scrub, 7.96 acres of California buckwheat scrub, 0.53 acres of big-pod ceanothus chaparral and 0.07 acres of California brittle-bush scrub. California brittle-bush scrub is considered to be vulnerable, at moderate risk of extirpation. The affected plant communities were reseeded on the Landfill property and are proposed for chaparral overseeding to partially mitigate for chaparral impacts associated with the 2002 Tajiguas Landfill Expansion project pursuant to 01-EIR-05 Mitigation Measure BIO-7 (Native Habitat Restoration) and BIO-6 (Erosion Control using native species).</p>	<p>MM BIO-1(a): Minimize Impacts to Adjacent Habitats. To prevent inadvertent damage to sensitive habitats outside of the Capacity Increase Project Area, the construction disturbance area shall be clearly delineated on the project construction plans and in the field by staking, flagging or equivalent methods.</p>
<p>Impact BIO-4: Construction activity may significantly affect nesting migratory birds and/or raptors – Significant but Mitigable Impact.</p>	<p>MM BIO-1(b): Control of Highly Invasive Plants. RRWMD shall monitor the project area and where feasible control infestations of plants identified as highly invasive by the California Invasive Plant Council. Invasive plants shall not be used in the erosion control hydroseed mix or in final closure revegetation seed mix.</p>
<p>Construction activities during the nesting season may cause direct removal of bird nests or cause abandonment or failure of nests (through noise, dust, equipment and motor vehicle activity), which would be inconsistent with the MBTA and Section 3503.5 of the California Fish and Game Code.</p>	<p>Residual Impacts: With implementation of 01-EIR-05 Mitigation Measure BIO-7 and the measures listed above, Impact BIO-2 would be significant but mitigable.</p>
<p>Impact BIO-5: Project implementation would result in the removal of Santa Barbara honeysuckle (~50 individuals) within the proposed Capacity Increase Project area – Significant but Mitigable Impact.</p>	<p>MM BIO-2: Breeding Bird Protection.</p>
<p>Approximately 50 Santa Barbara honeysuckle plants occur within the previously undisturbed area (see Figure 4.3-2) and would be removed during excavation and grading of the proposed Capacity Increase Project area. This impact is considered significant.</p>	<ul style="list-style-type: none"> • Clearing and grubbing of areas of native habitat or areas immediately adjacent to native habitat shall avoid the migratory bird and raptor breeding season (February 1 to August 15). • If construction in these areas cannot be avoided during this period, a nest survey within the area of impact and a 200-foot buffer for passerines and any available raptor nesting areas within 500 feet shall be conducted by a qualified biologist no earlier than 14 days and no later than 5 days prior to any native habitat removal or ground disturbance to determine if any nests are present. Surveys will be repeated as needed if the vegetation removal occurs over an extended period. • If an active nest is discovered during the survey, a buffer of 200 feet for migratory birds or 500 feet for raptors (or as determined by the biologist based on a field assessment) would be established around the nest. No construction activity may occur within this buffer area until a biologist determines that the nest is abandoned, or fledglings are adequately independent from the adults.
	<p>Residual Impacts: Implementation of MM BIO-2 would reduce biological resources Impact BIO-4 to a level of less than significant.</p>
	<p>MM BIO-3: Rare Plant Replacement. Santa Barbara honeysuckle plants within the previously undisturbed area shall be replaced at a minimum 2:1 ratio (estimated 100 plants). Cuttings and/or fruit shall be taken from plants to be removed and grown in a native plant nursery as container plants. These plants shall be planted at undeveloped areas of the Landfill property or Baron Ranch in suitable habitat areas and maintained as needed to ensure at least 50 Santa Barbara honeysuckle plants survive in the long-term.</p>
	<p>Residual Impacts: Implementation of MM BIO-3 would reduce biological resources Impact BIO-5 to a level of less than significant.</p>

Table 2-1. Continued

DESCRIPTION OF IMPACT	MITIGATION MEASURES and RESIDUAL IMPACTS
Significant but Mitigable Impacts	
<p>Impact BIO-7: Project implementation would result in the removal of mature coast live oak trees within the proposed Capacity Increase Project area – Significant but Mitigable Impact.</p>	<p>As a part of the Tajiguas Landfill Project native tree mitigation has been completed at the Baron Ranch pursuant to the Baron Ranch Restoration Plan 08EIR-00000-00007 Mitigation Measure MM BIO-1(a). At a 10:1 ratio for impacted coast live oak trees, a total of 1,669 trees were required to meet the mitigation requirements of the Tajiguas Landfill Project (679 for the Tajiguas Landfill Expansion Project and 990 for the Reconfiguration Project). As a part of the Baron Ranch Restoration Project over 5,000 trees were installed with over 95 percent survival (Ecological Conservation and Management, February 2020). Therefore, the additional 5 mature oak trees that would be impacted by the proposed Capacity Increase have been adequately mitigated by the additional oak tree mitigation completed as a part of the Baron Ranch Restoration Project.</p>
<p>Five mature coast live oak trees (at least 8-inches diameter at breast height) occur within the previously undisturbed area (see Figure 4.3-2) and would be removed during excavation of the proposed Capacity Increase Project area. The impact to mature native trees is considered significant because more than 10 percent of the native trees of biological value would be removed.</p>	<p><u>Residual Impacts:</u> Implementation of the Baron Ranch Restoration Project has reduced the biological resources Impact BIO-7 to a level of less than significant.</p>
<p>Impact BIO-9: Project implementation would result in additional Landfill construction activities that may adversely affect CRLF – Significant but Mitigable Impact.</p>	<p>MM BIO-5: CRLF Avoidance Measures. The following measures required by the HCP and ITP shall be fully implemented to minimize potential take of CRLF associated with construction activities.</p>
<p>The proposed project includes construction activities that would increase heavy equipment and vehicle traffic on Landfill access roads which could result in mortality of CRLF present during overland migration. In addition, proposed modification of the North Sedimentation Basin may result in mortality of any CRLF present in the Basin during construction. However, implementation of avoidance and minimization measures of the HCP and ITP as required by the Incidental Take Permit and as included as MM BIO-5, below would reduce the potential for incidental take of CRLF and minimize any adverse effects. In addition, the majority of ground disturbing work would be conducted during the dry season (see Section 3.7.2) when the North Sedimentation Basin would be empty (not attractive to CRLF) and CRLF migration through the Landfill property is not expected to be occurring. Further, as a part of the HCP/ITP RRWMD has permanently conserved approximately 110 acres of aquatic, upland and dispersal habitat covering the northeastern area of the Landfill property and portions of Baron Ranch.</p>	<ul style="list-style-type: none"> • A USFWS-approved biologist shall be used for all surveys and monitoring. • Environmental sensitivity training shall be provided for all Landfill staff and contractors. • Protocols for capturing and relocating any CRLF observed at the Landfill shall be followed. • Ground disturbing activities during the rainy season shall be prohibited between sunset and sunrise. • Maintenance activities in Pila Creek and the North and South Sedimentation Basins shall be restricted to the dry season, unless a night survey, pre-activity survey for CRLF is conducted and all work activities are monitored. • The duration of storage of storm water in the sedimentation basins shall be restricted to that needed to meet water quality requirements. • CRLF surveys to detect CRLF following all rain events of 0.1 inches or greater and relocation of any observed CRLF to protected areas of Arroyo Quemado shall be conducted. • Storage of storm water proposed for Landfill construction in the North Sedimentation Basin shall be limited to prior to April. • CRLF surveys shall be conducted prior to mechanical ground disturbance in vegetated areas and protective buffers established if any are found. • Equipment operators working outdoors in the rainy season shall search around and under their equipment and stored materials before starting the equipment and again if the equipment has been idle for 60 minutes.
	<p><u>Residual Impacts:</u> Implementation of MM BIO-5 would reduce biological resources Impact BIO-9 to a level of less than significant.</p>

Table 2-1. Continued

DESCRIPTION OF IMPACT	MITIGATION MEASURES and RESIDUAL IMPACTS
Significant but Mitigable Impacts	
<p>Impact HAZ-2: Hazardous materials may be encountered during construction and released to the environment – Significant but Mitigable Impact.</p>	<p><i>MM HAZ-1: Hazardous Materials Assessment and Remediation.</i> Prior to earth disturbing activities within the Landfill maintenance and storage area, a preliminary assessment of areas within the project footprint where historical hazardous materials use occurred shall be conducted to identify the potential presence of contaminated soil. A soil sampling and management plan shall be developed to provide guidance for the delineation of the contaminated area and proper identification, handling, on-site management, treatment and disposal of contaminated soil that may be encountered during construction activities.</p>
<p>Localized soil contamination from spills or leaks may be present in areas where hazardous materials may have been or are currently used as a part of existing Landfill operations, primarily in the Landfill maintenance and storage area where fuel and hazardous materials use and storage and equipment maintenance activities have historically occurred. This area is part of the Capacity Increase Project area and the existing facilities in this area would be removed and filled in the last few years of the project. Construction activities could encounter contaminated soils and potentially expose construction personnel, the public, or the environment to hazardous materials. Contaminated soil could also require disposal as a hazardous waste. Impacts associated with exposure of hazardous materials are considered potentially significant.</p>	<p>If contaminated soil is identified, the contaminated area shall be delineated, construction work shall not be initiated in the contaminated area and the soil management plan implemented. The soil management plan shall be modified as needed to fully address the soil contamination found. If the results of the soil assessment identify contaminants that exceed threshold levels, affected soils shall be remediated to the satisfaction of the Environmental Health Services Division.</p>
<p>Impact CR-1: Ground disturbance associated with implementation of the proposed project may result in damage to unknown archeological resources at the Landfill property – Significant but Mitigable Impact.</p>	<p><u>Residual Impacts:</u> Implementation of <i>MM HAZ-1</i> would reduce impacts associated with exposure of hazardous materials during construction to a less than significant level.</p>
<p>Based on past archeological field surveys and those recently conducted within the Capacity Increase Project area, no evidence of archeological resources was found in areas that would be affected by project-related ground disturbance. However, excavation within the previously undisturbed area (as shown in Figure 3-4) has the potential to encounter unknown buried cultural resources.</p>	<p><i>MM CR-1: Cultural Resources Awareness Program and Evaluation and Protection of Discovered Resources.</i> A worker cultural resources awareness program shall be implemented for the project. Prior to any ground-disturbing activity, RRWMD shall provide an initial cultural resources sensitivity training session to all project employees, contractors, subcontractors, and other workers prior to their involvement in any ground-disturbing activities, with subsequent training sessions to accommodate new personnel becoming involved in the project. The program may be conducted together with other environmental or safety awareness and education programs for the project, provided that the program elements pertaining to cultural resources are provided by a qualified archaeologist.</p>
	<p>In the event that archaeological resources are exposed during construction, all earth disturbing work within the vicinity of the find shall be temporarily suspended or redirected until a professional archaeologist has been retained to evaluate the nature and significance of the find pursuant to a Phase 2 investigation. The RRWMD shall be notified immediately of any such find. The find shall be appropriately documented through a Phase 3 data recovery program and/or avoided if deemed necessary by a qualified archaeologist.</p>
	<p>If human remains are unearthed, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the NAHC.</p>
	<p><u>Residual Impacts.</u> Implementation of this mitigation measure would reduce cultural resources Impact CR-1 associated with implementation of the proposed project to a level of less than significant.</p>

Table 2-1. Continued

DESCRIPTION OF IMPACT	MITIGATION MEASURES and RESIDUAL IMPACTS
Significant but Mitigable Impacts	
<p>Impact N-4: Blasting-related noise may adversely affect residents near the Landfill property – Significant but Mitigable Impact.</p> <p>Blasting may be required to fracture bedrock that can't be ripped using dozers or fractured using an excavator-mounted hydraulic demolition breaker. The estimated blasting noise at the nearest residence (Arroyo Quemada community) during a blasting event could be 90.5 dBA. This noise level could be reduced due to intervening topography such as the existing waste prism but because blasting noise could exceed the 10 dBA threshold it is considered a potentially significant impact.</p>	<p>MM N-1: Blasting Hours and Notification</p> <ul style="list-style-type: none"> Blasting shall be limited to the hours of 7 a.m. to 4 p.m. Local residents shall be notified of the blasting schedule at least one week in advance through direct mailing or emailing to all residences located within two miles of the Landfill property. <p><u>Residual Impacts:</u> Implementation of MM N-1 would reduce noise Impact N-4 to a level of less than significant.</p>
<p>Impact LU-1: The project could result in land use conflicts with adjacent and nearby residential uses – Significant but Mitigable Impact.</p> <p>As discussed in Section 4.4 (Hazards and Hazardous Materials), hazardous materials may be encountered during construction of the Phase IV waste fill area. However, this potential effect would be localized and mitigated by the implementation of MM HAZ-1.</p> <p>Considering the historic (over 50 years) and ongoing public facility use of the Tajiguas Landfill property, it's remote location, the nature of the surrounding land uses (primarily agricultural, open space, former oil and gas), and with implementation of identified mitigation measures, potential land use conflicts with adjacent and nearby residential uses associated with the proposed project would be potentially significant but mitigable.</p>	<p>MM HAZ-1 (see above)</p> <p><u>Residual Impacts:</u> less than significant with implementation of mitigation measures.</p>
<p>Impact LU-2: The project could result in land use conflicts with adjacent recreational uses – Significant but Mitigable Impact.</p> <p>As discussed in Section 4.4 (Hazards and Hazardous Materials), hazardous materials may be encountered during construction of the Phase IV waste fill area. However, the impacts are expected to be localized and this potential effect would be further mitigated by the implementation of MM HAZ-1.</p> <p>Considering the historic and existing public facility use of the Tajiguas Landfill property since 1967, the continued high use of recreational trails adjacent to the Landfill property with the historic and current operations, the absence of physical impacts to the Trail and with implementation of identified mitigation measures, potential land use conflicts with adjacent recreational uses associated with the proposed project would be potentially significant but mitigable.</p>	<p>MM HAZ-1 (see above)</p> <p><u>Residual Impacts:</u> less than significant with implementation of mitigation measures.</p>

Table 2-1. Continued

DESCRIPTION OF IMPACT

Insignificant Impacts

Impact VIS-1: Project implementation would result in an adverse impact to the visual quality of the public view from the Upper Outlaw Trail – Insignificant Impact.

The duration of public views of the Landfill from the Upper Outlaw Trail would be limited to about 500 linear feet of trail; however, these viewers are likely to have a heightened sensitivity to the visual conditions. As shown in Figure 4.1-4, ongoing waste disposal activities are currently visible from the Upper Outlaw Trail including exposed soil of the North Borrow/Stockpile, the working face (current waste tipping/disposal site), the CMU, access roads and the Phase 3F liner construction area. These areas of exposed soil, the continuous ground disturbance and change in landforms and artificially uniform topography of Landfill slopes and benches dominate the view at this location and create a construction site-like visual character of low aesthetic quality.

With implementation of the proposed project, these same activities and sites would be visible. However, there would be additional grading, additional vegetation removal, new cut slopes, and the working face would be moved up to 240 feet (2,400 to 2,160 feet) closer to the Trail. The maximum permitted height of the Landfill would increase from 620 feet amsl to 650 feet amsl with an overall an increase and the maximum of 574 feet to 650 amsl. The visual character of this public view would remain that of an active landfill with implementation of the proposed project. Therefore, the Capacity Increase Project would not damage scenic resources, substantially degrade the existing visual character or be incompatible with the existing visual character of the site.

Impact VIS-3: Acceptance of waste beginning at 6:00 am associated with Project implementation may require lighting at the scale house during certain times of the year and other areas during emergencies – Insignificant Impact.

The Capacity Increase Project does not include new lighting associated with landfill disposal, but portable lighting may continue to be required on an emergency basis. Because of the focused nature of the lighting, and because the lighting would occur when adjacent public trails are closed, and because the Capacity Increase Project area would not be visible from U.S. Highway 101 impacts would not be significant. Although waste acceptance at the scale house would begin at 6:00 am which would be before sunrise during some periods of the year, security lighting is already in place and operating and was evaluated in 01-EIR-05. In addition, 01-EIR-05 Mitigation Measure BIO-9 (use of low-intensity, low-glare design lighting) has been implemented. Therefore, the project would not create a new source of substantial light or glare which would significantly affect day or nighttime views in the area.

Impact AQ-1: Project-related construction activities would result in criteria air pollutant emissions that may affect regional air quality – Insignificant Impact.

As shown in Table 4.2-3, the maximum construction air pollutant emissions during a 12-month time period would not exceed the SBCAPCD threshold and is considered a less than significant impact.

Impact AQ-2: Landfill operations as modified by the proposed project would result in an increase in criteria air pollutant emissions that may affect regional air quality – Insignificant Impact.

Project operation would generate exhaust and fugitive dust emissions from on-site mobile equipment, and on-site and off-site motor vehicles used to transport solid waste and recyclables. In addition, landfill gas fugitive emissions (from the Landfill surface) would increase due to the larger volume of buried waste in place, including ROC emissions. Table 4.2.4 provides a summary of maximum daily criteria pollutant emissions generated during operation of the project. Overall, project operations criteria pollutant emissions would not exceed any County thresholds, and would have a less than significant impact to regional air quality.

Impact AQ-3: Landfill operations as modified by the proposed project would result in an increase in and relocation of criteria air pollutant emissions within the Landfill operational area that may cause or contribute to exceedances of ambient air quality standards – Insignificant Impact.

An air dispersion model (AERMOD) was used with five years of meteorological data to determine ground level concentrations of pollutants emitted by the project for comparison to the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). As shown in Tables 4.2-5 and 4.2-6, the modeled project contribution (from all sources), when combined with the appropriate ambient background concentration, would be below the NAAQS for all pollutants. Therefore, project-related emissions would not cause or substantially contribute to an exceedance of the NAAQS, and air quality impacts are considered less than significant.

As shown in Tables 4.2-7 and 4.2-8, excluding 24-hour PM₁₀ concentrations, the modeled project contribution (from all sources), when combined with the appropriate ambient background concentration, are below the CAAQS for all pollutants. Note that the 24-hour PM₁₀ ambient background concentration (68.0 ug/m³) exceeds the CAAQS (50 ug/m³). Based on guidance from the SBCAPCD, because the project contribution would not exceed 10 percent of the CAAQS (5 ug/m³ in this case) and a significant PM₁₀ impact was previously identified for the Tajiguas Landfill, the contribution is considered less than significant. As shown in Tables 4.2-7 and 4.2-8, the 24-hour PM₁₀ project contribution is less than 5 ug/m³. Therefore, project-related emissions would not cause or substantially contribute to an exceedance of the CAAQS, and air quality impacts are considered less than significant.

Table 2-1. Continued

DESCRIPTION OF IMPACT

Insignificant Impacts

Impact AQ-4: Landfill operations as modified by the proposed project would result in an increase in and relocation of toxic air contaminants emissions within the Landfill operational area that may cause or contribute to health risks at adjacent land uses – Insignificant Impact.

An air dispersion model (AERMOD) was used with five years of meteorological data to determine ground level concentrations of toxic air contaminants emitted by the project. The HARP2 model was then used to identify cancer risk and non-cancer health hazards at the nearest residence (nearest Arroyo Quemada residence), which represents the maximum exposed residence (MEIR) and the Arroyo Hondo Preserve maintenance buildings which represents the maximum exposed worker (MEIW). A summary of cancer risk and non-cancer health impact risk values are presented in Tables 4.2-9 and 4.2-10 for Scenarios 1 and 2, respectively. While the project Scenario 2 health risk assessment indicates the cancer risk threshold would be exceeded at the point of maximum impact, this area is uninhabited, inaccessible (steep terrain with dense vegetation) and the area is not reasonably accessible by the public and individuals would not be exposed to this risk. Project-related cancer risk and health hazard index values are less than the SBCAPCD thresholds and are considered a less than significant impact.

A facility-wide summary of cancer risk and non-cancer health impact risk values are presented in Table 4.2-11 for existing and proposed sources of toxic air contaminant emissions at the Landfill. While the facility-wide health risk assessment indicates the cancer risk and acute hazard index thresholds would be exceeded at the point of maximum impact, this area is uninhabited, inaccessible (steep terrain with dense vegetation) and the area is not reasonably accessible by the public and individuals would not be exposed to this risk. Therefore, facility-wide toxic air contaminant emissions would not result in a significant health risk impact.

Impact AQ-6: Odors generated by disposal of additional waste under the proposed project may create a nuisance air quality impact – Insignificant Impact.

Implementation of the proposed project would provide increased capacity and result in additional waste disposal activities, which could result in odors detectable off-site. As discussed in Section 4.11.1.3, Landfill operations are currently and would continue to be conducted to minimize odor generation, including implementation of an Odor Impact Minimization Plan and response to any odor complaints. Based on a summary of odor complaints and odor concerns identified in LEA inspection reports provided in Section 4.11.1.5, Landfill operations are typically not a source of off-site odors. Currently, odors are associated with operation of the ADF and CMU, which have been or will be addressed by implementation of control measures and practices listed in Section 4.11.1.6. The proposed project would have no effect on receipt of recyclables and solid waste or operation of the ReSource Center. Therefore, the proposed increase in capacity is not anticipated to generate additional odors detectable off-site.

Impact BIO-1: The proposed change in waste receipt hours may result in increased CRLF mortality during seasonal movements of transient individuals across the Landfill property – Insignificant Impact.

The proposed change in waste receipt from between 7 a.m. to 5 p.m. to between 6 a.m. and 4 p.m. would result in an increase in nighttime (before dawn) waste disposal motor vehicle traffic which may result in increased CRLF mortality that may be present on Landfill access roads while making overland dispersal movements that typically occur at night and during the rainy season. However, implementation of avoidance and minimization measures of the HCP and ITP as required by the Incidental Take Permit would reduce the potential for incidental take of CRLF during seasonal movements and minimize any adverse effects.

Impact BIO-3: Project implementation would result in the removal of ~10.2 acres of wildlife habitat and result in construction-related disturbance of common wildlife species – Insignificant Impact.

The proposed project would result in the permanent loss of about 10.2 acres of habitat for common wildlife species during clearing and grubbing of the proposed Capacity Increase Project area. Common wildlife species (especially small mammals and reptiles with low mobility) may be inadvertently killed or injured during construction activities, though birds and larger mammals that have higher mobility are unlikely to be killed or injured during project construction.

Proposed construction activities (increased access road traffic, excavation, blasting, liner installation, environmental protection/control system installation, construction of the proposed toe berm, modifications to the North Sedimentation Basin, modifications to the storm flow control structure in Pila Creek, relocation of Landfill facilities and relocation of ReSource Center utilities) would result in indirect temporary impacts to adjacent wildlife habitat and common wildlife species, such as increased fugitive dust, elevated noise levels, introduction of invasive plant species of low habitat value and increased human activity.

Habitat loss and indirect construction-related impacts to common wildlife species are considered an adverse but less than significant impact because the project would affect only a small amount of wildlife habitat, low quality of affected habitat associated with the fragmented nature of the habitat and disturbance (noise, dust, equipment activity) and isolation caused by surrounding Landfill activities, and availability of other undeveloped areas of the Landfill property and neighboring properties are available for use by common wildlife species. Therefore, the proposed project is not expected to reduce these wildlife populations below self-sustaining levels.

Table 2-1. Continued

DESCRIPTION OF IMPACT

Insignificant Impacts

Impact BIO-8: Project-related habitat loss may adversely affect special-status bird species (Northern harrier, white-tailed kite, loggerhead shrike and Allen's hummingbird) observed at the Landfill – Insignificant Impact.

Northern harrier, white-tailed kite, loggerhead shrike and Allen's hummingbird have been observed at the Landfill property and may forage within coastal scrub and chaparral vegetation in the proposed Capacity Increase Project area. Loss of approximately 10.2 acres of this habitat is not anticipated to significantly affect the local populations of these species because:

- The area of habitat removal is small as compared to these species typical foraging area.
- The low quality of affected foraging habitat associated with the fragmented nature of the habitat and disturbance (noise, dust, equipment activity) and isolation caused by surrounding Landfill activities, and low habitat complexity of recently planted vegetation.
- The lack of suitable nesting habitat.

In addition, reseeded of disturbed slopes following construction and reseeded of the Landfill cover and the North Borrow area during Landfill closure with coastal sage scrub mix and chaparral as required by 01-EIR-05 Mitigation Measures BIO-6 and BIO-7 would further reduce this impact over the long term.

Impact HAZ-1: Construction activities associated with the proposed project may result in inadvertent discharge of small quantities of hazardous materials – Insignificant Impact.

During construction of the proposed Phase IV waste fill area, small quantities of hazardous materials (i.e., fuel, engine oil, lubricants, hydraulic fluid, engine coolant) would be used at the landfill site and transported to and from the site. Small quantities of these substances could be accidentally released and result in soil contamination. However, hazardous materials handling procedures and worker safety procedures would be implemented as required by applicable regulations, and RRWMD landfill contractor requirements. Due to the small amounts of hazardous materials used during construction activities and the implementation of applicable regulations, potential impacts associated with use of hazardous materials for project construction purposes would be less than significant.

Impact G-1: New cut slopes and permanent waste fill slopes may be unstable and result in seismic-induced landslides – Insignificant Impact.

A deterministic seismic hazard analysis was conducted for the proposed project by Geosyntec Consultants (2023) which included a seismic hazard analysis, static and pseudostatic slope stability analysis and site response and displacement analyses. The seismic hazard analysis was conducted based on the proposed toe berm (see Figure 3-4) in place to control westward movement of the buried waste fill mass. The results of the deterministic seismic hazard analysis of proposed Landfill slopes (see Table 4.5-1) indicate the minimum factor of safety (1.50) would be met and seismic displacement would be less than 6 inches by a maximum probable earthquake 12 inches by an maximum credible earthquake. Therefore, the proposed slopes are considered stable, and the risk of seismic-induced landslides is considered less than significant.

Impact G-2: The proposed toe berm would be partially inundated during large storm events for a short period of time (several hours), which may adversely affect the stability of the waste fill mass – Insignificant Impact.

An existing flow control structure in the Pila Creek channel currently regulates the detention capacity of the Pila Creek Inundation Area and the peak downstream stormwater discharge rate. Proposed earthwork would reduce the stormwater storage volume of the Pila Creek Inundation Area. Therefore, the proposed project includes modifications to the spillway height of the flow control structure to increase stormwater storage volume and limit the peak stormwater flow to existing conditions (187 cubic feet per second during a 100-year event). The increased spillway height would increase peak water surface elevation within the Pila Creek Inundation Area during a 100-year storm by 2.6 feet.

The proposed toe berm would extend westward to the top of the eastern bank of the Pila Creek channel (see Figure 3-4). Therefore, the western margin of the toe berm would be located within the Pila Creek Inundation Area. However, inundation of the toe berm would be infrequent and for a duration on the order of a few hours (HDR, 2023). The peak water surface elevation would be below the elevation of the proposed toe berm over which the buttressing effect is developed. In addition, because the inundation period would be relatively short, it is not anticipated that the proposed toe berm would become saturated and/or a sudden drawdown condition occur; therefore, the potential inundation is not anticipated to have direct impact on the global stability of the waste fill mass (Geosyntec Consultants, 2023). The potential short-term inundation of the outer face of the lower part of the toe berm would not substantially affect the slope stability function of the toe berm and would have a less than significant impact on stability of the waste fill mass.

Table 2-1. Continued

DESCRIPTION OF IMPACT

Insignificant Impacts

Impact G-3: Grading and excavation activities and creation of 2:1 (horizontal:vertical) waste disposal slopes could result in erosion and sedimentation – Insignificant Impact.

The proposed Phase IV fill area would be constructed by excavating and/or blasting a maximum of approximately 30 feet below the ground surface of the existing North Sedimentation Basin floor, as well as excavating the slopes north of the existing waste footprint to match the overall existing cut slopes of Phase III. All slopes will be constructed to a 2:1 (horizontal:vertical) inclination except for the northern excavated slope at the bottom of Phase IV which would be constructed at a 1:1 inclination for stability purposes. Excavated material would be used to construct the proposed slope stability toe berm with the remainder being placed in the North Stockpile/Borrow area and used for daily cover and final closure. Exposed graded slopes may be subject to erosion during rain events which could result in downstream sedimentation. Construction and installation of the liner system would occur over two or more dry seasons which would help reduce potential erosion. In addition, erosion control best management practices would continue to be implemented. After the Landfill is closed, native vegetation will be established over the surface of the Landfill to serve as the primary erosion control feature. Other stormwater best management practices (such as the sedimentation basins) that are currently implemented and would continue to be implemented are discussed in Section 4.10.1.1. These best management practices would continue to be implemented and erosion impacts would be adverse and less than significant.

Impact N-1: Noise associated with construction of the proposed Phase IV waste fill area may adversely affect noise-sensitive land uses near the Landfill – Insignificant Impact.

The estimated 65 dBA CNEL existing noise contour shown in Figure 4.7-1 was modified to address proposed heavy equipment operation within the proposed Phase IV waste fill area. The proposed change in the start of waste receipt hours (6 a.m. instead of 7 a.m., see Table 3-2) would not affect the 65 dBA CNEL noise contour since this contour is based on heavy equipment operation from 6 a.m. to 8 p.m. (see page 4.6-4 of the Reconfiguration Project Subsequent EIR). Implementation of the proposed project would extend the estimated 65 dBA CNEL noise contour associated with Landfill construction and operation about 400 feet to the east. The estimated 65 dBA CNEL noise contour associated with proposed heavy equipment operation within the proposed Phase IV waste fill area would extend the existing contour to the west, but not as far as the existing contour associated with MRF operations (see Figure 4.7-1). Since the nearest noise-sensitive land uses are located to the south (Arroyo Quemada community, Calle Real residences) and west (Arroyo Hondo residence), the project-related change in Landfill-related noise would not increase noise levels at these residences.

Impact N-2: The proposed change in the start of waste receipt hours would result in waste disposal vehicle traffic on U.S. Highway 101 during nighttime hours which may adversely affect noise-sensitive land uses near the Landfill – Insignificant Impact.

The proposed project would not increase Landfill-related vehicle trips on U.S. Highway 101 because no change permitted waste volumes would occur. However, the project proposes to modify the solid waste facility permit to allow for a work week maximum volume of 9,000 tons as compared to the current permitted daily maximum of 1,500 tons. With respect to baseline conditions, daily waste volumes are variable but the peak volume of 1,500 tons has been recorded during existing operations.

No changes to processing of green-waste at the green-waste operations deck, processing MSW at the MRF, processing organic waste at the ADF, compost management at the CMU, outgoing recyclables or Landfill or ReSource Center staffing would occur. However, the proposed earlier Landfill waste acceptance hours (6 a.m. start) would result in an increase in CNEL noise levels since a portion of Landfill-related traffic on U.S. Highway 101 would be shifted into nighttime hours (7 p.m. to 7 a.m.). Noise generated in the nighttime is considered more impactful such that CNEL calculations include a 10 dBA penalty (noise levels are increased by 10 dBA during nighttime hours when calculating CNEL). The project-related CNEL noise increase associated with shifting seven waste disposal vehicle trips to nighttime hours is not expected to be detectable at any noise-sensitive land uses along U.S. Highway 101 due to the small traffic volume (0.2 percent of a.m. peak hour traffic) and lack of any increase in total daily vehicle trips.

Table 2-1. Continued

DESCRIPTION OF IMPACT

Insignificant Impacts

Impact N-3: Vibration generated by construction of the proposed Phase IV waste fill area may adversely affect residential land uses near the Landfill - Insignificant Impact.

As indicated by the noise contours provided in Figure 4.7-1, heavy equipment operation in the proposed Phase IV waste fill area would be located further to the east as compared to existing conditions. Therefore, vibration generated by heavy equipment operation would be located further from the nearest residential land uses (located to the south and west). Therefore, no increases in Landfill-related vibration would occur and vibration levels would not be detectable at other land uses (PPV much less than 0.01 inches/second as shown in Table 4.7-8 of the ReSource Center Subsequent EIR).

Impact T-1: Implementation of the proposed project may reduce traffic safety at the U.S. Highway 101/Landfill access road intersection – Insignificant Impact.

As discussed above, the proposed project may result in a small increase in waste disposal traffic volumes over the extended life of the Landfill. In addition, a short-term increase in vehicle trips may occur during construction of the Phase IV waste fill area. These vehicle trips could exacerbate traffic safety at the U.S. Highway 101/Landfill access road intersection. However, this intersection is not considered to have any substantial safety concerns due to the following factors:

- The vehicle collision rate is lower than the Statewide average.
- None of the recorded collisions involved trucks (potentially including trucks entering or leaving the Landfill access road).
- Available sight distance substantially exceeds Caltrans standards which allows drivers to avoid collisions.

Therefore, the proposed project is not expected to cause or contribute to traffic safety concerns at the U.S. Highway 101/Landfill access road intersection.

Impact T-2: The proposed change in the daily start of waste receipt hours from 7 a.m. to 6 a.m. may reduce traffic safety at the U.S. Highway 101/Landfill access road intersection – Insignificant Impact.

Potential impacts to traffic safety may include a shift of waste disposal vehicle trips to a.m. peak hour, and during periods of darkness. As discussed above, the U.S. Highway 101/Landfill access road intersection is not considered to have any substantial safety concerns. Therefore, an increase in the use of this intersection by waste disposal vehicles during a.m. peak hour on U.S. 101 is not anticipated to exacerbate any traffic safety concerns. An increase in the use of this intersection by waste disposal vehicles during periods of darkness is not anticipated to exacerbate any traffic safety concerns due to the increased sight distance associated with the visibility of vehicle headlights.

Impact WR-1: Construction of the proposed Phase IV waste fill area may increase peak storm flows in lower Pila Creek that could result in flooding or damage downstream drainage structures – Insignificant Impact.

The proposed project would increase the horizontal and vertical extent of the Landfill and add a new groundwater protection system (liner), resulting in changes in stormwater flow in the back canyon area of the Landfill. However, based on the hydrological analysis the expanded Landfill surface is not considered an impermeable surface and over the long-term the cover is designed as an evapotranspirative cover system. Interim and permanent drainage facilities would be constructed to convey storm water from the Capacity Increase Project area to the existing storm drain system.

Currently, the flow control structure in Pila Creek limits the maximum 100-year stormwater outflow from the Pila Creek Inundation Area to 187 cubic feet per second (cfs), including 178 cfs in the outlet pipe and 9 cfs flowing over the spillway. Construction of the proposed Phase IV waste fill area including the proposed toe berm would reduce the stormwater storage volume of the Pila Creek Inundation Area and increase 100-year storm flow rates downstream of the flow control structure. Increased peak flows could cause localized flooding or damage to downstream culverts in Pila Creek (Landfill access road, U.S. Highway 101 and Union Pacific Railroad).

However, the proposed project includes modifications to the flow control structure (see Section 3.8.2.5) to increase the spillway elevation by approximately 2.7 feet. These modifications would maintain the existing 100-year peak downstream stormwater flow rate of 187 cfs, including 177 cfs in the outlet pipe and 10 cfs over the spillway. The proposed modifications to the flow control structure would result in a decrease in the Pila Creek Inundation Area to approximately 3.6 acres with an increase in the depth of detained stormwater. Note that stormwater detention in the Pila Creek Inundation Area would be infrequent with a duration of a few hours. Overall, maintaining the existing 100-year peak stormwater discharge rate would not increase Landfill related flooding and impacts to downstream drainage structures.

Table 2-1. Continued

DESCRIPTION OF IMPACT

Insignificant Impacts

Impact WR-2: Groundwater pumping to meet the water demands of the Landfill and ReSource Center may adversely affect local groundwater supplies - Insignificant Impact.

Groundwater supplies are adequate to meet both potable and non-potable water demand. Based on conversations with RRWMD staff, future average annual water demand associated with the proposed project is expected to be the same as the recorded water use in 2022 through the closure of the Landfill in approximately 2038. In future years, some reduction in water demand is expected due to reduced number and/or acreage of anticipated Landfill construction projects, and implementation of closure and final cover activities which will demand less water for dust control.

Geosyntec Consultants (2023) identified the safe yield of affected wells, which is defined as the maximum amount of groundwater which can be progressively withdrawn from an aquifer on an average annual basis without inducing a long-term progressive drop in water level (Santa Barbara County, 2021). The safe yield estimates are based on recent well production data and well test data, and account for a reduction in infiltration area for the Sespe-Alegria Formation associated with the proposed new lined Phase IV waste fill area and modified North Sedimentation Basin. Table 4.10-2 provides a comparison of anticipated well production rates to safe yield estimates. Overall, groundwater production required to support Landfill and ReSource Center operations would not exceed the estimated safe yield of affected wells. Therefore, impacts to groundwater supplies are considered less than significant.

Impact WR-3: Project-related groundwater pumping may degrade groundwater quality – Insignificant Impact.

Groundwater pumping can potentially degrade groundwater quality if wells are over pumped or if safe yields are exceeded. Over pumping an aquifer can potentially produce groundwater level declines (head loss in the aquifer) that cause deeper saline waters to intrude into fresher portions of the aquifer and, in the case of the Gaviota coast, sea water intrusion. Available water quality data for wells within the Sespe-Alegria and Vaqueros Formations indicate that the salinity or total dissolved solids concentrations did not increase substantially during initial pumping of these wells. Furthermore, sea water intrusion into the bedrock aquifers is highly unlikely because the Vaqueros and Sespe-Alegria Formations are not hydraulically connected to the ocean as the formations lie stratigraphically below the Rincon and Monterey Formations which are shale formations and act as hydraulic boundaries to ocean water intrusion. Construction activities associated with the proposed project may require short-term increases in groundwater pumping for compaction and dust control purposes. As discussed under Impact WR-2 above, groundwater pumping would not exceed safe yields such that substantial declines in groundwater levels are not expected. Consequently, the potential for increased project-generated groundwater pumping to impact groundwater quality is considered low and impacts would be less than significant.

Impact WR-4: Project-related groundwater pumping may interfere with groundwater production of off-site wells – Insignificant Impact.

Groundwater pumping in a well has the potential to drawdown groundwater levels in neighboring wells. If the drawdown is large then there is potential to significantly increase pumping costs (i.e., electrical consumption) or even dry up a well. The highest potential for well interference is for pumping in any one well to impact groundwater levels in a well completed in the same bedrock aquifer. Two existing groundwater pumping wells are completed within the Vaqueros Formation at the Landfill property (Well nos. 5 and 7). Well no. 7 is located on the western side of the watershed and approximately 900 feet east of the existing Shell Well in the adjacent Cañada de la Huerta watershed (see Figure 4.10-1). The estimated well interference drawdown is considered insignificant because the Shell Well has approximately 400-feet of water column and the estimated nine feet of drawdown represents less than 3 percent of the total water column. Therefore, project-related groundwater pumping would not exceed the safe yield of Well nos. 5 and 7.

Existing Well no. 6 and approved Well no. 8 have or may be completed in the Sespe-Alegria Formation. The nearest neighboring Sespe-Alegria Formation wells are located to the east of Well no. 6 in Arroyo Quemado (Wells A and C; approximately 3,500 feet away). The maximum proposed production from Well no. 6 and potential future Well no. 8 is estimated at 13.0 acre-feet per year combined, which equates to a long-term pumping rate of approximately 8.0 gallons per minute. After 15 years of pumping, well interference (groundwater level drawdown) would be approximately 4.0 feet at the Arroyo Quemado wells. These wells have approximately 400 to 500-feet of water-column such that the estimated 4.0 feet of drawdown in a 400 to 500-foot water column (about one percent of the total water column) would not significantly interfere with groundwater production of the Arroyo Quemado wells. Overall, project-related groundwater pumping would not significantly interfere with off-site wells.

Table 2-1. Continued

DESCRIPTION OF IMPACT

Insignificant Impacts

Impact WR-5: Project-related groundwater pumping may impact rising groundwater at springs, and stream baseflow – Insignificant Impact.

Natural springs/seeps were historically present in the Pila Creek watershed and are currently present in the Arroyo Quemado watershed. As a part of the Landfill reconfiguration project and modification of the Pila Creek channel, springs/seeps located within Pila Creek were covered with low permeability material and a subdrain was installed to collect the seepage water. Within Pila Creek, low permeability material was placed over the entire Vaqueros Formation and portions of the Sespe-Alegria Formation. No additional seeps or springs are known to exist in Pila Creek within the Vaqueros or Sespe-Alegria Formations.

Project-related short-term increases in pumping from existing wells and approved Well no. 8 (if constructed) is not expected to substantially affect springs or stream base flow at Arroyo Quemado on Baron Ranch because:

- Safe yields would not be exceeded at any well serving Landfill or ReSource Center.
- There are no reported springs in the Sespe-Alegria Formation.
- The bedded nature of the Sespe-Alegria Formation would impede the vertical communication of groundwater and surface water.
- The amount of drawdown of water supply wells would be small.

Therefore, impacts to springs/seeps and stream baseflow from groundwater pumping would be less than significant

Impact WR-6: Stormwater run-off during construction of the proposed Phase IV waste fill area may degrade surface water quality – Insignificant Impact.

Construction of the proposed Phase IV waste fill area would require approximately 566,000 cubic yards of excavation. Stormwater run-off from this construction area could contain sediment and possibly other pollutants that may adversely affect surface water quality in Pila Creek. The North Sedimentation Basin would not be available during initial excavation and modification of this basin (see Figure 3-6). However, construction would occur during the dry season (May 1 to November 15 as defined in the Landfill's HCP/ITP). In addition, the Landfill's SWPPP (updated March 2021) would continue to be implemented during the construction phase including BMPs listed in Table 4.10-2. Implementation of BMPs would reduce the potential for stormwater run-off to contain pollutants that may degrade water quality in Pila Creek. Therefore, construction-related stormwater run-off is not anticipated to significantly impact surface water quality.

Impact WR-7: The Larger Area and Volume of Solid Waste in Place May Adversely Affect Groundwater Quality – Insignificant Impact.

Infiltration of rainfall, stormwater and surface water through buried waste may produce leachate which may degrade groundwater quality. As discussed in Section 4.10.1.4, groundwater monitoring at the Landfill property has detected constituents (arsenic, chloride, sulfate, total dissolved solids, iron, manganese) at concentrations above secondary drinking water standards. However, the monitoring data suggest these constituent concentrations are a natural condition and not attributable to a release from the Landfill. The proposed project would involve a larger area and volume of buried waste subject to infiltration and could result in groundwater quality degradation. However, the proposed project includes a liner system in the Phase IV waste fill area to capture leachate and extension of the leachate collection system. Therefore, the existing and proposed groundwater management system is anticipated to prevent any significant increase in the potential for groundwater quality degradation.

3.0 PROJECT DESCRIPTION

3.1 PROJECT TITLE

Tajiguas Landfill Capacity Increase Project (Capacity Increase Project).

3.2 PROJECT PROPONENT AND LEAD AGENCY

The project proponent and Lead Agency is the Santa Barbara County Public Works Department, Resource Recovery & Waste Management Division (RRWMD), located at 130 E. Victoria Street, Suite 100, Santa Barbara, California 93101. The Santa Barbara County Board of Supervisors is the decision-making body for the project.

3.3 PROJECT LOCATION

The Tajiguas Landfill (Landfill) is located in a coastal canyon known as Cañada de la Pila, approximately 26 miles west of the City of Santa Barbara (see Figure 3-1). The Landfill is approximately 1,600 feet north of U.S. Highway 101. The street address for the Landfill is 14470 Calle Real, Santa Barbara, California 93117. Access to the Landfill is via a paved road that intersects U.S. Highway 101 and is gate controlled.

3.4 TAJIGUAS LANDFILL OVERVIEW

The Landfill is located on land owned by Santa Barbara County primarily encompassing three Assessor Parcel Numbers (APN) 081-150-042, 081-150-019, and 081-150-026 (see Figure 3-2). The Capacity Increase Project would primarily be located on APN 081-150-026. The Landfill property is comprised of a permitted operational area of 357 acres, of which 118 acres is permitted for solid waste disposal. Of the 118 acres, 60 acres have received a final closure cover and are in the process of being revegetated. The existing Landfill facilities/infrastructure includes entry gates and perimeter fencing, the scale and scale house, paved and unpaved access road, environmental control systems (e.g., landfill gas (LFG) collection, stormwater and surface and groundwater quality management systems, air pollution control systems), soil borrow/stockpile areas, maintenance, storage and fueling facilities, water and electrical systems, and green-waste operations. The location of some of these facilities is shown on the Tajiguas Landfill Site Map (Figure 3-3).

The Landfill property also houses the County's ReSource Center (formerly known as the Tajiguas Resource Recovery Project), which includes a MRF to recover recyclable materials and organic waste, and an ADF and CMU to extract bio-gas and process the organic waste to produce compost. The Tajiguas Landfill and ReSource Center are both permitted by Solid Waste Facility Permit SWFP 42-AA-0015 issued by CalRecycle. The location of these facilities is shown on the Tajiguas Landfill Site Map (Figure 3-3).

Residual waste (non-recyclable and non-compostable) materials produced by the MRF and non-recyclable residuals (primarily plastic) recovered during the anerobic digestion and composting screening process are disposed at the Landfill. Landfill administrative offices are located within ReSource Center offices in the MRF. Bypass waste that does not contain recoverable material is not processed in the ReSource Center and is sent directly to the Landfill for disposal. The ReSource Center recovers recyclable material from the incoming waste stream and provides an alternative to burying organic waste as required by State and Federal waste management legislation, reduces greenhouse gas emissions, and generates green energy.

The majority of the permitted operational area is located within the three Landfill parcels; however, approximately five acres extends onto Baron Ranch (APN 081-150-032) to accommodate the ReSource Center's ADF, and associated Landfill perimeter access road and drainage system. The property boundaries, permitted operational area boundary, and the approximate Coastal Zone boundary are provided in Figures 3-2 and 3-3.

3.5 SURROUNDING LAND USES

U.S. Highway 101, the Union Pacific Railroad tracks, and the Pacific Ocean are located south of the Landfill as shown in Figure 3-2. Properties that are adjacent to the Landfill site are used primarily for agriculture or open space. The residential community of Arroyo Quemada is located approximately 2,000 feet southeast of the Landfill.

The 1,083-acre County-owned Baron Ranch is located to the east of the Landfill property and includes APN 081-150-032, APN 081-100-005, and APN 081-090-009. The Baron Ranch was historically used for agriculture (avocado, cherimoya orchards, and grazing), a quarry, and supported a single-family caretaker dwelling that was destroyed in the Alisal Fire in October 2021. Baron Ranch is currently used for native habitat restoration and habitat conservation (restricted covenant area and conservation easement area) associated with Landfill CEQA mitigation requirements and resource agency permits, as a receiver site for sensitive species translocated from the operational areas of the Landfill, and public recreation (Arroyo Quemado multi-use trail).

In 2016, the County purchased two parcels immediately south of the Landfill; a 24.24-acre parcel (APN 81-150-034) and a 20.00-acre parcel (APN 81-150-033) (see Figure 3-2).

3.6 LAND USE AND ZONING

Operation of the Landfill predates both the Coastal Act of 1972 and the Santa Barbara County Coastal Zoning Ordinance (Article II). The state Coastal Zone boundary passes through the southern portion of the property (see Figure 3-3), with all current waste disposal and processing conducted north of the Coastal Zone. Green-waste processing is conducted on a paved/all-weather pad over the closed Landfill in the Coastal Zone. For County permitting purposes, the Landfill has been "grandfathered" under the current zoning and is considered a legal, nonconforming use within the Coastal Zone⁶. Land use and zoning information is summarized in Table 3-1.

⁶ In a letter dated September 13, 2018, the California Coastal Commission withdrew their request that the County pursue a formal determination of vested right for continued operation of the Landfill in the Coastal Zone.

Table 3-1. Land Use and Zoning Summary

Comprehensive Designation, Plan Gaviota Coast Plan	A-II-100 (inland), Waste Disposal Facility Overlay A-II-320 (coastal)
Zoning District, Ordinance	AG-II-100, Agriculture (inland) AG-II-320 (coastal)
Site Size	Landfill property: 497.34 acres
Present Use & Development	Landfill, ReSource Center and support facilities
Surrounding Uses/Zoning	West: former Hercules Gas Plant and Arroyo Hondo Preserve (open space/recreation)/AG-II-100 and RMZ-100 North: Los Padres National Forest/AG-II-100, RMZ-100 and MT-320 East: Baron Ranch (native plant restoration, habitat conservation)/ AG-II-100 and AG-II-320 South: Agriculture/Residential/AG-II-320/RR-40
Access	U.S. Highway 101, via existing County-owned access road
Public Services	Water Supply: on-site and off-site wells Sewage: on-site advanced treatment system Fire: Santa Barbara County Fire Electricity: Southern California Edison

The portion of the Landfill property located in the inland area (outside the Coastal Zone) is exempt from the Santa Barbara County Land Use and Development Code (Chapter 35 of the Santa Barbara County Code). The inland area of the Landfill is designated with a “waste disposal facility” overlay in the County’s Comprehensive Plan. The remaining portions are located within the Coastal Zone and are subject to Santa Barbara County Coastal Zoning Ordinance (Article II). The Landfill property has an agricultural zoning (AG-II-320 in the Coastal Zone and AG-II-100 inland) and land use designation (A-II-320 in the Coastal Zone and A-II-100 inland).

A small area of APN 081-150-026, in the northeastern corner of the parcel, outside of the operational area, has an Environmentally Sensitive Habitat zoning overlay. Portions of APNs 081-150-019 and 081-150-042 have a Gaviota Coast Plan Critical Viewshed Corridor zoning overlay (see Figure 4.8-1). An approximate 110-acre conservation easement (see Figure 3-2) encompasses a portion of the northeastern corner of APN 081-150-019 (outside of the operational boundary) and portions of APN 081-150-032 and 081-100-005 on Baron Ranch in association with a Habitat Conservation Plan and Incidental Take Permit from the U.S. Fish & Wildlife Service (USFWS) to address potential take of listed species by Landfill and ReSource Center operations.

3.7 PROJECT OVERVIEW

3.7.1 Project Summary

The purpose of the project is to extend the life of the Landfill that was projected to be provided through diversion associated with operation of the ReSource Center and reduce the rate-payer burden associated with paying debt service concurrently with off-site transport and disposal of residual and bypass waste. As of April 2022, based on numerous factors, the Landfill is currently projected to reach capacity in 2026 assuming continued acceptance of non-contractual waste. Additional information regarding current Landfill capacity estimates and factors responsible for reduced Landfill life is provided in Section 1.5.

RRWMD is proposing to increase the current Landfill capacity to accommodate projected waste burial needs through approximately December 2038 based on the ReSource Center being fully operational during this time period. The estimate of the extension of Landfill life provided by the proposed project is conservatively based on ReSource Center operations diverting approximately 31.35 percent (recovered instead of buried) of all previously landfilled municipal solid waste received at the Landfill and an increase of one percent per year in total waste received.

The proposed Capacity Increase Project area is located outside of the Coastal Zone; however, existing access roads, ancillary facilities, and environmental control systems/facilities located in the Coastal Zone would continue to be used to support the historic landfill operations and ongoing landfilling activities in the inland area.

No changes to Landfill operations would occur, including site access, site security, scale house operations (except hours of waste receipt), waste handling, waste disposal, daily cover, maintenance activities, and green-waste processing and distribution. The proposed change to a weekly waste receipt limit in place of a daily limit would not involve any change to Landfill operations.

No changes to the ReSource Center facilities or operations are proposed. Relocation of some ReSource Center utilities/infrastructure would be required to eliminate conflicts with the proposed Phase IV fill area, as described in Section 3.8.5. Proposed changes to Landfill operations are summarized in Table 3-2.

Table 3-2. Summary of Proposed Landfill Changes

Parameter	Approved and Permitted	Proposed
Hours of Operation - waste receipt and disposal	7 a.m. to 5 p.m. Monday and Tuesday; 7 p.m. to 4 p.m. Wednesday through Saturday; closed Sunday	Waste Receipt: 6 a.m. to 4 p.m. Monday through Saturday; closed Sunday
Hours of Operation – cover, compaction and maintenance	6 a.m. to 6 p.m. Monday through Saturday	No change
Hours of Operation – construction	6 a.m. to 8 p.m. Monday through Saturday; 6 a.m. to 6 p.m. on Sunday (20 per year maximum)	No change

Parameter	Approved and Permitted	Proposed
Permitted disposal area*	118 acres	132.25 acres
Design capacity*	23.3 mcy	29.4 mcy
Total operational area*	357 acres	No change
Maximum elevation (at closure)*	620 feet above mean sea level*	650 feet above mean sea level
Estimated closure year* (end of landfill life)**	2036 (2026 based on current capacity)	2038 (based on the proposed capacity increase)
Maximum waste receipt	1,500 tons per day*	9,000 tons per week (based on 1,500 tons per day over a 6-day work week)
Maximum daily traffic volume*	184 disposal vehicles per day + 50 vehicles per day of miscellaneous traffic	No change
Landfill operational staff	17 (including four RRMWD staff assigned part-time to the Landfill)	No change
Landfill operational equipment and vehicles	Motor graders, wheeled loaders, scrapers, compactors, bulldozers, excavators, mowers, water trucks, fuel trucks, light-duty trucks	No change

* As permitted in SWFP 42-AA-0015

** Actual landfill life is determined by capacity and waste disposal rates and not a designated closure year

3.7.2 Preliminary Project Schedule/Timing

Table 3-3 provides a preliminary schedule for implementation of the proposed project and is subject to modification based on the date of project approval, permitting and the progress of liner construction and waste burial.

Table 3-3. Preliminary Project Construction Schedule

Task/Phase	Approximate Year of Implementation*
Excavation and blasting (as needed) of the Phase IV-A Part 1 Capacity Increase Project area, construct the Lower North Sedimentation Basin and Pila Creek modifications, and the Overhead Power and Communications Line (see Section 3.8.2.5)	2024
Remaining excavation and earthwork in the Phase IV-A Part 2 Capacity Increase Project area, installation of the liner, reduce the size of the North Sedimentation Basin (Reduced North Sedimentation Basin, see Section 3.8.2.5)	2025

Task/Phase	Approximate Year of Implementation*
Install the liner in the Phase IV-B area	2027
Relocate the CMU overflow stormwater pipeline between the MRF and ADF (see Section 3.8.5) and install the Phase IV-C slope liner	2029
Install the over-liner (see Section 3.8.2.2), relocate the MRF to ADF Treated Landfill Gas Supply Line (see Section 3.8.5) and relocate the ADF access road	2033
Remove/relocate Landfill facilities at the temporary operations deck (see Section 3.8.4), implement drainage improvements as needed	2036
Install the Phase IV-D maintenance pad liner	2037

* The majority of the ground disturbing work (including all excavation and blasting) would be conducted during the dry season designated as May 1 to November 14 in the Landfill's Habitat Conservation Plan and Incidental Take Permit.

3.8 PROJECT ELEMENTS

3.8.1 Landfill Disposal Area Changes

The proposed approximate 14.25-acre Capacity Increase Project would provide approximately 6.1 million cubic yards (mcy) of additional airspace for burial of solid waste, which includes bypass waste and residual waste (non-recyclable and non-compostable residue produced by sorting at the MRF, and residue from the ADF and CMU [mostly plastics]). The 6.1 mcy additional air space would provide approximately 5.0 mcy of net capacity increase as shown in Table 3-4.

Table 3-4. Net Capacity Increase Estimate

Parameter	Cubic Yards of Airspace
Gross increased capacity	6,100,000
Less liner protective soil cover	-51,500
Less additional soil cover at Landfill closure	-104,800
Less loss due to change from deck closure to slope closure	-75,400
Net Airspace	5,868,300
Less achievable capacity*	-643,000
Less disaster contingency**	-200,000
Net Capacity Increase	5,025,300

* Theoretical capacity that cannot be achieved due to unknowns regarding buried waste settlement

** Assumed receipt of disaster-related debris from fires, flood or earthquakes (4 events over the extended Landfill life [to 2038])

The proposed project would increase the permitted height, disposal area footprint, and design capacity of the Landfill to extend the estimated closure year to approximately 2038. The area proposed for the increase in permitted height and disposal area is shown in Figures 3-4 and 3-5. The increased capacity would be provided by increasing the maximum elevation of the Landfill by approximately 30 feet, from 620 to 650 feet above mean sea level (see contour lines in Figure 3-5). In addition, the permitted disposal area footprint would be expanded to the north and east by approximately 14.25 acres, which would increase the total permitted disposal area from 118 acres to 132.25 acres (see red contours in Figure 3-5). There would be no change to the overall permitted operational area of 357 acres.

The addition of approximately 6.1 mcy of airspace would increase the permitted total design capacity from approximately 23.3 mcy to approximately 29.4 mcy. As of April 2022, the existing (gross) remaining capacity was approximately 1.68 mcy. These proposed changes would require the existing Joint Technical Document (JTD) and Partial Final/Preliminary Closure and Post-Closure Maintenance Plan be updated to support a Solid Waste Facility Permit (SWFP) Revision to reflect these project element changes.

The proposed new disturbance footprint, including the total excavation area and the refuse fill area (not including the proposed Lower North Sedimentation Basin), is approximately 56.4 acres of which approximately 1.5 acres is comprised of a previously undisturbed area (see Figures 3-3 and 3-4). An additional 12.6 acres is comprised of previously disturbed Landfill and cut slopes that have been revegetated with native plant species, along with approximately 4.6 acres of disturbed unvegetated areas (i.e., the North Sedimentation Basin and surrounding areas) (see Table 3-5).

Table 3-5. Disturbance Footprint Breakdown

Current Condition	Area (acres)
Previously undisturbed by Landfill operations	1.5
Revegetated Landfill slopes	12.6
Unvegetated Landfill slopes	4.6
Existing Landfill operational areas	37.7
Total	56.4

Development of the existing permitted Landfill has been divided into three construction/liner installation phases (Phases I through III), with additional subphases. As described below the Capacity Increase Project would be Phase IV.

3.8.2 Proposed Phase IV Fill Area Construction

3.8.2.1 Excavation, Blasting and Stockpiling

To provide the additional disposal capacity, approximately 566,400 cy of grading (excavation) would be required to provide approximately 12.5 acres of additional slope liner area and approximately 1.75 acres of additional base liner area (see purple contours in Figure 3-4). The additional waste disposal capacity would be created by placing waste on top of the existing permitted waste disposal area, thereby increasing the existing design height of the existing Phase II and Phase III fill area from approximately 576 feet above mean sea level to a maximum height of 650 feet above mean sea level, with the overall maximum permitted height of the Landfill increasing from 620 to 650 feet above mean sea level.

The proposed Phase IV fill area would be constructed by excavating and/or blasting a maximum of approximately 30 feet below the ground surface of the existing North Sedimentation Basin floor, as well as excavating the slopes north of the existing waste footprint to match the overall existing cut slopes of Phase III. All slopes will be constructed to a 2:1 (horizontal:vertical) inclination except for the northern excavated slope at the bottom of Phase IV which would be constructed at a 1:1 inclination for stability purposes.

The Phase IV fill area would require overburden material to be excavated using conventional earthmoving equipment. When the material being excavated becomes too hard to rip or excavate with conventional equipment, a licensed blasting contractor would be utilized. Blasting would occur in multiple events, up to six in a peak year. The licensed blasting contractor would prepare a blasting plan to be reviewed by a blasting expert. The blasting plan would be designed to minimize ground vibration and noise from the blasting at the property boundaries. The blasting plan would also be designed to protect existing nearby structures and prevent slope instabilities.

The blasting contractor would drill holes in a grid pattern to a pre-determined blast depth. Charges would be placed in the drilled holes, with the upper portion of the drilled holes backfilled with stemming material to control fly rock. The drilling pattern, depth of drilled holes, amount of blasting agent used, and type of blast timing would be designed to provide a safe blast resulting in a material with a maximum particle size of approximately 12 inches. The charges would be set, and the blast would normally occur on the same day the blast holes are loaded. Blasting would be conducted during the daytime. Once blasting has been completed and the area has been deemed safe for removal, the blasted material would be placed in the North Borrow/Stockpile for use as future daily cover. Crushing of the material produced by blasting would not be required.

Earth material would be excavated during the dry season of each construction phase and stockpiled within the historic disturbance limits of the permitted North Borrow/Stockpile. Soils excavated from the proposed Phase IV fill area would be placed in the North Borrow/Stockpile and used to construct the stability toe berm (see Section 3.8.2.3). Table 3-6 identifies the proposed uses of soil from the North Borrow/Stockpile.

Table 3-6. Soil Requirements

Need/Source	Required Cover Soil (cubic yards)
Soil Needs	
Existing Phase IIIIF disposal area (in progress)	6,000
Proposed Phase IV liner cover	51,500
Proposed Phase IV daily cover	1,075,000
Proposed slope stability toe berm and haul road	60,000
Proposed Phase IV closure (with increased capacity)	437,200
Total Cover Soil Needs	1,629,700
Soil Sources	
North Borrow/Stockpile (as of January 2023)	1,285,500
Soil produced by Phase IV excavation	566,000
Total Cover Soil Available	1,851,500

Drainage structures (i.e., v-ditch and pipe down drains) would be installed for stormwater runoff. Work related to construction (such as blasting, excavation and liner installation) would be limited to the dry season (May 1 to November 14) as identified in the Landfill's Habitat Conservation Plan and Incidental Take Permit and would occur over the course of two consecutive dry seasons.

Equipment used to construct the new Phase IV fill area would include the following:

- Scrapers
- Dozers
- Loaders
- Excavators
- Drill rig for blasting
- Compactors

- Dump trucks
- Haul trucks
- Vibrating soil screener
- Motor grader
- Water truck
- Off-road forklift with liner roll handling attachment
- Pick-up trucks
- Low-pressure all-terrain vehicles

3.8.2.2 Liner Systems

Two groundwater protection systems (liners) would be installed in the Phase IV area, a base liner of approximately 1.75 acres and a slope liner of approximately 12.5 acres for a total of approximately 14.25 acres of additional lined waste disposal area. The existing subdrain system piping would be extended as part of the Phase IV liner system to collect any potential seepage. An over-liner may be required within portions of the Capacity Increase Project area that are not lined to current standards provided in 40 CFR 258.40.

The base liner would consist of (top to bottom): two feet of protective soil, 8 ounces per square yard geotextile, 9 to 12 inches of gravel (leachate collection and removal system), 12 ounces per square yard geotextile, 60-mil high-density polyethylene geomembrane (double textured), two feet of compacted clay, 12-ounce geotextile (groundwater seep areas only) and prepared subgrade.

The slope liner would consist of (top to bottom): two feet of protective soil, 16 ounces per square yard geotextile, 60-mil high-density polyethylene geomembrane (double textured), geosynthetic clay layer, 40-mil high-density polyethylene geomembrane (double textured) or high-density polyethylene drainage geocomposite (groundwater seep areas only) and prepared subgrade.

The over-liner (if required) would consist of (top to bottom): two feet of protective soil, high-density polyethylene drainage geocomposite, 60-mil high-density polyethylene geomembrane (double textured), geosynthetic clay layer and compacted prepared subgrade over existing buried waste draining at a minimum six percent gradient towards lined cells.

3.8.2.3 Slope Stability

Similar to the existing landfill, when final grades are achieved, the Capacity Increase Project area would be constructed with a series of benches (at a minimum of 15 feet wide) placed at a maximum of 50 feet vertically, and final slopes no steeper than a 2:1 slope between benches. As part of the horizontal and vertical increased capacity, a stability toe berm (toe berm) is anticipated to be required. The toe berm would be constructed immediately east of the existing lined and unlined Pila Creek channel and west of the existing disposal area (see Figure 3-4).

The toe berm would be comprised of about 60,000 cubic yards of soil and constructed with a 2:1 slope and 95 percent relative compaction. The toe berm would vary in height from six to 40 feet, have a total length of approximately 1,500 feet, and vary in width from 30 to 100 feet wide (depending on location). The toe berm would be incorporated into a new haul road along the western perimeter of the disposal area. The haul road portion of the toe berm would drain to the north towards the proposed Upper North Sedimentation Basin (described in Section 3.8.2.5), while the toe berm slope would drain to Pila Creek.

The toe berm would be keyed in and compacted per the geotechnical engineer's recommendations. The berm would be constructed in two stages, Stage 1 would serve a dual purpose as a toe berm and an approximately 30-foot-wide paved haul road to the Phase IV excavated lined cell. Stage 2 would involve completing the toe berm to drain to the proposed Upper North Sedimentation Basin at a minimum of 2 percent gradient and stabilize the Phase IV fill design. Stage 2 may or may not include a paved haul road. Construction of the toe berm would not interfere with Landfill or ReSource Center operations.

3.8.2.4 Waste Cover Soil Requirements

No changes in daily or intermediate cover materials or methods are proposed. Daily cover would consist of soil or approved alternative daily cover (primarily tarps). Soil for daily and intermediate cover, and Landfill maintenance is currently taken by scrapers from the North Borrow/Stockpile and transported to the active working face. The North Borrow/Stockpile would also be used for Phase IV, including the toe berm, liner operations soil, daily/intermediate cover, and final cover, as appropriate. Table 3-6 provides a summary of cover soil requirements and availability based on a 5:1 ratio (5 parts of waste to 1 part of soil) and indicates that soil importation is not required for the proposed project.

Construction of the Phase IV fill area would result in a net increase of approximately 221,800 cy of soil material to the North Borrow/Stockpile (total available less total needed, see Table 3-6). If the site were to require a waste to soil ratio lower than 5:1 (i.e., 4:1), the North Borrow/Stockpile would still have appropriate soil available onsite.

3.8.2.5 Landfill Site Drainage/Stormwater Quality Control

In addition to the temporary and permanent drainage facilities installed in and adjacent to the waste fill area, stormwater runoff from the Landfill is directed to two sedimentation basins which discharge into Pila Creek. Pila Creek in the vicinity of the Capacity Increase Project project area is a concrete-lined trapezoidal channel (west concrete channel) which terminates into a flow control structure (42-inch pipe, concrete spillway and earthen overflow channel). The flow control structure routes flow into a 48-inch diameter subsurface pipeline. The flow control structure restricts/meters storm flow into the subsurface pipeline to prevent downstream flooding.

The Landfill's two sedimentation basins, the North Sedimentation Basin and the South Sedimentation Basin, remove sediment and also function to control the rate of stormwater discharge to Pila Creek. The North Sedimentation Basin is located on the northwestern side of the Landfill (APN 081-150-026) and the South Sedimentation Basin is located at south side of the Landfill (APN 081-150-042, Figure 3-3). Both basins are equipped with a riser and dual skimmers that allow accumulated stormwater to be passively discharged to Pila Creek while retaining sediment in the basin bottom. The North Sedimentation Basin is concrete-lined and the South Sedimentation Basin is lined with a geomembrane liner, covered by protective cover soil.

The proposed Phase IV fill area would extend over a portion of the existing North Sedimentation Basin resulting in the loss of approximately 10.2 acre-feet of storage, with the basin capacity reduced from 15.8 acre-feet to approximately 5.6 acre-feet. A Lower North Sedimentation Basin (approximately 12.4 acre-feet) is proposed to be constructed immediately west of the remaining portion of the North Sedimentation Basin (termed Upper North Sedimentation Basin) to provide capacity lost to the Phase IV fill area (see Figure 3-6). The design capacity of the two basins combined would be 18.0 acre-feet.

The Upper North Sedimentation Basin would be the first basin to receive stormwater from the Landfill and operational surrounding areas (i.e., excavated vegetated slopes, the North Borrow/Stockpile, ADF, etc.), and once filled, it would discharge over the existing spillway into the Lower North Sedimentation Basin. Both basins would be equipped with an overflow standpipe/riser connected to a skimmer system, which would drain into Pila Creek. The skimmers (similar to the ones installed with the existing system) would be connected to a support frame so that they can be raised and lowered into the basin to drain when needed. The skimmers float on the surface and "skim" the surface of the stormwater retained within the basin to discharge the cleaner water as sediment drops to the bottom of the basin. Operation and maintenance of both basins would be consistent with existing operations and with the Landfill's HCP and ITP.

With the construction of the Lower North Sedimentation Basin and the toe berm, access to the lined section of Pila Creek would be lost. However, the Lower North Sedimentation Basin western berm would include access ramps to allow entry into the channel for annual maintenance.

The existing spillway system of the Pila Creek flow control structure would be modified to maintain the existing detention capacity of approximately 22.3 acre-feet and maintain the maximum downstream flow rate of 187 cubic feet per second. The spillway height would be raised vertically by approximately 2.7 feet from the approximate elevation of 390.5 feet above mean sea level to the approximate elevation of 393.2 feet above mean sea level. The existing flow control structure would remain, but a new spillway wall would be installed by saw cutting into the existing concrete and tying the new spillway wall into the existing structure with a new raised concrete spillway.

The Pila Creek Inundation Area would also be affected by the Lower North Sedimentation Basin and toe berm as the basin western berm and lower portions of the toe berm may be periodically inundated during storm events.

3.8.2.6 Phase IV Fill Area Drainage

After the initial excavation, stormwater pumping of the excavated area may be required during the rainy season until the area is filled with refuse to a level where positive drainage can be achieved by gravity. Pumping of accumulated water would be accomplished within 1-2 days of rain events using portable pumps and discharged to the Upper North Sedimentation Basin for treatment/sediment removal prior to discharge to Pila Creek. Relevant avoidance and minimization measures required by the Landfill's HCP and ITP (such as pre-pumping biological surveys and screens on the pump intakes) would be implemented.

Temporary and permanent drainage control facilities would be constructed as required to control stormwater run-off at all times. Final drainage features would include installation of down drains, v-ditches, fiber rolls, check dams, and hydroseeding of exposed slopes. The final elevation of the new fill area would have a crest of 650 feet above mean sea level and slope of 5 percent to prevent infiltration into the buried waste.

3.8.2.7 Construction Water Demand/Supply

During each year of construction and during liner installation, water would be required for soil conditioning, compaction, and dust control. The Regional Water Quality Control Board allows use of groundwater artificially drawn down and extracted from the Groundwater Interceptor Trench for dust control over the lined waste footprint, but its use would not be allowed in the new Phase IV excavation area during construction. The water supply for construction would be provided by the on-site Wells No. 3, 5, 6 and 7 and other sources, as required:

- Aera/Shell well

- Stored stormwater in the Upper North Sedimentation Basin and Lower North Sedimentation Basin (cannot be stored prior to April as per the Landfill's HCP and ITP)
- Reclaimed water from off-site sources
- Well No. 8 (approved but not proposed for construction at this time due to available surplus from existing wells)

3.8.2.8 Access to the Phase IV Waste Fill Area

Paved access roads currently extend into the back canyon area of the Landfill to a point just south of the proposed Phase IV fill area. New access roads are constructed as areas are filled with waste in accordance with the proposed final grading plan. Access to the proposed Phase IV fill area would be provided by an existing paved road that would extend from the current waste disposal area along the east side of the west concrete channel. The paved road extension would be approximately 2,900 feet in length and 35 feet in width.

3.8.3 Environmental Protection/Control Systems

Groundwater protection systems consisting of an engineered composite liner system (see Section 3.8.2.2) would be installed as part of construction of the proposed Phase IV fill area to prevent water percolating through the waste or generated by decomposition of the waste (leachate) from impacting groundwater. The leachate is collected in a trench containing a perforated pipe, stored in onsite tanks, and is permitted to be used for dust control on lined portions of the Landfill.

Landfill gas is generated from anaerobic biological decomposition of organic matter deposited in the Landfill and consists primarily of methane and carbon dioxide, with smaller amounts of hydrocarbons and other contaminants. The Landfill employs a LFG collection system consisting of horizontal and vertical LFG extraction wells to control downward and lateral migration of LFG which limits the dissolution of LFG in groundwater and soil moisture. Currently, collected LFG is burned in internal combustion engines at the MRF to generate electricity, and used as a supplement fuel at the ADF for parasitic loads. A flare is used to combust excess LFG (not needed to fuel the MRF engines or when the engines are not operating), siloxane removal system purge gas, and siloxane removal system regeneration gas during normal operations. The LFG collection system would be extended into the proposed Phase IV fill area as it is filled with waste.

3.8.4 Relocation of Landfill Facilities

Approximately two years before the Landfill reaches its maximum elevation, existing facilities on the Landfill Maintenance and Storage Deck would need to be removed, including:

- Landfill maintenance building
- Trailers used for labor crews and operators
- Storage containers used for Landfill supplies, equipment and hazardous materials

- Oil storage containers (ranging in size from 120 to 500 gallons)
- Three fuel tanks including 20,000 gallons of red diesel for Landfill equipment, 550 gallons of clear diesel for trucks and 230 gallons unleaded gasoline for Landfill vehicles

Most of the displaced facilities would be relocated to the MRF deck or to the MRF building outside of the Coastal Zone. However, the maintenance building and trailers would be removed and not replaced.

3.8.5 Relocation of ReSource Center Utilities

A portion of the Overhead Power and Communications Line (power & communications lines are on the same poles and alignment) connecting the MRF to the ADF would need to be relocated. An existing 30-inch diameter pipeline (CMU Stormwater Drain, on grade) conveying overflow from the CMU stormwater runoff collection tank would also need to be relocated and reconnected to the Upper North Sedimentation Basin. The MRF to ADF Treated Landfill Gas Supply Line would also need to be relocated (see Figure 3-4). The current access road to the CMU and ADF would need to be re-routed to ensure adequate access to facilities and disposal areas.

3.8.6 Landfill Daily Operations

Landfill operations in the increased capacity area would continue as generally described in Section 3.5.10 of 12EIR-00000-00002 (incorporated by reference). As noted in Table 3-2, the project includes a limited change to the landfill scale house operating hours (waste acceptance beginning at 6:00 am and ending at 4:00 pm) and moving from a maximum permitted volume of 1,500 tons/day to maximum 9,000 tons/working week. This change will allow RRWMD to address occasional exceedances that have occurred due to landfill closures as a result of weather or natural disasters where waste may be held at the transfer stations until the landfill reopens and is delivered concurrent with daily franchise waste and/or exceedances due to receipt of debris from natural disasters concurrent with franchise waste. On these days, the total volume of materials may exceed 1,500 tons, but for purposes of permitting compliance limits would not exceed 9,000 tons over the six-day working week.

Consistent with current operations, bypass waste and residuals sent to the Landfill working face are compacted in lifts. Waste is tipped in the active disposal area, moved with bulldozers into a cell of prescribed thickness and area, and consolidated by repeated passes of a compactor. In general, a bulldozer and compactor spreads and compacts the waste. Large objects (i.e., tree stumps, large pieces of concrete, etc.) are pushed to the toe of the working face. Residuals from the MRF are placed around large objects to reduce voids.

Waste compaction is performed on an approximately 5:1 to 3:1 working face, or on a horizontal layer. At the end of each operating day, the newly placed waste layer is covered with an alternative daily cover (ADC), which at the Landfill is primarily large tarps that are rolled out at the end of the day and rolled up in the morning, or a minimum of six inches of clean soil. The soil remains in place and is covered with waste the next operating day. If ADC tarps are used, the tarps are removed prior to placement of waste at the beginning of the next working day. Separate “wet weather” areas are established during the rainy season as some disposal areas may not be accessible during inclement weather.

Nuisance (dust, litter, vectors and bird, and odor controls) would continue to be implemented for Landfill operations as identified in 01-EIR-05 Section 2.10 (incorporated by reference) and as identified in the Landfill Joint Technical Document.

3.8.7 Landfill Maintenance, Closure and Post-closure Maintenance

Repair and maintenance activities that occur on the Landfill consist of dirt road and firebreak maintenance, environmental control systems maintenance, utility and infrastructure improvements/maintenance, Landfill cover repair and maintenance, weed maintenance, vegetation (fuel) modification clearance around structures, windblown litter control, and paved road repairs. Those activities would continue with the Capacity Increase Project.

Currently, RRWMD has proposed four phases of closure for the Landfill. The Phase 1 closure area has already received a final cover system and construction of Phases 2 and 3 closure areas was completed in stages from 2017 through 2020. The Phase 4 closure area would be revised to include the updated proposed Phase IV fill area. The existing Closure and Post-Closure Maintenance Plan presents a description of the closure and post-closure maintenance activities that will ensure proper closure of the different phases at the Landfill including, but not limited to proposed drainage and erosion control, final grading, final cover, construction quality assurance, LFG control/monitoring system, groundwater monitoring system, the leachate collection and removal system, landfill settlement, and site security. Additionally, the Closure and Post-Closure Maintenance Plan provides a basis for developing required closure post-closure funding levels. The Closure and Post-Closure Maintenance Plan would be amended to include the additional Phase IV fill area.

At closure, the final cover system (including the proposed Phase IV fill area) would consist of a combined prescriptive cover (foundation of no less than two feet of appropriate materials, low permeability layer and erosion resistant layer capable of sustaining vegetation) on the top deck and an engineered alternative (monolithic soil cover, or single layer of soil designed to minimize infiltration and provide depth for deep-rooted vegetation) on the slopes. The finished surface of the Landfill will be vegetated with native plants suitable for replanting on the final cover system (e.g., coastal sage scrub or grassland). Although not part of the Landfill closure area, the North Borrow/Stockpile and cut slopes would also be revegetated with native plants (e.g., coastal sage scrub/chaparral). In accordance with 27 CCR, Section 21180, the Landfill will be maintained and monitored (as part of post-closure) for a minimum 30-year period after the completion of closure of the entire Landfill.

3.9 CUMULATIVE PROJECTS

Section 15130 of the State CEQA Guidelines requires a discussion of cumulative impacts, and determination of the project's contribution to identified cumulative impacts. The project's contribution must be viewed when added to the effects of past projects, the effects of other current projects, and the effects of reasonably foreseeable future projects.

The discussion of cumulative impacts must reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great of detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact. The following elements are necessary for an adequate discussion of significant cumulative impacts:

- A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, OR
- A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the Lead Agency.

The cumulative impacts discussion of this SEIR is based on a list of other projects that may generate impacts to which the proposed project may also incrementally contribute. The following is a list of other projects in the region (south coast of Santa Barbara County, west of Santa Barbara) that may be constructed and/or operational at about the same time as the proposed project. The site location of other projects considered in the cumulative impacts analysis is provided in Figures 3-7 and 3-8. The capital letter included in each cumulative project title corresponds to the map code provided in Figures 3-7 and 3-8.

Local and Regional Transportation Projects

The Caltrans District 5 website was reviewed, and the list of projects in the 2023 Federal Transportation Improvement Program and local projects developed by the Santa Barbara County Association of Governments was examined to identify other projects in the region.

- Gaviota Creek Improvement Project (map location A, under review by Caltrans): construct fish passage improvements including removal or modification of up to 13 grade control structures (construction likely after 2024) – 5.5 miles west of the Landfill.
- U.S. Highway 101 bridge replacement (map location B, under review by Caltrans): replace the northbound and southbound bridges at the Refugio Road undercrossing (construction programmed to start in fiscal year 2022/2023) – 3.2 miles east of the Landfill.

- Hollister Avenue bridge replacement (map location C, under review by Caltrans and Santa Barbara County): replace the Hollister Avenue Bridge over San Jose Creek (construction programmed to start in fiscal year 2024/2025) – 17.7 miles east of the Landfill.
- Refugio Road bridges (map location D, under review by Caltrans and Santa Barbara County): construct four bridges over Refugio Creek to replace low-water crossings (construction programmed to start after 2026) – 3.4 miles east of the Landfill.

3.9.1 Santa Barbara County Energy Projects

The following list of cumulative projects was provided by the Energy Division of the Santa Barbara Planning and Development Department for the Gaviota Coast Region.

- Landfill Gas to Renewable Natural Gas (RNG) Project (21CUP-00000-00013, map location E, under review by the Planning and Development Department) – located at the Landfill property. The proposed project is composed of four primary components:
 1. RNG Upgrade System to process LFG to produce RNG that meets biomethane standards to allow injection into the regional natural gas pipeline and use as fuel for trucks.
 2. Compressed Natural Gas Fueling Station to fuel heavy-duty trucks.
 3. Grid Gas Monitoring and Meter Station Assembly to monitor RNG quality and transfer to the SoCalGas regional natural gas pipeline.
 4. Pipeline system to connect proposed facilities to ReSource Center.

The RNG Upgrade System and Compressed Natural Gas Fueling Station would be located on an approximately 2.2-acre graded and surfaced pad (pavement and compacted gravel) south of the MRF. The Grid Gas Monitoring and Meter Station Assembly equipment would be located at the former Landfill Energy Project site.

- Plains Pipeline Valve Upgrade Project (21AMD-00000-00009, map location F, approved but under appeal): installation of 16 new valves at separate sites to upgrade the existing Plains 901/903 Pipelines to reduce the volume of a potential crude oil release – 0.3 miles south of the Landfill.
- SoCal Gas Dig 10 Anomaly (22CDH-00000-00025, map location G, under review by the Planning and Development Department): expose approximately 215 linear feet of natural gas pipeline L-247 and replace the section of pipeline containing anomalies detected underneath Dos Pueblos Creek – 9.6 miles east of the Landfill.

- Erburu Lease Soil Remediation (21CDP-00000-00039, map location H, approved work in progress): soil remediation at the Erburu Lease in the Capitan Oil Field, including soil sampling, removal of oil field infrastructure, confirmation soil sampling, and targeted soil removal in areas where soil concentrations exceed environmental screening levels – 4.5 miles east of the Landfill.
- SoCal Gas Line 80 Demolition and Reclamation Plan (18DRP-00000-00002, map location I, approved work ongoing): approximately 2,000 linear feet of natural gas pipeline would be removed and approximately 1,300 linear feet of pipeline would be abandoned in place – 17.2 miles east of the Landfill.
- SoCal Gas Line 247 Replacement (21CDH-00000-00007, map location J, approved work ongoing): replace a 1,200-foot segment of an existing high-pressure natural gas line (Line 247) in the same trench as the original – 5.7 miles east of the Landfill.

3.9.2 Santa Barbara County Development Projects

The following list of cumulative projects was provided by the Santa Barbara Planning and Development Department for the Gaviota Coast Plan Area (updated February 2023).

- Santa Barbara Ranch Equestrian and Agricultural Support Buildings (03DVP-00000-00041, map location K, under review by the Planning and Development Department): 19,498 square feet of facilities including a horse barn, ranch office and equipment storage – 9.7 miles east of the Tajiguas Landfill.
- Santa Barbara Ranch Development Plan (08DVP-00000-00024, map location L, under review by the Planning and Development Department): 49 single-family residences – 9.7 miles east of the Tajiguas Landfill.
- Paradiso Del Mar New Residence (06CDH-00000-00038, map location M, approved): new single-family residence and associated potable and reclaimed water lines – 10.4 miles east of the Landfill.
- Paradiso Del Mar Public Trail (10CUP-00000-00039, map location N, approved): trailhead parking area and trail more than one mile in length – 10.4 miles east of the Landfill.
- El Rancho de Tajiguas Lot Split (14TPM-00000-00004, map location O, under review by the Planning and Development Department): eight new single-family residences – 1.8 miles east of the Landfill.
- Coastal Ranch Seaside (16CDH-00000-00016, map location P, under review by the Planning and Development Department): one new single-family residence – 9.7 miles east of the Landfill.
- Coastal Ranch Inland (16CDH-00000-00017, map location Q, under review by the Planning and Development Department): one new single-family residence – 9.7 miles east of the Landfill.

- Jalama Beach Cabins (16DVP-00000-00017, map location R, approved by the Planning and Development Department): four new cabins and replacement of five restrooms – 20.9 miles west of the Landfill.
- Zacara Ranch (19ZCI-00000-00006, map location S, under review by the Planning and Development Department): 20,000 square feet of agricultural development – 6.1 miles east of the Landfill.
- Moore Ranch (20LUP-00000-00040, map location T, under review by the Planning and Development Department): one new single-family residence, guest house and barns – 3.5 miles northeast of the Landfill.

3.9.3 City of Goleta Projects

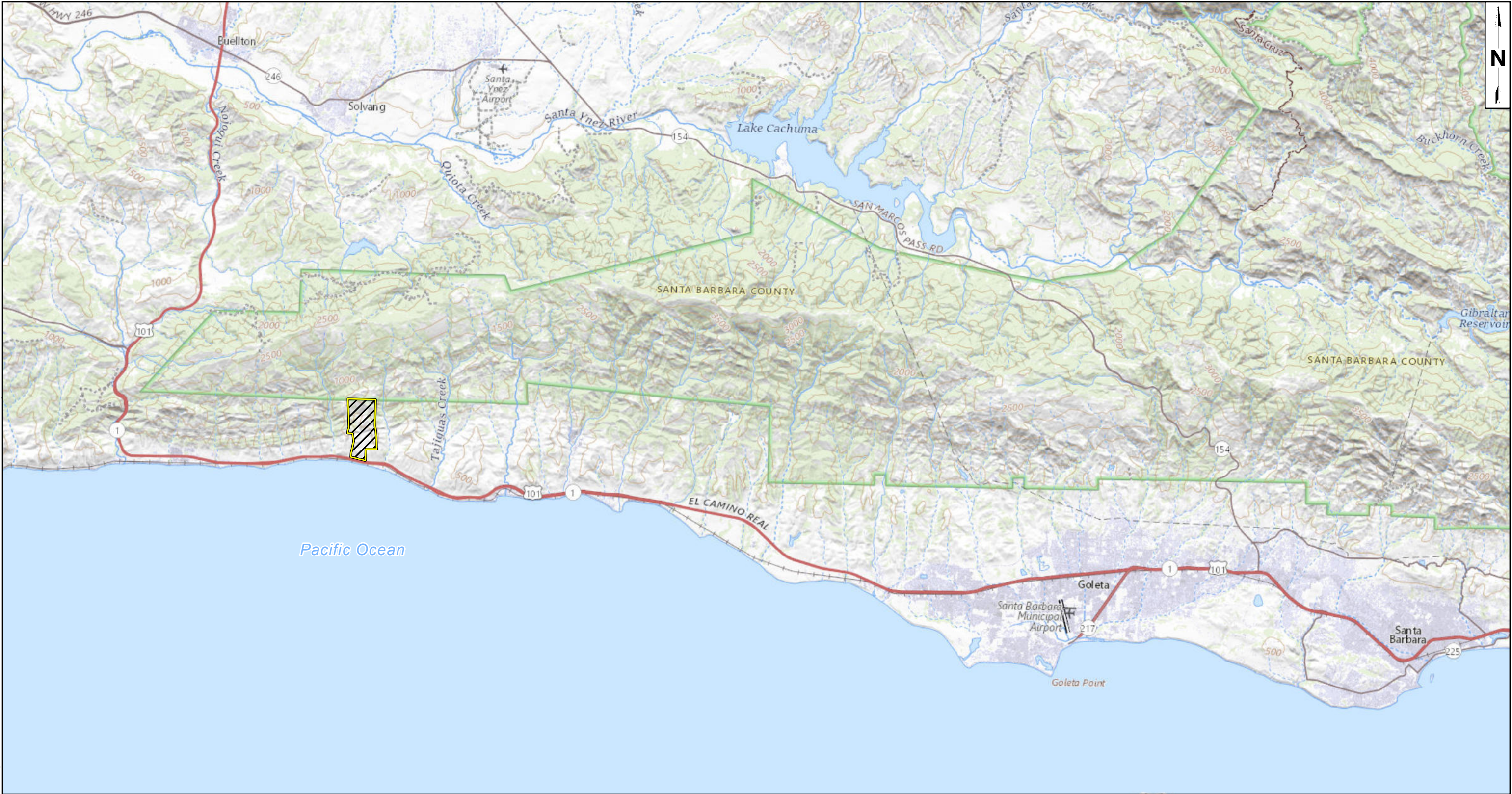
The following larger projects are currently under review by the City and anticipated to be implemented in the next few years.



- San Jose Creek Bike Path (map location U, under review): two segments of Class I/Class II bike path to complete a three-mile-long bicycle/pedestrian pathway linking areas north of U.S. Highway 101 to the Class I Atascadero Creek Trail – 17.2 miles east of the Landfill.
- Heritage Ridge 332 Residential Rental Unit Project (map location V, under review): 332 apartment units (104 affordable, 228 market rate units) and a two-acre neighborhood park – 15.7 miles east of the Landfill.

3.9.4 State Parks Projects

The following project is currently under construction by the California Department of Parks and Recreation.

- El Capitan State Park Entrance Improvements Project (map location W): widening the entrance road, replacing a road culvert with a bridge, and replacing two buildings with a park entry kiosk – 5.7 miles east of the Landfill. This project is scheduled to be completed in May 2023.



- LEGEND:**
-  Tajiguas Landfill Property
 -  Los Padres National Forest Boundary



Source: Esri Online Topo Basemap
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

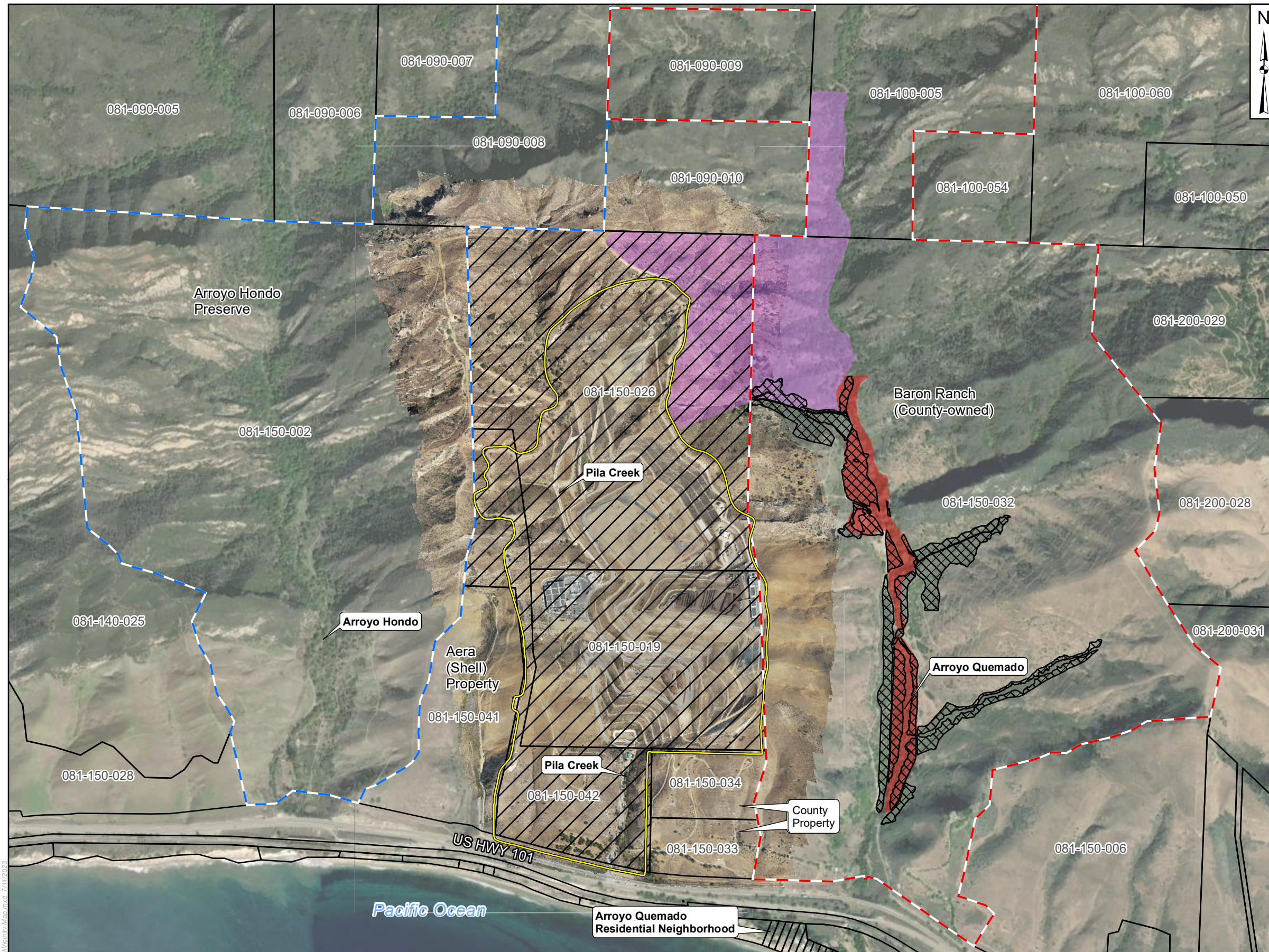


PROJECT NAME: TAJIGUAS LANDFILL CAPACITY INCREASE PROJECT SANTA BARBARA COUNTY, CA	
PROJECT NUMBER: 2202-4091	DATE: July 2023

REGIONAL LOCATION MAP

**FIGURE
3-1**

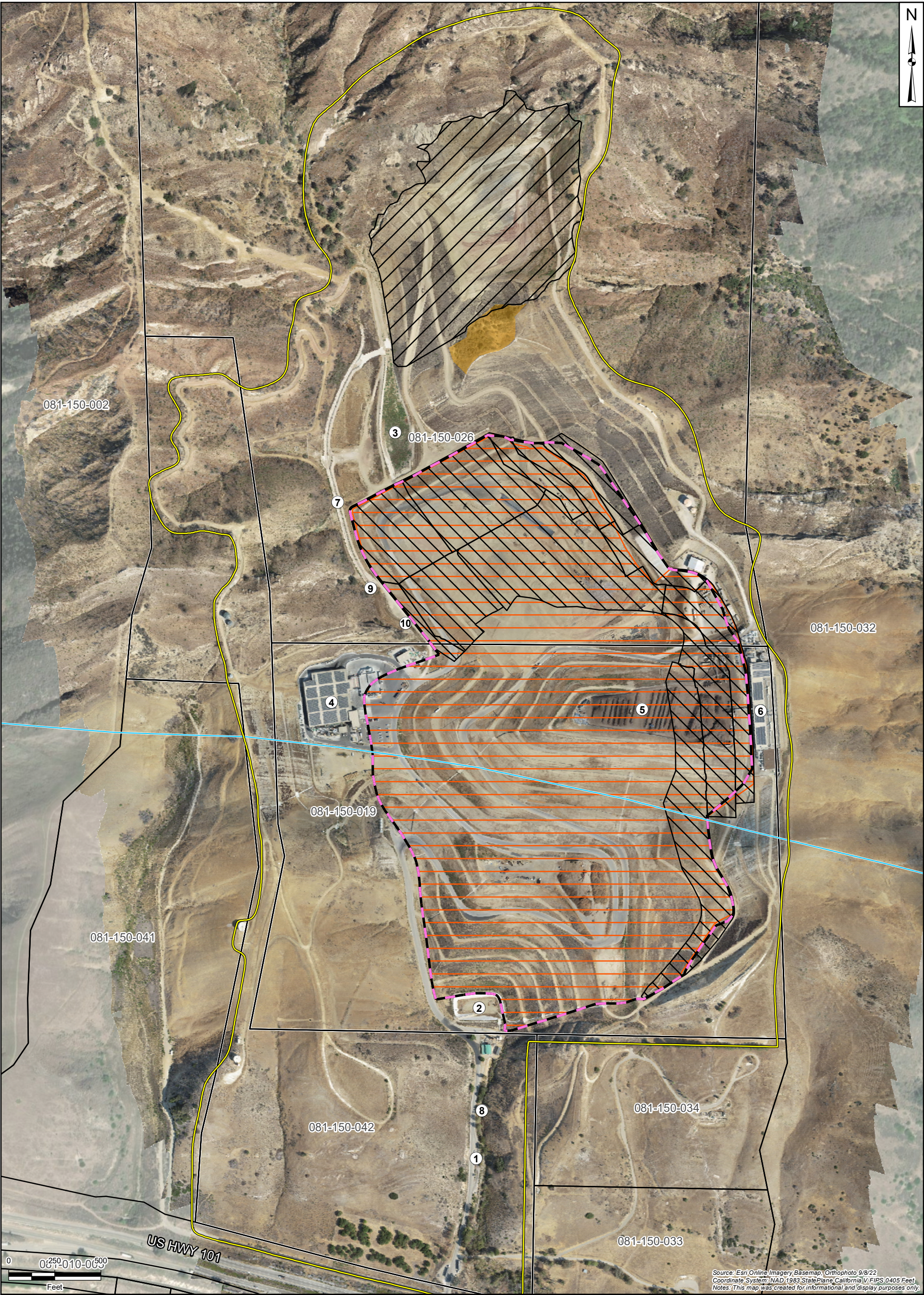
Project: Tajiguas Landfill Regional Location Map.mxd 7/11/2023



- LEGEND:**
- Tajiguas Landfill Operational Area Boundary
 - Tajiguas Landfill Property
 - Parcel Boundary
 - Habitat Conservation Plan Conservation Easement Area
 - Baron Ranch Property Boundary
 - Arroyo Hondo Preserve Boundary
 - Baron Ranch Restrictive Covenant
 - Baron Ranch Restoration Areas

MAP EXTENT:





LEGEND:

Tajiguas Landfill Operational Area Boundary

North Borrow/Stockpile

Existing Liner

Permitted Waste Boundary

Existing Waste Footprint

Previously Undisturbed Area

Parcel Boundary

Coastal Zone boundary (approximate)

①

Scale House

②

South Sedimentation Basin

③

North Sedimentation Basin

④

Materials Recovery Facility

⑤

Compost Management Unit

⑥

Anaerobic Digestion Facility

⑦

Pila Creek Concrete Channel

⑧

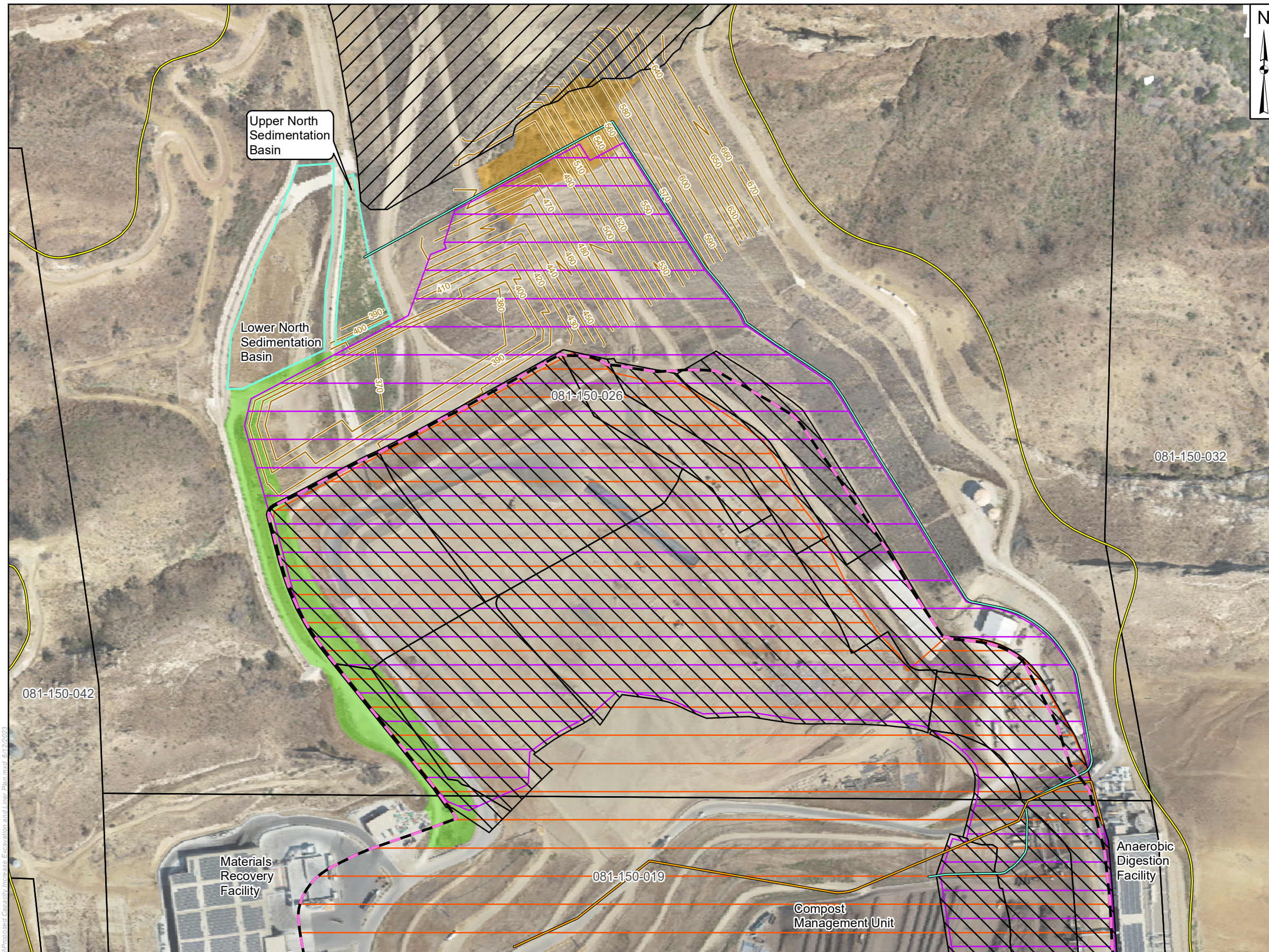
Pila Creek Earthen Channel

⑨














Flow Control Structure

⑩

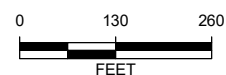
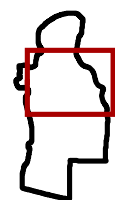
Vegetated Swale



LEGEND:

-  Tajiguas Landfill Operational Area Boundary
-  Parcel Boundary
-  North Borrow/Stockpile
-  Permitted Waste Footprint
-  Previously Undisturbed Area
-  Existing Liner Limit
-  Existing Waste Limits
-  Increased Capacity Liner/Waste Limit
-  Relocated Landfill Gas Supply Line
-  Relocated CMU Stormwater Drain
-  Additional Excavation Area
-  Proposed Toe Berm with Haul Road
-  Sedimentation Basin Boundary

MAP EXTENT:



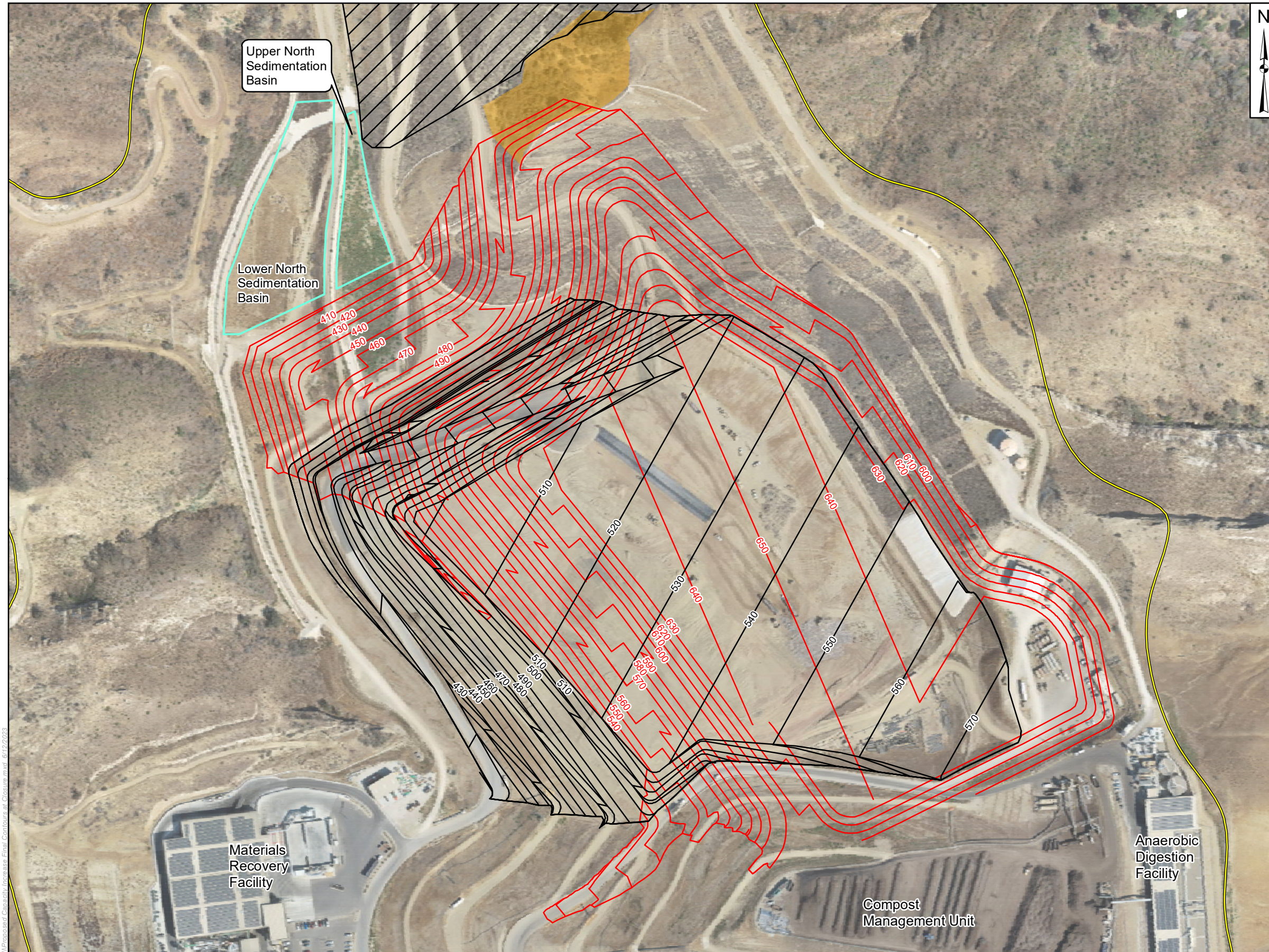
Source: Orthophoto 9/8/22
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

padre
associates, inc.
ENGINEERS, GEOLOGISTS &
ENVIRONMENTAL SCIENTISTS

PROJECT NAME:
TAJIGUAS LANDFILL CAPACITY INCREASE PROJECT
SANTA BARBARA COUNTY, CA
PROJECT NUMBER:
2202-4091
DATE:
June 2023

**PROPOSED CAPACITY INCREASE
EXCAVATION AND LINER PLAN**

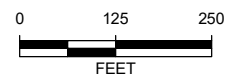
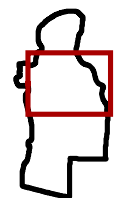
**FIGURE
3-4**



LEGEND:

- Tajiguas Landfill Operational Area Boundary
- North Borrow/Stockpile
- Previously Undisturbed Area
- Permitted Final Contours at Closure
- Proposed Final Contours at Closure
- Sedimentation Basin Boundary

MAP EXTENT:



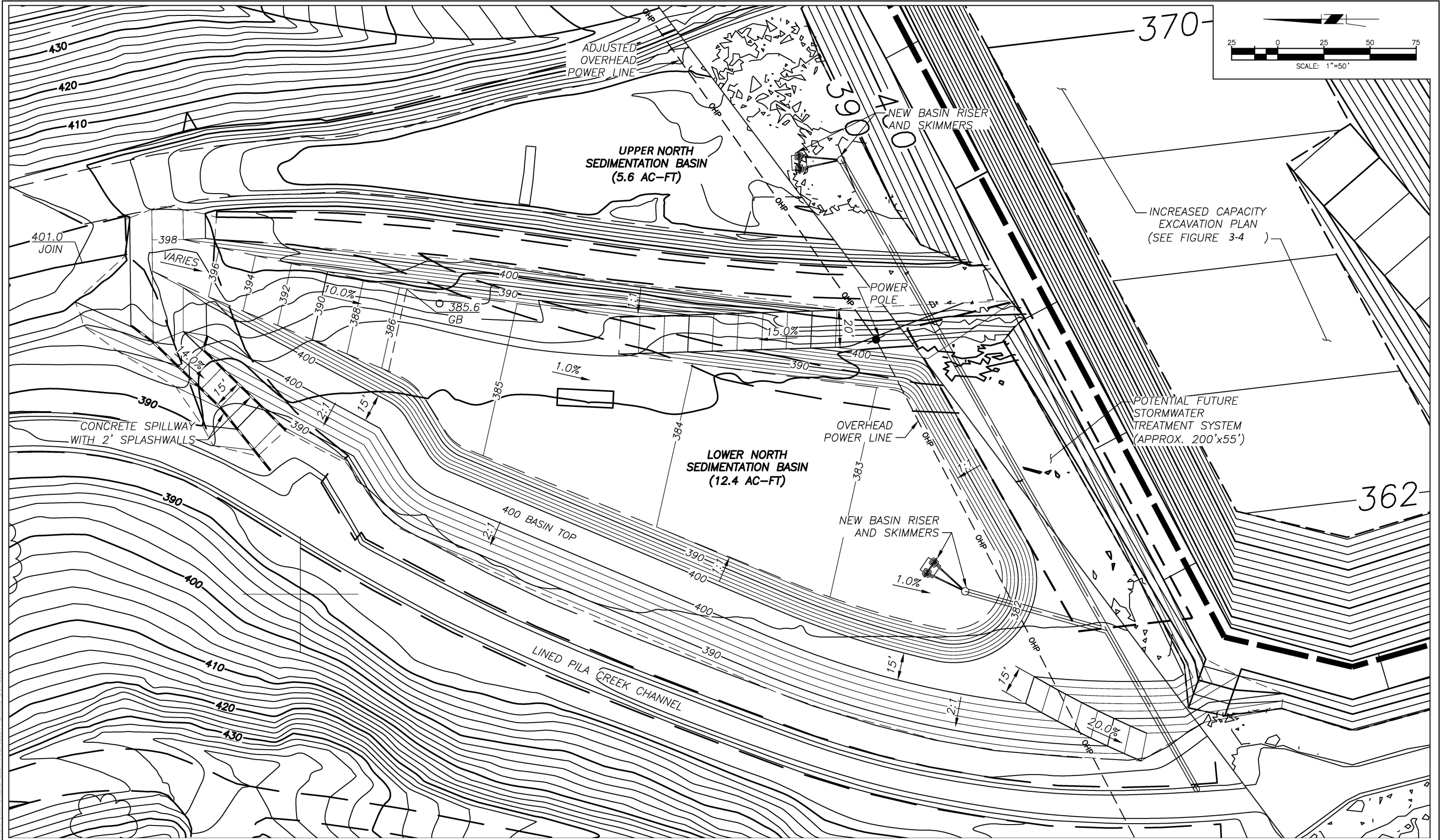
Source: Orthophoto 9/8/22
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

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PROJECT NAME:
TAJIGUAS LANDFILL CAPACITY INCREASE PROJECT
SANTA BARBARA COUNTY, CA
PROJECT NUMBER:
2202-4091
DATE:
June 2023

**PROPOSED CAPACITY INCREASE
FINAL CONTOURS AT CLOSURE**

**FIGURE
3-5**



Project: Tajiguas Landfill North Sedimentation Basin Modification Plan.mxd 3/31/2023

Source: SWT Engineering
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

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ENVIRONMENTAL SCIENTISTS

PROJECT NAME: TAJIGUAS LANDFILL CAPACITY INCREASE PROJECT SANTA BARBARA COUNTY, CA	
PROJECT NUMBER: 2202-4091	DATE: April 2023

**NORTH SEDIMENTATION BASIN
MODIFICATION PLAN**

**FIGURE
3-6**



LEGEND:

A Gaviota Creek Improvement Project	D Refugio Road Bridges	H Erburu Lease Soil Remediation	L Santa Barbara Ranch Development Plan	R Jalama Beach Cabins
B U.S. Highway 101/Refugio Road Bridge Replacement	E Landfill Gas to Renewable Natural Gas Project	I SoCalGas Line 80 Demolition	M/N Paradiso Del Mar New Residence and Public Trail	S Zacara Ranch
C Hollister Avenue/San Jose Creek Bridge Replacement	F Plains Pipeline Valve Upgrade Project	J SoCalGas Line 247 Replacement	O El Rancho De Tajiguas Lot Split	T Moore Ranch
	G SoCalGas Dig 10 Anomaly	K/P Santa Barbara Ranch Equestrian, Agricultural Support Buildings and Coastal Ranch Seaside	Q Coastal Ranch Inland	U San Jose Creek Bike Path Project

MAP EXTENT:

V Heritage Ridge Apartment Project
W El Capitan State Park Entrance Improvements
Tajiguas Landfill Property

0 0.7 1.4
MILES

Source: Sources, Esri Online Topo Basemap
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

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PROJECT NAME:
TAJIGUAS LANDFILL CAPACITY INCREASE PROJECT
SANTA BARBARA COUNTY, CA

PROJECT NUMBER:
2202-4091

DATE:
June 2023

FIGURE
3-7

CUMULATIVE PROJECTS MAP-WEST

Object:Tajiguas LandfillCumulative Projects.mxd 6/12/2023



LEGEND:

A Gaviota Creek Improvement Project	D Refugio Road Bridges	H Erburu Lease Soil Remediation	L Santa Barbara Ranch Development Plan	R Jalama Beach Cabins
B U.S. Highway 101/Refugio Road Bridge Replacement	E Landfill Gas to Renewable Natural Gas Project	I SoCalGas Line 80 Demolition	M/N Paradiso Del Mar New Residence and Public Trail	S Zacara Ranch
C Hollister Avenue/San Jose Creek Bridge Replacement	F Plains Pipeline Valve Upgrade Project	J SoCalGas Line 247 Replacement	O El Rancho De Tajiguas Lot Split	T Moore Ranch
	G SoCalGas Dig 10 Anomaly	K/P Santa Barbara Ranch Equestrian, Agricultural Support Buildings and Coastal Ranch Seaside	Q Coastal Ranch Inland	U San Jose Creek Bike Path Project

MAP EXTENT:

V Heritage Ridge Apartment Project

W El Capitan State Park Entrance Improvements

Tajiguas Landfill Property

0 0.55 1.1
MILES

Source: Sources, Esri Online Topo Basemap
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

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PROJECT NAME:
TAJIGUAS LANDFILL CAPACITY INCREASE PROJECT
SANTA BARBARA COUNTY, CA

PROJECT NUMBER:
2202-4091

DATE:
June 2023

FIGURE
3-8

CUMULATIVE PROJECTS MAP-EAST

Project Tajiguas Landfill Cumulative Projects.mxd 6/12/2023

4.0 ENVIRONMENTAL IMPACT ANALYSIS

Existing and Future Tajiguas Landfill Site Conditions

The proposed project would expand the disposal capacity, waste disposal footprint and extend the life of the Tajiguas Landfill (Landfill) within the existing permitted operational area outside of the coastal zone. The existing Tajiguas Landfill Project is permitted and operational (see Table 3-2 for a summary of permitted components), and has undergone full environmental review (see Section 1.6 for a summary of prior CEQA review) regarding physical impacts to the environment. Landfill construction is phased and operations are proceeding as described in the Tajiguas Landfill Environmental Documents and in compliance with the approved permits. The impact analyses contained in the Tajiguas Landfill Environmental Documents were based on full build-out of the Landfill.

Unlike a residential or commercial development project which is constructed and then is occupied/operational, construction and operation of the Landfill is ongoing until the Landfill reaches design capacity and is closed, which is at the end of the Landfill life. Up until that time, the environmental condition of the Landfill is constantly changing as new waste cells are developed and then filled with MSW, borrow areas are excavated for daily cover, soil is removed and stockpiled for waste cell development activities, and on-site roads and infrastructure are moved or added to adjust to the different waste disposal locations. Operationally, daily waste disposal volumes, and traffic volumes fluctuate although equipment use and water demand remains relatively constant even with the fluctuations. Table 1-2 presents recorded operational data (peak and average tons MSW received and vehicle traffic) at the Landfill between 2013 and 2022.

The condition of the Landfill at the approximate time of the release of the Capacity Increase Project NOP is shown in the aerial photograph presented as Figure 3-2, and the final permitted waste footprint (at Landfill closure) is shown in Figure 3-3. Disposal capacity is available through approximately March 2026 (at current rates of disposal, see Section 1.5.1), and disposal activity is ongoing in the back canyon area of the Landfill property. The slope liner (as described in Section 3.8.2.2) for the last permitted waste disposal phase (Phase IIIF) will be installed in 2023 in the northeastern portion of the disposal area, and the elevation of the disposal area will increase until approximately 2026 when the current permitted capacity is reached (based on current disposal rates). At that time, without implementation of the project, final closure operations will commence according to the approved Joint Technical Document and Closure and Post-Closure Maintenance Plan as described in Section 3.8.6.

Setting

The Landfill is located in a coastal canyon along the unincorporated, rural Gaviota coast area in southern Santa Barbara County. The Gaviota coast area is identified as supporting significant visual resources, natural resources and cultural resources in the Gaviota Coast Plan (Santa Barbara County Planning and Development Department, 2016). The Gaviota coast is bisected by the transportation corridor of U.S. Highway 101 and the Union Pacific railroad. The immediate project vicinity is generally rural agricultural in character with scattered residences. The Arroyo Quemada community, an existing rural developed neighborhood, lies southeast of the Landfill property between U.S. Highway 101 and the coast in the project area. Arroyo Quemada is designated by the County Planning and Development Department as a “Rural Neighborhood” which recognizes previous historical development of homes on lots much smaller than that currently allowed. Cattle grazing is a common land use within the area.

Vegetation in the project area consists of non-native annual grassland, coastal sage scrub, chaparral, and riparian and oak woodland along the coastal drainages. The Landfill property is bordered by open space/agriculturally zoned land to the east (County-owned Baron Ranch) and west (Canada de la Huerta and Arroyo Hondo), Los Padres National Forest to the north, and open space/agriculturally zoned land and U.S. Highway 101 to the south. The northeast corner of the Landfill property falls within the watershed of Arroyo Quemado and is included in a conservation easement in association with the Landfill and ReSource Center HCP and ITP under Section 10 of the Endangered Species Act from the U.S. Fish and Wildlife Service.

The Tajiguas Landfill has been used as a County MSW disposal facility since 1967 and has a Waste Disposal Overlay in the Land Use Element of the County’s Comprehensive Plan recognizing its use as a landfill. The inland areas of the Tajiguas Landfill are located within areas zoned for agriculture under the Santa Barbara County Land Use and Development Code. The southern portion of the Landfill is located within the coastal zone within areas zoned AG-II-320, which permits agricultural uses within a 320-acre minimum lot size. The portion of the Landfill within the Coastal Zone pre-dates the Coastal Zone Management Act of 1972, the Coastal Act of 1976, and the Coastal Zoning Ordinance and is considered a legal, non-conforming use. Areas of the Landfill property not disturbed by ongoing solid waste disposal activities support ruderal grassland, coastal sage scrub, chaparral and oak woodlands.

Additional environmental setting information is provided for each issue area in the following impact analysis sections.

Baseline

To accurately assess the potential environmental impacts of the proposed project, an environmental baseline must be selected to which environmental impacts of a proposed project can be compared. Generally, the CEQA baseline constitutes the existing environmental conditions at the time of the issuance of the NOP (State CEQA Guidelines Section 15125(a)). However, a lead agency can exercise its discretion to select a baseline different from existing environmental conditions when existing conditions do not accurately reflect generally existing conditions or tend to be misleading or without informational value, based on substantial evidence (*Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (2013) 57 Cal.4th 439, 445, 449).

The baseline can consist of established levels of permitted use. Where prior environmental review has occurred, the existing environmental setting may include what has been approved following the prior CEQA review under certain circumstances (See e.g., *Benton v. Board of Supervisors of Napa County* (1991) 226 Cal.App.3d 1467; *Fairview Neighbors v. County of Ventura* (1999) 70 Cal. App. 4th 238; *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal. App. 4th 645.)

The Landfill operates under the following permit conditions (Solid Waste Facility Permit 42-AA-0015) as analyzed in the Tajiguas Landfill and ReSource Center Environmental Documents:

- Permitted Operations: solid waste disposal site, transfer/processing, green-waste processing, in-vessel digestion and composting facility.
- Permitted Maximum Tonnage: 1,500 tons per day.
- Permitted Traffic Volume: 184 material delivery vehicles per day + additional 50 vehicles per day miscellaneous traffic (234 vehicles/day total).
- Permitted Area: total operational area – 357 acres, waste disposal area– 118 acres.
- Design Capacity: 23,300,000 cubic yards.
- Maximum Elevation: 620 feet (above msl).

The Tajiguas Landfill Capacity Increase Project constitutes a modification of the approved and permitted Tajiguas Landfill Project to increase waste disposal capacity and extend the life of the Landfill to coincide with the completion of debt service on the ReSource Center. Table 3-2 compares the proposed permitted project and the proposed project operational and design parameters. Buildout of the Landfill under the permitted Tajiguas Landfill Project will continue regardless of whether the proposed Capacity Increase Project is approved.

For purposes of analyzing the change in the impacts resulting from implementation of the Tajiguas Landfill Capacity Increase Project, the approved and permitted MSW volumes, landfill waste and disturbance footprints, and associated operational conditions that were analyzed in the Tajiguas Landfill Environmental Documents are considered to represent the environmental baseline where those aspects have already been established on the ground or will occur under permitted buildout as this provides the most informational value. The current waste disposal area, which is the boundary that shows the limits of where waste will be placed in association with the proposed project will continue to undergo significant changes as it reaches capacity in approximately 2026 (e.g., construction of a new 2-acre new slope liner for the next waste disposal cell and up to approximately 60 feet of additional waste fill); therefore, using existing conditions alone for baseline would be misleading as a comparison of future conditions or without informational value. For most of the Landfill operating parameters listed, the permitted conditions have been established on the ground. However, as discussed above, because waste disposal has not yet been completed, the previously analyzed design capacity has not yet been reached.

Therefore, the following baselines have been determined to be the most realistic basis for environmental analysis of the following impacts and are discussed in more detail in the following Sections. With respect to visual resources, biological resources, cultural resources, geologic processes, hazards, land use, noise and water resources impact analyses, the baseline is the permitted waste and disturbance footprints and associated permitted operations.

With respect to traffic, the project proposes to retain the current permitted volume of 234 vehicles/day. However, since the permitted level has not been achieved in the past but may be reached with implementation of the proposed project, the realistic baseline for the traffic analysis is the peak recorded volume of 163 material delivery vehicles (in 2016, see Table 1-2) plus 50 other vehicles (213 vehicles per day total) and the projected increase would be 21 vehicles per day) as this traffic volume has been established and recorded at the scale house during existing operation of the Landfill.

With regard to the air quality baseline for criteria pollutants, to best represent the ambient air quality setting it is necessary to use multiple complete consecutive years of data to both account for air quality anomalies such as fires and to establish a realistic trend in air quality. The data sets used included five years of meteorological data (2012-2016) and three years of ambient background pollutant concentrations (2017 through 2019). More recent ambient air quality data is not considered complete and representative of baseline air quality due to the effects of the October 2021 Alisal Fire on ambient air quality, and only the first six months of 2022 monitoring data is available. These data sets have been determined by the SBCAPCD to be complete and representative of baseline conditions for air quality impact analysis and required to be used in modeling to obtain a permit to operate.

In addition, equipment that is expected to be installed under the modified SBCAPCD permit unrelated and prior to implementation of the Capacity Increase Project has been included in the air quality impact analysis as baseline (existing conditions).

The Tajiguas Landfill Capacity Increase Project would increase the capacity of the Landfill and therefore, extend the life of the permitted Landfill operations by about 12.75 years (from about March 2026 to December 2038).⁷ Extension of life of the Landfill to approximately 2036 (without a capacity increase) was previously analyzed in the ReSource Center Subsequent EIR (12EIR-00000-00002); however, as noted previously, due to various factors the analyzed extension of life will not be achieved. Except for new construction impacts, impacts associated with Landfill disposal are impacts that exist for the current permitted Tajiguas Landfill. The duration of the impacts would continue for a longer period of time with implementation of the proposed project.

Unless modified by the current Subsequent EIR analysis, mitigation measures identified in the Tajiguas Landfill Environmental Documents would continue to apply to the Tajiguas Landfill Capacity Increase Project over the Landfill's extended life.

Structure of the Subsequent EIR Impact Analyses

The impact analysis sections of this Subsequent EIR are structured as follows:

Setting

The environmental and regulatory setting for the resource/issue area being analyzed.

Impact Analysis and Mitigation Measures

Thresholds of Significance – The “significance thresholds” used to determine whether potential project effects are significant. The significance thresholds used are those criteria adopted by the County, other agencies, included in the State CEQA Guidelines, or developed specifically for this analysis.

Approved Tajiguas Landfill Expansion Project - A summary of impacts and mitigation measures associated with the approved and permitted Tajiguas Landfill Expansion Project as disclosed in 01-EIR-05.

Approved Tajiguas Landfill Reconfiguration – A summary of impacts and mitigation measures associated with the approved Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project.

Tajiguas Resource Recovery Project (ReSource Center) – A discussion of impacts and mitigation measures associated with this approved project.

Tajiguas Landfill Capacity Increase Project – A discussion of impacts and mitigation measures associated with the proposed project.

Extension of Landfill Life Impacts - A discussion of impacts and mitigation measures associated with the extension of the life of the Tajiguas Landfill associated with the proposed project.

⁷ It should be noted that neither the Tajiguas Landfill Environmental Documents nor the Solid Waste Facility Permit (42-AA-0015) specify an absolute date for closure of the existing Landfill. The Solid Waste Facility Permit includes an estimated closure date of 2036 that was based on information from the ReSource Center EIR and waste disposal and diversion information available at that time.

Cumulative Impacts – An evaluation of the impacts of the proposed project together with other projects causing related impacts and an identification of the project's contribution to the cumulative impact.

The impacts are classified pursuant to the County's CEQA Guidelines (2020) as follows:

Significant and unavoidable impacts. Significant unavoidable adverse impacts for which the decision-maker must adopt a statement of overriding consideration, if the decision-maker decides to approve the project;

Significant but mitigable impacts. Significant adverse impacts that can be avoided or feasibly mitigated to an insignificant level, and for which the decision-maker must adopt mitigation measures;

Insignificant impacts. Adverse impacts that are insignificant;

No impact. No adverse impact will result from the project; or

Beneficial impacts. Impacts beneficial to the environment.

4.1 VISUAL RESOURCES/AESTHETICS

This analysis is based on photo-simulations prepared for the project by John Kular Consulting, site reconnaissance, review of aerial photography and maps, the Tajiguas Landfill Project Environmental Documents and the Subsequent EIR prepared for the ReSource Center.

4.1.1 Setting

4.1.1.1 Applicable Standards

Santa Barbara County policies and guidelines that relate to visual resources are contained in the Land Use (adopted 1980, amended 2016), Open Space (adopted 1979, republished 2009) and Scenic Highway Elements (adopted 1975, republished 2009) of the County Comprehensive Plan; the Land Use Development Code (republished 2020 with 2021 updates) covering the inland portions of the County, and the Coastal Zoning Ordinance (2021). Policies and Guidelines that are applicable to the proposed project are described in Section 4.8.

Additionally, the Gaviota Coast Plan provides visual goals, policies, actions and development standards.

4.1.1.2 Existing Conditions

In general, the whole of Santa Barbara County is considered to be of high visual quality. As stated in the County Comprehensive Plan Environmental Resources Management Element, “the County’s scenic beauty is one of the principal factors that has attracted its residents and visitors” (Santa Barbara County, adopted 1980, republished 2009).

The project site is in an area identified as having a high level of scenic value as shown on the Santa Barbara County Scenic Values Map of the Santa Barbara Comprehensive Plan Open Space Element.

Visual Characteristics

The scenic features of the project region include the Pacific Ocean, coastal plain, foothills and Santa Ynez Mountain range. Topography ranges from sea level at the Pacific Ocean to well over 2,000 feet within the coastal mountain range. Incised arroyos are a common feature of this coastal area. There are three industrial developments (PXP Point Arguello, Las Flores Canyon, and Tajiguas Landfill) on the coast with the most visible being the PXP Point Arguello site near the Gaviota Tunnel (County of Santa Barbara, 2016). The Gaviota Coast is bisected by the transportation corridor of U.S. Highway 101 and the Union Pacific railroad. The immediate project vicinity is generally rural agricultural in character with scattered residences. The Arroyo Quemada community lies between U.S. Highway 101 and the coast in the project area. Cattle grazing is a common land use in the region.

The Los Padres National Forest is north of the Landfill property. Land east and south of the site is ranch/agriculturally zoned land with native plant restoration activities occurring on the County-owned Baron Ranch to the east. The Arroyo Hondo Preserve and Cañada de la Huerta (site of the former Shell Hercules oil processing facility which has been remediated and revegetated) are located west of the Tajiguas Landfill. U.S. Highway 101 and the Union Pacific Railroad extend generally parallel to the Pacific Ocean coastline south of the project site. Arroyo Hondo and Arroyo Quemado run north-south to the east and west of the Landfill property, respectively.

Currently, there is limited development in the project area. As mentioned above, the Arroyo Quemada community is located to the south of U.S. Highway 101 as close as 0.2 miles from the Landfill property and includes fewer than 20 homes. Two residences are north of U.S. Highway 101; one located at Arroyo Hondo Preserve 0.5 miles to the west, and a second located 1.2 miles west of the Landfill property.

Topographically, ridges surrounding the Tajiguas Landfill help to visually isolate it, except from higher elevation. To the north the ridges are over 1,000 feet amsl. The west ridge above the MRF is at approximately 550 feet amsl and as it goes further back and as it passes the Increased Capacity project area it reaches approximately 690 with a peak at approximately 730 feet amsl. The eastern ridge varies in height from the low point by the ADF at approximately 600 feet amsl to the middle of the increased capacity area at approximately 720 feet amsl.

Existing and Future Visual Conditions at the Landfill

The Tajiguas Landfill has been used as a County MSW disposal facility since 1967. As an active Landfill, the top deck and other active disposal areas have earthen surfaces that currently do not support vegetation. However, the slopes in the non-closed areas of the Landfill have been hydroseeded for erosion control and support grasses and shrubs. Areas of the site not disturbed by ongoing operations, final cut slopes and/or slopes which have been closed and received a final cover support primarily annual grassland and hydroseeded coastal scrub plant species.

The visual condition of the Landfill is constantly changing as new waste cells are developed and then filled with MSW, borrow areas are excavated for daily cover, soil is removed and stockpiled for waste cell development activities, and on-site roads and infrastructure are moved to adjust to the different waste disposal locations. In the prior environmental documents for the Tajiguas Landfill Project (see Section 1.6.2), the visual impact analysis and the identification of mitigation measures was based on the Landfill visual condition at buildout. As noted below, from several view locations the impacts were identified as significant and unavoidable.

The ReSource Center facilities were constructed at the Landfill property between 2018 and 2021, including the MRF located just west of the closed disposal area, ADF located immediately east of the closed disposal area and the CMU located on the closed disposal area and south of the current waste disposal area. These facilities (large metal or concrete buildings) impart a more industrial character to the Landfill property but are consistent with the overall visual character as a solid waste disposal facility but are only briefly visible from U.S. Highway 101.

The Landfill property and surrounding areas were burned in October 2021 in the Alisal Fire. Damaged facilities have been repaired or are in the process of being repaired/replaced (i.e., replacement of the MRF bio-filters and baghouses) and burned vegetation is recovering, such that no long-term change in the visual condition or quality of the Landfill property has occurred.

The active disposal area will undergo changes as the permitted Phase IIIF disposal area is constructed and the location of active waste tipping areas, access roads and disposal areas change between 2023 and 2026. Therefore, the baseline for assessing aesthetic/visual impacts is the permitted condition.

The following visual simulations depict the existing conditions, the permitted Landfill buildout conditions without the project and the Landfill buildout conditions with the proposed Capacity Increase Project. The impact discussions; however, include an analysis of the visual impacts at the interim condition and at buildout as appropriate.

Viewsheds

Sensitive viewsheds are identified as land uses with potential line-of-sight views to the Landfill. Areas of potential sensitivity include the Arroyo Quemada community, U.S. Highway 101, offshore (such as may be seen by surfers and passing boats), and public trails including those in Arroyo Hondo and Baron Ranch described in further detail below.

Impacts to offshore viewers are not addressed because only the front face (fill slope) of the Landfill is visible from these areas, and only from an angle directly facing up Cañada de la Pila. The proposed Capacity Increase Project area is not visible to offshore viewers.

To facilitate the assessment of aesthetic impacts on these sensitive viewsheds, five views were selected as representative locations from which the proposed project facilities would have the most likelihood of being potentially visible. The selected views are identified as follows.

- Viewpoint A: Arroyo Quemado Trail at Baron Ranch (planned realignment), approximately 1,800 feet east of the proposed Capacity Increase Project area.

- Viewpoint B: Arroyo Quemado Trail at Baron Ranch, approximately 2,400 feet northeast of the proposed Capacity Increase Project area.
- Viewpoint C: Arroyo Hondo Upper Outlaw Trail, approximately 2,150 feet to the north-northwest of the proposed Capacity Increase Project area.
- Viewpoint D: U.S. Highway 101, approximately 4,300 feet south-southwest of the proposed Capacity Increase Project area.
- Viewpoint E: U.S. Highway 101, near the Landfill access road entrance approximately 4,500 feet south of the proposed Capacity Increase Project area.

The above viewpoint locations and the direction of views towards the Landfill property are shown in Figure 4.1-1.

Viewer Sensitivity

Viewer sensitivity has been categorized in two different ways for the purposes of this analysis: type of viewer and distance/duration. Three types of viewers are identified:

- Residential – people living in the vicinity.
- Recreational – transient viewers located at recreational areas (e.g. trails and ocean).
- Mobile – people traveling along transportation corridors in the site vicinity (e.g., U.S. Highway 101 and the Union Pacific Railroad).

The Landfill is not visible to residential viewers. Views A, B and C are representative of recreational viewers. Views D and E are representative of mobile viewers (motorists, bicyclists, pedestrians, train passengers).

Distance from the site and duration of view also affect viewer sensitivity. Distance affects the apparent size of what is viewed; an increase in distance will result in an apparent reduction in size as perceived by the viewer. The greatest duration of views is typically associated with residential viewers. The duration of recreational views is generally less than residential views; however, viewers may have a heightened sensitivity to aesthetics when engaged in specific recreational activities such as hiking, etc. View duration for mobile viewers such as motorists is the least. However, some travelers make repeated trips such as those persons who commute to work through the area on a daily basis, thus the frequency of the viewer's access to a particular viewpoint would be effectively increased. Motorists who are tourists may also have a heightened sensitivity to aesthetics, but the duration of views particularly along U.S. Highway 101 would be of limited duration traveling at 65 miles per hour.

Scenic Highways/Scenic Overlays

As defined in the Santa Barbara County Scenic Highways Element, “a rural scenic highway” is a route that traverses a defined visual corridor within which natural scenic resources and aesthetic value(s) are protected and enhanced.” The Tajiguas Landfill is not located within a designated County or State scenic resources area, scenic corridor or on a designated scenic highway. However, U.S. Highway 101, which lies approximately 1,500 feet south of the permitted waste area of the Landfill, is a designated State scenic highway extending westward from near the western Goleta city boundary to the State Route 1 intersection.

The Gaviota Coast Plan designates a Critical Viewshed Corridor Overlay in the region, which includes the southern portion of the Landfill property (see Figure 4.8-1). Within the Critical Viewshed Corridor Overlay, development must be screened to the maximum extent feasible as seen from U.S. Highway 101 and preserve ocean views from U.S. Highway 101. The Capacity Increase Project area is outside of the Critical Viewshed Corridor Overlay.

Recreational Resources

The Arroyo Quemado Trail opened in December 2010 and is located within the County-owned Baron Ranch east of the Landfill. The trailhead is located off U.S. Highway 101 on Calle Real about 2.6 miles west of Refugio State Beach entrance road. The trail leads inland through Baron Ranch and into the Santa Ynez Mountains and is a 6.6-mile loop trail with a 3.4-mile-long spur trail connection to the Los Padres National Forest/Camino Cielo. The Arroyo Quemado Trail is managed by the Santa Barbara County Community Services Department, Parks Division and is currently open for public multi-use (hikers, bicyclists, and equestrians) from 8:00 am to sunset, seven days a week. The Parks Division is undertaking a realignment of the lower section of the trail on the west side of Arroyo Quemado to move the trail further away from the sensitive areas associated with Arroyo Quemado riparian corridor.

The 782-acre Arroyo Hondo Preserve (Preserve) is located north, west and adjacent to the Tajiguas Landfill. The Preserve property was purchased from the Hollister family in late 2001, and is now protected and managed by the Land Trust for Santa Barbara as a natural and historic preserve. The Preserve includes a number of hiking trails including the Upper Outlaw Trail which was selected as one of the modeled views for this aesthetic analysis. The Preserve is open to the public by reservation the first and third full weekends of each month, and every Monday and Wednesday for school and community groups.

As indicated above, the Pacific Ocean lies south of the Tajiguas Landfill. The ocean is used by people pursuing various recreational interests including boating, fishing, and surfing among others.

4.1.2 Impact Analysis and Mitigation Measures

4.1.2.1 Thresholds of Significance

State CEQA Guidelines

The State CEQA Guidelines (2023 update) indicate that a project may have a significant impact with respect to aesthetics if it results in any of the following:

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- In non-urban areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings.
- In urbanized areas, would the project conflict with applicable zoning and other regulations governing scenic quality.
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Santa Barbara County Thresholds

The Santa Barbara County Environmental Thresholds and Guidelines Manual (Guidelines Manual, updated 2021) provides guidance for the evaluation of aesthetic impacts but does not provide formal significance thresholds. The guidance is based upon the State CEQA Guidelines and “directs the evaluator to the questions which predict the adversity of impacts to visual resources”.

The Guidelines Manual states that the assessment of visual impacts of a project involve two major steps: 1) evaluating the visual resources of the project site; and 2) identifying the potential impact of the project on the visual resources located onsite and on views in the project vicinity which may be partially or fully obstructed. Significant visual resources which have aesthetic value are identified in the Comprehensive Plan Open Space Element and are referenced in the Guidelines Manual. They include:

- Scenic highway corridors.
- Parks and recreational areas.
- Views of coastal bluffs, streams, lakes, estuaries, rivers, watersheds, mountains, and cultural resources sites.
- Scenic areas.

All views addressed in the Guidelines Manual are public views, not private views.

The Guidelines Manual indicates that affirmative answers to the following questions indicate potentially significant impacts to visual resources.

- 1a. Does the project site have significant visual resources by virtue of surface waters, vegetation, elevation, slope or other natural or man-made features which are publicly visible?
- 1b. If so, does the proposed project have the potential to degrade or significantly interfere with the public's enjoyment of the site's existing visual resources?
- 2a. Does the project have the potential to impact visual resources of the Coastal Zone or other visually important area (i.e., mountainous area, public park urban fringe, or scenic travel corridor)?
- 2b. If so, does the project have the potential to conflict with the policies set forth in the Coastal Land Use Plan, the Comprehensive Plan or any applicable community plan to protect the identified views?
3. Does the project have the potential to create a significantly adverse aesthetic impact through the obstruction of public views, incompatibility with surrounding uses, or intensity of development, removal of significant amounts of vegetation, loss of important open space, substantial alteration of natural character, lack of adequate landscaping, or extensive grading visible from public areas?

4.1.2.2 Approved Tajiguas Landfill Expansion Project

01-EIR-05 prepared for the Tajiguas Landfill Expansion Project (see Section 1.6.2) identified the following visual resources/aesthetic impacts for the approved Tajiguas Landfill Expansion Project:

1. The change in visual character of the Landfill area associated with the Expansion Project was considered a significant and unavoidable visual impact. Measures VIS-1 and BIO-3 were adopted to reduce this impact but the residual impacts remain significant.
2. Increased visibility of Landfill slopes from Viewpoints 4 (Landfill access road) and 5 (Pacific Ocean, 1100 feet offshore) was considered a significant and unavoidable visual impact. Measures VIS-1 and BIO-3 were adopted to reduce this impact, but the residual impacts remain significant.
3. Night lighting from the Landfill scale house and the operations and maintenance facilities was considered a significant but mitigable visual impact. Mitigation measure BIO-9 was adopted to reduce the off-site visibility of night lighting.

4. At closure (maximum build-out) long-term changes in topography from Viewpoints 4 (Landfill access road) and 5 (Pacific Ocean, 1100 feet offshore) were considered a significant and unavoidable visual impact. Measures VIS-1 and BIO-3 were adopted to reduce this impact but the residual impacts remain significant.

4.1.2.3 Approved Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project

The Subsequent EIR for the Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project (see Section 1.6.2) noted that the Landfill is visible from both the West Ridge Trail and Upper Outlaw trail within the Arroyo Hondo Preserve. The reduced elevation, reduced vegetation removal and reduced production of artificial slopes at the North Slope borrow/soil stockpile area associated with the Tajiguas Landfill Reconfiguration was determined to reduce visual impacts and visibility of the Landfill from the West Ridge Trail. It was determined that with the implementation of the Landfill reconfiguration and Baron Ranch restoration, the existing Landfill and approved expansion area would continue to be visible from the Upper Outlaw Trail and that post reconfiguration views would be similar to the approved expansion. It was further noted that at final closure as required by existing mitigation measure 01-EIR-05-VIS-1, the Landfill will be recontoured and revegetated which will help to reduce but not eliminate the visual impact as seen from the trail.

The Subsequent EIR for the Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project and 01-EIR-05 identified that portions of the existing Landfill and approved expansion may be visible from selected locations along the uppermost alignment of the Baron Ranch trail (proposed at the time of the Subsequent EIR preparation, but subsequently constructed and currently in use). The Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project was determined not to result in a substantial change in the overall Landfill area and would have no effect on the visual character or quality of views from the trail.

The Subsequent EIR for the Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project stated that the existing Landfill, approved expansion and the proposed reconfiguration may be visible from sections of the West Camino Cielo Road. However, due to the distance between the road and the Landfill (two miles at the closest point) and the fact that the approved expansion and proposed reconfiguration occur in the same general area and the footprint would remain the same there would not be a significant change in the visual appearance as compared to existing and approved conditions.

4.1.2.4 Approved Tajiguas Resource Recovery Project (ReSource Center)

12EIR-00000-00002 and 2017 Addendum prepared for the ReSource Center (see Section 1.6.3) identified the following visual resources/aesthetic impacts:

1. Project implementation would not significantly alter the visual setting from public vantage points (Landfill access road entrance, Baron Ranch Trail, Upper Outlaw Trail).
2. Project implementation would significantly alter the visual setting as seen from U.S. Highway 101, an eligible scenic highway. Mitigation measures MM TRRP VIS-1a and VIS-1b were adopted to require the building exterior color to visually blend into the surrounding landscape and provide landscape screening of the MRF building. Implementation of these mitigation measures would reduce impacts to a level of less than significant.
3. Project implementation would result in an adverse but less than significant change in the visual setting as seen from private views (Arroyo Quemada community, Hart property).
4. Project-related construction activities would result in less than significant lighting and glare impacts at adjacent land uses.
5. Project operation could result in less than significant lighting and glare impacts to U.S. Highway 101, Baron Ranch and nearby habitat areas.

4.1.2.5 Proposed Tajiguas Landfill Capacity Increase Project

Methodology and Assumptions

The analysis of visual impacts is focused on the viewsheds/views identified in Section 4.1.1.2. Four of the locations are the same or similar to those evaluated in the ReSource Center Subsequent EIR (Views 1, 2, 6, 8). The Baron Ranch Trail viewpoint (no. 7) assessed in the ReSource Center Subsequent EIR was revised and a new viewpoint added to address the proposed Trail re-alignment and most probable location where the proposed Capacity Increase Project area may be visible.

John Kular Consulting prepared photos and photo-simulations depicting existing, permitted (maximum build-out conditions) and permitted plus project conditions which were used in the visual resource/aesthetics evaluation. The photo-simulations were created using geographically referenced computer assisted modeling. The location of the five viewpoints modeled are provided in Figure 4.1-1. The photos and photo-simulations are provided as Figures 4.1-2 through 4.1-6 and are summarized as follows. Additional information derived from consideration of the photos, simulations and other factors including the number and types of potential viewers and viewer sensitivity is also provided.

Figure 4.1-2 shows that the line of sight from Viewpoint A (re-aligned Arroyo Quemado Trail) toward the proposed Capacity Increase Project area is blocked by intervening topography. The increased Landfill height at closure associated with the proposed project would not be visible.

Figure 4.1-3 shows that the line of sight from Viewpoint B (current Arroyo Quemado Trail) toward the proposed Capacity Increase Project area is blocked by intervening topography. The increased Landfill height at closure associated with the proposed project would not be visible.

From a review of Google Earth imagery and input from the Community Development Department, Parks Division (personal communication, with Jeff Lindgren), ridges surrounding the Landfill obstruct views of the Landfill along upper portions of the Arroyo Quemado Trail and the connector trail to National Forest (Camino Cielo). The existing Landfill, permitted final Landfill contours and the Capacity Increase Project maybe visible from Camino Cielo, but due to the distance and because the appearance of the Capacity Increase Project would be similar in character to existing and permitted Landfill conditions, the visual impact would be insignificant from that viewing location.

Figure 4.1-4 illustrates the public view from Viewpoint C (Arroyo Hondo Preserve Upper Outlaw Trail) under existing, permitted and proposed (permitted plus project) conditions. Landfill operations under current conditions are clearly visible from this viewpoint, as would future operations under permitted and proposed conditions. The proposed increase in maximum elevation of the Landfill waste prism at closure and the additional grading and filling for the lateral increase are clearly evident under proposed conditions in Figure 4.1-4.

Figure 4.1-5 illustrates that the line of sight from Viewpoint D (U.S. Highway 101 west of the landfill access road) toward the proposed Capacity Increase Project area is blocked by intervening topography. The higher Landfill contours at closure associated with the proposed project would not be visible.

Figure 4.1-6 illustrates that the line of sight from Viewpoint E (U.S. Highway 101 at the Landfill access road entrance) toward the proposed Capacity Increase Project area is blocked by intervening topography. The higher Landfill contours at closure associated with the proposed project would not be visible.

Since project-related activities, and changes in topography and land cover would not be visible from viewpoints A, B, D and E, adverse impacts to these public views would not occur.

Impact VIS-1: Project implementation would result in an adverse impact to the visual quality of the public view from the Upper Outlaw Trail – Insignificant Impact.

The duration of public views of the Landfill from the Upper Outlaw Trail would be limited to about 500 linear feet of trail; however, these viewers are likely to have a heightened sensitivity to the visual conditions. As shown in Figure 4.1-4, ongoing waste disposal activities are currently visible from the Upper Outlaw Trail including exposed soil of the North Borrow/Stockpile, the working face (current waste tipping/disposal site), the CMU, access roads and the Phase 3F liner construction area. These areas of exposed soil, the continuous ground disturbance and change in landforms and artificially uniform topography of Landfill slopes and benches dominate the view at this location and create a construction site-like visual character of low aesthetic quality.

With implementation of the proposed project, these same activities and sites would be visible. However, there would be additional grading, additional vegetation removal, the proposed Phase IV waste fill area excavation would create new cut slopes, the working face would be moved up to 240 feet (2,400 to 2,160 feet) closer to the nearest Trail viewpoint, the maximum permitted height or the Landfill would increase from 620 feet amsl to 650 feet amsl with an overall an increase from a maximum of 574 feet to 650 amsl in the existing design height over the approximate 12.75 year period the area would receive waste. When considering the visual changes in the context of the State CEQA guidelines and the guidance provided in the County's Guidelines Manual, because the site is an existing active landfill with existing graded and disturbed areas, the Landfill itself does not have significant visual qualities and is not a scenic resource.

The visual character of this public view would remain that of an active landfill with implementation of the proposed project. Therefore, the Capacity Increase Project would not damage scenic resources, substantially degrade the existing visual character or be incompatible with the existing visual character of the site. In addition, as shown under Proposed Conditions in Figure 4.1-4, the increased height of the Landfill associated with the proposed project at buildout/closure would not block views of the ocean or the foothills and mountains east of the Landfill. At closure, as depicted in the visual simulation, the slopes and top deck would be revegetated (hydroseeded) with a native coastal sage scrub/grassland seed mix. Overall, the proposed project may result in an adverse but less than significant visual resource/aesthetic impact as viewed from the Upper Outlaw Trail. Mitigation Measure VIS-1 (contouring the Landfill slopes at closure and revegetating with appropriate native species) from 01-EIR-05 would continue to be required.

Impact VIS-2: Project implementation would not result in impacts to the visual quality of the public views from the U.S. Highway 101 or the Arroyo Quemado Trail on the Baron Ranch – No Impact.

Based on the visual modeling conducted, due to intervening topography views of the Capacity Increase Project area and associated increased Landfill height are blocked from viewpoints A, B, D and E.

Impact VIS-3: Acceptance of waste beginning at 6:00 am associated with Project implementation may require lighting at the scale house during certain times of the year and other areas during emergencies – Insignificant Impact.

The Capacity Increase Project does not include new lighting associated with landfill disposal, but portable lighting may continue to be required on an emergency basis. Because of the focused nature of the lighting, and because the lighting would occur when adjacent public trails are closed, and because the Capacity Increase Project area would not be visible from U.S. Highway 101 impacts would not be significant.

Although waste acceptance at the scale house would begin at 6:00 am which would be before sunrise during some periods of the year, security lighting is already in place and operating and was evaluated in 01-EIR-05. In addition, 01-EIR-05 Mitigation Measure BIO-9 (use of low-intensity, low-glare design lighting) has been implemented. Therefore, the project would not create a new source of substantial light or glare which would significantly affect day or nighttime views in the area.

4.1.2.6 Extension of Landfill Life Impacts

Impact VIS-EXT-1: Project-related extension of life of the Tajiguas Landfill would delay final closure of the back canyon area of the Landfill site and result in an extension of the Landfill-related adverse aesthetic impacts further in time – Insignificant Impact.

As discussed in Section 3.7.1, the proposed Capacity Increase Project would result in extending the active life of the Landfill by approximately 12.75 years and delay full closure and revegetation of the Landfill.

Aesthetics impacts associated with the approved and ongoing Landfill project were considered significant and unavoidable in 01-EIR-05 (see Section 4.1.2.2) primarily as seen from U.S. Highway 101. The proposed project would delay Landfill closure, including final contouring and revegetation. However, solid waste processing and disposal activities will be focused in the back canyon area of the Landfill property, which is not visible from U.S. Highway 101 and phased closure (including final contouring and placement of final cover systems) has already begun in the front canyon portion of the Landfill property, where final fill elevations have been reached.

The affected population is very limited as the Landfill is visible for only a few seconds to motorists on U.S. Highway 101, an eligible scenic highway or by limited recreational users of Upper Outlaw Trail on the Arroyo Hondo property. In addition, the Landfill has been in operation since 1967 and the public has become accustomed to the current visual condition. Overall, the aesthetic impacts of the Landfill development remain significant but the extension of the Landfill's aesthetic impacts by delaying Landfill closure is considered less than significant.

4.1.2.7 Cumulative Impacts of the Tajiguas Landfill Capacity Increase Project

Impact VIS-CUM-1: Project implementation, combined with other related cumulative projects, could degrade the visual character/quality of scenic vistas from U.S. Highway 101 along the Gaviota Coast – Significant and Unavoidable Cumulative Impact; Project Contribution – Not Considerable.

The County of Santa Barbara considers the coastal view corridor along U.S. Highway 101 and the railroad tracks from Goleta to the Gaviota Tunnel as providing ocean and inland public views of the highest quality in the region. The Gaviota Coast Plan designates a Critical Viewshed Overlay along the coastline and extends from Naples (near the City of Goleta boundary) westward to Gaviota State Park. In general, the Overlay includes the coastline and slopes to the north that are readily visible from U.S. Highway 101.

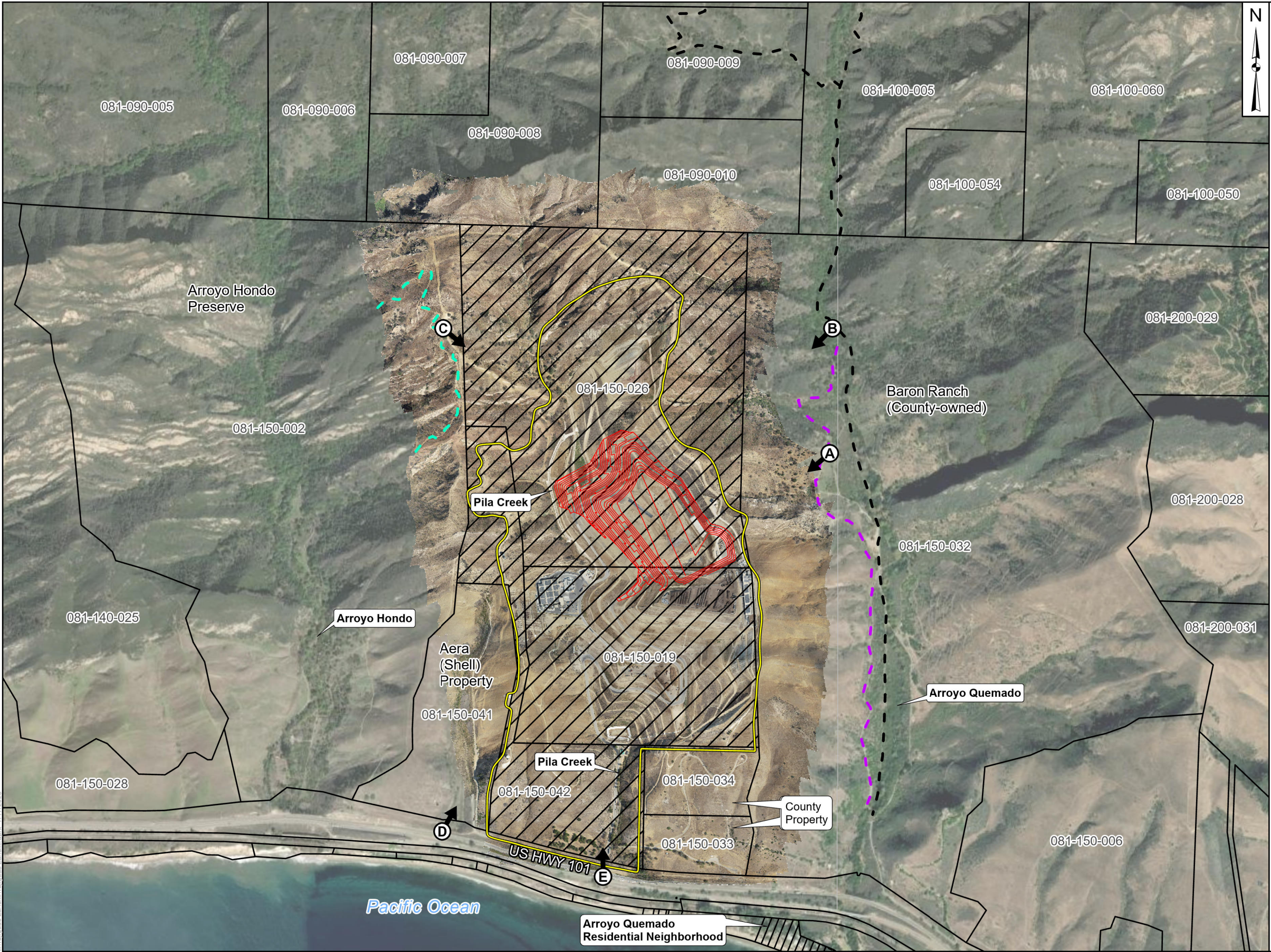
Further, stretches of this view corridor are considered to be highly susceptible to visual degradation from future development due to broad near-field views largely devoid of major stands of trees or intervening topographical breaks. Factors including appropriate site selection, architecture, grading and landscaping are integral elements to be considered in minimizing visual impacts of future development and protecting the visual resources of the corridor.

The cumulative project list (Section 3.9) includes a number of other projects located within or adjacent to the Critical Viewshed Overlay. The following discussion is specific to the assessment of the Tajiguas Landfill Capacity Increase Project together with known cumulative projects in the immediate vicinity of the proposed project. Other projects that may adversely affect the Critical Viewshed Overlay include:

- Gaviota Creek Improvement Project.
- U.S. Highway 101/Refugio Road Bridge Replacement (during the construction period).
- Plains Pipeline Valve Upgrade Project.
- SoCalGas Dig 10 Project.
- SoCalGas Line 247 Replacement (during the construction period).
- Santa Barbara Ranch equestrian and agricultural support buildings.

- Coastal Ranch Seaside residence.
- Santa Barbara Ranch Development Plan.
- Paradiso Del Mar residence and trail.
- Coastal Ranch Inland residence.
- Zacara Ranch agricultural development.
- El Capitan State Park Entrance improvements (during the construction period).

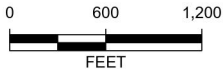
Although most of these projects would not be readily visible from U.S. Highway 101, the combined effect of this development may be considered cumulatively significant. However, project-related changes to visual resources would not be visible from U.S. Highway 101, such the proposed project would not incrementally contribute to cumulative impacts to visual resources.



LEGEND:

- Tajiguas Landfill Operational Boundary
- Tajiguas Landfill Property
- Parcel Boundary
- Viewpoint A: Realigned Baron Ranch Trail
- Viewpoint B: Baron Ranch Trail
- Viewpoint C: Upper Outlaw Trail
- Viewpoint D: U.S. Highway 101
- Viewpoint E: Landfill Entrance
- Upper Outlaw Trail
- Baron Ranch Trail
- Realigned Baron Ranch Trail
- Proposed Final Contours at Closure

MAP EXTENT:



Source: Esri Online Imagery Basemap, Orthophoto 9/8/22
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

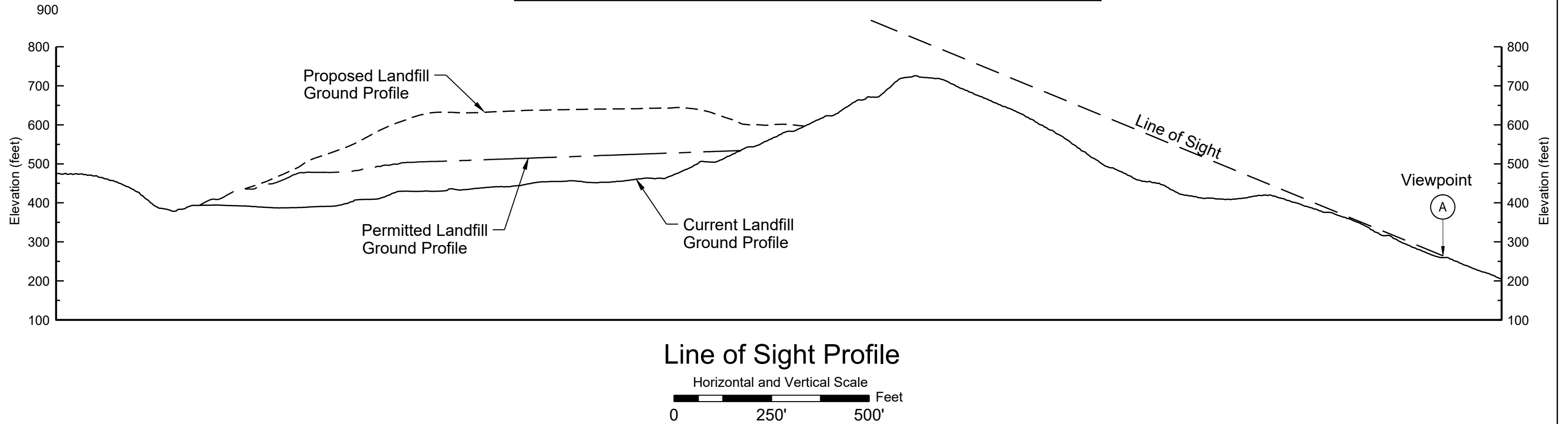


PROJECT NAME: TAJIGUAS LANDFILL CAPACITY INCREASE PROJECT SANTA BARBARA COUNTY, CA	
PROJECT NUMBER: 2202-4091	DATE: July 2023

VIEWPOINT LOCATION MAP



Date of photo: 5/08/2023



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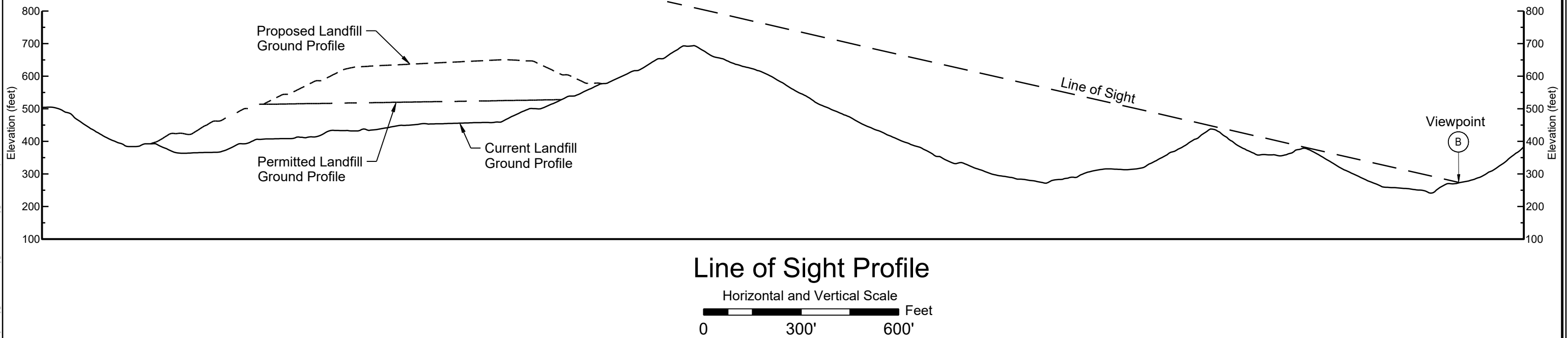
PROJECT NAME: TAJIGUAS LANDFILL CAPACITY INCREASE PROJECT SANTA BARBARA COUNTY, CA	
PROJECT NUMBER: 2202-4091	DATE: July 2023

LINE OF SIGHT - VIEWPOINT A (REALIGNED BARON RANCH TRAIL)	FIGURE 4.1-2
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Date of photo: 5/08/2023

Current, Permitted and Proposed Conditions



Line of Sight Profile

Horizontal and Vertical Scale
 0 300' 600' Feet

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	padre associates, inc. ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS	PROJECT NAME: TAJIGUAS LANDFILL CAPACITY INCREASE PROJECT SANTA BARBARA COUNTY, CA PROJECT NUMBER: 2202-4091 DATE: July 2023	LINE OF SIGHT - VIEWPOINT B (BARON RANCH TRAIL)	FIGURE 4.1-3
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A wide-angle landscape photograph taken from an elevated position. In the foreground, there is a field of tall, dry, golden-brown grass. A bare, dark tree branch extends from the left side into the frame. The middle ground features rolling green hills with patches of brown, cleared land. A winding road or path is visible across the landscape. In the background, a large, flat, sandy area, possibly a beach or a cleared field, stretches towards the sea. The sea is a deep blue, and the sky is a clear, light blue. The overall scene suggests a coastal area undergoing development or restoration.

Horizontal and Vertical Scale

padre
associates, inc.
ENGINEERS, GEOLOGISTS &
ENVIRONMENTAL SCIENTISTS

PROJECT NUMBER:	2202-4091
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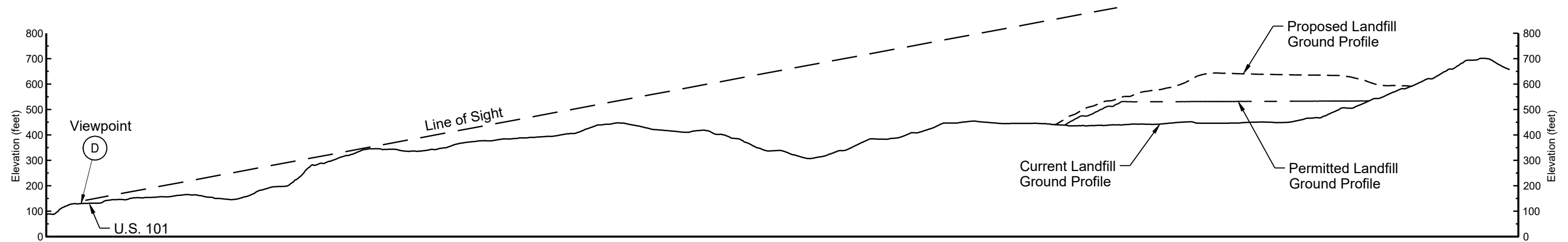
PHOTO-SIMULATION - VIEWPOINT C
(UPPER OUTLAW TRAIL)

FIGURE
4.1-4

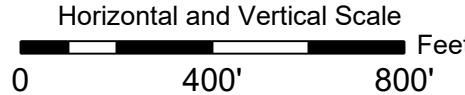


Date of photo: 5/19/2023

Current, Permitted and Proposed Conditions



Line of Sight Profile

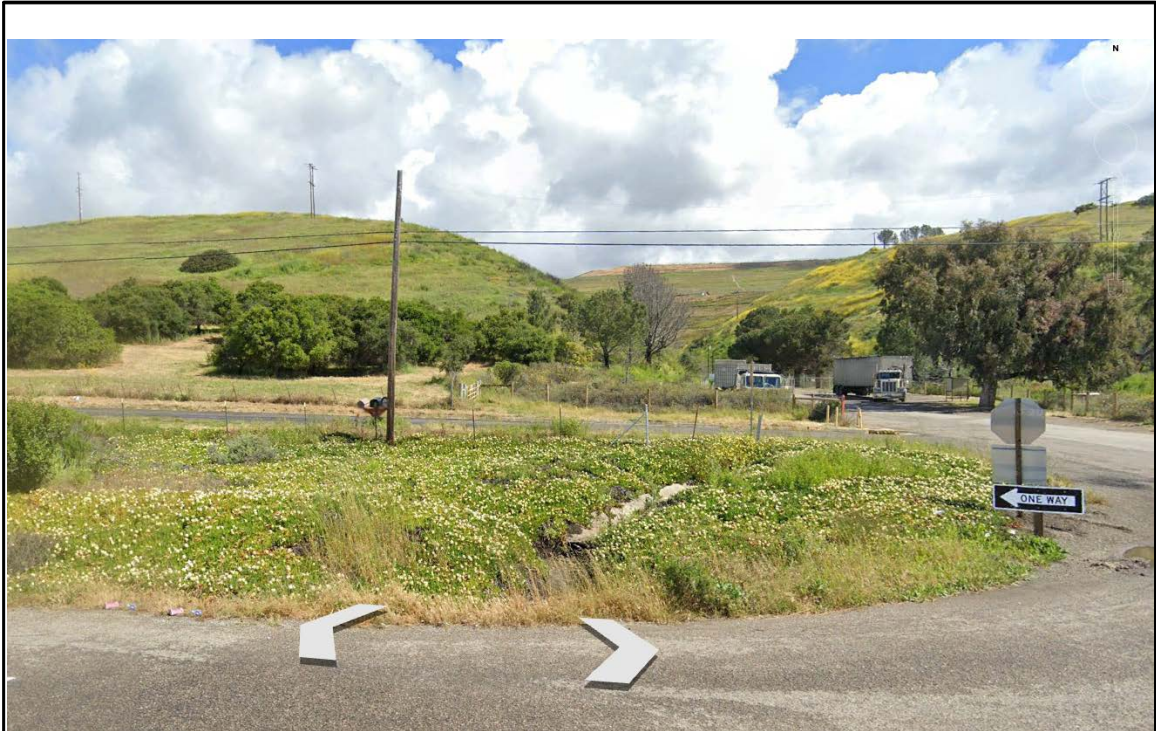


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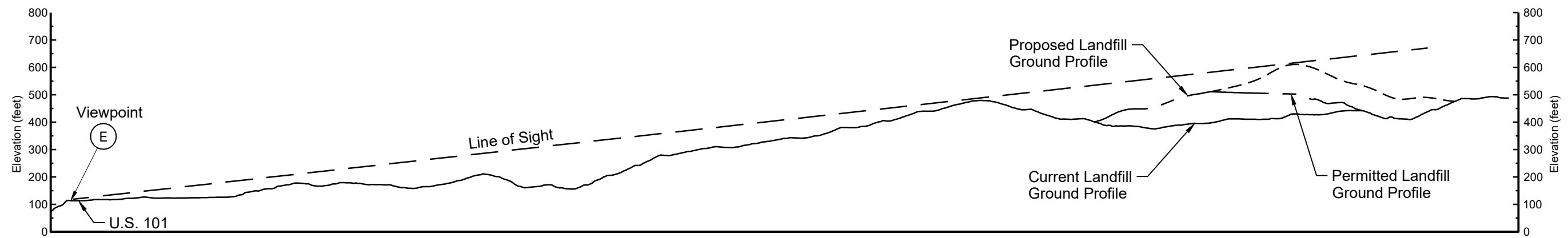
PROJECT NAME: TAJIGUAS LANDFILL CAPACITY INCREASE PROJECT SANTA BARBARA COUNTY, CA	
PROJECT NUMBER: 2202-4091	DATE: June 2023

LINE OF SIGHT - VIEWPOINT D (U.S. HIGHWAY 101)	FIGURE
	4.1-5

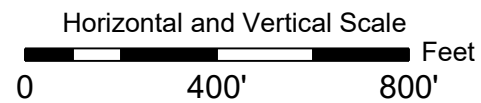


Date of photo: 5/08/2023

Current, Permitted and Proposed Conditions



Line of Sight Profile



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PROJECT NAME: TAJIGUAS LANDFILL CAPACITY INCREASE PROJECT SANTA BARBARA COUNTY, CA	
PROJECT NUMBER: 2202-4091	DATE: July 2023

LINE OF SIGHT - VIEWPOINT E
(NORTHBOUND U.S. HIGHWAY 101 AT LANDFILL ENTRANCE)

FIGURE
4.1-6

4.2 AIR QUALITY AND GREENHOUSE GAS EMISSIONS

This analysis is based on an Air Quality Technical Report prepared for the project by AECOM (included as Appendix D), as well as other environmental documents prepared for the Tajiguas Landfill Project and ReSource Center.

4.2.1 Setting

4.2.1.1 Climatological Setting

Southern California lies in a semi-permanent, high pressure zone of the eastern Pacific region. The coastal strip is characterized by limited rainfall and warm, dry summers tempered by cooling sea breezes. In spring, summer and fall, the climate is dominated by marine air. Light synoptic-scale winds in the region allow marine air influence to dominate temperatures and air flow.

Rain occurs primarily during the winter and early spring months, averaging 16 to 29 inches per year in southern Santa Barbara County, depending on elevation. Average precipitation during the winter (December through February) ranges from 2.52 to 3.46 inches per month and average precipitation during the summer (June through August) ranges from 0.03 to 0.07 inches per month (Santa Barbara Airport, Western Regional Climate Center 1941-2016 data).

Based on rainfall data since 1973 from the Gaviota Coast precipitation station (#262) maintained by the Santa Barbara County Flood Control District, mean annual rainfall at the Landfill property is 20.65 inches. Extremely high rainfall was recorded during the 2022/2023 wet season in the Landfill area (36.91 inches at the Gaviota Coast weather station).

The Gaviota coast has a Mediterranean type climate in which hot summer droughts are followed by winter season rainfall. The Landfill property experiences downslope wind events (Sundowner winds) exceeding 50 mph, primarily from March through May.

4.2.1.2 Criteria Pollutants

Individual air pollutants at certain concentrations may adversely affect human or animal health, reduce visibility, damage property, and reduce the productivity or vigor of crops and natural vegetation. Six air pollutants have been identified by the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) as being of concern on both nationwide and statewide levels: ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), lead, and particulate matter (PM). PM is subdivided into two classes based on particle size: PM equal to or less than 10 micrometers in diameter (PM₁₀) and PM equal to or less than 2.5 micrometers in diameter (PM_{2.5}). Because the air quality standards for these air pollutants are regulated using human health and environmentally based criteria, they are commonly referred to as “criteria air pollutants”.

Ozone

Ozone is the principal component of smog and is formed in the atmosphere through a series of reactions involving reactive organic compounds (ROC), and nitrogen oxides (NO_x) in the presence of sunlight. ROC and NO_x are called precursors of ozone. NO_x includes various combinations of nitrogen and oxygen, including nitric oxide (NO), NO_2 , and others. Significant ozone concentrations are usually produced only in the summer, when atmospheric inversions are greatest, and temperatures are high. ROC and NO_x emissions are both considered critical in ozone formation. Individuals exercising outdoors, children, and people with pre-existing lung disease, such as asthma and chronic pulmonary lung disease, are considered the most susceptible sub-groups for ozone effects.

Carbon Monoxide

CO is a colorless and odorless gas that, in the urban environment, is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. Relatively high concentrations are typically found near crowded intersections and along heavily used roadways carrying slow-moving traffic. Inhaled CO has no direct toxic effect on the lungs but exerts its effect on tissues by interfering with oxygen transport. Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO.

Nitrogen Dioxide

NO_2 is a product of combustion and is generated in vehicles and in stationary sources, such as power plants and boilers. It is also formed when ozone reacts with NO in the atmosphere. As noted above, NO_2 is part of the NO_x family and is a principal contributor to ozone and smog generation. Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children, is associated with long-term exposure to NO_2 at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California.

Sulfur Dioxide

SO_2 is a combustion product, with the primary source being power plants and heavy industries that use coal or oil as fuel. SO_2 is also a product of diesel engine combustion. SO_2 in the atmosphere contributes to the formation of acid rain. SO_2 can irritate lung tissue and increase the risk of acute and chronic respiratory disease. In asthmatics, increased resistance to air flow and a reduction in breathing capacity leading to severe breathing difficulties are observed after acute exposure to SO_2 .

Lead

Lead is a highly toxic metal that may cause a range of human health effects. Previously, the lead used in gasoline anti-knock additives represented a major source of lead emissions to the atmosphere from mobile and industrial sources. USEPA banned the use of leaded gasoline in highway vehicles in December 1995. As a result of USEPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector and levels of lead in the air decreased dramatically. Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient.

Particulate Matter

PM is a complex mixture of extremely small particles that consists of dry solid fragments, solid cores with liquid coatings, and small liquid droplets. PM is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, soot, and soil or dust particles. Natural sources of PM include windblown dust and ocean spray. The size of PM is directly linked to the potential for causing health problems. USEPA is concerned about particles that are 10 micrometers in diameter or smaller, because these particles generally pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in lifespan, and an increased mortality from lung cancer. USEPA groups PM into two categories, which are described below.

PM₁₀. PM₁₀ includes both fine and coarse dust particles; the fine particles are PM_{2.5}. Coarse particles, such as those found near roadways and dust-producing industries, are smaller than 10 micrometers in diameter. Sources of coarse particles include crushing or grinding operations and dust from paved or unpaved roads.

PM_{2.5}. Fine particles smaller than 2.5 micrometers in diameter, such as those found in smoke and haze, are PM_{2.5}. Sources of fine particles include all types of combustion activities (motor vehicles, power plants, wood burning, etc.) and certain industrial processes. PM_{2.5} is also formed through reactions of gases, such as SO₂ and NO_x, in the atmosphere. PM_{2.5} is the major cause of reduced visibility (haze) in California.

4.2.1.3 Ambient Air Quality

Air quality in the County is directly related to emissions and regional topographic and meteorological factors. CARB has divided the State into regional air basins according to topographic air drainage features. The Tajiguas Landfill is situated in the South Central Coast Air Basin, which encompasses the counties of Ventura, Santa Barbara and San Luis Obispo. USEPA, CARB, and the local air districts classify an area as attainment, unclassified, or nonattainment depending on whether or not the monitored ambient air quality data shows compliance, insufficient data available, or non-compliance with the ambient air quality standards, respectively. The National and California Ambient Air Quality Standards (NAAQS and CAAQS) relevant to the proposed project are provided in Table 4.2-1.

Table 4.2-1. Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	Federal Standards (NAAQS)	
			Primary	Secondary
Ozone (O ₃)	1-hour	0.09 ppm (180 µg/m ³)	--	--
	8-hour	0.07 ppm (137 µg/m ³)	0.070 ppm (147 µg/m ³)	Same as primary
Respirable Particulate Matter (PM ₁₀)	24-hour	50 µg/m ³	150 µg/m ³	Same as primary
	Annual	20 µg/m ³	--	--
Fine Particulate Matter (PM _{2.5})	24-hour ⁽³⁾	--	35 µg/m ³	Same as primary
	Annual	12 µg/m ³	12 µg/m ³	Same as primary
Carbon Monoxide (CO)	1-hour	20 ppm (23 µg/m ³)	35 ppm (40 mg/m ³)	--
	8-hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	--
Nitrogen dioxide (NO ₂)	1-hour	0.18 ppm (339 µg/m ³)	0.10 ppm (188 µg/m ³)	Same as primary
	Annual	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)	Same as primary
Sulfur dioxide (SO ₂)	1-hour	0.25 ppm (655 µg/m ³)	0.075 ppm (196 µg/m ³)	--
	3-hour	--	--	0.50 ppm (1300 µg/m ³)
	24-hour	0.04 ppm (105 µg/m ³)	0.014 ppm (for certain areas)	--
	Annual Arithmetic Mean		0.030 ppm (for certain areas)	

Pollutant	Averaging Time	California Standards	Federal Standards (NAAQS)	
			Primary	Secondary
Lead (Pb)	30-Day	1.5 µg/m ³	--	--
	Quarterly	---	1.5 µg/m ³	Same as primary
	3-Month	---	0.15 µg/m ³	Same as primary
Sulfates	24-hour	25 µg/m ³	--	--
Hydrogen sulfide (H ₂ S)	1-hour	0.03 ppm (42 µg/m ³)	--	--
Visibility Reducing Particles (VRP)	8-hour	Extinction coefficient of 0.23 per kilometer	--	--
Vinyl Chloride	24-hour	0.01 ppm (26 µg/m ³)	--	--

Attainment Status

Along with the implementation of statewide measures, the Santa Barbara County Air Pollution Control District (SBCAPCD) control measure strategy has successfully improved Santa Barbara County's air quality as the County has experienced a downward trend in ozone exceedances. In 2016, the County was designated as nonattainment-transitional because less than three ozone exceedances occurred in a single calendar year. The nonattainment-transitional designation meant that the County was close to attaining the State standard, but to be designated as attainment, air quality measurements from the most recent 3-year period must show that both the 1-hour and the 8-hour ozone standards are not violated. After decades of implementation of control measures and improved air quality conditions, Santa Barbara County was designated as attainment for the State ozone standards in 2019. However, unpredictable weather patterns and air pollutant emissions dispersion can lead to different pollutant concentration outcomes from one year to the next. The 2019 attainment designation was applicable for only a single year, and due to the recent exceedances, the County is currently designated as nonattainment for the State ozone standard. The County is also a designated nonattainment area for the State PM₁₀ standard.

Air Quality Monitoring

The air quality of Santa Barbara County is monitored by a network of 16 stations, with 12 stations currently active. Stations fall into two primary categories: State and Local Air Monitoring Stations (SLAMS) and Prevention of Significant Deterioration (PSD) stations. SLAMS measure urban and regional air quality. Two SLAMS stations are operated by the CARB (Santa Barbara and Santa Maria) and four by the Santa Barbara County Air Pollution Control District (SBCAPCD); Lompoc, Santa Ynez, El Capitan, and Goleta.

An air quality monitoring station is not located in the immediate vicinity of the Tajiguas Landfill. However, the Las Flores Canyon #1 PSD station is located approximately 4.4 miles east of the Landfill property. In addition, the El Capitan Beach SLAMS station is located approximately 5.7 miles to the east of the Landfill property. Table 4.2-2 lists the monitored maximum concentrations and number of exceedances of air quality standards at these two stations for the years 2019 through 2021. Note that the El Capitan Beach monitoring station was closed in 2020, such that only 2019 data is available. As shown in Table 4.2-2, ozone concentrations monitored at the Las Flores Canyon #1 station occasionally exceed the State and Federal 8-hour ozone standards, while ozone concentrations are typically lower at El Capitan Beach. The concentrations of PM₁₀ monitored at the Las Flores station occasionally exceeded the State standard during 2019 to 2021.

Table 4.2-2. Air Quality Summary for Nonattainment Pollutants in the Project Area

Parameter	Standard	Year		
		2019	2020	2021
Ozone – parts per million (ppm) (El Capitan Beach/Las Flores Canyon)				
Maximum 1-hr concentration monitored		0.057/0.078	NA/0.091	NA/0.073
Number of days exceeding CAAQS	0.09	0/0	NA/0	NA/0
Maximum 8-hr concentration monitored		0.054/0.072	NA/0.074	NA/0.067
Number of days exceeding 8-hour NAAQS	0.070	0/1	NA/2	NA/0
Number of days exceeding 8-hour CAAQS	0.07	0/1	NA/2	NA/0
PM ₁₀ – micrograms per cubic meter (µg/m³) (El Capitan Beach/Las Flores Canyon)				
Maximum sample		32.2/79.4	NA/72.9	NA/50.7
Number of samples exceeding CAAQS	50	0/4	NA/6	NA/1
Number of samples exceeding NAAQS	150	0/0	NA/0	NA/0

NA: data not available, station was closed

4.2.1.4 Existing Sources and Emissions at the Tajiguas Landfill Property

Existing air pollutant emissions sources at the Landfill property include equipment and vehicles associated with Landfill disposal operations, as well as operation of the MRF, ADF and CMU. These sources include:

- Internal combustion engines burning landfill gas at the MRF and ADF.
- Flares burning excess landfill gas, bio-gas, natural gas or propane at the MRF and ADF.
- Emergency generators at the MRF and ADF.
- MRF building exhaust baghouse vent stacks.
- Bio-filter exhaust at the ADF.

- Paper dryer at the MRF.
- Landfill gas condensate evaporator at the MRF.
- Mobile equipment (dozers, scrapers, steel-wheeled compactors, wheeled loaders, green-waste grinders, windrow turner, compost trommel screen, scrubber-sweeper, forklifts).
- Motor vehicles (heavy-duty trucks, employee and contractor vehicles).
- Fugitive dust from sorting, composting, disposal activities, wind erosion of exposed soil and motor vehicle use on paved and unpaved roads.
- Fugitive hydrocarbons from fueling gasoline and diesel equipment and vehicles.
- Landfill gas emissions (fugitive) from the surface of the covered waste.

Whether or not the proposed project is implemented, decomposition of waste in place will continue to generate landfill gas (including methane, a greenhouse gas). The peak landfill gas generation rate occurs approximately one year after waste disposal is terminated. Based on estimates provided by AECOM (see Appendix D), the peak landfill gas emission rate will be approximately 28,000 metric tons CO₂ equivalent per year in 2027 following the Landfill reaching capacity and closing in 2026.

4.2.1.5 Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to population groups and/or activities involved. Sensitive population groups include children, the elderly, the acutely ill and the chronically ill, especially those with cardio-respiratory diseases. Residential areas are also considered to be sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present.

Recreational land uses may be considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial and commercial areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, as the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the public.

The nearest population centers include Solvang approximately 8 miles to the north, and the cities of Goleta and Santa Barbara, which are approximately 18 miles and 20 miles southeast of the project site, respectively. The nearest residential receptor to the project is located approximately 0.4 miles to the south of the Landfill operational boundary in the Arroyo Quemada neighborhood. An additional receptor is the Baron Ranch (Arroyo Quemado) Trail, which runs in a north-south direction approximately 0.25 miles east of the Landfill operational boundary.

4.2.1.6 Attainment Planning

Federal

The Federal government first adopted the Clean Air Act (CAA) in 1963 to improve air quality and protect citizens' health and welfare, which required implementation of the NAAQS. The NAAQS are revised and changed when scientific evidence indicates a need. The CAA also requires each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The CAA Amendments of 1990 added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies.

The USEPA has been charged with implementing Federal air quality programs, which includes the review and approval of all SIPs to determine conformation to the mandates of the CAA and its amendments, and to determine whether implementation of the SIPs will achieve air quality goals. If the USEPA determines that a SIP is inadequate, a Federal Implementation Plan that imposes additional control measures may be prepared for the nonattainment area. Failure to submit an approvable SIP or to implement the plan within the mandated time frame may result in application of sanctions to transportation funding and stationary air pollution sources within the air basin.

Pursuant to the CAA, State and local agencies are responsible for planning for attainment and maintenance of the NAAQS. The USEPA classifies air basins (i.e., distinct geographic regions) as either "attainment" or "nonattainment" for each criteria pollutant, based on whether or not the NAAQS have been achieved. Some air basins have not received sufficient analysis for certain criteria air pollutants and are designated as "unclassified" for those pollutants. The SBCAPCD and the CARB are the responsible agencies for providing attainment plans and for demonstrating attainment of these standards within the proposed project area.

State

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas to achieve and maintain attainment with the CAAQS by the earliest possible date. The CCAA, enforced by CARB, requires that each area exceeding the CAAQS develop a plan aimed at achieving those standards. The California Health and Safety Code, Section 40914, requires air districts to design a plan that achieves an annual reduction in district-wide emissions of 5 percent or more, averaged every consecutive 3-year period. To satisfy this requirement, the local air districts are required to develop and implement air pollution reduction measures, which are described in their clean air plans, incorporated into the SIP, and outline strategies for achieving the State ambient air quality standards for criteria pollutants for which the region is classified as nonattainment.

The SBCAPCD completed the 2022 Ozone Plan in December 2022 to address attainment of the State ozone standard. The 2022 Ozone Plan is the tenth triennial update to the initial State Air Quality Attainment Plan adopted by the SBCAPCD Board of Directors in 1991. Prior ozone plan updates were completed for 1994, 1998, 2001, 2004, 2007, 2010, 2013, 2016, and 2019. In the past, the SBCAPCD has prepared air quality attainment plans that have addressed both the State and federal ozone standards. This 2022 Plan addresses the State ozone standards only because the SBCAPCD is designated “attainment” for the Federal 8-hour ozone standards, including the most recent standard of 0.070 parts per million (ppm) promulgated by the EPA in 2015.

Since the original 1991 Air Quality Attainment Plan for the State ozone standard, the SBCAPCD has adopted more than 30 control measures that reduced VOC and NO_x emissions from stationary sources of air pollution. These control measures cover a wide-range of source categories, which includes oil & gas facilities, automotive coating operations, and internal combustion engines.

Even though Santa Barbara County briefly attained the State ozone standards, additional work is needed to both attain and maintain the State standards for the years to come. The SBCAPCD will continue to implement its core control measures which are expected to result in additional emission reductions. The SBCAPCD also relies on the commitments from CARB to help control emissions from on-road and off-road equipment. The combined efforts will help promote cleaner, healthy air for the residents and visitors of Santa Barbara County.

Local Authority

The SBCAPCD is the local agency that has primary responsibility for regulating stationary sources of air pollution located within its jurisdictional boundaries. To this end, the SBCAPCD implements air quality programs required by State and federal mandates, enforces rules and regulations based on air pollution laws, and educates businesses and residents about their role in protecting air quality. The SBCAPCD is also responsible for managing and permitting existing, new, and modified sources of air emissions within the County.

The applicable rules and regulations for this project include:

- Rule 201 (Permits Required): This rule requires an Authority to Construct and Permit to Operate before the construction or operation, respectively, of non-exempt emission sources.
- Rule 302 (Visible Emissions): This rule limits visible emissions from emissions sources.
- Rule 303 (Nuisance): This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- Rule 305 (Particulate Matter, Southern Zone): This rule prohibits the discharge into the atmosphere from any source particulate matter in excess of specified concentrations measured in grains per standard cubic foot.
- Rule 309 (Specific Contaminants): This rule sets limits on the concentrations of discharges of combustion contaminants, including SO₂, NO₂, CO, CO₂ and particulate matter.
- Rule 311 (Sulfur Content of Fuels): This rule sets limits on the sulfur content of fuels.
- Rule 345 (Control of Fugitive Dust from Construction and Demolition Activities): This rule applies to any activity associated with construction or demolition of a structure or structures. Activities subject to this regulation are also subject to Rule 302 (Visible Emissions) and Rule 303 (Nuisance).
- Rule 359 (Flares and Thermal Oxidizers): This rule applies to combustion of gases in flares associated with petroleum production and natural gas transportation, and includes limits on sulfur content and NO_x and ROC emissions.

- Rules 801 to 809 (New Source Review – NSR): These rules apply to any applicant for a new or modified stationary source which emits or may emit any affected pollutant.

4.2.1.7 Toxic Air Contaminants

Federal Authority

The USEPA administers several programs that regulate emissions of hazardous air pollutants (HAPs) from stationary and mobile sources. The USEPA identified 188 HAPs that may present a threat to human health or the environment and are regulated under control technology programs. Also, the USEPA has identified 30 of the HAPs as urban air toxics that pose the greatest threats to public health in urban areas and are regulated under the Urban Air Toxics Strategy. The USEPA regulates HAP emissions primarily by setting emissions standards for vehicles and technology standards for industrial source categories. The primary regulations controlling HAP emissions are USEPA's National Emission Standards for Hazardous Air Pollutants.

State Authority

Similar to the federal HAPs, toxic air contaminants (TACs) are defined in California as air pollutants (primarily specific chemical compounds) which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. A primary health concern due to exposure to TACs is the risk of contracting cancer. The carcinogenic potential of TACs is of particular public health concern because it is currently believed by many scientists that there is no "safe" level of exposure to carcinogens; that is, any exposure to a carcinogen poses some risk of causing cancer. Health statistics show that one in four people (or 250,000 in a million) will contract cancer over their lifetime from all causes, including diet, genetic factors, and lifestyle choices.

Particulate exhaust emissions from diesel-fueled engines (diesel PM, DPM) were identified as a TAC by CARB in 1998. Federal and State efforts to reduce DPM emissions have focused on the use of improved fuels, adding particulate filters to engines, and requiring the production of new technology engines that emit fewer exhaust particulates. Diesel engines tend to produce a much higher ratio of fine particulates than other types of internal combustion engines. The fine particles that make up DPM tend to penetrate deep into the lungs and the rough surfaces of these particles makes it easy for them to bind with other toxins within the exhaust, thus increasing the hazards of particle inhalation. Long-term exposure to DPM is known to lead to chronic, serious health problems, including cardiovascular disease, cardiopulmonary disease, and lung cancer.

Unlike carcinogens, most non-carcinogens have a threshold level of exposure below which the compound will not pose a health risk. The California Environmental Protection Agency (CalEPA) and California Office of Environmental Health Hazard Assessment (OEHHA) have developed reference exposure levels (RELs) for non-carcinogenic TACs that are health-conservative estimates of the levels of exposure at or below which health effects are not expected. The non-cancer health risk due to exposure to a TAC is assessed by comparing the estimated level of exposure to the REL. The comparison is expressed as the ratio of the estimated exposure level to the REL, called the hazard index.

CARB reviews scientific research on exposure and health effects to identify the TACs that pose the greatest threat to public health. CARB maintains a 20-station toxic monitoring network within major urban areas. Data from these monitoring stations is used to determine the average annual concentrations of TACs and to assess the effectiveness of controls.

The California State Legislature passed The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) of 1987 and amended the Act in 1992. There are four main purposes of this legislation:

1. Identify the amount of toxic substances emitted into the air by specific businesses.
2. Estimate potential adverse health effects for members of the public exposed to these toxic air pollutants.
3. Inform the public of these toxic air emissions and the associated health impacts.
4. Protect the public health by reducing toxic air emissions from businesses.

The California Air Toxics Program, developed by CARB, established the process for identification and control of TAC emissions and includes provisions to make the public aware of significant toxic exposures and to reduce risk. The CalEPA and the OEHHA have developed guidelines for evaluating risk. In addition, the State has adopted the Airborne Toxics Control Measures for Stationary Compression Ignition Engines, which limits the types of fuel allowed, establishes maximum allowable emission rates, and establishes recordkeeping requirements for equipment operators.

Some of the compounds that have been identified as TACs to date are briefly described below.

- DPM (diesel particulate matter): formed from the combustion of diesel fuels consists of very small carbon particles, or “soot,” which absorb diesel-related cancer-causing substances. DPM has the potential to contribute to cancer, premature death, and other health impacts, and currently contributes over 70 percent of the currently known risks from TACs.
- ROC: organic compounds that easily vaporize at room temperature such as benzene, toluene, xylenes, and certain alcohols. Sources include motor vehicle exhaust, burning waste, gasoline, industrial and consumer products, pesticides, industrial processes, degreasing operations, pharmaceutical manufacturing, and dry cleaning operations. Some ROC are highly reactive and contribute to the formation of ozone, while others have adverse, chronic, and acute health effects. In some cases, ROC can be both highly reactive and potentially toxic.
- Carbonyl compounds: such as aldehydes and ketones, contain a carbon atom and an oxygen atom linked with a double bond (C=O). CARB currently monitors four carbonyls: formaldehyde, acetaldehyde, methyl ethyl ketone, and acrolein. Major sources of directly emitted carbonyls are fuel combustion, mobile sources, and process emissions from oil refineries. Some carbonyls are highly reactive and contribute to ozone formation, while others have adverse chronic and acute health effects. In some cases, carbonyls can be both highly reactive and potentially toxic.
- Vinyl Chloride: a highly toxic, flammable carcinogen emitted by combustion sources. Infants and children are sensitive to the inhalation of vinyl chloride.
- Hydrogen Sulfide: a by-product of oil production and refining, and desulfurization processes in sewage treatment and has adverse chronic inhalation effects.

Local Authority

The SBCAPCD oversees implementation of the Air Toxics "Hot Spots" Program, which requires affected businesses, with assistance from the SBCAPCD, identify air toxic emissions. Businesses that release considerable amounts of toxic air pollutants are required to estimate public health risks associated with these emissions by performing a risk assessment. The SBCAPCD then oversees public notification and risk reduction programs required for businesses that pose a significant risk.

Implementation of this program has resulted in significant reductions in the amount of air toxic emissions in Santa Barbara County. In 1991, 51 sources subject to the Air Toxics “Hot Spots” Program exceeded the Board-approved significant health risk thresholds. Currently, there are no significant risk facilities in Santa Barbara County.

4.2.1.8 Odors

Introduction

Odors are considered an air quality issue both at the local level (e.g., odor from wastewater treatment) and at the regional level (e.g., smoke from wildfires). Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

The ability to detect odors varies considerably among the population and is subjective. Some individuals have the ability to smell minute quantities of specific substances, while others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; an odor that is offensive to one person (e.g., from a fast-food restaurant or bakery) may be perfectly acceptable to another. Unfamiliar odors may be more easily detected and likely to cause complaints than familiar ones.

Offensive odors can potentially affect human health in several ways. First, odorant compounds can irritate the eyes, nose, and throat, which can reduce respiratory volume. Second, the ROCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects, such as stress.

Several examples of common land use types that may generate substantial odors include wastewater treatment plants, landfills, composting/green waste facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting/coating operations, rendering plants, and food packaging plants. Landfills have the potential to generate substantial odors.

State Authority

Section 41700 of the California Health and Safety Code allows air districts to adopt rules or regulations to protect the public from nuisance odor violations.

41700 (a) Except as otherwise provided in Section 41705, a person shall not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property.

41700 (b) (1) A district may adopt a rule or regulation, consistent with protecting the public's comfort, repose, health, and safety, and not causing injury, detriment, nuisance, or annoyance, that ensures district staff and resources are not used to investigate complaints determined to be repeated and unsubstantiated, alleging a nuisance odor violation of subdivision (a).

Section 41700 of the Health and Safety Code (nuisance) does not apply to composting operations as indicated in Section 41705(a)(2). The proposed project would operate under a revised solid waste facility permit enforced by the Local Enforcement Agency (LEA, Santa Barbara County Environmental Health Department) and must comply with Title 14 of the California Code of Regulations which address nuisance and odors (see Sections 17408.5, 17867).

Local Authority

The County's Guidelines Manual (updated 2021) requires that environmental documents address odor impacts if a project has the potential to cause an odor or other long-term air quality nuisance problem impacting a considerable number of people.

The following SBCAPCD rules apply to the discharge of odors:

- Rule 303 (Nuisance): states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property (identical to California Health and Safety Code 41700).
- Rule 310 (Odorous Organic Sulfides): this rule prohibits the discharge of excessive amount of hydrogen sulfide and organic sulfides into the atmosphere from any single source or any number of sources within one contiguous property. SBCAPCD provides quantitative thresholds as the ground level concentrations of hydrogen sulfide at or beyond the property line which are 0.06 ppm for an averaging time of 3 minutes and 0.03 ppm for an averaging time of 1 hour.

Landfill Operations

A discussion of odor management at the Landfill and ReSource Center is provided in Section 4.11.1.3 and a summary of recent odor-related LEA inspection reports is provided in Section 4.11.1.5. Based on the lack of Landfill-related odor complaints and the types of odor concerns identified in LEA inspection reports, Landfill operations have typically not been a source of off-site odors.

4.2.1.9 Greenhouse Gases and Global Climate Change

Introduction

Climate change, often referred to as “global warming” is a global environmental issue that refers to any significant change in measures of climate, including temperature, precipitation, or wind. Climate change refers to variations from baseline conditions that extend for a period (decades or longer) of time and is a result of both natural factors, such as volcanic eruptions, and anthropogenic, or man-made, factors including changes in land-use and burning of fossil fuels. Anthropogenic activities such as deforestation and fossil fuel combustion emit heat-trapping greenhouse gases (GHG), defined as any gas that absorbs infrared radiation within the atmosphere.

Worldwide, 2016 was the warmest year on record, 2020 was the second-warmest, and 2012–2021 was the warmest decade on record since thermometer-based observations began. Global average surface temperature has risen at an average rate of 0.17°F per decade since 1901, similar to the rate of warming within the contiguous 48 states. Since the late 1970s, however, the United States has warmed faster than the global rate.

In 2021, the average contiguous U.S. temperature was 54.5°F, 2.5°F above the 20th-century average and ranked as the fourth-warmest year in the 127-year period of record. The six warmest years on record have all occurred since 2012. The December 2021 contiguous U.S. temperature was 39.3°F, 6.7°F above average and exceeded the previous record set in December 2015.

Climate change is having and will continue to have widespread impacts on California’s environment, water supply, energy consumption, public health and economy. Many impacts already occur, including increased fires, floods, severe storms, and heat waves. Documented effects of climate change in California include increased average, maximum, and minimum temperatures; decreased spring runoff to the Sacramento River; shrinking glaciers in the Sierra Nevada; sea-level rise at the Golden Gate Bridge and San Francisco Bay; warmer temperatures in Lake Tahoe, Mono Lake, and other major lakes; and plant and animal species found at changed elevations (California Governor’s Office of Planning and Research 2018).

Unlike criteria air pollutants and TACs, which are of regional and local concern, GHGs emissions are a global issue, as climate change is not a localized phenomenon. Eight recognized GHGs are described below. The first six are commonly analyzed for projects, while the last two are often excluded for reasons described below.

- Carbon Dioxide (CO₂): natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic degassing; anthropogenic sources of CO₂ include burning fuels such as coal, oil, natural gas, and wood.
- Methane (CH₄): natural sources include wetlands, permafrost, oceans and wildfires; anthropogenic sources include fossil fuel production, rice cultivation, biomass burning, animal husbandry (fermentation during manure management), and landfills.
- Nitrous Oxide (N₂O): natural sources include microbial processes in soil and water, including those reactions which occur in nitrogen-rich fertilizers; anthropogenic sources include industrial processes, fuel combustion, aerosol spray propellant, and use of racing fuels.
- Chlorofluorocarbons (CFCs): no natural sources, synthesized for use as refrigerants, aerosol propellants, and cleaning solvents.
- Hydrofluorocarbons (HFCs): no natural sources, synthesized for use in refrigeration, air conditioning, foam blowing, aerosols, and fire extinguishing.
- Sulfur Hexafluoride (SF₆): no natural sources, synthesized for use as an electrical insulator in high voltage equipment that transmits and distributes electricity. SF₆ has a long lifespan and high GWP potency.
- Ozone: unlike the other GHGs, ozone in the troposphere is relatively short-lived and, therefore, is not global in nature. Due to the nature of ozone, and because this project is not anticipated to contribute a significant level of ozone, it is excluded from consideration in this analysis.
- Water Vapor: the most abundant and variable GHG in the atmosphere. It is not considered a pollutant and maintains a climate necessary for life. Because this project is not anticipated to contribute significant levels of water vapor to the environment, it is excluded from consideration in this analysis.

The primary GHGs that would be emitted during construction and operation of the proposed project, and which are currently emitted from operation of the Landfill are CO₂, CH₄ and N₂O. The project is not expected to have any associated use or release of HFCs, CFCs or SF₆.

Global warming potential (GWP) is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to CO₂. The GWP of a GHG is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time (i.e., lifetime) that the gas remains in the atmosphere (“atmospheric lifetime”). The reference gas for GWP is CO₂; therefore, CO₂ has a GWP of 1. The other main GHGs that have been attributed to human activity include CH₄, which has a GWP of 27.9 and N₂O, which has a GWP of 273 (IPCC 2021). For example, 1 ton of CH₄ has the same contribution to the greenhouse effect as approximately 27.9 tons of CO₂. The concept of CO₂-equivalents (CO₂E) is used to account for the different GWP potentials of GHGs to absorb infrared radiation.

International Activities

The IPCC is the leading body for the assessment of climate change. The IPCC is a scientific body that reviews and assesses the most recent scientific, technical, and socio-economic information produced worldwide relevant to the understanding of climate change. The scientific evidence brought up by the first IPCC Assessment Report of 1990 unveiled the importance of climate change as a topic deserving international political attention to tackle its consequences; it therefore played a decisive role in leading to the creation of the United Nations Framework Convention on Climate Change, the key international treaty to reduce global warming and cope with the consequences of climate change.

On March 21, 1994, the United States joined a number of countries around the world in signing the United Nations Framework Convention on Climate Change. Under the Convention, governments gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

The Kyoto Protocol is an international treaty which extends the United Nations Framework Convention on Climate Change and commits governments to reduce greenhouse gas emissions, based on the premise that (a) global warming exists and (b) human-made CO₂ emissions have caused it. The Kyoto Protocol was adopted in Kyoto, Japan on December 11, 1997 and entered into force on February 16, 2005. There are currently 192 signatory parties to the Protocol including the United States; however, the United States has not ratified the Protocol and is not bound by its commitments.

At the 2015 United Nations Climate Change Conference in Paris, a global agreement was initiated, which represented a consensus of the representatives of the 196 parties attending it. On April 22, 2016 (Earth Day), 174 countries signed the Paris Agreement in New York, and began adopting it within their own legal systems (through ratification, acceptance, approval, or accession). As of March 2020, 197 United Nations Climate Change Conference members have signed the agreement, 189 of which have ratified it. The United States ratified the Paris Agreement on September 3, 2016. The Paris Agreement entered into force on November 4, 2016, thirty days after the date on which at least 55 Parties to the Convention accounting in total for an estimated 55 percent of the total global greenhouse gas emissions deposited their instruments of ratification, acceptance, approval or accession.

On June 1, 2017, President Trump announced that the U.S. would cease participation in the Paris Agreement. The U.S. rejoined the Paris Agreement on February 19, 2021 under the Biden Administration.

Federal Activities

USEPA is currently considering rulemaking proposals to address some of our nation's largest sources of both climate- and health-harming pollution, such as the transportation, oil and natural gas, and power sectors. Federal GHG emissions standards for motor vehicles have been adopted for passenger cars and light trucks for model years 2023 through 2026. On April 12, 2023, USEPA announced new, more ambitious proposed standards to further reduce GHG and criteria pollutant emissions from light-duty and medium-duty vehicles starting with model year 2027.

State Authority

The primary legislation affecting GHG emissions in California is the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32). AB 32 (Nuñez; Chapter 488, Statutes of 2006) focuses on reducing GHG emissions in California and required the State to reduce GHG emissions to 1990 levels by 2020. CARB prepared a Draft Scoping Plan for Climate Change in 2008 pursuant to AB 32. The Climate Change Scoping Plan was updated in May 2014 and November 2017.

In 2016, the State met the AB 32 target, 4 years early. The State Legislature passed Senate Bill (SB) 32 (Pavley; Chapter 249, Statutes of 2016), which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB 32, the Legislature passed companion legislation AB 197, which provides additional direction for developing the Scoping Plan. The 2017 update to the Scoping Plan focuses on strategies to achieve the 2030 target set by Executive Order B-30-15 and codified by SB 32.

Executive Order B-55-18, signed September 10, 2018, sets a goal “to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter.” The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions should be offset by equivalent net removals of GHGs from the atmosphere, including through sequestration in forests, soils, and other natural landscapes. CARB finalized the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) on November 16, 2022 which lays out a path to achieve targets for carbon neutrality and reduce anthropogenic greenhouse gas emissions by 85 percent below 1990 levels no later than 2045.

Local Authority

Santa Barbara County completed the first phase (Climate Action Study) of its climate action strategy in September 2011. The Climate Action Study provides a County-wide GHG inventory and an evaluation of potential emission reduction measures. The second phase of the County’s climate action strategy is an Energy and Climate Action Plan (ECAP), which was adopted by the County Board of Supervisors on June 2, 2015. The ECAP includes a base year (2007) GHG inventory for unincorporated areas of the County, which identifies total GHG emissions of 1,192,970 metric tons CO₂E and 28,560 metric tons CO₂E for construction and mining equipment. Note that the base year inventory does not include stationary sources and energy use (natural gas combustion and electricity generation).

The focus of the ECAP is to establish a 15 percent GHG reduction target from baseline (by 2020) and develop source-based and land use-based strategies to meet this target. The County has been implementing the ECAP’s emission reduction measures since 2016. However, the County did not meet the 2020 GHG emission reduction goal contained within the ECAP. A draft 2030 Climate Action Plan was completed in June 2023 with a target of reducing GHG emissions by 50 percent from the 2018 baseline.

In November 2021, Santa Barbara County completed a Climate Change Vulnerability Assessment as a first step to improving regional resiliency by analyzing how climate change may harm the community. The Assessment considered how severe the effects of climate change hazards are likely to be for the county’s people and assets and identifies which groups of people and assets face the greatest potential for harm. The County is currently developing an Adaptation Plan and an update to the Santa Barbara County Seismic Safety and Safety Element to increase resiliency throughout the unincorporated county.

4.2.2 Impact Analysis and Mitigation Measures

4.2.2.1 Thresholds of Significance

Significance thresholds for air emissions are derived from the State CEQA Guidelines, the County's Guidelines Manual (updated 2021), and rules and regulations of the SBCAPCD.

Criteria Pollutants

Short-term/Construction Emissions. Short-term air quality impacts generally occur during project construction. CEQA requires a discussion of short-term impacts of a project in the environmental document. However, the County generally considers temporary construction emissions insignificant and quantitative thresholds for construction emissions have not been established.

Under SBCAPCD Rule 202 D.16, if the combined emissions from all construction equipment used to construct a stationary source which requires an Authority to Construct permit have the potential to exceed 25 tons of any pollutant, except carbon monoxide, in a 12-month period, the owner of the stationary source shall provide offsets under the provisions of Rule 804 and shall demonstrate that no ambient air quality standard will be violated.

Long-term/Operational Emissions Thresholds. Long-term air quality impacts occur during project operation and include emissions from any equipment or process used in the project (e.g., residential water heaters, engines, boilers, and operations using paints or solvents) and motor vehicle emissions associated with the project. These emissions must be summed in order to determine the significance of the project's long-term impact on air quality.

A significant adverse air quality impact may occur when a project, individually or cumulatively, triggers any one of the following:

- Interferes with progress toward the attainment of the ozone standard by releasing emissions which equal or exceed the established long-term quantitative thresholds for NO_x and ROC.
- Equals or exceeds the State or federal ambient air quality standards for any criteria pollutant (as determined by modeling).
- Emits (from all sources, except registered portable equipment) greater than the daily trigger for offsets in the SBCAPCD 1995 New Source Review Rule (240 pounds per day for NO_x or ROC; 80 pounds per day for PM₁₀).
- Emits greater than 25 pounds per day of NO_x or ROC (motor vehicle trips only).
- Causes or contributes to a violation of a State or Federal air quality standard (except ozone).

- Is inconsistent with adopted State and Federal Air Quality Plans (2022 Ozone Plan).

Toxic Air Contaminants

A significant impact related to toxic air contaminants may occur when a project, individually or cumulatively, exceeds the SBCAPCD health risk significance thresholds (10 excess cancer cases per million and/or an acute or chronic hazard index of 1.0 or greater) at a location of an existing or planned residence or work place. Additionally, an acute hazard index of 1.0 or greater at any off-site location that is reasonably accessible to the public is also considered a significant impact.

Greenhouse Gas Emissions

The County's Guidelines Manual (updated 2021) provides a numerical bright-line GHG threshold of 1,000 metric tons CO₂ equivalent for industrial stationary sources of air pollutants where the County is the CEQA lead agency. GHG emissions required to be estimated and compared to this threshold include direct and indirect (off-site power generation, water treatment, transportation and treatment of solid and liquid waste). Construction-related emissions must be accounted for in the year they occur.

Odors

The County's Guidelines Manual (updated 2021) does not include a quantitative odor threshold. The Guidelines Manual specifies those data required for an odor assessment if a project has the potential to cause a nuisance odor impacting a large number of people. The required information includes a history of complaints from pre-existing conditions and the number of people affected. The analysis is not required to quantify nuisance impacts at the initial study stage, and the impact may be analyzed qualitatively on a case-by-case basis.

The SBCAPCD also does not have a specific odor threshold for use in evaluating projects under CEQA. Although an odor may be detected, the frequency of occurrences and the number of receptors where an odor might be detected are also considerations in determining the significance of the odor impact. To determine if detectable odors would result in a nuisance impact, a frequency analysis was conducted to identify the number of hours per year odors would be detectable. For the purposes of this impact analysis, if an odor can be detected by a considerable number of receptors, a significant nuisance odor impact may occur and violate Section 41700 of the Health and Safety Code and SBCAPCD Rule 303.

4.2.2.2 Approved Tajiguas Landfill Expansion Project

The following is a summary of air quality impacts identified for the approved Tajiguas Landfill Expansion Project in 01-EIR-05 (see Section 1.6.2).

1. The average daily off-site mobile source NO_x emissions increase over baseline (July 1998-December 1999) was considered a significant and unavoidable impact. Mitigation measure AQ-1 was implemented to reduce mobile source emissions associated with landfill operation.
2. The 1-hour NO₂ air quality standard would be exceeded as a result of on-site landfill emissions (mobile equipment exhaust and landfill gas combustion), and was considered a significant and unavoidable impact. Mitigation measure AQ-1 was implemented to reduce mobile source emissions associated with landfill operation, and mitigation measure AQ-4 was implemented to provide a buffer east of the landfill (Baron Ranch).
3. The 24-hour PM₁₀ air quality standard would be exceeded as a result of on-site landfill emissions (mobile equipment operation, vehicle operation on unpaved roads, wind erosion), and was considered a significant and unavoidable impact. Mitigation measure AQ-1 was implemented to reduce mobile source emissions associated with landfill operation, mitigation measure AQ-3 was implemented to reduce fugitive dust, and mitigation measure AQ-4 was implemented to provide a buffer east of the landfill (Baron Ranch).
4. The maximum modeled carcinogenic health risk at the project boundary (associated with landfill gas, fuel combustion and landfill gas combustion) would be 15 in-a-million, and considered a significant and unavoidable impact. Mitigation measure AQ-4 was implemented to provide a buffer east of the landfill (Baron Ranch).
5. The potential chronic and acute non-carcinogenic health risks along the project boundary and at residences would be below the USEPA and CAPCOA significance criteria resulting in adverse but less than significant air quality impact.
6. Odors generated by waste and landfill gas could result in off-site impacts and were considered significant but mitigable. Mitigation measure AQ-4 was implemented to provide a buffer east of the landfill (Baron Ranch), and mitigation measure AQ-5 was implemented to control fugitive landfill gas.
7. The potential for dust generated by landfill operations to result in off-site impacts was considered a less than significant impact.

4.2.2.3 Approved Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project

No additional air quality impacts (beyond those discussed for the Landfill Expansion Project [Section 4.2.2.2]) were identified in association with the approved Tajiguas Landfill Reconfiguration Project. Landfill reconfiguration involved deleting the buttress fill and reduced the amount of excavation and related earth handling (soil movement, stockpiling, spreading and compaction) by approximately 1.3 million cubic yards. Which was expected to result in reduced use of earth handling equipment (dozers, wheeled loaders and scrapers) and associated air emissions. However, existing significant and unavoidable air quality impacts associated with off-site vehicle emissions (waste, employee and materials transportation) were expected to continue with the landfill reconfiguration as the permitted volume of waste handled, the permitted traffic volumes and number of on-site staff would remain the same and the amount of active equipment and associated emissions on a typical day of operations was not expected to substantially change.

The health risk assessment prepared in 01-EIR-05 was considered adequate (if not conservative) to address the health risk associated with continued operation of the landfill as reconfigured.

4.2.2.4 Approved Tajiguas Resource Recovery Project (ReSource Center)

12EIR-00000-00002 and 2017 Addendum prepared for the ReSource Center (see Section 1.6.3) identified the following air quality/GHG impacts:

1. Criteria air pollutant emissions generated by construction of project facilities would not exceed thresholds and are considered a less than significant impact.
2. Criteria air pollutant emissions generated by operation of project facilities would not exceed thresholds and would not significantly impact regional air quality.
3. Criteria air pollutant emissions generated by normal operation of project facilities would not cause or contribute to exceedances of ambient air quality standards and are considered a less than significant impact.
4. Criteria air pollutant emissions generated by short-term operational scenarios of the flare and engines would not cause or substantially contribute to exceedances of air quality standards and are considered a less than significant impact.
5. Operation of project facilities would result in emissions of toxic air contaminants, but emissions would not result in significant health risks at adjacent land uses.

6. Construction of project facilities would generate greenhouse gas emissions that would result in a less than significant contribution to global climate change.
7. Implementation of the ReSource Center would reduce GHG emissions associated with landfill disposal by diversion of organic waste that would produce landfill gas emissions, and export of electricity that would offset GHG emissions associated with electricity generation (beneficial impact).
8. Implementation of the ReSource Center would reduce GHG emissions by improved recovery and recycling of materials (beneficial impact).
9. Odors generated by solid waste processing in the ReSource Center facilities may create a less than significant nuisance air quality impact.
10. H₂S and organic sulfides may be produced in the anaerobic digesters and resulting compost but would not result in exceedances of SBCAPCD Rule 310 limits (insignificant impact).
11. Project-related extension of life of the Tajiguas Landfill would extend the duration of air pollutant emissions associated with landfill operations and associated NO_x, NO₂ and 24-hour PM₁₀ air quality impacts (significant unavoidable impact).

4.2.2.5 Proposed Tajiguas Landfill Capacity Increase Project

Methodology and Assumptions

Calculation Methodologies for Construction Emission Sources. Construction activities associated with the proposed project would include site preparation, grading, blasting, drainage improvements, and utilities relocation. These activities would result in the temporary generation of GHG and criteria air pollutant emissions, including fugitive dust PM and exhaust combustion emissions. Fugitive dust would result from on-site ground disturbance and re-entrained roadway dust from construction-related vehicles travelling on paved and unpaved roadways. Exhaust emissions would be generated by heavy-duty construction equipment and vehicles, vendor and haul trucks transporting materials and equipment to and from the site, and construction worker commute trips to and from the Landfill property.

On-road and off-road construction equipment emissions and fugitive dust emissions, except for blasting activities, were estimated using California Air Pollution Control Officers Association (CAPCOA) California Emissions Estimator Model (CalEEMod), version 2022.1 (CAPCOA 2022). CalEEMod applies the CARB's OFFROAD2021 and EMFAC2021 emission inventory models and AP-42: Compilation of Air Pollutant Emissions Factors (USEPA, 1995). These emissions estimates reflect project-specific construction parameters including construction schedule, daily equipment activity, material delivery trips, and construction worker commute trips. Where project-specific information was not available, regionally specific default parameters for projects in Santa Barbara County, as provided by CalEEMod, were applied, such as for worker vehicle and material delivery truck fleet mix.

Emissions associated with blasting activities were estimated using the estimated amount of explosives per blast, the approximate number of blasts per day, and number of days blasting would occur per year. Emissions of NO_x, ROC, CO, and SO_x for each ton of explosive were estimated using USEPA AP-42: Compilation of Air Emissions Factors, Section 13.3, Explosives Detonation emission factors (USEPA 1995). PM emissions from blasting activities were estimated using the San Diego Air Pollution Control District Drilling and Blasting Operations emissions factors which provides pounds of PM generated per blasting event (SDAPCD 2013). GHG emissions associated with blasting activities were based on the composition of the fuel oil used in the explosive material and The Climate Registry default emission factors for calculating CO₂ emissions from combustion of fossil fuel (The Climate Registry 2021).

The following standard emissions reduction measures recommended by the SBCAPCD would be implemented during project construction and are assumed in the construction emissions calculations for criteria pollutant and GHG emissions.

- During construction, use water trucks, sprinkler systems, or dust suppressants in all areas of vehicle movement to prevent dust from leaving the site and from exceeding the SBCAPCD's limit of 20 percent opacity for greater than 3 minutes in any 60 minute period. When using water, this includes wetting down areas as needed but at least once in the late morning and after work is completed for the day. Increased watering frequency should be required when sustained wind speed exceeds 15 mph. Reclaimed water should be used whenever possible. However, reclaimed water should not be used in or around crops for human consumption.
- Onsite vehicle speeds shall be no greater than 15 miles per hour when traveling on unpaved surfaces.

- Install and operate a track-out prevention device where vehicles enter and exit unpaved roads onto paved streets. The track-out prevention device can include any device or combination of devices that are effective at preventing track out of dirt such as gravel pads, pipe-grid track-out control devices, rumble strips, or wheel-washing systems.
- If importation, exportation, and stockpiling of fill material is involved, soil stockpiled for more than one day shall be covered, kept moist, or treated with soil binders to prevent dust generation. Trucks transporting fill material to and from the site shall be tarped from the point of origin.
- Minimize the amount of disturbed area. After clearing, grading, earthmoving, or excavation is completed, treat the disturbed area by watering, OR using roll-compaction, OR revegetating, OR by spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur. All roadways, driveways, sidewalks etc. to be paved should be completed as soon as possible.
- Schedule clearing, grading, earthmoving, and excavation activities during periods of low wind speed to the extent feasible. During periods of high winds (>25 mph) clearing, grading, earthmoving, and excavation operations shall be minimized to prevent fugitive dust created by onsite operations from becoming a nuisance or hazard.
- The contractor shall designate a person or persons to monitor and document the dust control program requirements to ensure any fugitive dust emissions do not result in a nuisance and to enhance the implementation of the mitigation measures as necessary to prevent transport of dust offsite. Their duties shall include holiday and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the SBCAPCD prior to grading/building permit issuance and/or map clearance.

Calculation Methodologies for Operations Emission Sources - Introduction.

Operational emissions would be generated by a variety of sources, including off-road equipment, on-road vehicle traffic on-site and off-site, as well as fugitive PM from working face activities, ROC emissions from landfill gas fugitives, fuel storage tanks, and gasoline fueling, and indirect GHG emissions from an increase in electricity consumption. Emissions from off-road equipment are based on recorded hours of operation, fuel usage, and miles traveled for fiscal year 2020-2021 by the Landfill.

Calculation Methodologies for Operations Emissions Sources – Off-road Engines. Diesel engine emissions were calculated based on USEPA engine tier emission factors based on the engine horsepower and the year of engine manufacture. Adjustments to the USEPA factors are made using load factors (a measure of the fraction of full engine load is used) and fuel correction factors, which are corrections made based on differences in aromatic content of California specific fuel and fuel used to set the USEPA standards (CARB 2017b).

Gasoline engine emissions are based on federal regulations and where applicable, emission factors from USEPA (1995). SO₂ emissions from both diesel and gasoline off-road engines are based on maximum allowable regulated fuel sulfur content and a mass balance of fuel consumption. GHG emission from both diesel and gasoline off-road engines are based on emission factors from the Code of Federal Regulations (40 CFR Part 98 Subpart C Tables C-1 and C-2).

Some equipment used in off-road operations are motor vehicles. These include watering trucks, a fuel truck, and various pickup trucks which are used around the Landfill. Emission factors were obtained from EMFAC2021 for the specific vehicle classes (LHD1, LHD2, MDV, Class 6, Class 8) based on gross vehicle weight rating and model years. Speed bins between 5-15 miles per hour (limited to 10-15 mph for Class 8 vehicles) were averaged for use. 15 miles per hour was used as the upper limit for operation based on the posted speed limit on the Landfill property.

Calculation Methodologies for Operations Emission Sources – On-road Vehicles. Under existing baseline conditions, the Landfill experiences 163 average roundtrips per day. As such, the emission estimates associated with the proposed project is the net difference between the permitted 184 and baseline 163 roundtrips per day (21). Emissions from on-road motor vehicles were estimated using vehicle trips, vehicle miles traveled (VMT), and EMFAC2021 mobile source emission factors, as well as USEPA (1995) emission factors for travel on paved and unpaved roads.

Emissions were estimated using the average number of trips per day per each route based on information provided by RRWMD, route distance, and whether the route is paved or unpaved. Based on information provided by RRWMD, approximately 75 percent of the fleet mix is diesel-fueled, and 25 percent is natural gas-powered. As such, emission factors from EMFAC2021 were obtained for a natural gas-powered 9-ton vehicle (modeled as a T7 solid waste collection vehicle class 8 vehicle category) and a 10-ton diesel-fueled 10-ton vehicle (modeled as a T7 single dump class 8 vehicle category). On-site emissions associated with the proposed project were estimated by calculating the net increase in vehicle trips through the various routes.

Similarly, off-site mobile source emissions were estimated using the average number of trips per day and distances to and from the Landfill from various facilities, including Marborg Construction & Demolition Recycling and Transfer Facility, the South Coast Recycling and Transfer Station, and Santa Ynez Valley Recycling and Transfer Station.

Due to the variability in truck types delivering waste to the Landfill, emission factors for off-site vehicle trips were calculated using a weighted average emission factor for various diesel truck types in EMFAC2021, including T7 public class 8, T7 single dump class 8, T7 single other class 8, T7 solid waste collection vehicle class 8, and T7 tractor class 8. Based on information provided by RRWMD, Landfill operations under the proposed project would involve approximately 184 average trips per day by 2038 (the permitted number of trips).

Calculation Methodologies for Operations Emission Sources - Fugitive Particulate Matter from Daily Working Face Activities. Fugitive dust emissions from operation of bulldozers, scrapers and steel-wheeled compactors and the application of daily cover at the working face are estimated based on equations from USEPA (1995) for material handling: Section 11.9 for bulldozing and Section 13.2.4 for material drops. The seven pieces of off-road equipment at the working face operate anywhere from less than one to 5.3 hours per day at the working face. To be conservative, the 90th percentile of the hours of operation for the equipment was used in the fugitive dust calculation (4.09 hours/day). The application of the daily cover was assumed to occur one hour per day, during the last hour of activity at the working face each day prior to covering the working face with the tarps.

Calculation Methodologies for Operations Emission Sources - Fugitive ROC Emissions from Landfill Gas. ROC emissions from the new landfill areas are calculated based on using methodology from 40 CFR Part 98 Subpart HH, Equation HH-1. This calculation provides an estimate of methane generated from the waste in the landfill cell as a function of the amount of waste disposed and the number of years since the waste was placed in the landfill. Default factors of 0.2 (20 percent) for degradable organic carbon from bulk waste and a "k" factor of 0.02 based on historical rainfall were used in the calculations. Although the facility is separating recyclable paper and organics (food and green waste), a degradable organic carbon fraction has not been established for the post separation waste which is placed into the landfill.

A landfill gas collection factor of 83 percent (landfill gas wells and collection piping capture 83 percent of landfill gas generated by decomposing waste in place) was used based on the Landfill's recent 40 CFR 98 Subpart HH reporting to USEPA. From this value, the volume of landfill gas can be estimated by use of the ideal gas law and default values of landfill gas containing 50 percent methane. The ROC portion of landfill gas is estimated using default non-methane organics concentration of 838 ppmv from USEPA (1995). No assumption of soil oxidation is included in this ROC estimate for the portion of landfill gas not collected.

Calculation Methodologies for Operations Emission Sources - ROC Emissions from Fuel Storage Tanks. Red (offroad) and clear diesel tanks, and unleaded gasoline tank and gasoline fueling sources would be relocated from their current location to an area near the MRF building. These emissions are not expected to change but would be relocated within the Landfill operational area as part of the project. ROC emissions from the tanks were calculated using TANKS 4.09 as submitted with the RC 14500 10 Authority to Construct (ATC) application.

Calculation Methodologies for Operations Emission Sources - ROC Emissions from Gasoline Fueling. The gasoline fueling, hose permeation, breathing and spillage emissions were calculated based on approved SBCAPCD emission factors for the U2 system type and the H3 hose type as listed in Form 25-T (SBCAPCD 2023).

Calculation Methodologies for Operations Emission Sources - Electricity Consumption. Indirect GHG emissions from electricity consumption was calculated using the Landfill's existing annual electricity usage of 118,091 kilowatt-hours per year, and an anticipated total electricity consumption increase of two percent with project implementation, based on information provided by the RRWMD. As such, the proposed project would require approximately an additional 2,362 kilowatt-hours per year. While the Landfill has on-site renewable energy generation provided by existing photovoltaic solar panels, indirect GHG emissions were conservatively estimated assuming the additional electricity demand would be met by Southern California Edison and GHG emissions were estimated using a general power mix GHG intensity of 580 pounds per megawatt-hours per year based on the 2021 Power Content Label (CEC 2021).

Ambient Air Dispersion Modeling. Ambient air dispersion modeling evaluates the impact of project-related emissions of criteria pollutants (CO, NO₂, SO₂, PM₁₀, PM_{2.5}), ROC and TACs (e.g., diesel PM) along the ambient air boundary and at existing nearby sensitive receptors such as residences and schools. EPA's AERMOD model (Version 22112) was used to analyze the impacts from the proposed project. The AERMOD model was run using default options, as described in SBCAPCD Guidance. The modeling was run with five years (2012-2016) of meteorological data from SBCAPCD's website consisting of surface observations from Las Flores Canyon Site #1 station, and concurrent upper air data from Vandenberg Air Force Base in Vandenberg, California.

The Tier 2 approach was used in this analysis to handle the NO to NO₂ conversion in AERMOD with the EPA-default NO-to-NO₂ upper limit of 0.9 and lower limit of 0.5.

A Good Engineering Practice stack height analysis was performed to determine the potential for building-induced aerodynamic downwash. The analysis procedures described in EPA's Guidelines for Determination of Good Engineering Practice Stack Height (USEPA 1985), Stack Height Regulations (40 CFR 51), and current Model Clearinghouse guidance were used.

Emission sources associated with the proposed project were included in the criteria pollutant modeling and the health risk assessment. These sources include the 21 motor vehicle roundtrips per day (difference between the baseline 163 roundtrips and permitted 184 roundtrips) from the entrance to the Landfill to the MRF building and a subset of which (5 roundtrips per day) that would travel to the working face. The analysis also included the equipment that currently operate at the working face) in two future locations – one representing the vertical expansion of the landfill (Scenario 1) and one representing the horizontal expansion of the landfill near the Landfill's eastern property boundary (Scenario 2).

ROC emissions from the gasoline tank and fueling as well as two diesel tanks were also included in the modeling as they would be relocated from their current location near the eastern property boundary to a location near the MRF building in approximately 2034.

The appropriate ambient background concentrations for each pollutant were added to the modeled impacts from the project to account for impacts from non-project sources. Since the mobile equipment and fugitive dust at the working face is already in operation at the Landfill and would continue to do so, modeling this equipment and fugitive dust is conservative as it is already included in the ambient background concentrations. This also applies to the fugitive dust generated by daily soil cover and material movement activities. These emissions would move to new locations within the Landfill operational area. The background concentrations for the years 2017 through 2019 as provided by SBCAPCD were used in this analysis. CO, 1-hour NO₂ and SO₂ (CAAQS), 3-hour and 24-hour SO₂, annual NO₂ and SO₂, 24-hour and annual PM₁₀ and annual PM_{2.5} values are the maximum concentration over the three-year period. The 1-hour NO₂ and 24-hour PM_{2.5} (NAAQS) values are the 98th percentile for each year averaged over the three-year period. The 1-hour SO₂ (NAAQS) values are the 99th percentile for each year averaged over the three-year period.

The Las Flores Canyon #1 monitoring station data was used for all pollutants except PM_{2.5}, as this station does not monitor PM_{2.5}. Goleta monitoring station data was used to determine the PM_{2.5} background concentrations; the 98th percentile data was used for determining the 24-hour PM_{2.5} concentration, consistent with the reporting form for the NAAQS. SBCAPCD recognizes that the background 24-hour PM₁₀ concentration is above the CAAQS, and if the modeled 24-hour PM₁₀ concentration is less than 10 percent of the CAAQS, the impact is considered less than significant.

Health Risk Assessment. Exposure factors were used to calculate doses associated with exposure to the estimated unit concentration results obtained using AERMOD. CARB's HARP2 model was used to estimate acute, chronic non-cancer, and cancer risks, and incorporates the most recent approved health data, which are contained in the Consolidated Table of OEHHA/CARB Approved HRA Health Values.

Cancer risk for sensitive receptors was evaluated for an exposure duration of 30 years for residential receptors and 25 years exposure for occupational worker receptors. Factors that affect the dose that a receptor would receive include, but are not limited to, age-specific daily breathing rates and exposure time, frequencies, and duration.

Construction Emissions Impacts

Impact AQ-1: Project-related construction activities would result in criteria air pollutant emissions that may affect regional air quality – Insignificant Impact.

Construction activities would involve sources of air pollutants, including heavy equipment, heavy-duty trucks and worker vehicles. Table 4.2-3 provides a summary of criteria air pollutant emissions for the peak year during project-related construction activities. SBCAPCD Rule 202 D.16 applies to projects that include a stationary source that requires an Authority to Construct permit and includes a 25 tons per year threshold for criteria pollutant emissions, except carbon monoxide. If pollutants exceed the 25 tons per year threshold, the owner of the stationary source is required to provide offsets and must demonstrate that no ambient air quality standard will be violated. This threshold is used to determine the significance of construction emissions of the proposed project. As shown in Table 4.2-3, the maximum construction emissions during a 12-month time period would not exceed this threshold and is considered a less than significant impact.

Table 4.2-3. Summary of Construction Air Pollutant Emissions

	Maximum Annual Emissions (tons/year)					
	ROC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Peak Year Total	0.63	7.93	10.09	0.18	2.12	0.52
SBCAPCD Threshold	25	25	--	25	25	25
Significant Impact (Yes/No)	No	No	No	No	No	No

Operation Emissions Impacts

Impact AQ-2: Landfill operations as modified by the proposed project would result in an increase in criteria air pollutant emissions that may affect regional air quality – Insignificant Impact.

Project operation would generate exhaust and fugitive dust emissions from on-site mobile equipment, and on-site and off-site motor vehicles used to transport solid waste and recyclables. In addition, landfill gas fugitive emissions (from the Landfill surface) would increase due to the larger volume of buried waste in place, including ROC emissions. Note that landfill gas extraction wells and piping would be extended into the proposed Phase IV waste fill area and existing landfill gas treatment and control systems (see Section 4.4.1.4) would minimize landfill gas emissions. Table 4.2.4 provides a summary of maximum daily criteria pollutant emissions generated during operation of the project. Overall, project operations emissions would not exceed any County thresholds, and would have a less than significant impact to regional air quality.

Table 4.2-4. Summary of Air Pollutant Emissions associated with Project Operation

Source	Maximum Daily Emissions (pounds/day)					
	ROC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
On-site equipment	0.91	2.08	15.77	0.03	0.10	0.09
Motor vehicles	0.01	0.95	0.99	0.01	24.82	2.52
Fugitive dust (mobile equipment)	0.00	0.00	0.00	0.00	1.99	1.22
Fugitive dust (application of daily cover)	0.00	0.00	0.00	0.00	<0.01	<0.01
Landfill gas fugitive emissions	24.56	0.00	0.00	0.00	0.00	0.00
Total Emissions	25.48	3.03	16.76	0.04	26.91	3.83
<i>Santa Barbara County CEQA Threshold¹</i>	240	240	--	--	80	--
Significant Impact	No	No	No	No	No	No
<i>Motor Vehicle Threshold</i>	25	25	--	--	--	--
Significant Impact	No	No	--	--	--	--

¹ Thresholds are based on SBCAPCD's 1995 New Source Review Rule.

Impact AQ-3: Landfill operations as modified by the proposed project would result in an increase in and relocation of criteria air pollutant emissions within the Landfill operational area that may cause or contribute to exceedances of ambient air quality standards – Insignificant Impact.

An air dispersion model (AERMOD) was used with five years of meteorological data to determine ground level concentrations of pollutants emitted by the project for comparison to the NAAQS and CAAQS. The results of the NAAQS analysis are shown in Tables 4.2-5 and 4.2-6, and provide a comparison of the modeled concentrations (project contribution + background) to the “design value” concentration based on the form of the standard. Two scenarios were modeled to represent equipment and vehicle activity at the Landfill’s working face which would change location over time as the project is implemented from the center of the disposal area (Scenario 1) to near the eastern boundary of Landfill operational area (Scenario 2).

The modeling results are conservative because they include mobile equipment and fugitive dust emissions at the Landfill working face in background ambient concentrations (represented in the ambient air quality monitoring station data) and as a project impact.

As shown in Tables 4.2-5 and 4.2-6, the modeled project contribution (from all sources), when combined with the appropriate ambient background concentration, would be below the NAAQS for all pollutants. Therefore, project-related emissions would not cause or substantially contribute to an exceedance of the NAAQS, and air quality impacts are considered less than significant.

Table 4.2-5. Scenario 1 Air Dispersion Modeling Results – NAAQS (µg/m³)

Pollutant	Averaging Period	Project Contribution	Ambient Background	Total Concentration	NAAQS	Less than NAAQS?
SO ₂	1-hour ²	1.1	4.4	5.5	196.5	Yes
	3-hour	1.0	4.2	5.2	1300	Yes
	24-hour	0.1	1.8	1.9	365	Yes
	Annual	0.002	0.5	0.5	80	Yes
CO	1-hour	1349.2	1954.0	3303.2	40,000	Yes
	8-hour	192.7	1494.3	1687.0	10,000	Yes
NO ₂ ¹	1-hour ³	24.9	15.0	39.9	188	Yes
	Annual	0.2	3.3	3.4	100	Yes
PM ₁₀	24-hour	3.4	68.0	71.4	150	Yes
PM _{2.5}	24-hour ³	0.2	14.9	15.1	35	Yes
	Annual	0.03	7.9	7.9	12	Yes

¹ 1-hour NO₂ impacts multiplied by 0.8 and annual NO₂ impacts multiplied by 0.75 to represent Tier 2 NO_x/NO₂ conversion.

² 99th percentile modeled concentration, the proper form of standard is 3-year average of the 99th percentile of the daily maxima.

³ 98th percentile modeled concentration, the proper form of standard is 3-year average of the 98th percentile of the daily maxima.

Table 4.2-6. Scenario 2 Air Dispersion Modeling Results – NAAQS (µg/m³)

Pollutant	Averaging Period	Project Contribution	Ambient Background	Total Concentration	NAAQS	Less than NAAQS?
SO ₂	1-hour ²	2.2	4.4	6.6	196.5	Yes
	3-hour	1.3	4.2	5.5	1300	Yes
	24-hour	0.2	1.8	2.0	365	Yes
	Annual	0.01	0.5	0.5	80	Yes
CO	1-hour	1780.5	1954.0	3734.5	40,000	Yes
	8-hour	254.4	1494.3	1748.7	10,000	Yes
NO ₂ ¹	1-hour ³	87.4	15.0	102.4	188	Yes
	Annual	0.9	3.3	4.2	100	Yes
PM ₁₀	24-hour	4.4	68.0	72.4	150	Yes
PM _{2.5}	24-hour ³	1.0	14.9	15.9	35	Yes
	Annual	0.2	7.9	8.1	12	Yes

¹ 1-hour NO₂ impacts multiplied by 0.8 and annual NO₂ impacts multiplied by 0.75 to represent Tier 2 NO_x/NO₂ conversion.

² 99th percentile modeled concentration, the proper form of standard is 3-year average of the 99th percentile of the daily maxima.

³ 98th percentile modeled concentration, the proper form of standard is 3-year average of the 98th percentile of the daily maxima.

The results of the CAAQS analysis are provided in Tables 4.2-7 and 4.2-8. For the CAAQS analysis, the representative ambient background concentration was added to the modeled ground level concentration and compared to the CAAQS. In all cases, the form of the CAAQS is “not to be exceeded”, so the maximum modeled concentrations are reported. As shown in Tables 4.2-7 and 4.2-8, excluding 24-hour PM₁₀ concentrations, the modeled project contribution (from all sources), when combined with the appropriate ambient background concentration, are below the CAAQS for all pollutants. Note that the 24-hour PM₁₀ ambient background concentration (68.0 ug/m³) exceeds the CAAQS (50 ug/m³). Based on guidance from the SBCAPCD, because the project contribution would not exceed 10 percent of the CAAQS (5 ug/m³ in this case) and a significant PM₁₀ impact was previously identified for the Tajiguas Landfill, the contribution is considered less than significant. As shown in Tables 4.2-7 and 4.2-8, the 24-hour PM₁₀ project contribution is less than 5 ug/m³. Therefore, project-related emissions would not cause or substantially contribute to an exceedance of the CAAQS, and air quality impacts are considered less than significant.

Table 4.2-7. Scenario 1 Air Dispersion Modeling Results – CAAQS (µg/m³)

Pollutant	Averaging Period	Project Contribution	Ambient Background	Total Concentration	CAAQS	Less than CAAQS?
SO ₂	1-hour	3.3	5.2	8.5	655	Yes
	24-hour	0.2	1.8	2.0	105	Yes
CO	1-hour	1521.0	1954.0	3475.0	23,000	Yes
	8-hour	217.3	1494.3	1711.6	10,000	Yes
NO ₂	1-hour	158.1	28.2	186.3	339	Yes
	Annual	0.2	3.3	3.4	57	Yes
PM ₁₀	24-hour	4.2	68.0	72.2	50	No
	Annual	0.05	17.0	17.0	20	Yes
PM _{2.5}	Annual	0.03	7.9	7.9	12	Yes

All short-term results are the highest modeled value, annual results are the highest annual average.

Table 4.2-8. Scenario 2 Air Dispersion Modeling Results – CAAQS ($\mu\text{g}/\text{m}^3$)

Pollutant	Averaging Period	Project Contribution	Ambient Background	Total Concentration	CAAQS	Less than CAAQS?
SO ₂	1-hour	4.1	5.2	9.3	655	Yes
	24-hour	0.2	1.8	2.0	105	Yes
CO	1-hour	1873.7	1954.0	3827.7	23,000	Yes
	8-hour	267.7	1494.3	1762.0	10,000	Yes
NO ₂	1-hour	194.7	28.2	222.9	339	Yes
	Annual	0.9	3.3	4.2	57	Yes
PM ₁₀	24-hour	4.9	68.0	72.9	50	No
	Annual	0.22	17.0	17.2	20	Yes
PM _{2.5}	Annual	0.15	7.9	8.1	12	Yes

All short-term results are the highest modeled value, annual results are the highest annual average.

Impact AQ-4: Landfill operations as modified by the proposed project would result in an increase in and relocation of toxic air contaminants emissions within the Landfill operational area that may cause or contribute to health risks at adjacent land uses – Insignificant Impact.

An air dispersion model (AERMOD) was used with five years of meteorological data to determine ground level concentrations of toxic air contaminants emitted by the project. The HARP2 model was then used to identify cancer risk and non-cancer health hazards at the nearest residence (nearest Arroyo Quemada residence), which represents the maximum exposed residence (MEIR) and the Arroyo Hondo Preserve maintenance buildings which represents the maximum exposed worker (MEIW). A summary of cancer risk and non-cancer health impact risk values are presented in Tables 4.2-9 and 4.2-10 for Scenarios 1 and 2, respectively. While the project Scenario 2 health risk assessment indicates the cancer risk threshold would be exceeded at the point of maximum impact, this area is uninhabited, inaccessible (steep terrain with dense vegetation) and the area is not reasonably accessible by the public and individuals would not be exposed to this risk. Project-related cancer risk and health hazard index values are less than the SBCAPCD thresholds and are considered a less than significant impact.

A facility-wide summary of cancer risk and non-cancer health impact risk values are presented in Table 4.2-11 for existing and proposed sources of TAC emissions at the Landfill. While the facility-wide health risk assessment indicates the cancer risk and acute hazard index thresholds would be exceeded at the point of maximum impact, this area is uninhabited, inaccessible (steep terrain with dense vegetation) and the area is not reasonably accessible by the public and individuals would not be exposed to this risk. Therefore, facility-wide TAC emissions would not result in a significant health risk impact.

Table 4.2-9. Scenario 1 Health Risk Assessment Results (Project Only)

Receptor Type	Maximum Cancer Risk (per million)	Maximum Acute Hazard Index	Maximum Chronic 8-hour Risk	Maximum Chronic Hazard Index
Point of Maximum impact	4.04	0.29	0.01	0.08
Maximum Exposed Resident	0.39	0.13	<0.01	0.01
Maximum Exposed Worker	0.14	0.13	<0.01	<0.01
<i>SBCAPCD Threshold</i>	<i>10</i>	<i>1</i>	<i>1</i>	<i>1</i>
Significant Impact	No	No	No	No

Table 4.2-10. Scenario 2 Health Risk Assessment Results (Project Only)

Receptor Type	Maximum Cancer Risk (per million)	Maximum Acute Hazard Index	Maximum Chronic 8-hour Risk	Maximum Chronic Hazard Index
Point of Maximum impact	12.28	0.37	0.03	0.34
Maximum Exposed Resident	0.40	0.14	<0.01	<0.01
Maximum Exposed Worker	0.14	0.13	<0.01	<0.01
<i>SBCAPCD Threshold</i>	<i>10</i>	<i>1</i>	<i>1</i>	<i>1</i>
Significant Impact	No ¹	No	No	No

¹ Point of maximum impact is located in an inaccessible area near the Landfill property boundary and not considered in the analysis

Table 4.2-11. Summary of the Results of the Health Risk Assessment (Facility-Wide)

Receptor Type	Maximum Cancer Risk (per million)	Maximum Acute Hazard Index	Maximum Chronic 8-hour Risk	Maximum Chronic Hazard Index
Point of Maximum impact	27.76	1.37	0.03	0.39
Maximum Exposed Resident	4.85	0.71	0.01	0.07
Maximum Exposed Worker	1.27	0.45	0.01	0.05
<i>SBCAPCD Threshold</i>	<i>10</i>	<i>1</i>	<i>1</i>	<i>1</i>
Significant Impact	No ¹	No ¹	No	No

¹ Point of maximum impact is located in an inaccessible area near the Landfill property boundary and not considered in the analysis

Greenhouse Gas Emissions

Impact AQ-5: Construction of new disposal areas and extended Landfill operations would generate greenhouse gas emissions that would contribute to global climate change – Significant and Unavoidable Impact.

Continued management and disposal of residual waste from the communities served by the Tajiguas Landfill would result in GHG emissions. Table 4.2-12 provides an annual summary of GHG emissions associated with implementation of the proposed project, and includes construction-related GHG emissions, project-related increases in landfill gas-related GHG emissions associated with increased waste in place (fugitives not captured and treated), indirect GHG emissions associated with combustion of landfill gas in engines and flares, and GHG emissions from increased waste disposal truck trips. Note that GHG emissions would start to decline about one year after proposed Landfill closure in 2038. The 2026 GHG emissions increase would be zero because construction would not occur in that year, and waste landfilled under the proposed project (assumed as post-March 2026) would not generate landfill gas yet.

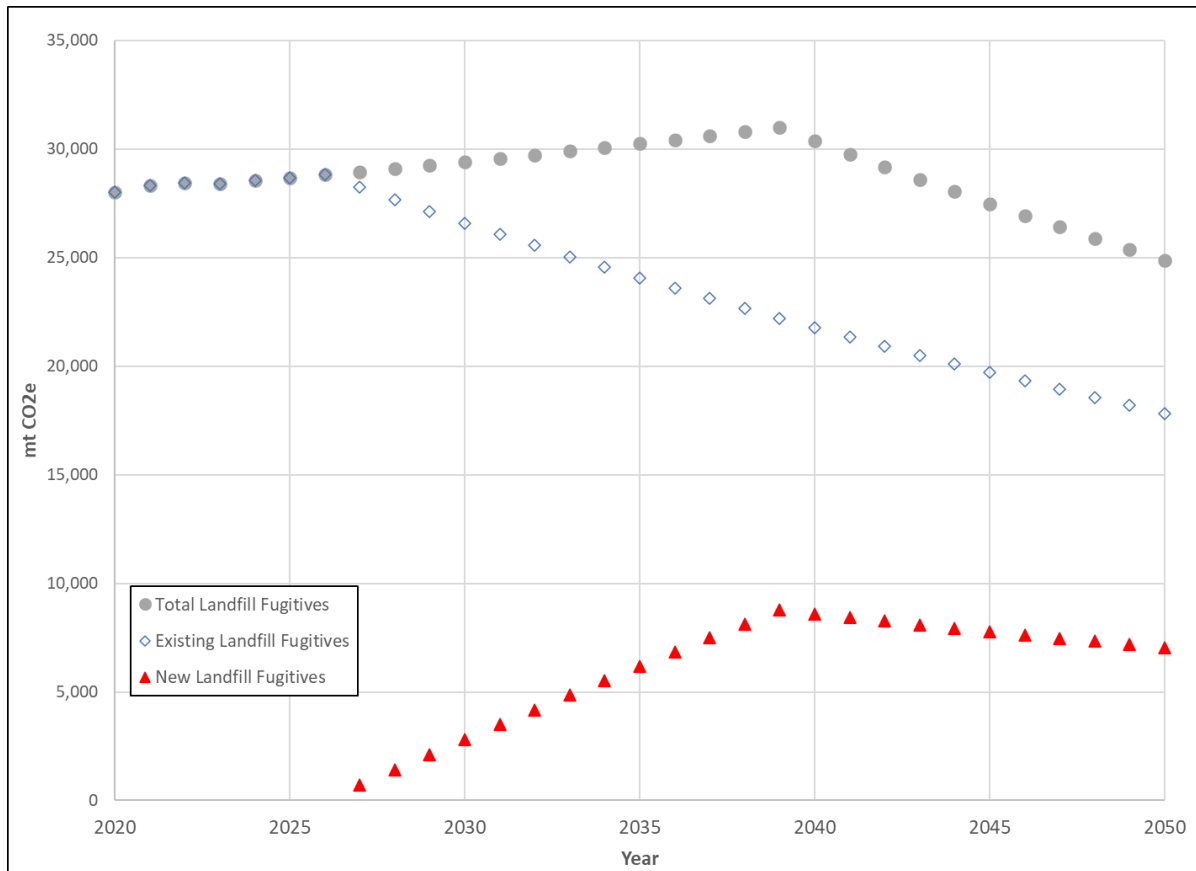
Annual GHG emissions would exceed the significance threshold in all years except 2025 and 2026. Project-related increases in GHG emissions from managing and landfilling the community's waste would exceed the County's threshold and are considered a significant impact.

Table 4.2-12. Annual GHG Emissions (metric tons CO₂E)

Year	Construction Emissions	Increased Landfill Gas Fugitives	Increased Indirect GHG from Landfill Gas Combustion	Increased On-Site and Off-site Mobile Sources	Total
2024	1,385	0	0	0	1,385
2025	670	0	0	0	670
2026	0	0	0	0	0
2027	137	534	381	100	1,152
2028	0	1,243	887	100	2,230
2029	265	1,945	1,388	100	3,698
2030	0	2,641	1,884	100	4,625
2031	0	3,330	2,375	100	5,805
2032	0	4,013	2,863	100	6,975
2033	743	4,690	3,345	100	8,878
2034	0	5,361	3,824	100	9,285
2035	0	6,026	4,299	100	10,425
2036	149	6,686	4,769	100	11,704
2037	171	7,340	5,236	100	12,848
2038	0	7,990	5,700	100	13,789
2039	0	8,634	6,159	0	14,794
2040	0	8,463	6,038	0	14,501
2041	0	8,296	5,918	0	14,214
2042	0	8,132	5,801	0	13,932
2043	0	7,971	5,686	0	13,656
2044	0	7,813	5,573	0	13,386
2045	0	7,658	5,463	0	13,121
2046	0	7,506	5,355	0	12,861
2047	0	7,358	5,249	0	12,607
2048	0	7,212	5,145	0	12,357
2049	0	7,069	5,043	0	12,112
2050	0	6,929	4,943	0	11,872
<i>Significance Threshold</i>					<i>1,000</i>
Significant Impact					Yes

Figure 4.2-1 shows project-related changes in annual GHG emissions associated with fugitive landfill gas. Note that “Existing Landfill Fugitives” represent emission rates in the absence of the proposed project. “New Landfill Fugitives” represent the project-related increase. Indirect GHG emissions from combustion of landfill gas would follow a similar pattern.

Figure 4.2-1. Comparison of GHG Emissions from Landfill Gas Fugitives



Project-related long-term GHG emissions are primarily a consequence of continuing to bury the community’s waste in the Landfill. As a significant GHG reduction project in the County, operation of the ReSource Center has and will continue to substantially reduce the amount of solid waste buried, and the associated GHG emissions generated by waste decomposition (landfill gas). As discussed in Section 4.4.1.4, landfill gas collection and treatment systems are in place to minimize landfill gas emissions and would be extended into the proposed Phase IV waste fill area. Based on annual reports submitted to the EPA, the Landfill has an 83 percent control efficiency. Landfill gas is used to power the ReSource Center MRF and is also converted to electricity in on-site engines and distributed to the grid as a green energy source.

The Landfill also complies with the following regulations to reduce GHG emissions:

- Landfill gas combustion equipment complies with local (SBCAPCD), state (California Methane Regulation from Municipal Solid waste Landfills), and Federal (NSPS 40 CFR Part 60 Subparts WWW, Cf and XXX, 40 CFR Part 98) air quality and GHG regulations.
- Landfill gas combustion equipment is considered Best Available Control Technology (BACT) as defined by the SBCAPCD.
- On-road and off-road construction equipment complies with applicable CARB and SBCAPCD regulations, such as:
 - All portable diesel-powered construction equipment greater than 50 brake horsepower shall be registered with the state's portable equipment registration program or shall obtain an SBCAPCD permit.
 - Diesel-powered mobile construction equipment greater than 25 hp are subject to the CARB In-Use Off-Road Diesel-Fueled Fleets Regulation (Title 13, California Code of Regulations (CCR), §2449).
 - Diesel-fueled heavy-duty trucks and buses are subject to CARB's On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation (Title 13, CCR, §2025).
- RRWMD is complying with SB 1383 (including the operation of the ReSource Center which is a significant GHG reduction project implemented in the County and included in the County's Climate Action Plan) to reduce landfilling of organics.

In summary, no additional control measures are available to further reduce GHG emissions generated by waste decomposition; therefore, this impact is considered significant and unavoidable.

Mitigation Measures

MM AQ-1: Construction-related GHG Emissions Reduction. The following measures shall be implemented during construction activities to reduce GHG emissions to the extent feasible.

- All portable diesel-powered construction equipment greater than 50 brake horsepower shall be registered with the State's portable equipment registration program OR shall obtain an SBCAPCD permit.
- Fleet owners of diesel-powered mobile construction equipment greater than 25 hp are subject to the CARB In-Use Off-Road Diesel-Fueled Fleets Regulation (Title 13, California Code of Regulations §2449). Off-road heavy-duty trucks shall comply with the State Off-Road Regulation.
- Off-road vehicles subject to the State Off-Road Regulation are limited to idling no more than five minutes.

- Idling of heavy-duty diesel trucks during loading and unloading shall be limited to five minutes, unless the truck engine meets the optional low-NOx idling emission standard, the truck is labeled with a clean-idle sticker, and it is not operating within 100 feet of a restricted area.
- Diesel equipment meeting the CARB Tier 3 or higher emission standards for off-road heavy-duty diesel engines should be used to the maximum extent feasible.
- On-road heavy-duty equipment with model year 2010 engines or newer should be used to the maximum extent feasible.
- Diesel powered equipment should be replaced by electric equipment whenever feasible. Electric auxiliary power units should be used to the maximum extent feasible.
- Equipment/vehicles using alternative fuels, such as compressed natural gas, liquefied natural gas, propane or biodiesel, should be used on-site where feasible.
- Catalytic converters shall be installed on gasoline-powered equipment, if feasible.
- All construction equipment shall be maintained in tune per the manufacturer's specifications.
- The engine size of construction equipment shall be the minimum practical size.
- The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at any one time.
- Construction worker trips should be minimized by requiring carpooling and by providing for lunch onsite.
- Construction truck trips should be scheduled during non-peak hours to reduce peak hour emissions whenever feasible.
- Proposed truck routes should minimize to the extent feasible impacts to residential communities and sensitive receptors.
- Construction staging areas should be located away from sensitive receptors such that exhaust and other construction emissions do not enter the fresh air intakes to buildings, air conditioners, and windows.

Plan Requirements and Timing: The above measures shall be included in the project's construction specifications and implemented throughout construction activities.

Monitoring: RRWMD shall ensure these measures are fully implemented during the construction period.

Residual Impacts: Implementation of **MM AQ-1** would reduce **Impact AQ-5** to the extent feasible; however, residual emissions would remain significant.

Odor Impacts

Impact AQ-6: Continued management and landfilling of the Community's residual waste may generate odors – Insignificant Impact.

Implementation of the proposed project would provide increased capacity and result in additional waste disposal activities, which could result in odors detectable off-site. As discussed in Section 4.11.1.3, Landfill operations are currently and would continue to be conducted to minimize odor generation, including implementation of an Odor Impact Minimization Plan and response to any odor complaints. Based on a summary of odor complaints and odor concerns identified in LEA inspection reports provided in Section 4.11.1.5, Landfill operations have not typically been a source of off-site odors. Currently, odors are associated with limited operation of the ADF and CMU, which have been or will be addressed by implementation of control measures and practices listed in Section 4.11.1.6. The proposed project would have no effect on receipt of recyclables and solid waste, or operation of the ReSource Center as the ReSource Center is required to comply with state waste and organics recycling requirements. Therefore, the proposed increase in capacity is not anticipated to generate additional odors detectable off-site.

Consistency with the 2022 Ozone Plan

The SBCAPCD 2022 Ozone Plan relies on the land use and population projections provided in the Santa Barbara County Association of Governments' Regional Growth Forecast. The proposed project would not generate any long-term employment opportunities and would not induce population growth that would cause an exceedance of future growth projections on which the 2022 Ozone Plan is based. In addition, the proposed project would be constructed within the boundaries of the existing Tajiguas Landfill and therefore would be consistent with the existing land use of the site and require no change in zoning. The project would not inhibit the effectiveness of transportation control measures established by the 2022 Ozone Plan. Development of the project would extend the operating lifespan of the Tajiguas Landfill, thereby avoiding transportation emissions associated with exporting MSW to landfills farther away. Therefore, the proposed project would be consistent with the 2022 Ozone Plan.

Consistency with the Draft 2030 Climate Action Plan

The proposed project would not modify the current programs and practices in place to recover (avoid landfilling) green-waste, recyclable materials and organic waste to the extent feasible which reduces landfill gas emissions (a large source of GHGs). Therefore, the proposed project is consistent with applicable measures (including Measure W-1) of the 2030 Climate Action Plan to reduce GHG emissions.

4.2.2.6 Extension of Landfill Life Impacts

Impact AQ-EXT-1: Project-related extension of life of the Tajiguas Landfill would extend the duration of air pollutant emissions associated with landfill operations and associated air quality impacts – Significant and Unavoidable Impact.

As discussed in Section 3.7.1, the proposed capacity increase is anticipated to extend the life of the Tajiguas Landfill by about 12 years. Without implementation of the project, waste disposal would continue to approximately 2026. At that time, emissions associated with Landfill employee trips would be substantially reduced and emissions associated with active waste disposal activities at the site would end. Upon reaching final capacity, the Landfill would be closed and the final cover system installed in the remaining Landfill areas. Emissions would occur in association with final closure activities, and following closure, in association with ongoing landfill monitoring and maintenance activities. Although the landfill gas collection and treatment systems would continue to operate, fugitive landfill gas would be emitted for decades after closure, including greenhouse gases and ROC.

Air quality impacts associated with the approved and ongoing Landfill operations (as modified by the proposed project) are addressed under **Impacts AQ-2, AQ-3, AQ-4, AQ-6 and AQ-7**. **Impacts AQ-2, AQ-3, AQ-4 and AQ-7** are considered insignificant, while **Impact AQ-6** (GHG emissions from Landfill operations) is considered significant and unavoidable. Therefore, the project-related extension of Landfill life would also extend the duration of significant and unavoidable climate change impacts associated with operational GHG emissions.

4.2.2.7 Cumulative Impacts of the Tajiguas Landfill Capacity Increase Project

Criteria Pollutants – Construction

Impact AQ-CUM-1: Project construction emissions would contribute to construction emissions generated by the cumulative projects and may affect regional air quality – Insignificant Cumulative Impact; Project Contribution – Not Considerable (Insignificant).

As listed in Section 3.9, there are 10 cumulative projects located within 5 miles of the Landfill property (map locations A, F, E, O, B, T, D, H, W, J). These projects are highly dispersed and few are anticipated to generate construction emissions at the same time as the proposed project. The cumulative construction emissions (including the proposed project) are unlikely to exceed the 25 ton per year ROC and NO_x thresholds under SBCAPCD Rule 202. Therefore, the cumulative impact to regional air quality is considered less than significant.

Criteria Pollutants – Operation

Impact AQ-CUM-2: Increased criteria pollutant emissions associated with project-related changes to Landfill operations would contribute to emissions generated by the cumulative projects and may affect regional air quality – Insignificant Cumulative Impact; Project Contribution – Not Considerable (Insignificant).

Cumulative projects as listed in Section 3.9 do not include any major sources of air pollutants, primarily motor vehicle trips which would mostly occur in the Goleta area. Significant cumulative air quality impacts are not anticipated. The County's Environmental Thresholds and Guidelines Manual indicates projects that would exceed the long-term threshold for NO_x or ROC (240 pounds per day) would have significant cumulative impacts. Since the project operational emissions increase would not exceed the long-term threshold, the project's incremental contribution to cumulative impacts would not be considerable.

4.3 BIOLOGICAL RESOURCES

Assessments of biological resources and impacts associated with the currently permitted Tajiguas Landfill Project have been addressed in the prior Tajiguas Landfill Environmental Documents. A Biological Technical Report (AECOM, 2013) and sensitive plant survey (Padre, 2013) were completed to address impacts associated with construction and operation of the ReSource Center. A botanical survey and vegetation mapping was conducted on April 19, 2022, within an approximately 25-acre area focusing on vegetated areas of the proposed Capacity Increase Project area⁸. Botanical, wildlife and bumblebee surveys were conducted in this same 25-acre area on May 18, 2023. A second focused bumblebee survey was conducted on June 16, 2023 (Padre, 2023).

The information provided in these studies was used in preparation of the biological resources impact analysis.

Other sources used to prepare the biological resources impact analysis include:

- The results of biological surveys and monitoring conducted by Padre Associates biologists prior to operation and maintenance of the Landfill sedimentation basins (ongoing).
- The results of post-rain event California red-legged frog (CRLF) surveys conducted at the Landfill (Pila Creek channel, sedimentation basins and any other ponded water) (ongoing).
- 2022 Post-Alisal Fire Arroyo Quemado at Baron Ranch, California Red-legged Frog Monitoring Report (Padre Associates, 2022)
- Habitat Conservation Plan Tajiguas Landfill & Resource Center (Envicom Corporation, 2022).
- Tajiguas Landfill Biological Assessment for Pila Creek Maintenance and Sedimentation Activities (Envicom Corporation, 2019a)
- Biological Resources Assessment prepared for the Renewable Natural Gas Project for the Tajiguas Landfill ReSource Center (Envicom Corporation, 2019b).
- The results of biological surveys and monitoring conducted by Padre Associates biologists during construction of the ReSource Center (2016-2021).

⁸ The Capacity Increase Project disturbance area consists of 37.7 acres of existing landfill operational area with no vegetation (e.g., the active working face and surrounding roads), 4.6 acres of unvegetated landfill slopes, 12.6 acres of previously disturbed slopes that have been revegetated and 1.5 acres of a previously undisturbed vegetated area. The existing disturbed landfill operational area was not surveyed as no vegetation is present.

4.3.1 Setting

4.3.1.1 Regional Overview

The southern Santa Barbara County coastal area has a Mediterranean-type climate with warm, dry summers and mild winters. Daily and seasonal temperature variations are relatively small, with average temperatures ranging from 40.1 to 64.4 degrees Fahrenheit (°F) during the winter months and from 53.4 to 74.9 °F during the summer months (Santa Barbara Airport, Western Regional Climate Center 1941-2016 data).

Rain occurs primarily during the winter and early spring months, averaging 16 to 29 inches per year, depending on elevation. Average precipitation during the winter (December through February) ranges from 2.52 to 3.46 inches per month and average precipitation during the summer (June through August) ranges from 0.03 to 0.07 inches per month (Santa Barbara Airport, Western Regional Climate Center 1941-2016 data).

Based on rainfall data since 1973 from the Gaviota Coast precipitation station (#262) maintained by the Santa Barbara County Flood Control District, mean annual rainfall at the site is 20.65 inches. Extremely high rainfall was recorded during the 2022/2023 wet season in the Landfill area (36.91 inches at the Gaviota Coast weather station).

The south-facing slopes and foothills of the region are exposed to sunlight most of the day. Moderate temperatures are sustained by marine fog and the prevailing onshore sea breezes. The prevailing wind speed is generally 5 miles per hour, although wind speed and direction are primarily functions of the location and strength of frontal storm systems that periodically move through the area.

The Tajiguas Landfill is located in Santa Barbara County on the Gaviota Coast, approximately 26 miles west of the City of Santa Barbara, California (Figure 3-1). According to the Gaviota Coast Plan (Santa Barbara County, 2018), "The Gaviota Coast serves as a transition zone between northern and southern California ecological provinces for both terrestrial and marine species which contributes to the area's extraordinary biotic diversity. Low density development has enabled the retention of important wildlife habitats."

The Landfill is located within Range 31 West, Township 5 North, and Sections 28 and 33 of the U.S. Geological Survey 7.5' Tajiguas Quadrangle. The elevation of Landfill ranges from approximately 300 to 750 feet above mean sea level and is situated on the south slope of the Santa Ynez Mountains, which are oriented in an east-west direction, parallel to the coastline. Los Padres National Forest lands abut the northern border of the Landfill property, and U.S. Highway 101, the Union Pacific Railroad tracks, and the Pacific Ocean are located just south of the Landfill property. The proposed Capacity Increase Project area occurs within the existing County-owned and operated Tajiguas Landfill, a Class III non-hazardous MSW disposal facility (see operational boundary in Figure 3-2).

The Landfill is dominated by the deep north-south oriented coastal canyon of Cañada de la Pila. Pila Creek is an ephemeral stream that drains the 475-acre watershed southward to the Pacific Ocean. Historically, Pila Creek flowed east along an upper terrace and joined with Arroyo Quemado before flowing to the Pacific Ocean. Modifications resulting from the construction of the Union Pacific Railroad and U.S. Highway 101 diverted Pila Creek into culverts that flow directly south to the Pacific Ocean.

As part of the Tajiguas Landfill Reconfiguration Project, two in-channel sedimentation basins were removed and a portion of Pila Creek and a portion of a tributary to Pila Creek upstream of the in-channel sedimentation basins were modified. These drainages were diverted into a concrete-lined trapezoidal channel that captures up-canyon surface water flows and carries them along the western perimeter of the reconfigured waste footprint. The size and gradient of the channel allows the channel to also capture some of the sediment from the undisturbed upper portion of the Pila Creek watershed. The concrete-lined channel discharges into the existing subsurface 48-inch storm drain south of the reconfigured waste footprint.

Portions of Pila Creek are dry for the majority of the year, but typically support continuous flows during and immediately following significant storm events. Storm events typically occur between the months of November and April. Groundwater seeps also provide a supplemental source of water to Pila Creek but only have observable surface flow or pooling during the rainy season. These seeps were covered with fill as a part of the Pila Creek drainage modifications and a seepage/groundwater collection system (Pila Creek in-channel sump pump) was installed.

Historically, areas surrounding the Landfill and many of the terraces along this section of the coast have been used for cattle grazing and agriculture for many decades. Currently, the lower reach of Cañada de la Pila within the Landfill property and the adjacent floodplain has been disturbed by Landfill activities (Figures 3-2 and 3-3). Much of the original topography within Cañada de la Pila has been altered to provide space and cover material for Landfill operations and fuel breaks have been cut along slopes and ridgelines. Properties east and west of the Landfill are used primarily as grazing land or support natural vegetation. A small cluster of homes (the Arroyo Quemado Community) is located along the bluff south of the Union Pacific railroad tracks, southeast of the Landfill. Cañada de la Huerta, the site of the former Shell Hercules Project, occurs immediately west of Cañada de la Pila and the Landfill.

The proposed Tajiguas Landfill Capacity Increase Project facilities would expand the permitted disturbance footprint and may create new impacts to biological resources as discussed below.

4.3.1.2 Regulatory Context

Federal, State, and local regulations have been established to protect and conserve biological resources. The descriptions below provide a brief overview of the regulations applicable to the resources that occur within or adjacent to the Landfill property, and their respective requirements.

Federal Regulations and Standards

Federal Endangered Species Act (ESA) (U.S.C Title 16, Chapter 35, Sections 1531-1544). Enacted in 1973, the ESA provides for the conservation of threatened and endangered species and their habitat. The Act prohibits the “take” of threatened and endangered species except under certain circumstances and only with authorization from the U.S. Fish and Wildlife Service (USFWS) through a permit under Section 4(d), 7, or 10(a) of the Act. Under the ESA, “take” is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The ESA requires federal agencies to make a finding on all federal actions, including approval by an agency of a public or private action, as to the potential to jeopardize the continued existence of any listed species.

Incidental Take Permit ESPER0050095 was issued under Section 10 of the ESA on September 30, 2022 by USFWS authorizing take of the threatened California red-legged frog (*Rana draytonii*, CRLF) and western pond turtle (*Emys marmorata*) associated with Tajiguas Landfill (including the Capacity Increase Project) and ReSource Center operations and maintenance. Issuance of this permit required preparation of a HCP and recordation of a conservation easement which was completed in May 2023.

Migratory Bird Treaty Act (U.S.C Title 16, Chapter 7, Subchapter Sections 703-712). Congress passed the Migratory Bird Treaty Act (MBTA) in 1918 to prohibit the pursuit, hunt, kill, capture, possession, purchase, barter, or transport of native migratory birds, or any part, nest, or egg of any such bird unless allowed by another regulation adopted in accordance with the MBTA. The USFWS has jurisdiction over migratory birds. No permit is issued under the MBTA; however, violations can result in fines and/or misdemeanor charges.

Federal Water Pollution Control Act (Clean Water Act), 1972 (U.S.C Title 33, Ch.26, SubCh. I-VI). The Federal Water Pollution Control Act was first passed by Congress in 1948. The Act was later amended and became known as the Clean Water Act (CWA). The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the U.S. It gives the U.S. Environmental Protection Agency the authority to implement pollution control programs, including setting wastewater standards for industry and water quality standards for contaminants in surface waters.

The CWA makes it unlawful for any person to discharge any pollutant from a point source into navigable waters, without a permit under its provisions. CWA Section 404 permits are issued by the U.S. Army Corps of Engineers (USACE) for dredge/fill activities within wetlands or non-wetland waters of the U.S. CWA Section 401 water quality certifications are issued by the RWQCB for activities requiring a federal permit or license which may result in discharge of pollutants into waters of the U.S.

State Regulations and Standards

California Fish and Game Code. The California Fish and Game Code, administered by the California Department of Fish & Wildlife (CDFW) regulates the taking or possession of birds, mammals, fish, amphibian, and reptiles, as well as natural resources such as wetlands and waters of the state. It includes Streambed Alteration Agreement regulations (Sections 1600-1616), as well as provisions for legal hunting and fishing, and tribal agreements for activities involving take of native wildlife.

California Endangered Species Act and California Native Plant Protection Act (California Fish and Game Code, Division 3, Chapter 1.5, Sections 2050-2115). This Act generally parallels the main provisions of the Federal ESA and is administered by the CDFW. California Endangered Species Act (CESA) prohibits take of any species that the California Fish and Game Commission determines to be a threatened or endangered species (including candidate species). CESA allows for take incidental to otherwise lawful development projects upon approval from the CDFW. Under the California Fish and Game Code, "take" is defined as to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.

California also has identified wildlife species of special concern. These species are rare, restricted in geographic distribution, or declining throughout their geographic range. Having been so designated, species of special concern are also considered in resource planning and management and during CEQA review. The rare designation applies to plants only and includes those plants that are not threatened or endangered, but that could become eligible due to decreasing numbers or further restrictions to habitat. Any project-related impacts to State-listed species may require an incidental take permit under CESA.

Porter-Cologne Water Quality Control Act (California Water Code, Division 7, Sections 13000-14958). This Act provides for statewide coordination of water rights and water quality regulations. The Act established the California State Water Resources Control Board as the statewide authority and nine separate RWQCBs to oversee water quality on a day-to-day basis at the regional/local level. Proposed discharges of waste that would affect State waters would require filing a Report of Waste Discharge and the issuance of waste discharge requirements or waiver of the waste discharge requirements and potentially a National Pollution Discharge Elimination System (NPDES) permit from the RWQCB.

Local Regulations and Standards

Santa Barbara County Comprehensive Plan. The Santa Barbara County Comprehensive Plan includes three elements related to the protection of biological resources: Land Use Element, Conservation Element, and Environmental Resources Management Element. The Land Use Element includes policies to protect hillsides and watersheds; streams and creeks; and flood hazard areas. The Conservation Element discusses sensitive species and communities and provides recommendations for their management. The Environmental Resources Management Element summarizes the various environmental factors analyzed in the Seismic Safety and Safety, Conservation, and Open Space Elements, and identifies policies that define whether development is appropriate given the severity of constraints, including biological resources. No permit is issued under these elements of the County's Comprehensive Plan; however, the proposed project would need to comply with the relevant policies and elements noted above.

Santa Barbara County Environmental Thresholds and Guidelines Manual. The Guidelines Manual (updated 2021) provides impact assessment guidance and establishes criteria for determining the significance of potential biological impacts under CEQA. No permit is issued under the County's Guidelines Manual; however, the proposed project is evaluated with respect to these thresholds and guidelines in this Subsequent EIR.

Municipal Code and Ordinances. Article IX Chapter 35 of the Santa Barbara County Code considers deciduous oak trees (including valley oak and blue oak) at least 4 inches in diameter at breast height as protected trees. County Ordinance no. 4491 considers live oak trees (including coast live oak) at least 8 inches in diameter at breast height as protected trees.

Gaviota Coast Plan. The Plan was developed by the County Planning and Development Department and was adopted by the Board of Supervisors on November 8, 2016. The Tajiguas Landfill, including the proposed Capacity Increase Project area is located within the planning area. The Gaviota Coast Plan updates the County Comprehensive Plan and Coastal Land Use Plan and provides policy direction for land use issues in the Plan area. The Plan includes a resources stewardship chapter that describes biological resources along the Gaviota coast and sets forth policies to protect and, where possible, enhance those resources, proposes actions to achieve those policies, and outlines development standards. Biological resources addressed in the Resources Stewardship chapter include environmentally sensitive habitats, wetlands, wildlife corridors, riparian vegetation, natural stream channels, and other specific areas.

4.3.1.3 Site-Specific Setting

Plant Communities

Historically, vegetation in the north-south oriented coastal canyon of Cañada de la Pila in which the Landfill is situated consisted of dense riparian forest and woodland vegetation, steep canyon slopes with dense chaparral and sage scrub vegetation, and coastal terraces with sage scrub and grassland vegetation. Currently, the lower reach of Cañada de la Pila and the adjacent floodplain have been disturbed by Landfill activities. Much of the original topography within Cañada de la Pila was altered as part of the Landfill Project, to provide space and cover material for Landfill operations and fuel breaks have been cut along slopes and ridgelines. Table 4.3-1 provides a summary of the plant communities within the operational boundary, taken from the HCP prepared for the Landfill and ReSource Center. Figure 4.3-1 provides a vegetation map of the Landfill's operational area (Figure 5 of the HCP).

The vegetation of the proposed Capacity Increase Project area is mostly comprised of manufactured Landfill slopes and cut slopes seeded with a coastal sage scrub mix currently dominated by California buckwheat (*Erigonum fasciculatum*) and California brittle-bush (*Encelia californica*). However, an approximately 1.5 acre previously undisturbed area (as shown on Figures 3-3 and 3-4) supports mostly native coastal scrub and chaparral vegetation. Figure 4.3-2 provides a vegetation and special-status plant map of the proposed Capacity Increase Project area. Figure 4.3-3 provides photographs of the vegetation/habitat within the Capacity Increase Project area. Table 4.3-2 provides a summary of the plant communities within the proposed Capacity Increase Project area.

**Table 4.3-1. Plant Communities and Land Cover Types
within the Landfill Operational Area Boundary**

Plant Community/Land Cover Type	Area (Acres)	State Conservation Ranking	County Status
California bay forest (California bay seep woodland)	0.45	Vulnerable	Sensitive (native woodland)
Coast live oak-arroyo willow woodland (southern coast live oak riparian forest)	1.63	-	Sensitive (native woodland)
California sycamore-cottonwood woodland (central coast cottonwood-sycamore riparian forest)	1.91	Vulnerable	Sensitive (native woodland)
Coast live oak woodland	5.07	Apparently secure	Sensitive (native woodland)
Coast live oak woodland-restored	4.15	Apparently secure	Sensitive (native woodland)
Big-pod (<i>Ceanothus megacarpus</i>) chaparral	49.58	Apparently secure	--
California sagebrush scrub (Venturan coastal sage scrub)	73.01	Apparently secure	--
Annual grassland (non-native)	103.43	--	--
Giant wild-rye grassland (perennial grassland)	0.52	Vulnerable	Sensitive (native grassland)
Bare ground, roads, existing facilities	109.35	--	--
Exposed Landfill liner	1.20	--	--
Concrete channel	1.74	--	--
Rock outcrop	2.15	--	--
Total	354.19		

Table 4.3-2. Plant Communities of the Proposed Capacity Increase Area

Plant Community	Origin	Area (acres)	State Conservation Ranking
Black sage scrub	Mostly natural occurrence, some expansion into areas disturbed between 2006 and 2009	1.63	Apparently secure

California buckwheat scrub	Active restoration, last disturbed 2015	7.96	Secure
Big-pod ceanothus chaparral	Natural occurrence	0.53	Apparently secure
California brittle-bush scrub	Active restoration, last disturbed between 2009 and 2011	0.07	Vulnerable
Recently disturbed areas		6.57	--

Plant communities mapped within the proposed Capacity Increase Project area are described below.

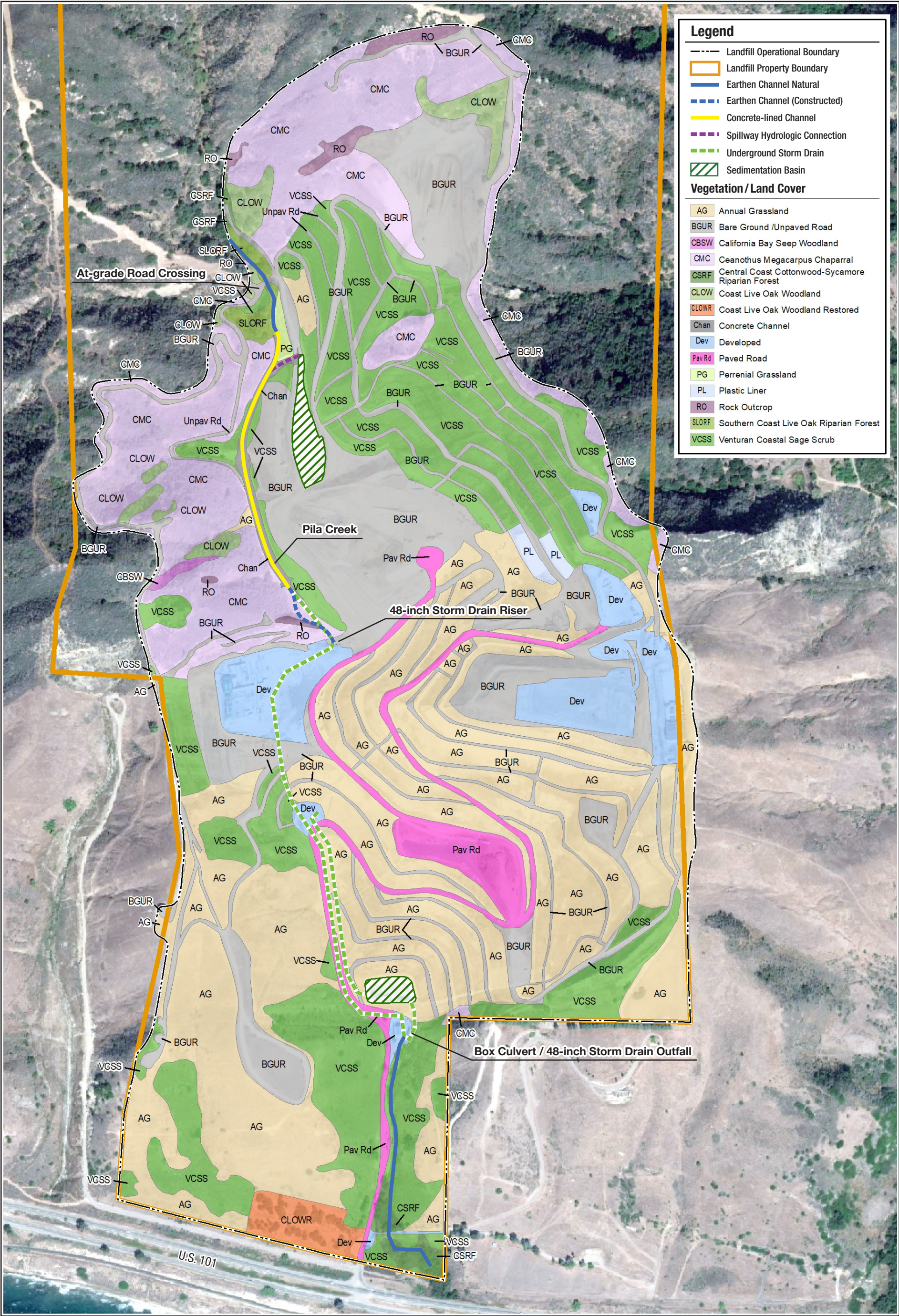
Black Sage Scrub (*Salvia mellifera* Shrubland Alliance). This plant community occurs in the previously undisturbed area and adjacent areas (see center right of Figure 4.3-3.c) and is dominated by black sage (*Salvia mellifera*), white sage (*Salvia apiana*) and California brittle-bush, with lesser amounts of California buckwheat and coyote brush (*Baccharis pilularis*).

Big-pod Ceanothus Chaparral (*Ceanothus megacarpus* Shrubland Alliance). This plant community also occurs in the previously undisturbed area (see center of Figure 4.3-3.c) and is dominated by big-pod ceanothus (*Ceanothus megacarpus*), poison oak (*Toxicodendron diversilobum*), green-bark ceanothus (*Ceanothus spinosus*) and mountain mahogany (*Cercocarpus betuloides*).

California Brittle-bush Scrub (hydroseeded). This plant community classification is used to describe the manufactured slopes that have been planted and support mostly California brittle-bush (see left center of Figure 4.3-3.d). Other species present include California buckwheat and white sage. This plant community is ranked as S3/G3 by NatureServe, meaning it is vulnerable, at moderate risk of extirpation at the State and global level.

California Buckwheat Scrub (hydroseeded, *Erigonum fasciculatum* Shrubland Alliance). This plant community classification is used to describe the manufactured slopes that have been planted and support mostly California buckwheat (see Figures 4.3-3.a and 4.3-3.d). Other species present include deerweed (*Acmispon glaber*) and white sage.

Disturbed Areas. Areas that are occasionally disturbed such as infrequently used access roads, slope benches, the north slope of the current disposal area and west of the North Sedimentation Basin are dominated by weedy non-native species including tocolate, bur-clover, rip-gut grass (*Bromus diandrus*), golden-aster (*Heterotheca sessiliflora*), rye-grass (*Festuca perennis*) and sour clover (see center of Figures 4.3-3.a and 4.3-3.b)



Legend

Landfill Operational Boundary

Landfill Property Boundary

Earthen Channel Natural

Earthen Channel (Constructed)

Concrete-lined Channel

Spillway Hydrologic Connection

Underground Storm Drain

Sedimentation Basin

Vegetation / Land Cover

AG

Annual Grassland

BGUR

Bare Ground /Unpaved Road

CBSW

California Bay Seep Woodland

CMC

Ceanothus Megacarpus Chaparral

CSRF

Central Coast Cottonwood-Sycamore Riparian Forest

CLOW

Coast Live Oak Woodland

CLOWR

Coast Live Oak Woodland Restored

Chan

Concrete Channel

Dev

Developed

Pav Rd

Paved Road

PG

Perennial Grassland

PL

Plastic Liner

RO

Rock Outcrop

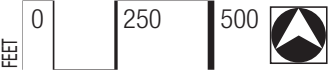
SLORF

Southern Coast Live Oak Riparian Forest

VCSS








Venturan Coastal Sage Scrub

Source: Envicom Corporation, 2020
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: Vegetation mapping represents conditions prior to the 2021 Alisal Fire.
This map was created for informational and display purposes only.

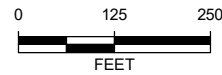




LEGEND:

-  Santa Barbara honeysuckle
-  Coast live oaks
-  Vegetation Type
 - BS Black sage scrub (1.63 ac)
 - CB California buckwheat (7.96 ac)
 - CC Big-pod ceanothus chaparral (0.53 ac)
 - CG California brittle-bush scrub (0.07 ac)
 - D Disturbed areas (6.57 ac)
 - UV Unvegetated (5.68 ac)
-  Photo Location and Direction (see Figure 4.3-3)
-  Planned Phase 3F Liner
-  Project Impact Area
-  Biological Survey Area

MAP EXTENT:



Source: Google Earth Pro Imagery February 2021
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

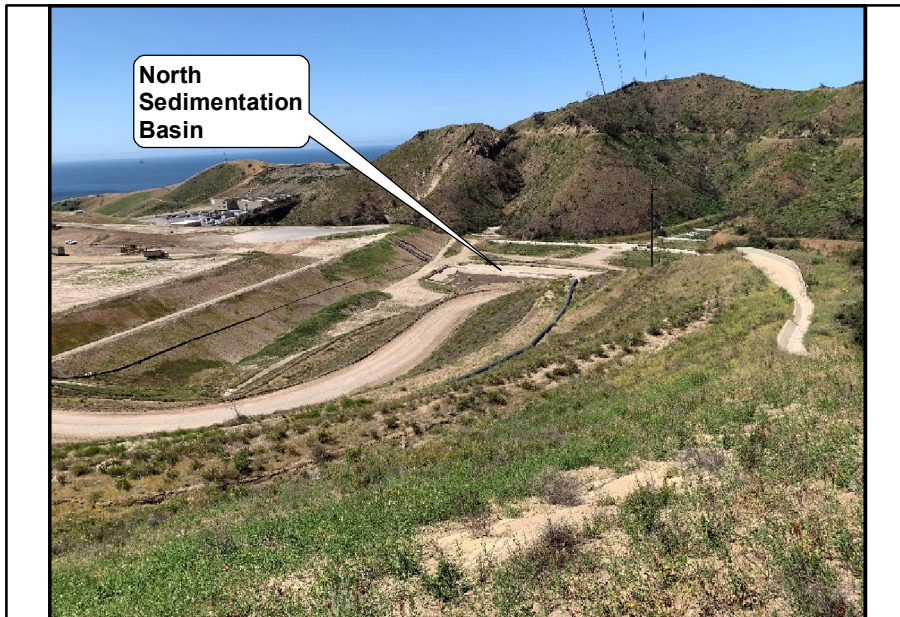


PROJECT NAME: TAJIGUAS LANDFILL CAPACITY INCREASE PROJECT SANTA BARBARA COUNTY, CA	
PROJECT NUMBER: 2202-4092	DATE: September 2023

**VEGETATION COMMUNITIES
OF THE PROPOSED CAPACITY
INCREASE AREA**

**FIGURE
4.3-2**

Z:\GIS\Projects\GIS Maps\Map Project\Tajiguas Landfill\Vegetation Communities of the Proposed Capacity Increase Area.mxd 9/14/2023



a. Western portion of the capacity increase area, facing southwest (4/19/22)



b. Southern portion of the capacity increase area, facing southeast (4/19/22)



c. Previously undisturbed area, facing southwest (4/19/22)



d. Central portion of the capacity increase area, facing northeast (4/19/22)

Flora

Based on botanical surveys conducted since 2013, at least 133 plant species have been recorded within the Landfill property, with 81 species (61 percent) encountered considered native and the remaining 52 species (39 percent) considered non-native and/or naturalized into the area.

Based on botanical surveys conducted on April 19, 2022 and May 18, 2023, 74 plant species were identified within the proposed Capacity Increase Project area, comprised of 38 native species (51 percent) and 36 non-native plant species. One plant species (San Diego viguiera) native to southern California but not the project area appears to have been inadvertently introduced to the Landfill by restoration hydroseeding efforts. Of the 36 non-native plant species observed, 23 are listed as invasive by the California Invasive Plant Council, including one species (red brome) rated as highly invasive, 12 species rated as moderately invasive, and 10 species rated as having a limited invasiveness potential. Sensitive plant species observed or potentially occurring in the Landfill property are discussed in Table 4.3-4.

Mature Native Trees

A total of 16 coast live oak trees were observed within the Capacity Increase Project area; however, only five of these trees are considered mature (at least 8 inches at breast height) and of biological value (see Table 4.3-3). The location of these trees is provided on Figure 4.3-2.

Table 4.3-3. Oak Tree Inventory

Tree no.	Tree Species	Trunk Diameter at Breast Height (inches)	Mature/Protected?
1	Coast live oak	9,6	Yes
2	Coast live oak	8	Yes
3	Coast live oak	9	Yes
4	Coast live oak	8,5	Yes
5	Coast live oak	14	Yes
6	Coast live oak	7	No
7	Coast live oak	3	No
8	Coast live oak	4	No
9	Coast live oak	4	No
10	Coast live oak	3,3	No
11	Coast live oak	3	No
12	Coast live oak	4	No
13	Coast live oak	4	No

Tree no.	Tree Species	Trunk Diameter at Breast Height (inches)	Mature/Protected?
14	Coast live oak	4,2	No
15	Coast live oak	6	No
16	Coast live oak	7	No

Fauna

Overall, the majority of the Landfill property is of low to moderate value for wildlife species, due to the dominance of disturbed, ruderal, developed and recently restored lands. However, as presented in Table 4.3-1, other native vegetation communities do occur in the Landfill property and provide habitat value for wildlife. Chaparral and coastal sage scrub communities can provide habitat for a variety of wildlife species for food and cover. Rock outcrops can provide valuable habitat for a variety of wildlife for cover, foraging, perching, nesting, and denning. Woodland communities can provide food, water, thermal cover, escape, nesting, and migration and dispersal corridors for an abundance of wildlife. Ruderal land and bare ground provides relatively little value to most wildlife species because these areas are devoid of vegetation or are vegetated with annual weedy plant species of limited food, water, and cover value.

The habitat value of the proposed Capacity Increase Project area is low since it is surrounded by active landfilling operations, including the North Borrow/Stockpile to the north and the active disposal area to the south. Hydroseeded areas within the Capacity Increase Project area and the previously undisturbed area provide some wildlife habitat value but is reduced by isolation from nearby habitat areas and limited habitat complexity (recent restoration).

Sensitive wildlife species observed or potentially occurring in or adjacent to the proposed Capacity Increase Project area are discussed in the following sections.

Invertebrates. The distribution of many invertebrates is generally defined by the presence of their larval food plants and suitable habitat and environmental conditions. Within the Landfill property, chaparral, coastal sage scrub, woodland, rocky outcrops, and riparian forest all provide important habitat, water and dispersal corridors for many invertebrate species. Thirteen butterfly species have been observed in the vicinity of the Landfill (ERA, 2008), including monarch butterfly (*Danaus plexippus*). Monarch butterfly roost sites are known from blue gum (*Eucalyptus globulus*) groves at the mouth of Arroyo Quemado (Meade, 1999). The most recent monarch counts at this site (Thanksgiving 2021) recorded only three individuals. No roost sites occur at the Landfill property and only small numbers of individual monarchs have been observed foraging within the Landfill property.

Five Crotch's bumblebees were observed within the Capacity Increase Project area on June 16, 2023 foraging on white sage flowers on a hydroseeded manufactured cut slope. No nests were observed. The abundance and distribution of this species in the Landfill area is unknown.

Fish. Pila Creek does not provide adequate surface water volume or duration to support native fish populations. However, prior to their removal in 2009, the in-channel sedimentation basins supported introduced non-native large-mouth bass. Due to the removal of these basins and conversion of a portion of Pila Creek to a concrete channel, fish habitat does not currently exist in Cañada de la Pila.

Amphibians. All amphibians require moisture for at least a portion of their life cycle, with many requiring a permanent water source for habitat and reproduction. Some terrestrial amphibian species have adapted to more arid conditions and are not completely dependent on a perennial or standing source of water. Three amphibian species were observed within the Landfill operational boundary during biological surveys and monitoring during construction of the ReSource Center (mostly from 2018 to 2021), including California toad (*Anaxyrus boreas halophilus*), Baja California treefrog (*Pseudacris hypochondriaca*), and CRLF. CRLF is a federally listed threatened species that is occasionally found at the Landfill primarily in Landfill drainage features during rainy season movements between habitat areas. The occurrence of this species at the Landfill is discussed in greater detail below.

Reptiles. Many reptile species are restricted to certain vegetation communities and soil types, although certain species will occur in a variety of habitats and environmental conditions. Many species occurring in open areas use rodent burrows and rocky outcroppings for foraging opportunities and for cover and protection from predators and extreme weather conditions.

During biological surveys and monitoring during construction of the ReSource Center, five reptile species were observed including side-blotched lizard (*Uta stansburiana*), western fence lizard (*Sceloporus occidentalis*), southern pacific rattlesnake (*Crotalus oreganus helleri*), San Diego night snake (*Hypsiglena ochrorhyncha klauberi*) and California kingsnake (*Lampropeltis californiae*). Western fence lizard and San Diego gopher snake (*Pituophis catenifer annectens*) were observed within the Capacity Increase Project area during the May 18, 2023 wildlife survey.

Western pond turtle (*Emys marmorata*) occurs at Baron Ranch east of the Landfill property. This species was observed at the South Sedimentation Basin in 2019, 2020 and 2021 during post-rain event surveys and relocated to Baron Ranch. This species was also found in upper Pila Creek in 2009 during implementation of the Reconfiguration Project.

Two-striped garter snake (*Thamnophis hammondi*) was observed within an in-channel sedimentation basin by Padre Associate's biologists as part of the sedimentation basin maintenance monitoring in 2006 and during a botanical survey in June 2008. Implementation of the Reconfiguration Project, including removal of the in-channel sedimentation basins, and management of the North (out-of-channel) Sedimentation Basin has removed virtually all prey (fish and amphibians) for two-striped garter snake from the Landfill property.

Two-striped garter snake has not been observed at the Landfill property or Baron Ranch during numerous wildlife surveys conducted as part of construction of the Reconfiguration Project and ReSource Center and annual CRLF monitoring at Baron Ranch. The two-striped garter snake is considered a species of special concern by CDFW.

Birds. The diversity of bird species varies in a given area with respect to the diversity and quality of vegetation communities. Many of the native habitat communities in the Landfill property area (outside of the Landfill waste footprint and other areas of existing and ongoing disturbance) are of high quality with minimal disturbances. Coastal scrub, woodland, riparian habitats, chaparral, freshwater marsh, and open water can all support a large number of bird species. Many raptor and passerine species will use the large trees associated with woodlands and riparian habitats for nesting activities and other bird species will use these areas for foraging, cover and dispersal opportunities.

During biological surveys and monitoring during construction of the ReSource Center, a total of 28 bird species were detected, which include year-round residents, winter or summer visitors, or fall/spring migrants. Common birds observed within the Landfill property and the immediate vicinity included western gull (*Larus occidentalis*), American crow (*Corvus brachyrhynchos*), turkey vulture (*Cathartes aura*), mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), California thrasher (*Toxostoma redivivum*) and western scrub jay (*Aphelocoma californica*).

Birds observed within the Capacity Increase Project area during the May 18, 2023 wildlife survey included barn swallow (*Hirundo rustica*), violet-green swallow (*Tachycineta thalassina*), cliff swallow (*Petrochelidon pyrrhonota*), California towhee (*Melospiza crissalis*), turkey vulture, Anna's hummingbird, Allen's hummingbird (*Selasphorus sasin*), lazuli bunting (*Passerina amoena*), wrentit (*Chamaea fasciata*), western scrub jay, California thrasher, red-tailed hawk (*Buteo jamaicensis*), California quail (*Callipepla californica*) and American crow.

Several special-status bird species have been observed at the Landfill property and/or have the potential to occur in the proposed Capacity Increase Project area and are discussed in Table 4.3-5.

Mammals. Plant communities (coastal scrub, chaparral, riparian and oak woodlands) surrounding the Landfill provide high quality cover, foraging habitat, and denning sites for a variety of mammals. Relatively common species that have been observed, detected by sign, or are expected to occur within the vicinity of the Landfill include desert cottontail (*Sylvilagus audubonii*), Botta's pocket gopher (*Thomomys bottae*), coyote (*Canis latrans*), bobcat (*Felis rufus*), grey fox (*Urocyon cinereoargenteus*), mule deer (*Odocoileus hemionus*), dusky-footed woodrat (*Neotoma fuscipes*), striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*) and Virginia opossum (*Didelphis virginiana*). A number of bat species may use the Landfill property as foraging habitat.

Mammals observed within the Capacity Increase Project area during the May 18, 2023 wildlife survey included mule deer (tracks), coyote (tracks, scat), Botta's pocket gopher (burrows), dusky-footed woodrat (nest) and wild pig (*Sus scrofa*, tracks).

Several special-status mammal species have the potential to occur in the proposed Capacity Increase Project area and are discussed in Table 4.3-5.

Sensitive Biological Resources

Several sensitive plant communities, plant species, wildlife species, and wetland resources have been identified and/or detected during biological studies and surveys that were conducted for the proposed project and the Reconfiguration Project, ReSource Center and proposed project.

The California Natural Diversity Data Base (CNDDB), administered by the CDFW, provides an inventory of plant and animal species as well as vegetation communities, which are considered sensitive by state and federal resource agencies, academic institutions, and conservation groups such as the California Native Plant Society (CNPS).

In general, the principal reason an individual taxon (species, subspecies, or variety) is considered sensitive is the documented or perceived decline or limitation of its population size or geographical extent and/or distribution resulting in most cases from habitat loss. In addition, wildlife movement corridors or linkages are considered sensitive by local, state, and federal resource and conservation agencies because these corridors allow wildlife to move between adjoining open space areas that are becoming increasingly isolated and fragmented due to the existing rugged terrain combined with expanding urbanization or changes in vegetation (Beier and Loe 1992).

The following sections present the sensitive plant communities, plant and wildlife species, and wildlife corridors that are either known to occur or potentially occur in the Landfill property or the immediate vicinity. The potential for these resources to occur is based on field surveys, query of the CNDDDB, knowledge of the species distribution, and the known presence of suitable habitat and/or other requisite components. These sensitive biological resources are identified and discussed in the following sections.

Sensitive Plant Communities. Sensitive plant communities are vegetation assemblages, associations, or sub-associations that support or potentially support sensitive plant or wildlife species, have experienced cumulative losses within the region, have relatively limited distribution, or have particular value to wildlife. Sensitive plant communities have been identified by CNPS and CDFW and are ranked based on the potential for extirpation at the State and global level. In addition, the County's Guidelines Manual (updated 2021) identifies additional vegetation types that are not typically considered sensitive by other resource agencies, such as coast live oak woodland and perennial grassland but are considered sensitive locally.

Perennial grasslands are present in the northwestern portion of the Landfill property (west of Pila Creek, see Figure 4.3-1), but not within or adjacent to the Capacity Increase Project area.

California brittle-bush scrub occurs within the Capacity Increase Project area and is considered to be vulnerable, at moderate risk of extirpation due to a fairly restricted range, relatively few occurrences, or recent and widespread declines or threats were found within the Capacity Increase Project area. However, at the Landfill property, this plant community has been planted (hydroseeded) to provide erosion control and habitat value (see Table 4.3-2).

Special-Status Plants. For purposes of this analysis, plant species are considered rare, threatened or endangered (as defined in Section 15380 of the State CEQA Guidelines) if they are (1) listed or proposed for listing by state or federal agencies as threatened or endangered; (2) on List 1B (considered endangered throughout its range) or List 2 (considered endangered in California but more common elsewhere) of the CNPS Inventory of Rare and Endangered Vascular Plants of California (on-line at www.cnps.org); or (3) considered rare, endangered, or threatened by the State of California or other local conservation organizations or specialists.

The County's Guidelines Manual (updated 2021) also considers native specimen trees to be important and impacts to these trees can be potentially significant. Native specimen trees are defined for biological assessment purposes as mature trees that are healthy and structurally sound and have grown into the natural stature particular to the species.

Table 4.3-4 discusses special-status plant species that have the potential to occur within the Capacity Increase Project area, based on botanical surveys conducted at the Landfill property and review of the CNDDDB, the CNPS online inventory and review of the online data base of the Consortium of California Herbaria. Table 4.3-4 also includes species that are known historically from the region but are not expected to occur within the Landfill property based on a lack of suitable habitat. No Federally or State-listed plant species are known from the Landfill property.

However, four plant species which are considered sensitive by the State, CNPS, or Santa Barbara County; Plummer's baccharis (*Baccharis plummerae* ssp. *plummerae*), Santa Barbara honeysuckle (*Lonicera subspicata* var. *subspicata*), Hoffmann's nightshade (*Solanum xanti* var. *hoffmannii*) and coast live oak (*Quercus agrifolia*), have been observed within or adjacent to the Landfill property during rare plant surveys conducted for the proposed project, the ReSource Center project, or previous surveys conducted for the Reconfiguration Project (Padre Associates Inc., 2006; Hunt and Associates, 2001; ERA, 2008; Padre, 2009b).

- Plummer's baccharis: observed just west of the Pila Creek concrete channel, approximately 350 feet south of the proposed Capacity Increase Project area.
- Santa Barbara honeysuckle: observed within the proposed Capacity Increase Project area (previously undisturbed area).
- Hoffmann's nightshade: observed along the northern boundary of the Landfill operational area, approximately 800 feet north of the proposed Capacity Increase Project area.
- Coast live oak: five mature trees occur within the proposed Capacity Increase Project area (previously undisturbed area).

Table 4.3-4. Special-status Plant Species Known or Potentially Occurring within the Project Impact Area

Scientific Name	Common Name	Status	Status at Landfill Property and Project Impact Area
<i>Arctostaphylos refugioensis</i>	Refugio manzanita	List 1B, SBBG	Habitat present, but species not found during past Landfill surveys or surveys of the Capacity Increase Project area, considered absent from the project impact area
<i>Aristida adscensionis</i>	Triple-awned grass	SBBG	Reported in 1980 from Alegria Canyon (CCH, 2023), species not found during past Landfill surveys or surveys of the Capacity Increase Project area, considered absent from the project impact area

Scientific Name	Common Name	Status	Status at Landfill Property and Project Impact Area
<i>Astragalus didymocarpus</i> var. <i>milesianus</i>	Mile's milk-vetch	List 1B, SBBG	Reported from the Gaviota area in 1902 (CNDDDB, 2023), species not found during past Landfill surveys or surveys of the Capacity Increase Project area, considered absent from the project impact area
<i>Atriplex serenana</i> var. <i>davidsonii</i>	Davidson's saltscale	List 1B, SBBG	Reported from the Gaviota area in 2009 (CNDDDB, 2023), species not found during past Landfill surveys or surveys of the Capacity Increase Project area, considered absent from the project impact area
<i>Baccharis plummerae</i> ssp. <i>plummerae</i>	Plummer's baccharis	List 4, SBBG	Observed just west of the Pila Creek concrete channel in 2013, not found in the proposed Capacity Increase Project area, considered absent from the project impact area
<i>Calochortus catalinae</i>	Catalina mariposa lily	List 4	Approximately 25 plants found in the West Borrow Area in 2009, plants were removed as part of permitted Landfill expansion, bulbs and seed were collected and planted at Baron Ranch, not found in the proposed Capacity Increase Project area, considered absent from the project impact area
<i>Cheilanthes cooperae</i>	Cooper's lip fern	SBBG	Reported in 1959 from Tajiguas Canyon (CCH, 2023), species not found during past Landfill surveys or surveys of the Capacity Increase Project area, considered absent from the project impact area
<i>Cornus sericea</i> ssp. <i>occidentalis</i>	Creek dogwood	SBBG	Reported in 1946 from Arroyo del Bulito west of Gaviota (CCH, 2023), species not found during past Landfill surveys or surveys of the Capacity Increase Project area, considered absent from the project impact area
<i>Deinandra increscens</i> ssp. <i>villosa</i>	Gaviota tarplant	SE, FE, List 1B, SBBG	Nearest occurrence approximately 3.0 miles to the west (CCH, 2023), species not found during past Landfill surveys or surveys of the Capacity Increase Project area, considered absent from the project impact area
<i>Erysimum suffrutescens</i>	Suffrutescent wallflower	List 4	Nearest occurrence approximately 9.9 miles to the west (CCH, 2023), species not found during past Landfill surveys or surveys of the Capacity Increase Project area, considered absent from the project impact area
<i>Galium cliftonsmithii</i>	Santa Barbara bedstraw	List 4	Nearest occurrence approximately 3.5 miles to the northeast (CCH, 2023), species not found during past Landfill surveys or surveys of the Capacity Increase Project area, considered absent from the project impact area
<i>Horkelia cuneata</i> ssp. <i>puberula</i>	Mesa horkelia	List 1B, SBBG	Reported from the Gaviota area (CNDDDB, 2023) species not found during past Landfill surveys or surveys of the Capacity Increase Project area, considered absent from the project impact area
<i>Lilium humboldtii</i> ssp. <i>ocellatum</i>	Ocellated Humboldt lily	List 4, SBBG	Known from coastal canyons in the region, species not found during past Landfill surveys or surveys of the Capacity Increase Project area, considered absent from the project impact area
<i>Lonicera subspicata</i>	Santa Barbara honeysuckle	List 1B, SBBG	Approximately 50 plants found in the Capacity Increase Project area during 2022 and 2023 botanical surveys

Scientific Name	Common Name	Status	Status at Landfill Property and Project Impact Area
<i>Malacothrix saxatilis</i> var. <i>saxatilis</i>	Cliff aster	List 4	Nearest occurrence approximately 1.0 miles to the west (CCH, 2023), subspecies not found during past Landfill surveys or surveys of the Capacity Increase Project area, considered absent from the project impact area
<i>Monardella hypoleuca</i> ssp. <i>hypoleuca</i>	White-veined monardella	List 1B	Nearest occurrence approximately 3.6 miles to the northeast (CCH, 2023), species not found during past Landfill surveys or surveys of the Capacity Increase Project area, considered absent from the project impact area
<i>Quercus agrifolia</i>	Coast live oak	LC	Five mature trees occur within the Capacity Increase Project area
<i>Quercus dumosa</i>	Nuttall's scrub oak	List 1B, SBBG	Known from the region, species not found during past Landfill surveys or surveys of the Capacity Increase Project area, considered absent from the project impact area
<i>Sanicula hoffmannii</i>	Hoffmann's sanicle	List 4, SBBG	Reported from near the Santa Barbara Botanic Garden, species not found during past Landfill surveys or surveys of the Capacity Increase Project area, considered absent from the project impact area
<i>Scrophularia atrata</i>	Black-flowered figwort	List 1B	Reported from the Gaviota area (CCH, 2023) species not found during past Landfill surveys or surveys of the Capacity Increase Project area, considered absent from the project impact area
<i>Pelazoneuron puberulum</i> var. <i>sonorensis</i>	Sonoran maiden fern	List 2, SBBG	Reported from Arroyo Hondo, 0.5 miles to the west (CNDDDB, 2023), species not found during past Landfill surveys or surveys of the Capacity Increase Project area, considered absent from the project impact area

Status Key

FE: Federally-listed as Endangered

LC: Local concern (Santa Barbara County)

List 1B: California Native Plant Society (CNPS), plants Rare, Threatened or Endangered in California and elsewhere

List 2: CNPS, plants Rare, Threatened or Endangered in California, but more common elsewhere

List 4: CNPS, plants of limited distribution, a watch list

SBBG: Rare plant of Santa Barbara County (Santa Barbara Botanic Garden)

SE: California-listed as Endangered

Special-status Wildlife. For purposes of this analysis, wildlife species are considered rare, threatened or endangered (as defined in Section 15380 of the State CEQA Guidelines) if they are if they are (1) listed or proposed for listing as threatened or endangered by the under the Federal or California ESA; (2) designated as California fully protected by CDFW; (3) raptors (birds of prey) and active raptor nests protected by the California Fish and Game Code 3503.5; (4) designated as a California species of special concern by CDFW; and/or (5) designated as locally important species.

Table 4.3-5 addresses special-status wildlife species that are known from the Landfill area and/or have the potential to occur within the project impact area (including areas affected by the proposed Phase IV fill, toe berm construction, North Sedimentation Basin modifications, Landfill facility relocation and relocation of ReSource Center utilities), based on wildlife surveys and biological monitoring conducted at the Landfill property, and review of the CNDDb.

Table 4.3-5. Special-status Wildlife Species Known to Occur in the Landfill Region and Potential Presence within the Project Impact Area

Scientific Name	Status	Status at Landfill Property and Project Impact Area
Invertebrates		
<i>Danaus plexippus</i> Monarch butterfly	FC (roost sites)	Nearest known aggregation site is located approximately 0.3 miles from the Landfill property and 1.0 miles from the Capacity Increase Project area, no suitable roosting habitat, considered absent from the project impact area
<i>Bombus crotchii</i> Crotch's bumblebee	SC	Five observed within the Capacity Increase Project area on June 16, 2023
Fish		
<i>Oncorhynchus mykiss irideus</i> Southern California steelhead DPS	FE/CSC/SC	Reported from Arroyo Hondo 0.6 miles to the west (Stoecker, et al., 2002), all fish habitat removed as part of Reconfiguration Project, considered absent from the project impact area
<i>Eucyclogobius newberryi</i> Tidewater goby	FE	Reported from mouth of Arroyo Quemado (CNDDb, 2023), all fish habitat removed as part of Reconfiguration Project, considered absent from the project impact area
<i>Gila orcuttii</i> Arroyo chub	CSC	Reported from Refugio Creek 3.5 miles to the east (Ingamells, personal observation, 2007), all fish habitat removed as part of Reconfiguration Project, considered absent from the project impact area
Amphibians and Reptiles		
<i>Rana draytonii</i> California red-legged frog	FT/CSC	Observed in the South Sedimentation Basin and box culvert, North Sedimentation Basin, Pila Creek, scale house vault and Landfill operations and maintenance deck (see Table 4.3-6) during migration across the Landfill property, potentially present in the project impact area (North Sedimentation Basin)
<i>Taricha torosa torosa</i> Coast Range newt	CSC	Observed in upper Arroyo Quemado in 2022 (Padre Associates, 2022), approximately 0.5 miles northeast of the Capacity Increase Project area, no suitable habitat, considered absent from the project impact area
<i>Emys marmorata</i> Western pond turtle	CSC	Observed at the reconfiguration project area in 2009, South Sedimentation Basin in 2019, 2020 and 2021 and relocated to Baron Ranch, considered absent from the project impact area
<i>Phrynosoma blainvillii</i> Coast horned lizard	CSC	Reported from Santa Ynez Peak 10 miles to the northeast (Hunt and Associates, 2001), low quality, isolated habitat within Capacity Increase Project area, not observed during the wildlife survey, considered absent from the project impact area

Scientific Name	Status	Status at Landfill Property and Project Impact Area
<i>Salvadora hexalepis virgulata</i> Coast patch-nosed snake	CSC	Reported from Refugio Pass 5 miles to the northeast (Jennings & Hayes, 1994), low quality, isolated habitat within Capacity Increase Project area, not observed during the wildlife survey, considered absent from the project impact area
<i>Thamnophis hammondi</i> Two-striped garter snake	CSC	Found within and adjacent to the in-channel sedimentation basins, basins were removed in 2009, not observed during the wildlife survey, considered absent from the project impact area
Birds		
<i>Accipiter cooperii</i> Cooper's hawk	WL (nesting)	Observed in Landfill area during surveys conducted for 01-EIR-05 (Hunt and Associates, 2001), not observed during biological monitoring of ReSource Center construction, low quality, isolated foraging habitat within Capacity Increase Project area, not observed during the wildlife survey, considered absent from the project impact area
<i>Buteo regalis</i> Ferruginous hawk	WL (wintering)	Reported from El Capitan State Beach 6.5 miles to the east, not observed during biological monitoring of ReSource Center construction, low quality, isolated foraging habitat within Capacity Increase Project area, not observed during the wildlife survey, considered absent from the project impact area
<i>Circus cyaneus</i> Northern harrier	CSC (nesting)	Observed during biological monitoring of ReSource Center construction, low quality, isolated foraging habitat within Capacity Increase Project area, not observed during the wildlife survey, could forage within the project impact area
<i>Elanus leucurus</i> White-tailed kite	CFP	Observed during biological monitoring of ReSource Center construction, low quality, isolated foraging habitat within Capacity Increase Project area, not observed during the wildlife survey, could forage within the project impact area
<i>Pandion haliaetus</i> Osprey	WL (nesting)	Reported from Santa Barbara Ranch 10 miles to the east (URS, 2006), not observed during biological monitoring of ReSource Center construction, low quality, isolated foraging habitat within Capacity Increase Project area, not observed during the wildlife survey, considered absent from the project impact area
<i>Falco peregrinus anatum</i> American peregrine falcon	CFP	Reported from Santa Barbara Ranch 10 miles to the east (URS, 2006), not observed during biological monitoring of ReSource Center construction, low quality, isolated foraging habitat within Capacity Increase Project area, not observed during the wildlife survey, considered absent from the project impact area
<i>Lanius ludovicianus</i> Loggerhead shrike	CSC (nesting)	Observed on Landfill property in September 2008, during biological monitoring in 2012, and during biological monitoring of ReSource Center construction, could forage within the project impact area
<i>Selasphorus sasin</i> Allen's hummingbird	BCC	Observed in Capacity Increase Project area during the May 18, 2023 wildlife survey
<i>Setophaga petechia brewsteri</i> Yellow warbler	CSC (nesting)	Observed during biological monitoring in 2012 of Phase 3A liner installation, likely a transient as suitable habitat is not present, considered absent from the project impact area

Scientific Name	Status	Status at Landfill Property and Project Impact Area
<i>Icteria virens</i> Yellow-breasted chat	CSC (nesting)	Reported from Refugio Canyon 3.5 miles to the east (Lehman, 2022), no suitable habitat present, considered absent from the project impact area
<i>Aimophila ruficeps canescens</i> Southern California rufous-crowned sparrow	WL	Observed during biological monitoring in 2012 of Phase 3A liner installation, not observed during biological monitoring of ReSource Center construction, low quality, isolated habitat within Capacity Increase Project area, not observed during the wildlife survey, considered absent from the project impact area
<i>Ammodramus savannarum</i> Grasshopper sparrow	CSC (nesting)	Reported from Santa Barbara Ranch 10 miles to the east (URS, 2006), not observed during biological monitoring of ReSource Center construction, low quality, isolated habitat within Capacity Increase Project area, not observed during the wildlife survey, considered absent from the project impact area
Mammals		
<i>Antrozous pallidus</i> Pallid bat	CSC	Santa Barbara Natural History Museum specimen from Las Cruces 5.2 miles to the northwest, no roosting habitat present, considered absent from the project impact area
<i>Bassariscus astutus</i> Ringtail	CFP	Observed in Landfill area during surveys conducted for 01-EIR-05 (Hunt and Associates, 2001), low quality, isolated foraging habitat within Capacity Increase Project area, not observed during the wildlife survey, considered absent from the project impact area
<i>Neotoma lepida intermedia</i> San Diego desert woodrat	CSC	Reported from Union Pacific Railroad right-of-way 1 mile to the southwest (CNDDDB, 2023), very low quality, isolated habitat within Capacity Increase Project area, no evidence of this species was observed during the wildlife survey, considered absent from the project impact area
<i>Taxidea taxus</i> American badger	CSC	Reported from the Arroyo Hondo watershed 1.1 miles to the west in 2003 (CNDDDB, 2023), very low quality, isolated habitat within Capacity Increase Project area, no evidence of this species was observed during the wildlife survey, considered absent from the project impact area

Status Key: BCC: Birds of Conservation Concern (USFWS) FT: Federally-listed as Threatened (USFWS)
 CFP: Fully protected under the California Fish and Game Code SC: California candidate for listing (CDFW)
 CSC: California Species of Special Concern (CDFW) WL: Watch List (CDFW)
 FC: Federal candidate for listing (USFWS)
 FE: Federally-listed as Endangered (USFWS)

Crotch's Bumblebee. In response to comments received on the NOP from CDFW, bumblebee surveys were conducted by a Padre biologist familiar with the Crotch's bumblebee life history and survey techniques. Ten bumblebees were observed within the Capacity Increase Project area during a focused bumblebee survey conducted on May 18, 2023, including seven black-tailed bumblebees (*Bombus melanopygus*) and three yellow-faced bumblebees (*Bombus vosnesenskii*). Consistent with CDFW protocols, a second bumblebee survey was conducted within the Capacity Increase Project area on June 16, 2023, with 17 black-tailed bumblebees, one yellow-faced bumblebee and five Crotch's bumblebees (*Bombus crotchii*) observed. Crotch's bumblebees were positively identified by the biologist through high resolution photographs and also confirmed by review of the photographs by consulting entomologist Ken Osborne (email dated June 30, 2023). This species appeared to be focused on foraging on white sage flowers on a hydroseeded manufactured slope in the northeast corner of the project area. A search was conducted for bumblebee nests within the Capacity Increase Project area, and none were found. However, suitable locations were observed. Because a positive identification was made and presence was determined, no further surveys were conducted and CDFW was consulted.

Crotch's bumblebee is social and forms annual colonies composed of queens, workers and males. The nests are formed each spring by a single mated queen that overwinters in loose soil, leaf litter, woodpiles, rock walls and similar sites providing shallow cavities. From about March through April, these mated queens find and establish nest sites which can include rodent burrows, vacant bird nests, hollow logs, tree cavities and similar structures. The queen forages and lays eggs to start a new colony each year. The workers and males forage for pollen and nectar from about May through September (typically within one mile of the nest) to feed themselves and the larvae of the colony. In the fall, the entire colony dies except for mated queens which leave the nest and overwinter to establish a new nest and colony the following spring.

Crotch's bumblebee historically occurred from the northern Central Valley to Baja Mexico, but has been lost from 70 percent of its range in California and now primarily persists in coastal southern California habitats, though also survives in a few areas around Sacramento (Hatfield and Jepsen, 2021). This species is listed as a candidate under the California Endangered Species Act and as a candidate species it receives the same level of protection as an endangered species pursuant to Section 2085 of the California Fish and Game Code.

California Red-legged Frog. Although highly disturbed from historic and ongoing operations, the entire Landfill property provides dispersal habitat for CRLF. The Tajiguas Landfill is located between two known populations of CRLF. On the east, Arroyo Quemado at the Baron Ranch and, to the west, Arroyo Hondo. Therefore, CRLF may be (and have been observed to be) present on the Landfill property while making overland dispersal movements between these two populations.

CRLF were historically observed on the Tajiguas Landfill property utilizing two man-made in-channel sedimentation basins that were formerly present in the Pila Creek channel, a groundwater seep area in the creek, and the North Sedimentation Basin to the east of Pila Creek. The in-channel basins provided the only breeding habitat at the Landfill and were removed in 2009 as part of the Reconfiguration Project.

Since 2009, monitoring of CRLF within the Pila Creek drainage has been conducted as a part of the California Red-legged Frog Management Plan, which was developed as part of the Reconfiguration Project, and required to be implemented as a condition of the 2009 Biological Opinion issued for the Reconfiguration Project. The 2009 Biological Opinion authorizes the collection and relocation of CRLF from Pila Creek to USFWS-approved pools in Arroyo Quemado, on the Baron Ranch where restoration activities were completed to enhance/expand CRLF habitat.

Although suitable breeding habitat is no longer present at the Landfill, transient CRLF continue to be observed at the Landfill, primarily in the drainage/storm water quality management facilities including the south sedimentation basin near the Landfill entrance, the concrete-lined portion of Pila Creek, and the north sedimentation basin.

Currently, CRLF are managed at the Landfill under the Incidental Take Permit issued for Landfill (including the Capacity Increase Project) and ReSource Center operations and maintenance activities, closure and post-closure and the HCP, which require implementation of avoidance and minimization measures and compensatory mitigation to reduce the potential for take of CRLF. These measures include:

- Use of USFWS-approved biologist.
- Environmental sensitivity training for all Landfill staff and contractors.
- Protocols for capturing and relocating any CRLF observed at the Landfill.
- Prohibition of ground disturbing activities during the rainy season between sunset and sunrise.
- Restriction of maintenance activities in Pila Creek and the North and South Sedimentation Basins to the dry season, unless a night survey, pre-activity survey for CRLF is conducted and all work activities are monitored.

- Restriction on the duration of storage of storm water in the sedimentation basins to that needed to meet water quality requirements.
- CRLF surveys to detect CRLF following all rain events of 0.1 inches or greater and relocation of any observed CRLF to protected areas of Arroyo Quemado.
- Limitations on storage of storm water proposed for Landfill construction in the North Sedimentation Basin prior to April and additional monitoring requirements.
- Other avoidance and minimization measures during operations and construction.

Note that the proposed project is a covered activity under the HCP, such that incidental take (mortality, wounding or harassment that results from, but is not the purpose of carrying out an otherwise lawful activity) is authorized and avoidance and minimization measures must be implemented. The Incidental Take Permit has a 50-year term and allows for an annual take of 50 CRLF through capture and 25 CRLF through killing/wounding (includes five adults, five juveniles and 15 tadpoles). Table 4.3-6 provides a summary of CRLF observed at the Landfill from 2018 through August 22, 2023.

Habitat Connectivity and Wildlife Corridors

Wildlife movement corridors or linkages are considered sensitive by local, state, and federal resource and conservation agencies because these corridors allow wildlife to move between adjoining open space areas offsetting the effects of isolation as open space becomes increasingly fragmented from urbanization, rugged terrain, or changes in vegetation (Beier and Loe 1992).

Table 4.3-6. Summary of CRLF Observations at the Landfill

Rainy Season	Number Surveys Conducted	Number CRLF Observed	Location of Observations
2018/2019	23	22	South Sedimentation Basin and box culvert, Landfill operations deck
2019/2020	11	7	South Sedimentation Basin and box culvert, Landfill scale vault
2020/2021	5	2	South Sedimentation Basin and box culvert
2021/2022	8	4	South Sedimentation Basin box culvert
2022/2023*	24	15	South Sedimentation Basin and box culvert

* Through August 22, 2023

Multiple studies have concluded that many wildlife species in developed and fragmented areas would not likely persist over time because isolation through fragmentation would prohibit the infusion of new individuals and genetic information (MacArthur and Wilson 1967; Soule 1987; Harris and Gallagher 1989; Bennett 1990). However, wildlife corridors mitigate the effects of this fragmentation by (1) allowing wildlife to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic stochastic events (such as fire or disease) on population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs (Noss 1983; Farhig and Merriam 1985; Simberloff and Cox 1987; Harris and Gallagher 1989).

Wildlife movement activities typically fall into one of three movement categories: (1) dispersal (e.g., juvenile animals from natal areas, or individuals extending range distributions); (2) seasonal migration; and (3) movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover).

Large open space areas that have few or no man-made or naturally occurring physical constraints to wildlife movement may not have wildlife corridors but may still be large enough to maintain viable populations of species; provide adequate food, water, and cover; and provide a variety of travel routes (canyons, ridgelines, trails, riverbeds, and others) without the movement of wildlife into other large open space areas. However, once an open space area becomes constrained and/or fragmented as a result of urban encroachment, the remaining linkage area that connects the larger open space areas can act as a corridor as long as it provides adequate space, cover, food, and water and does not contain obstacles or distractions (e.g., man-made noise, lighting) that would generally hinder wildlife movement.

The developed areas of the Landfill property including the permitted Landfill waste footprint and adjacent supporting facilities are generally comprised of steep graded hillsides, dirt and paved roads, ruderal areas devoid of vegetation, and other development associated with Landfill operations. These developed and active portions of the Tajiguas Landfill provide little value to resident and transient wildlife.

The proposed Capacity Increase Project area is surrounded by active Landfill facilities and does not facilitate wildlife movement between habitat areas in the Landfill area. On the contrary, wildlife utilizing the Capacity Increase Project area may be subject to increased mortality associated with heavy equipment and motor vehicle traffic on adjacent access roads. Therefore, the proposed Capacity Increase Project has no value as a wildlife movement corridor.

Wetlands and Jurisdictional Waters

U.S. Army Corps of Engineers. In accordance with Section 404 of the CWA, the USACE has regulatory authority over the discharge of dredged or fill material into waters of the U.S. (including non-wetland waters of the U.S. and wetlands). Federal jurisdiction is dependent on a demonstrated nexus between the subject water feature and navigable waters or interstate commerce. The USACE and EPA define wetlands as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions" (USACE 1987).

Currently, RRWMD conducts maintenance (sediment and debris removal in the concrete-lined channel and constructed earthen channel) in Pila Creek under the authority of a Nationwide Permit verification (SPL-2019-00373) last updated by the USACE on March 3, 2022.

California Department of Fish and Wildlife. In accordance with Sections 1600 to 1616 of the Fish and Game Code, the CDFW regulates activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. The CDFW exerts jurisdiction over all waters of the State, such as streams and rivers (measured from bank to bank) and any riparian vegetation associated with the waters.

Currently, RRWMD conducts maintenance (sediment and debris removal in the concrete-lined channel and constructed earthen channel) in Pila Creek under the authority of a Streambed Alteration Agreement (1600-2018-0337-R5) issued by CDFW on February 9, 2022.

Regional Water Quality Control Board. The RWQCB is the primary agency responsible for protecting water quality in California. The RWQCB regulates discharges to surface waters under Section 401 of the CWA (water quality certification) and the California Porter-Cologne Water Quality Control Act. The RWQCB's jurisdiction extends to all waters of the State and to all waters of the U.S. as considered jurisdictional by the USACE. The RWQCB also regulates isolated wetlands, e.g., vernal pools that are not regulated by the USACE.

Currently, RRWMD conducts maintenance (sediment and debris removal) in Pila Creek under the authority of a Water Quality Certification (34219WQ14) last updated by the RWQCB on August 28, 2019.

County of Santa Barbara. The County has adopted the following wetland definition:

1. At least periodically, the land supports predominantly hydrophytes (i.e. plants adapted to moist areas),
2. The substrate is predominantly undrained hydric soil, and

3. The substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year (Cowardin et al., 1979; County 1992, updated 2021).

Presence within the Capacity Increase Area. The proposed project includes modification of the North Sedimentation Basin. However, this basin is entirely artificial (excavated in uplands) and does not meet the definition of a water of the U.S. under the Clean Water Act or a streambed under the California Fish and Game Code. Jurisdictional waters (including wetlands) do not occur within the project impact area.

4.3.2 Impact Analysis and Mitigation Measures

4.3.2.1 Thresholds of Significance

The criteria for determining significant impacts on biological resources were developed in accordance with Section 15065(a) and Appendix G of the State CEQA Guidelines and the County's Guidelines Manual (updated 2021).

CEQA Guidelines Section 15065(a)

A project may have a significant impact on the environment if the project has the potential to (1) substantially degrade the quality of the environment, (2) substantially reduce the habitat of a fish or wildlife species, (3) cause a fish or wildlife population to drop below a self-sustaining level, (4) threaten to eliminate a plant or animal community, and/or (5) reduce the number or restrict the range of an endangered, rare, or threatened species.

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. A substantial impact is an impact that diminishes, or results in the loss of, a sensitive biological resource or that significantly conflicts with local, State, or Federal resource conservation plans, goals, and/or regulations. Sometimes impacts can be locally adverse, but not significant. In such a case, the impacts may result in an adverse alteration of a local biological resource, but they may not substantially diminish or result in the permanent loss of an important resource on a population- or region-wide basis.

CEQA Guidelines Appendix G

Implementation of the proposed project may have potentially significant adverse impacts on biological resources if it would result in any of the following:

- Have a substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations or by the CDFW or the USFWS.

- Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or the USFWS.
- Have a substantial adverse impact on State or federally protected wetlands, including but not limited to marsh, coastal, etc., through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources such as a tree preservation policy or ordinance.
- Conflict with the provisions of any adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan, or other approved local, regional, or State HCP.

Santa Barbara County Environmental Thresholds and Guidelines Manual - Biological Resources

General Impacts. Disturbance to habitats or species may be significant, based on substantial evidence in the record (not public controversy or speculation), if they substantially impact significant resources in the following ways:

- Substantially reduce or eliminate species diversity or abundance;
- Substantially reduce or eliminate quantity or quality of nesting areas;
- Substantially limit reproductive capacity through losses of individuals or habitat;
- Substantially fragment, eliminate, or otherwise disrupt foraging areas and/or access to food sources;
- Substantially limit or fragment range and movement (geographic distribution or animals and/or seed dispersal routes); and/or
- Substantially interfere with natural processes, such as fire or flooding, upon which the habitat depends.

Wetland Impact Assessment Guidelines. The following types of project-created impacts may be considered significant:

- Projects which result in a net loss of important wetland area or wetland habitat value, either through direct or indirect impacts to wetland vegetation, degradation of water quality, or would threaten the continuity of wetland-dependent animal or plant species are considered to have a potentially significant effect on the environment.

- Projects which substantially interrupt wildlife access, use and dispersal in wetland areas would typically be considered to have potentially significant impacts.

Riparian Impact Assessment Guidelines. The following types of project-related impacts may be considered significant:

- Direct removal of riparian vegetation.
- Disruption of riparian wildlife habitat, particularly animal dispersal corridors and or understory vegetation.
- Intrusion within the upland edge of the riparian canopy (generally within 50 feet in urban areas, within 100 feet in rural areas, and within 200 feet of major rivers listed in the previous section), leading to potential disruption of animal migration, breeding, etc. through increased noise, light and glare, and human or domestic animal intrusion.
- Disruption of a substantial amount of adjacent upland vegetation where such vegetation plays a critical role in supporting riparian-dependent wildlife species (e. g., amphibians), or where such vegetation aids in stabilizing steep slopes adjacent to the riparian corridor, which reduces erosion and sedimentation potential.
- Construction activity which disrupts critical time periods (nesting, breeding) for fish and other wildlife species.

Native Grassland Habitat Impact Assessment Guidelines

- For purposes of resource evaluation in Santa Barbara County, a native grassland is defined as an area where native grassland species comprise 10 percent or more of the total relative cover.
- Removal or severe disturbance to a patch or patches of native grasses less than one-quarter acre, which is clearly isolated and is not a part of a significant native grassland or an integral component of a larger ecosystem, is usually considered insignificant.

Impact Assessment Guidelines for Woodlands and Forest Habitat Areas. Project-created impacts may be considered significant due to changes in habitat value and species composition such as the following: (1) Habitat fragmentation, (2) Removal of understory, (3) Alteration to drainage patterns, (4) Disruption of the canopy and (5) Removal of a significant number of trees that would cause a break in the canopy or disruption in animal movement in and through the woodland.

Native Tree Impact Assessment. In general, the loss of 10 percent or more of the trees of biological value on a project site is considered potentially significant. Native specimen trees are defined for biological assessment purposes as mature trees that are healthy and structurally sound and have grown into the natural stature particular to the species. For the purposes of this analysis, a coast live oak tree is considered mature and of biological value if it would be protected under County Ordinance no. 4491 (at least eight inches in diameter at breast height).

4.3.2.2 Approved Tajiguas Landfill Expansion Project

The following summarizes the impacts to biological resources identified in 01-EIR-05 for the Tajiguas Landfill Expansion Project (see Section 1.6.2).

1. The Tajiguas Landfill Expansion Project ultimately disturbed a total of 71 acres of vegetation communities, including 38 acres of mature chaparral, 5 acres of degraded coastal sage scrub, 4 acres of coast live oak woodland, 16 acres of non-native grassland and 7 acres of ruderal/landscaping vegetation. The loss of these habitats was considered a significant and unavoidable impact. Despite mitigation (BIO-7, requiring native revegetation at a 3:1 ratio) proposed to minimize this impact, residual impacts were expected to remain significant.
2. Excavation and construction activities associated with the Tajiguas Landfill Expansion Project were anticipated to result in disturbance from increased human activity and lead to the establishment of invasive, nonnative vegetation. This was considered a significant but mitigable impact.
3. Within the approved Tajiguas Landfill Expansion Project footprint, impacts to 100 to 150 mature coast live oak trees were anticipated. A tree replacement program and protective measures during construction (BIO-3 and BIO-4 of 01-EIR-05) would potentially reduce the severity of this impact, but residual impacts were expected to remain significant.
4. Loss of occupied habitat for three sensitive plant species (Plummer's baccharis, Hoffmann's nightshade and Santa Barbara honeysuckle) would occur within the Landfill expansion area. Although mitigation provided by 01-EIR-05 (BIO-1) would minimize impacts to sensitive plants, residual impacts were expected to remain significant.
5. The Tajiguas Landfill Expansion Project would lead to abandonment or avoidance of foraging and/or breeding habitat by several sensitive bird and mammal species that occur in adjacent foothill habitats, as a result of increased human presence/activities. Mitigation (BIO-9 in 01-EIR-05, minimize night lighting) was proposed to reduce this impact, but residual impacts were expected to remain significant.

6. The Tajiguas Landfill Expansion Project would result in the increased attraction of nuisance birds, such as various gull species and American crows. Artificially increased populations of these nuisance birds can exert additional pressure on other wildlife species through increased competition for limited habitat areas, such as wetlands and open water, and increased predatory pressure on a variety of species, such as songbirds and California red-legged frogs. This was considered a significant but mitigable impact; implementation of proposed mitigation measures (primarily NUI-2 in 01-EIR-05, bird management) was expected to reduce this impact to below a level of significance.
7. Nine sensitive wildlife species were known to occur within the Tajiguas Landfill Expansion Project area (three mammals, five birds and one amphibian), and 30 additional species were considered to have potential to occur. The project was expected to impact one federally listed species, the California red-legged frog. These impacts are associated with on-going maintenance activities within the sedimentation basins. A California Red-legged Frog Management Plan, as required by mitigation measure BIO-8 of 01-EIR-05, has been developed to reduce these impacts and continues to be implemented; however, residual impacts were considered significant and unavoidable.
8. Impacts from the Tajiguas Landfill Expansion Project were expected to adversely affect mountain lion and ringtail through loss of habitat and increased human presence; these impacts were considered significant but mitigable; mitigation proposed (BIO-7, BIO-9 and BIO-10 in 01-EIR-05) for these species was expected to reduce the impacts to below a level of significance.
9. The removal of suitable habitat for the San Diego woodrat, due to the more sedentary nature of this species, was expected to be a significant and unavoidable impact of the Tajiguas Landfill Expansion Project. Though this would be partially offset by mitigation measures (BIO-5 in 01-EIR-05: surveys and relocation of woodrats), residual impacts were expected to remain significant.
10. Impacts to four sensitive bird species (California horned lark, loggerhead shrike, Cooper's hawk and white-tailed kite) known from the site would include removal of habitat used for foraging and, potentially, breeding. Due to the abundance of habitat remaining in the vicinity of the Tajiguas Landfill Expansion Project, and the lower sensitivity status of these species, the impacts would be considered significant but mitigable. The proposed revegetation during phased closure of the Landfill would reduce impacts to the sensitive bird species to less than significant.

11. The Tajiguas Landfill Expansion Project was considered to have potential indirect impacts to the tidewater goby, which has been found in the adjacent Arroyo Quemado and Arroyo Hondo. These impacts may occur as a result of increased sedimentation and predation by gulls. Potential impacts to the goby were considered significant but mitigable. Implementation of mitigation measures provided by 01-EIR-05 (BIO-6 and NUI-2) were expected to reduce potential impacts to less than significant levels.
12. The Tajiguas Landfill Expansion Project was projected to potentially remove food plants (e.g., milkweed) for the monarch butterfly. This was considered a potentially significant, but mitigable, impact. Implementation of mitigation measures provided by 01-EIR-05 (BIO-11) was expected to reduce potential impacts to monarchs to less than significant levels.

4.3.2.3 Approved Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project

The following summarizes the impacts to biological resources identified in 08EIR-00000-00007 (see Section 1.6.2) for the Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project (Reconfiguration Project).

1. The Reconfiguration Project would result in the permanent loss of 4.1 acres of sensitive vegetation communities and 4.2 acres of other native vegetation communities and potentially indirectly reduce the quality of these habitats in adjacent areas. The loss of these habitats was considered a significant and unavoidable impact. Despite mitigation (MM BIO-1[a], Restoration Plan implementation; MM BIO-1[b], minimization of impacts to adjacent areas; and MM BIO-1[c], control of highly invasive plants), residual impacts were considered significant and unavoidable.
2. The Reconfiguration Project would result in the additional loss of individuals of three species of sensitive plants (Plummer's baccharis, Santa Barbara honeysuckle, and Hoffmann's nightshade). Although mitigation provided by MM BIO-1(a) would minimize impacts to sensitive plants, residual impacts were expected to remain significant.
3. The Reconfiguration Project would result in the loss of specimen native trees. Although mitigation provided by MM BIO-1(a) and MM BIO-1(b) would minimize impacts to specimen native trees, residual impacts were expected to remain significant.
4. The filling of Pila Creek related to the Reconfiguration Project would result in the loss of 0.30 acres of USACE-defined wetlands and 5.03 acres of CDFW/RWQCB/County-defined wetlands. The implementation of MM BIO-1(a) and MM BIO-1(b) of 08EIR-00000-00007 was expected to reduce impacts to less than significant levels.

5. The Reconfiguration Project would result in mortality and habitat loss for common wildlife species. These impacts were considered adverse but less than significant because the proposed Landfill reconfiguration was not expected to reduce these wildlife populations below self-sustaining levels. However, MM BIO-5(a) (replacement water source) and MM BIO-5(b) (night lighting) were proposed to further address impacts to common wildlife.
6. The removal of the in-channel sedimentation basins and adjacent native habitats related to the Reconfiguration Project would result in loss of breeding and foraging habitat and potentially result in direct impacts to individual threatened California red-legged frogs from Pila Creek. Despite mitigation (MM BIO-6, California Red-legged Frog Management Plan implementation), residual impacts were considered significant and unavoidable.
7. The Reconfiguration Project would result in habitat loss that would adversely affect the San Diego desert woodrat. The incremental project impact was determined to be a significant but mitigable impact, through implementation of MM BIO-7 (San Diego desert woodrat relocation). Consistent with the approved Landfill Expansion Project, residual impacts were considered significant and unavoidable.
8. The Reconfiguration Project would result in habitat loss that would adversely affect American badger and ringtail. Removal of active dens during the breeding period was determined to be a potentially significant impact. This potential impact was mitigated with the implementation of MM BIO-8 (American badger and ringtail surveys) and residual impacts were determined to be less than significant.
9. The Reconfiguration Project would adversely affect two-striped garter snake. The proposed filling of the in-channel basins would result in the loss of several individuals and affect the long-term persistence of the local population, which was considered a potentially significant impact. This impact was mitigated with the implementation of MM BIO-9 (two-striped garter snake relocation), which would reduce residual impacts to a less than significant level.
10. The Reconfiguration Project would result in removal of the in-channel basins, which would eliminate potential habitat for the western pond turtle in Pila Creek. This was determined to have an adverse impact, but less than significant. Although mitigation was not required, MM BIO-10 (western pond turtle relocation) was implemented to avoid potential impacts to the species.

11. Habitat loss resulting from the Reconfiguration Project could significantly affect raptors including the white-tailed kite, Cooper's hawk, red-tailed hawk, and great horned owl, which was determined to be a significant but mitigable impact. Impacts were reduced to a less than significant level through the implementation of MM BIO-11 (avoidance of raptor breeding period).
12. Habitat loss resulting from the Reconfiguration Project would adversely affect raptors including the sharp-shinned hawk, ferruginous hawk, Swainson's hawk, northern harrier, osprey, merlin, and American peregrine falcon. This impact was determined to be less than significant.
13. Vegetation removal resulting from the Reconfiguration Project could significantly affect other sensitive birds and nesting migratory birds, which was considered to be a significant impact. This impact was reduced to a less than significant level through the implementation of MM BIO-13 (avoidance of migratory bird breeding period).
14. The removal of trees and rock outcrops resulting from the Reconfiguration Project could eliminate habitat for sensitive bat species. The project would permanently eliminate habitat for bat maternity roosts and had the potential to result in direct mortality of individual bats. Any permanent or temporary impacts of occupied maternity roosts were determined to be a significant impact. This impact was reduced to a less than significant level through the implementation of MM BIO-14 (avoidance of bat maternity colonies).
15. The filling of Pila Creek resulting from the Reconfiguration Project may adversely affect habitat connectivity and wildlife corridors. However, this impact was determined to be less than significant.

4.3.2.4 Approved Tajiguas Resource Recovery Project (ReSource Center)

The following summarizes the impacts to biological resources identified in 12EIR-00000-00002 for the ReSource Center (see Section 1.6.3).

1. ReSource Center construction would result in the permanent loss of approximately 3.33 acres of vegetation communities, including 1.09 acres of native vegetation communities/cover types (*Ceanothus megacarpus* chaparral and rock outcrops) and 2.24 acres of ruderal areas dominated by non-native plant species. Due to the small area of anticipated permanent loss of these common native vegetation communities, this impact was considered adverse but less than significant.

2. ReSource Center construction would result in temporary but significant impacts to 0.89 acres of sensitive vegetation communities (0.22 acre of California bay seep woodland, 0.39 acre of coast live oak woodland, and 0.28 acre of southern coast live oak riparian forest). This impact would be mitigated with the implementation of MM TRRP BIO-1 (Construction Requirements), which would reduce residual impacts to a less than significant level.
3. ReSource Center construction would result in the permanent loss of 3.33 acres of habitat for common wildlife species during clearing and grubbing prior to construction, primarily near the western and eastern ridges of Cañada de la Pila. This impact was considered adverse but less than significant.
4. Construction activities during the nesting season could directly impact active nests or cause abandonment or failure of nests, which would be inconsistent with the MBTA and Section 3503.5 of the California Fish and Game Code and potentially significant. This impact was mitigated with the implementation of MM TRRP BIO-2 (Breeding Bird Protection), which would reduce residual impacts to a less than significant level.
5. ReSource Center construction would result in the removal of approximately 15 individuals of two sensitive plant species occur within the project impact area, eight Plummer's baccharis and seven Santa Barbara honeysuckle. Impacts to these plants were mitigated through excess planting and maintenance of 30 plants at the Baron Ranch associated with the Reconfiguration Project prior to construction. Therefore, loss of these plants was considered less than significant.
6. The removal of native vegetation would expand the area of exposed ground for CRLF to cross during overland movement, increasing the chances of predation. Impacts were considered less than significant considering the very low likelihood of the presence of a CRLF within these upland areas and the small amount of proposed native vegetation removal.
7. ReSource Center construction would result in loss of habitat for sharp-shinned hawk, ferruginous hawk, northern harrier, white-tailed kite and loggerhead shrike. Impacts to these species were considered less than significant due to the small area of habitat removal as compared to their typical foraging area, and the lack of suitable nesting habitat at the Landfill property.
8. ReSource Center construction would result in the loss of 1.07 acres of foraging, breeding, and natal denning habitat for American badger and ringtail. This impact was mitigated with the implementation of MM TRRP BIO-3 (American Badger and Ringtail Surveys), which would reduce residual impacts to a less than significant level.

9. ReSource Center construction would result in the loss of 1.07 acres of habitat for San Diego desert woodrat. This impact was mitigated with the implementation of MM TRRP BIO-4 (San Diego Desert Woodrat Relocation), which would reduce residual impacts to a less than significant level.
10. ReSource Center construction would result in the removal of 0.02 acres of bat roosting habitat (rock outcrops). This impact was mitigated with the implementation of MM TRRP BIO-5 (Avoidance of Bat Maternity Colonies), which would reduce residual impacts to a less than significant level.
11. Operation of the ReSource Center would result in indirect and permanent impacts to wildlife primarily due to the increase in the amount and duration of human activity at the Landfill. These impacts to common wildlife were considered less than significant, due to the small area of wildlife habitat affected.
12. Operation of the ReSource Center would introduce nighttime activities, including use of the paved roads between the Landfill entrance and the MRF and ADF site by employees and for transport of commodities from the MRF. Conflicts with equipment activity and motor vehicle use may occur (particularly at night) and direct impacts (crushing) to transient CRLF would be potentially significant. This impact was mitigated with the implementation of MM TRRP BIO-6 (Avoidance and Minimization Measures for California Red-legged Frog and Sensitive Mammal Species), which would reduce residual impacts to a less than significant level.
13. Operation of the ReSource Center may increase mortality of ringtail, San Diego desert woodrat and American badger, especially at night. These impacts are considered potentially significant. This impact was mitigated with the implementation of MM TRRP BIO-6 (Avoidance and Minimization Measures for California Red-legged Frog and Sensitive Mammal Species), which would reduce residual impacts to a less than significant level.
14. Construction of the ReSource Center would incrementally encroach on potential wildlife movement corridors, the coastal canyons of Arroyo Hondo to the west and Arroyo Quemado and Baron Ranch to the east. Due to the distance and topographic separation between project facility sites and these corridors (at least 1,800 feet), construction-related habitat loss and disturbance would not significantly reduce the value of Arroyo Hondo and Arroyo Quemado as potential wildlife movement corridors.

15. Operation of the ReSource Center would involve increased equipment and motor vehicle activity and night lighting and introduce nighttime operations to the Landfill property. Operation-related impacts to these potential movement corridors are considered less than significant due to distance and topographic separation between project facility sites and these corridors (at least 1,800 feet).

4.3.2.5 Proposed Tajiguas Landfill Capacity Increase Project

The following impact analysis addresses all project components, including construction of the proposed Phase IV fill area (excavation, blasting, liner installation, environmental protection/control system installation), construction of the proposed toe berm, modifications to the North Sedimentation Basin, modifications to the storm flow control structure in Pila Creek, relocation of Landfill facilities and relocation of ReSource Center utilities. Proposed changes in the hours of operation of the scale house and the change in the permitted tonnage from a daily maximum to a work week maximum would not result in any new biological impacts because these changes would not result in additional physical impacts.

Impact BIO-1: The proposed change in waste receipt hours may result in increased CRLF mortality during seasonal movements of transient individuals across the Landfill property – Insignificant Impact.

The proposed change in waste receipt from between 7 a.m. to 5 p.m. to between 6 a.m. and 4 p.m. would result in an increase in nighttime (before dawn) waste disposal motor vehicle traffic which may result in increased CRLF mortality that may be present on Landfill access roads while making overland dispersal movements that typically occur at night and during the rainy season. However, implementation of avoidance and minimization measures of the HCP and ITP (see Section 4.3.1.3 above) as required by the Incidental Take Permit would reduce the potential for incidental take of CRLF during seasonal movements and minimize any adverse effects.

Impact BIO-2: Project implementation would result in the removal of a plant community (California brittle-bush scrub) within the proposed Capacity Increase Project area that is vulnerable to extirpation, would remove other restored native vegetation that was proposed to meet biological mitigation requirements for the 2002 Landfill Expansion Project, could inadvertently impact adjacent native habitat areas, and could increase the potential for invasive non-native species to colonize disturbed areas – Significant but Mitigable Impact.

Plant communities listed in Table 4.3-2 would be removed as part of construction of the Phase IV waste fill area, including 1.63 acres of black sage scrub, 7.96 acres of California buckwheat scrub, 0.53 acres of big-pod ceanothus chaparral and 0.07 acres of California brittle-bush scrub. California brittle-bush scrub is considered to be vulnerable, at moderate risk of extirpation. The affected plant communities were reseeded on the Landfill property and are proposed for chaparral overseeding to partially mitigate for chaparral impacts associated with the 2002 Tajiguas Landfill Expansion project pursuant to 01-EIR-05 Mitigation Measure BIO-7 (Native Habitat Restoration) and BIO-6 (Erosion Control using native species).

01-EIR-05 Mitigation Measure Mitigation Measure BIO-7 (as modified below) would continue to apply to revegetation of disturbed areas and the Landfill closure slopes to mitigate for native vegetation impacts associated with the Tajiguas Landfill Project and the proposed Capacity Increase. The proposed project would include continued implementation of 01-EIR-05 Mitigation Measure BIO-7. Proposed changes to 01-EIR-05 Mitigation Measure Mitigation Measure BIO-7 would include allowances for out-of-kind replacement of chaparral habitat with coastal sage scrub habitat due to the limited area available for chaparral restoration and prohibitions on the use of chaparral habitat on the closed Landfill cover. In addition, **MM BIO-1(a)** and **BIO-1(b)** would be implemented to minimize impacts to adjacent habitats.

Mitigation Measures

MM 01-EIR-05 BIO-7 (Revised): Habitat Restoration. To compensate for native habitats disturbed by the expansion, a County-approved biologist shall prepare and implement a revegetation plan (e.g., a ratio of not less than 3:1 for each disturbed acre) for oak woodland and coastal sage scrub habitats. A County-approved biologist shall prepare and implement a restoration/revegetation plan (e.g., a ratio of not less than 3:1 for each disturbed acre) for chaparral habitat. The plan shall utilize native plants and seed stock from locally obtained sources to the maximum extent feasible and also shall take into account requirements for maintaining the integrity of the landfill and cover system. If suitable area for restoring chaparral habitat is not available for all of the habitat acreage required as mitigation for the Tajiguas Landfill Expansion Project (see Section 3.3.2.2), a portion of the habitat may be replaced out-of-kind with coastal sage scrub at a 4:1 ratio as determined by the Restoration Consultant in consultation with RRWMD⁹. Species selection shall be dependent upon the nature of the habitat.

⁹ Loss of chaparral habitat was identified as a significant and unavoidable impact in 01-EIR-05.

Plan Requirements and Timing: A revegetation or restoration plan for the landfill shall be prepared and where appropriate included in the landfill closure plan to be provided to the LEA, CalRecycle and the Regional Water Quality Control Board. Where feasible, the plan shall be implemented as each acre of habitat is removed or as a part of phased closure. Restoration shall occur on the Landfill property or at Baron Ranch.

Monitoring: RRWMD shall ensure the plan is prepared and implemented.

MM BIO-1(a): Minimize Impacts to Adjacent Habitats. To prevent inadvertent damage to sensitive habitats outside of the Capacity Increase Project Area, the construction disturbance area shall be clearly delineated on the project construction plans and in the field by staking, flagging or equivalent methods.

Plan Requirements and Timing: The Capacity Increase Impact Area boundary shall be delineated on construction plans prior to requests for construction bids. Field delineation shall occur prior to beginning ground disturbing activities or vegetation removal.

Monitoring: RRWMD shall monitor for compliance.

MM BIO-1(b): Control of Highly Invasive Plants. RRWMD shall monitor the project area and where feasible control infestations of plants identified as highly invasive by the California Invasive Plant Council. Invasive plants shall not be used in the erosion control hydroseed mix or in final closure revegetation seed mix.

Plan Requirements and Timing: An approved non-invasive hydroseed mix shall be included in the contractor specifications and the Joint Technical Document prepared for the Solid Waste Facilities Permit.

Monitoring: RRWMD shall monitor for compliance.

Residual Impacts: With implementation of 01-EIR-05 Mitigation Measure BIO-7 and the measures listed above **Impact BIO-2** would be significant but mitigable.

Impact BIO-3: Project implementation would result in the removal of ~10.2 acres of wildlife habitat and result in construction-related disturbance of common wildlife species – Insignificant Impact.

The proposed project would result in the permanent loss of about 10.2 acres of habitat for common wildlife species during clearing and grubbing of the proposed Capacity Increase Project area. Common wildlife species (especially small mammals and reptiles with low mobility) may be inadvertently killed or injured during construction activities, though birds and larger mammals that have higher mobility are unlikely to be killed or injured during project construction.

Proposed construction activities (increased access road traffic, excavation, blasting, liner installation, environmental protection/control system installation, construction of the proposed toe berm, modifications to the North Sedimentation Basin, modifications to the storm flow control structure in Pila Creek, relocation of Landfill facilities and relocation of ReSource Center utilities) would result in indirect temporary impacts to adjacent wildlife habitat and common wildlife species, such as increased fugitive dust, elevated noise levels, introduction of invasive plant species of low habitat value and increased human activity.

Habitat loss and indirect construction-related impacts to common wildlife species are considered an adverse but less than significant impact because the project would affect only a small amount of wildlife habitat, low quality of affected habitat associated with the fragmented nature of the habitat and disturbance (noise, dust, equipment activity) and isolation caused by surrounding Landfill activities, and availability of other undeveloped areas of the Landfill property and neighboring properties are available for use by common wildlife species. Therefore, the proposed project is not expected to reduce these wildlife populations below self-sustaining levels.

Impact BIO-4: Construction activity may significantly affect nesting migratory birds and/or raptors – Significant but Mitigable Impact.

Construction activities during the nesting season may cause direct removal of bird nests or cause abandonment or failure of nests (through noise, dust, equipment and motor vehicle activity), which would be inconsistent with the MBTA and Section 3503.5 of the California Fish and Game Code.

Mitigation Measures:

MM BIO-2: Breeding Bird Protection.

- Clearing and grubbing of areas of native habitat or areas immediately adjacent to native habitat shall avoid the migratory bird and raptor breeding season (February 1 to August 15).
- If construction in these areas cannot be avoided during this period, a nest survey within the area of impact and a 200-foot buffer for passerines and any available raptor nesting areas within 500 feet shall be conducted by a qualified biologist no earlier than 14 days and no later than 5 days prior to any native habitat removal or ground disturbance to determine if any nests are present. Surveys will be repeated as needed if the vegetation removal occurs over an extended period.

- If an active nest is discovered during the survey, a buffer of 200 feet for migratory birds or 500 feet for raptors (or as determined by the biologist based on a field assessment) would be established around the nest. No construction activity may occur within this buffer area until a biologist determines that the nest is abandoned, or fledglings are adequately independent from the adults.

Plan Requirements and Timing: The survey(s) shall be conducted by a qualified biologist and the measures shall be included in the project's plans and specifications and implemented during the entire construction period.

Monitoring: RRWMD shall ensure these measures are fully implemented during the construction period.

Residual Impacts: Implementation of **MM BIO-2** would reduce biological resources **Impact BIO-4** to a level of less than significant.

Impact BIO-5: Project implementation would result in the removal of Santa Barbara honeysuckle (~50 individuals) within the proposed Capacity Increase Project area – Significant but Mitigable Impact.

Approximately 50 Santa Barbara honeysuckle plants occur within the previously undisturbed area (see Figure 4.3-2) and would be removed during excavation and grading of the proposed Capacity Increase Project area. This impact is considered significant.

Mitigation Measures:

MM BIO-3: Rare Plant Replacement. Santa Barbara honeysuckle plants within the previously undisturbed area shall be replaced at a minimum 2:1 ratio (estimated 100 plants). Cuttings and/or fruit shall be taken from plants to be removed and grown in a native plant nursery as container plants. These plants shall be planted at undeveloped areas of the Landfill property or Baron Ranch in suitable habitat areas and maintained as needed to ensure at least 50 Santa Barbara honeysuckle plants survive in the long-term.

Plan Requirements and Timing: A Santa Barbara honeysuckle replacement plan shall be prepared by a qualified restoration specialist. The plan shall include maintenance and monitoring of replacement plants, and implemented as needed to ensure viable cuttings are taken prior to removal of any Santa Barbara honeysuckle plants. Santa Barbara honeysuckle replacement requirements shall be included in the project's plans and specifications.

Monitoring: RRWMD shall ensure this measure is fully implemented, including taking cuttings, propagation, planting and maintenance.

Residual Impacts: Implementation of **MM BIO-3** would reduce biological resources **Impact BIO-5** to a level of less than significant.

Impact BIO-6: Project implementation could result in the loss of occupied habitat for Crotch's bumblebee, potential loss of individuals and loss of nests within the vegetated areas of the proposed Capacity Increase Project area as a result of construction activities – Significant and Unavoidable Impact.

Five Crotch's bumblebees were observed within the Capacity Increase Project area on June 16, 2023 foraging on white sage flowers on a manufactured slope previously hydroseeded with a coastal sage scrub seed mix. Nests were not observed during the survey; however, suitable nesting habitat was observed. The existing disturbed/denuded Landfill areas are not expected to provide foraging or nesting resources, but the abundance and distribution of this species in the undisturbed areas of the Landfill property is unknown.

Restoration and conservation efforts involving portions of the northeast corner of the Landfill property and encompassing the adjacent County-owned Baron Ranch have include over 50 acres of native plant restoration and over 140 acres of land protected in perpetuity likely including suitable habitat for the Crotch's bumblebee such that available habitat is present near the proposed project site. Because of the transient nature of the Crotch's bumblebee and the annual life cycle spanning all seasons, complete avoidance of impacts may not be possible and the proposed project would result in habitat loss, and may result in take of the species, potentially including loss of individuals, and nests, and may be considered a significant impact.

Mitigation Measures:

The following measures were developed in consultation with consulting entomologist Ken Osborne and in consultation with CDFW.

MM BIO-4a: Crotch's Bumblebee Training and Construction Phasing. A Crotch's bumblebee environmental awareness training for all operations staff and construction contractors involved in the project shall be conducted prior to the start of construction. The training shall be conducted by a qualified biologist and include general and site-specific information such as: avoiding unnecessary disturbance or damage to floral resources and potential nest sites outside of the project area; discussion of federal and state regulations that protect candidate bumble bees, their legal implications, and the necessity of compliance; and protocols for reporting sightings of candidate bumble bees on site.

Where feasible, vegetation removal and/or grubbing of coastal sage scrub vegetation (including black sage scrub, California buckwheat scrub and California brittle-bush scrub (see Figure 4.3-2) within the Capacity Increase Project area shall be phased to minimize impact. For example, since the project area provides documented foraging habitat and potential suitable nesting habitat, to avoid impacts during the colony active period and to discourage future foraging and nesting in the project disturbance area, construction would be phased as follows:

- Initial vegetation grubbing to remove the foraging resources and dozer track-walking to compact the slopes (thus remove animal burrows and soil cavities representing potential nesting venues) would be completed during late fall/winter (November through February) when bumblebee nests are abandoned (mated queens have left the nest, the old queen, workers and males have died as a part of their natural life-cycle) and foraging by bumblebees is not occurring.
- Subsequent construction activities would occur in the spring/summer after the initial foraging and nesting habitat removal has been completed and due to the absence of forage and nesting resources Crotch's bumblebees would be unlikely to be present.

If construction impacts cannot be avoided through construction phasing, RRWMD shall consult with CDFW regarding other feasible avoidance measures and shall obtain an Incidental Take Permit if determined to be necessary.

Plan Requirements and Timing: This requirement shall be reflected in all construction plans and specifications.

Monitoring: RRWMD shall ensure consultation with CDFW occurs and the information is included on the plans and the RRWMD construction manager shall ensure bumblebee habitat removal is phased to limit/avoid impacts.

MM BIO-4b: Crotch's Bumblebee Habitat Replacement. To mitigate for the loss of foraging habitat, habitat replacement shall be conducted by:

- Inclusion of deerweed (*Acmispon glaber*), native sages (*Salvia ssp.*), native thistles (*Cirsium ssp.*), native snapdragons (*Antirrhinum ssp.*), native phacelias (*Phacelia ssp.*), native lupines (*Lupinus ssp.*) native milkweeds (*Asclepias ssp.*), native buckwheat (*Eriogonum ssp.*) and native clovers (*Trifolium ssp.*) in seed mixes applied to the cut slopes that will not be a part of the capacity increase area as part of erosion control.
- Restoration/enhancement of 10.2 acres (at a minimum 1:1 ratio) of non-native or disturbed native vegetation at the Landfill and/or Baron Ranch using the above plant species and others suitable as pollen and/or nectar sources for Crotch's bumblebee. Where feasible, foraging resources shall be planted in continuous single species patches (rather than intermixing the species) to provide readily available contiguous nectar sources to improve foraging success. Plant selection to provide bumblebee foraging resources shall consider the use of species with non-overlapping peak flowering periods to ensure a constant availability of pollen and/or nectar sources during the foraging and nesting period.
- To support nesting, creation of potential nesting habitat using piles of field stones, brush, hay, or logs that supply dark, dry cavities for bumblebees to nest.

- Avoiding the use of pesticides such as glyphosate on restored areas or other areas of potential habitat at the Landfill and at Baron Ranch.
- Reducing foraging competition and potential for spread of disease by eliminating the placement of honeybee hives at Baron Ranch.

Plan Requirements and Timing: A Crotch's bumblebee Habitat Replacement Plan shall be prepared by a qualified restoration biologist with input from an entomologist knowledgeable about the life history, habitat requirements and appropriate foraging resources for the bumblebee. The plan shall include the items listed above and other measures (as appropriate) identified by the restoration biologist and entomologist. The plan shall be submitted to CDFW for review and approval and implemented on the Baron Ranch, on the Landfill cut slopes following construction.

Monitoring: RRWMD shall ensure the Habitat Replacement Plan is prepared and implemented, pesticides are not used and honeybee hives are not in use at Baron Ranch.

MM BIO-4c: Crotch's Bumblebee Habitat Usage Study. A Habitat Usage Study shall be developed and implemented to determine the post-restoration bumblebee use of the habitat replacement areas discussed in ***MM BIO-4b***.

Plan Requirements and Timing: A plan for the Habitat Usage Study shall be designed by a qualified entomologist and implemented by a qualified biologist or entomologist. The plan shall be reviewed and approved by CDFW. The timing and duration of the survey(s) for habitat usage shall be established in the plan and a report shall be provided including observations and recommendations for adaptive management. A copy of the report shall be submitted to CDFW.

Monitoring: RRWMD shall ensure the plan is developed and implemented.

Residual Impacts: Implementation of ***MM BIO-4*** would reduce biological resources **Impact BIO-6** to the extent feasible. However, because of Landfill construction timing and disturbance requirements, a take of Crotch's bumblebee may not be completely avoidable. Therefore, impacts to this species may be significant and unavoidable.

MM BIO-1 (demarking the construction areas prohibiting vegetation removal outside of the designated areas, prohibiting the use of invasive species in interim and final erosion control seed mixes) would also help reduce impacts to Crotch's bumblebee.

Impact BIO-7: Project implementation would result in the removal of mature coast live oak trees within the proposed Capacity Increase Project area – Significant but Mitigable Impact.

Five mature coast live oak trees (at least 8-inches diameter at breast height) occur within the previously undisturbed area (see Figure 4.3-2) and would be removed during excavation of the proposed Capacity Increase Project area. The impact to mature native trees is considered significant because more than 10 percent of the native trees of biological value would be removed.

As a part of the Tajiguas Landfill Project native tree mitigation has been completed at the Baron Ranch pursuant to the Baron Ranch Restoration Plan 08EIR-00000-00007 Mitigation Measure MM BIO-1(a). At a 10:1 ratio for impacted coast live oak trees, a total of 1,669 trees were required to meet the mitigation requirements of the Tajiguas Landfill Project (679 for the Tajiguas Landfill Expansion Project and 990 for the Reconfiguration Project). As a part of the Baron Ranch Restoration Project over 5,000 trees were installed with over 95 percent survival (Ecological Conservation and Management, February 2020). Therefore, the additional 5 mature oak trees that would be impacted by the proposed Capacity Increase have been adequately mitigated by the additional oak tree mitigation completed as a part of the Baron Ranch Restoration Project.

Residual Impacts: Implementation of the Baron Ranch Restoration Project has reduced the biological resources **Impact BIO-7** to a level of less than significant.

Impact BIO-8: Project-related habitat loss may adversely affect special-status bird species (Northern harrier, white-tailed kite, loggerhead shrike and Allen's hummingbird) observed at the Landfill – Insignificant Impact.

Northern harrier, white-tailed kite, loggerhead shrike and Allen's hummingbird have been observed at the Landfill property and may forage within coastal scrub and chaparral vegetation in the proposed Capacity Increase Project area. Loss of approximately 10.2 acres of this habitat is not anticipated to significantly affect the local populations of these species because:

- The area of habitat removal is small as compared to these species typical foraging area.
- The low quality of affected foraging habitat associated with the fragmented nature of the habitat and disturbance (noise, dust, equipment activity) and isolation caused by surrounding Landfill activities, and low habitat complexity of recently planted vegetation.
- The lack of suitable nesting habitat.

In addition, reseeded of disturbed slopes following construction and reseeded of the Landfill cover and the North Borrow area during Landfill closure with coastal sage scrub mix and chaparral as required by 01-EIR-05 Mitigation Measures BIO-6 and BIO-7 would further reduce this impact over the long term.

Impact BIO-9: Project implementation would result in additional Landfill construction activities that may adversely affect CRLF – Significant but Mitigable Impact.

The proposed project includes construction activities that would increase heavy equipment and vehicle traffic on Landfill access roads which could result in mortality of CRLF present during overland migration. In addition, proposed modification of the North Sedimentation Basin may result in mortality of any CRLF present in the Basin during construction. However, implementation of avoidance and minimization measures of the HCP and ITP (ESPER0050095) as required by the Incidental Take Permit and as included as **MM BIO-5**, below would reduce the potential for incidental take of CRLF and minimize any adverse effects. In addition, the majority of ground disturbing work would be conducted during the dry season (see Section 3.7.2) when the North Sedimentation Basin would be empty (not attractive to CRLF) and CRLF migration through the Landfill property is not expected to be occurring. Further, as a part of the HCP/ITP RRWMD has permanently conserved approximately 110 acres of aquatic, upland and dispersal habitat covering the northeastern area of the Landfill property and portions of Baron Ranch.

Mitigation Measures:

MM BIO-5: CRLF Avoidance Measures. The following measures required by the HCP and ITP shall be fully implemented to minimize potential take of CRLF associated with construction activities.

- A USFWS-approved biologist shall be used for all surveys and monitoring.
- Environmental sensitivity training shall be provided for all Landfill staff and contractors.
- Protocols for capturing and relocating any CRLF observed at the Landfill shall be followed.
- Ground disturbing activities during the rainy season shall be prohibited between sunset and sunrise.
- CRLF surveys to detect CRLF following all rain events of 0.1 inches or greater and relocation of any observed CRLF to protected areas of Arroyo Quemado shall be conducted.
- CRLF surveys shall be conducted prior to mechanical ground disturbance in vegetated areas and protective buffers established if any are found.
- Equipment operators working outdoors in the rainy season shall search around and under their equipment and stored materials before starting the equipment and again if the equipment has been idle for 60 minutes.
- Where possible, construction activities will be completed in a manner to prevent creating depression where water can pond and if ponding occurs the area will be surveyed prior to continuing construction in the ponded area.

- During the rainy season, all steep-walled holes, open trenches and other excavations 12 inches or deep or greater will be covered each night or provided with escape ramps. Excavations will be inspected before they are backfilled.
- Vehicles travelling on the Landfill and to work areas shall observe posted speed limits (15 mph) at all times.
- Refueling and maintenance of equipment and vehicles shall be conducted at least 60 feet from Pila Creek and the sedimentation basins and any vehicle or equipment operating within the Pila Creek channel shall be free of leaks.

Plan Requirements and Timing: These requirements (and others) are documented in the ITP and HCP and shall be included in the construction plans and specifications.

Monitoring: RRWMD shall ensure compliance with the ITP and HCP and complete the required annual reporting.

Residual Impacts: Implementation of **MM BIO-5** would reduce biological resources **Impact BIO-9** to a level of less than significant.

4.3.2.6 Extension of Landfill Life Impacts

Impact BIO-EXT-1: Project-related extension of life of the Tajiguas Landfill would extend biological impacts further in time – Significant Unavoidable Impacts (delay in the Landfill cover revegetation and for continued abandonment and avoidance of foraging and breeding habitat by sensitive wildlife), Significant but Mitigable Impacts (sensitive bird species, tidewater goby, invasive plants, nuisance birds, indirect impacts to ringtail and mountain lion due to human activity), and Insignificant Impacts (common wildlife).

As discussed in Section 3.7.1, the proposed Capacity Increase Project would result in extending the active life of the Landfill by approximately 12.75 years and delay full closure and revegetation of the Landfill. Although phased closure activities including restoration of areas to native habitat would occur during this time, Landfill operational activities would continue to occur in areas analyzed in the prior Environmental Documents.

Indirect biological impacts associated with ongoing Landfill operations (noise, dust, equipment operations and human activity) including impacts to habitat from introduction of invasive plants (significant but mitigable impacts), abandonment or avoidance of foraging and breeding habitat by sensitive birds and mammals due to Landfill operations and human activity (significant unavoidable impacts), increased attraction of nuisance birds (significant but mitigable) and impacts to mountain lion and ringtail due to increased human presence (significant but mitigable) (see Section 4.3.2.2, Impacts 2, 5, 6, 8) would be extended.

In addition, disturbance and mortality to common wildlife species (less than significant, see Section 4.3.2.3, Impact 5) would continue further in time as compared to closure of the Landfill in approximately 2026 in the absence of the proposed project. These indirect impacts would continue to be minimized through implementation of mitigation measures (erosion control, nighttime lighting control, litter control, creek setback) as discussed in Sections 4.3.2.2 and 4.3.2.3.

4.3.2.7 Cumulative Impacts of the Tajiguas Landfill Capacity Increase Project

The proposed project would incrementally contribute to cumulative impacts to biological resources when considered with other planned projects in the region (see Section 3.9).

Impact BIO-CUM-1: Implementation of the proposed project combined with other cumulative projects would adversely affect transient CRLF – Significant Unavoidable Cumulative Impact; Project Contribution – Not Considerable.

In addition to the proposed project, several other projects are located in areas supporting CRLF, and may also adversely impact habitat for this species or movement of transient individuals, including:

- Gaviota Creek Improvement Project: CRLF occurs in Gaviota Creek and would likely be adversely affected by fish passage improvements.
- U.S. Highway 101 bridge replacement at Refugio Road: CRLF occurs in Refugio Creek and would likely be adversely affected by bridge replacement.
- Refugio Road bridges: CRLF occurs in Refugio Creek and would likely be adversely affected by bridge construction.
- Landfill Gas to Renewable Natural Gas (RNG) Project: CRLF has been found in the adjacent South Sedimentation Basin and box culvert, and construction of this project may affect transient individuals.

It should be noted that project-specific monitoring and implementation of mitigation measures required through the CEQA review process, or the endangered species permit process would reduce impacts from these cumulative projects. Due to the presence of transient CRLF at the Landfill property and the project-related increase in equipment and motor vehicle activity, the project would incrementally contribute to potentially significant impacts to the CRLF.

However, implementation of **MM BIO-5** (avoidance and minimization measures of the HCP/ITP) would reduce potential incidental take of CRLF and provides compensatory mitigation for incidental take. In any case, most ground disturbing work would be conducted during the dry season (see Section 3.7.2) when the North Sedimentation Basin would be empty and CRLF migration through the Landfill property is not expected to be occurring. Therefore, the project's contribution to the cumulative impact would not be considerable.

Impact BIO-CUM-2: Implementation of the project combined with other cumulative projects may result in direct and indirect cumulative loss of native plant communities, sensitive habitats and special-status plants – Significant but Mitigable Cumulative Impact; Project Contribution – Not Considerable with Mitigation.

The proposed project would result in the permanent loss of approximately 10.2 acres of native vegetation (including recently restored areas) and wildlife habitat, removal of five mature native trees, and removal of approximately 50 individuals of a special-status plant species (Santa Barbara honeysuckle). Most of the cumulative projects listed in Section 3.9 would result in loss of native vegetation and wildlife habitat. Some of these projects may result in the removal of native trees. The Plains Pipeline Valve Upgrade Project may result in the loss of Santa Barbara honeysuckle plants that have colonized the right-of-way since the pipeline was installed.

Given the biological sensitivity of the Gaviota Coast region, the cumulative effect from the construction of these projects could be potentially significant. Restoration/replacement of sensitive habitats and plants impacted by the cumulative projects would likely be required as a part of their respective CEQA analyses and the area and sensitivity of native vegetation that would be removed by the proposed project is low.

However, impacts to native vegetation/wildlife habitat and native trees may be significant. Implementation of project mitigation measures (**MM BIO-1, MM BIO-2, MM BIO-3, MM BIO-4**) would reduce the project-specific impacts and the project's contribution to the cumulative impact would not be considerable.

Impact BIO-CUM-3: Implementation of the project combined with other cumulative projects would result in a cumulative loss of foraging habitat for special-status birds – Significant but Mitigable Cumulative Impact; Project Contribution – Not Considerable.

Project-related habitat removal may adversely affect foraging opportunities for northern harrier, white-tailed kite, loggerhead shrike and Allen's hummingbird. Most of the cumulative projects listed in Section 3.9 would result in loss of native vegetation and wildlife habitat, which could adversely affect these species. Therefore, the cumulative impact would be potentially significant and would be subject to project specific mitigation measures implemented for each of the cumulative projects. Loss of foraging habitat associated with the proposed project would be minimal, and would over the long-term be replaced during Landfill closure and the incremental contribution to the cumulative impact would not be considerable.

4.4 HAZARDS AND HAZARDOUS MATERIALS

Assessments of hazards and hazardous materials impacts associated with the Tajiguas Landfill have been addressed in the prior Environmental Documents prepared for the Tajiguas Landfill Project. A Hazards and Hazardous Materials Technical Study (URS, 2013) was also prepared to analyze impacts specifically associated with construction and operation of the ReSource Center facilities. The analysis of hazards and hazardous materials contained in these Environmental Documents and the Hazards and Hazardous Materials Technical Study were consulted during preparation of this section and incorporated by reference.

4.4.1 Setting

4.4.1.1 Overview

The Tajiguas Landfill Capacity Increase Project would be located at the Tajiguas Landfill, a Class III non-hazardous solid waste disposal facility located on the Gaviota coast, approximately 26 miles west of the City of Santa Barbara. The Gaviota coast is characterized by a series of moderately steep, east-west trending coastal canyons that drain southward from the Santa Ynez Mountains in the north, to the Pacific Ocean. The Tajiguas Landfill is located in one of these canyons, Cañada de la Pila. Most of the coastal canyons are separated from one another by relatively steep ridgelines, which provide a degree of isolation from fire or explosion hazards that might be present from the activities within the canyons. There are few residential areas along the Gaviota coast as a whole.

Areas adjacent to the Tajiguas Landfill consist of national forest, open space, and agricultural uses such as grazing land and former avocado orchards. The coastal zone boundary crosses through the southern half of the Landfill property. The closest residential use to the project site is the Arroyo Quemada community located approximately 2,000 feet southeast of the Landfill property. Most of the surrounding lands are used for agriculture (which includes as a permitted use, a single-family dwelling) and several large parcels are within conservation easements. Other uses include state beaches, state parks, recreation areas and inactive and active oil and gas facilities.

4.4.1.2 Landfill Setting

The Landfill receives various waste streams for processing at the ReSource Center facilities including residential and commercial MSW collected by contracted and franchised haulers, MSW and commingled recyclables from four County transfer stations and from limited self-hauled waste directly delivered to the Landfill, green-waste, source separated organic waste and other bypass waste including dead animals, hard to handle materials and grit from wastewater treatment plants. The current Landfill operations have a good safety record with very few Occupational Safety and Health Administration (OSHA) recordable incidents.

The County has continually operated the Tajiguas Landfill as a Class III solid waste landfill since 1967. Prior to operation as a landfill, the Landfill property including the Capacity Increase Project area was undeveloped and used for agricultural purposes. A Phase I Environmental Site Assessment that details the history of site operations and areas of historic hazardous materials use and storage has not been prepared for the specific area in the Landfill that the Capacity Increase Project would be located. However, no report of incidents or hazardous materials releases have been recorded in the project area. Fueling and maintenance currently occurs in the Landfill maintenance and storage area and a Phase I Environmental Site Assessment may be required for construction activities in that area.

4.4.1.3 Off-Site Sources of Hazardous Materials

Transportation Corridors

A major source of hazardous materials in the project area is commercial traffic along U.S. Highway 101, which is located about 1,600 feet south of the Tajiguas Landfill. The Union Pacific Railroad tracks also run parallel to the highway, just on its south side. U.S. Highway 101 and the railroad tracks support many cargo carriers handling petroleum, petroleum products, and various industrial gases. These commodities and other potentially hazardous materials are legally allowed to be transported by motor or rail carrier by U.S. Department of Transportation and state transportation agencies.

Oil and Gas Facilities

The Gaviota coast supports oil and gas facilities which have inherent hazards including crude oil spills, toxic gases, and associated flammable gas. However, all of these facilities are closed or inactive; including the ExxonMobil Santa Ynez Unit (Platforms Hondo, Harmony and Heritage and Las Flores Canyon onshore processing facility) and the Plains All American Pipeline which have been shut-in since May 2015. There are no active oil or gas wells on the Gaviota coast.

The former Shell Hercules Gas Plant is located in Cañada de la Huerta, immediately west of the Landfill property. Natural gas produced from offshore wells was processed at the former facility for pipeline transport and for propane-tank sale between 1963 and 1989. Based on identification of poly-chlorinated biphenyls (PCB) in soils, Shell notified the regulatory agencies. Remedial investigations were conducted from 1990 to 1993 and identified PCBs and mercury as the contaminants of concern. A 1994 Remedial Action Plan was implemented from 1997 to 2000 with the remedial goal of 50 mg/kg for PCBs in soil. In November and December 2000, eight targeted locations with PCB concentrations exceeding 50 mg/kg were excavated.

Based on additive carcinogenic risks when considering PCB and non-PCB contamination, the California Department of Toxic Substances Control (DTSC) subsequently modified the remedial goal for PCBs in soil in the fill pad to 25 mg/kg in 2002. From March to May 2004, remediation was conducted to remove soil with PCB concentrations exceeding 25 mg/kg at 68 different locations in the fill pad. In addition, remediation addressed three locations with mercury exceeding a cleanup level of 5 mg/kg. During the final removal approximately 14,500 tons of soil with PCB concentrations less than 50 mg/kg and 15,500 tons of soil with PCB concentrations exceeding 50 mg/kg were shipped to permitted disposal facilities.

On September 6, 2019, a land use covenant was recorded with the County of Santa Barbara to restrict use of the property from any development. On February 22, 2021, DTSC certified that all response actions have been completed, and no further removal/remedial action is necessary for the site except post-remedial monitoring.

4.4.1.4 Sources of Hazards and Hazardous Materials at the Tajiguas Landfill

Landfill Gas

Landfill gas is currently produced at the Tajiguas Landfill as part of anaerobic decomposition of organic waste in the buried MSW and has the potential to migrate through the soil. The volume of landfill gas generated is a function of the total volume of material in the waste mass. Landfill gas contains approximately 50 to 60 percent methane and is potentially flammable.

Landfill gas is collected by gas extraction wells and a network of vertical and horizontal landfill gas wells, and conveyance piping consisting of laterals and headers that transport collected landfill gas to the treatment and control systems. The treatment and control systems are comprised of a hydrogen sulfide scrubber (also referred to as the landfill gas treatment system), vacuum blowers, flares, internal combustion engines (at the ReSource Center's MRF and ADF) to generate electricity, siloxane removal system, evaporator, and condensate storage tank. The systems are designed to reduce subsurface migration of landfill gas, reduce surface emissions, and utilize landfill gas as a fuel source for the onsite generation of energy to power the MRF and ADF and offset electrical demand from the grid (Southern California Edison). Landfill gas condensate is collected is either hauled offsite for further treatment and disposal or evaporated onsite at the MRF. The control systems are permitted by the SBCAPCD and operate in accordance with Permit to Operate nos. 9788-R4 and 15136, and Authority to Construct no. 14500-05.

Landfill gas is monitored at a series of locations at the Landfill and include the landfill gas collection and control systems, surface of the waste footprint, on-site buildings, and landfill gas perimeter probes. Monitored locations are described as follows:

- Monthly landfill gas collection system monitoring pursuant to SBCAPCD PTO 9788-R4. Parameters monitored include static pressure, flow rate, temperature, applied vacuum, and concentrations of methane, oxygen, and balance landfill gas. Adjustments to the landfill gas collection and control systems are made periodically to ensure compliance with all applicable permits and regulations.
- Quarterly monitoring of surface emissions to verify compliance with the federal instantaneous limit of 500 parts per million by volume (ppmv) and integrated limit of 25 ppmv for methane surface emissions.
- Continuous indoor air monitoring of occupied buildings (employee and contractor trailers) and inspections of continuous indoor air monitoring equipment are conducted monthly.
- Quarterly monitoring at the Landfill boundary, and near the limits of the waste footprint using subsurface probes. Parameters monitored include static pressure and concentrations of methane, oxygen, and carbon dioxide. Adjustments to the landfill gas collection and control systems are made whenever methane is detected at a concentration of 5 percent by volume or greater.

Landfill gas perimeter monitoring will be continued during the closure and post-closure maintenance periods. All landfill gas monitoring at the Landfill is performed by a trained technician using a field instrument that is maintained and calibrated according to the manufacturer's recommendations. The monitoring results are maintained as part of the Landfill's operating record.

Hazardous Materials

The Landfill and ReSource Center properly contain hazardous wastes onsite in accordance with their respective Unified Program Facility Permits, regulated by the Certified Unified Program Agency (CUPA) which for Santa Barbara County is the Santa Barbara County Environmental Health Services Division. Hazardous waste materials are stored inside of the MRF building, adjacent to the tipping floor, and in a dedicated container near the Landfill maintenance shop. The Landfill and ReSource Center are also regulated by the CUPA for operating aboveground storage tanks and handling hazardous materials, and subject to the Hazardous Materials Release Response Plans & Inventory program (HSC Chapter 6.95), the Hazardous Waste Generator program (HSC Chapter 6.5 and CCR Title 22), and the Aboveground Petroleum Storage Act program (HSC, Chapter 6.67). Annual updates to the Hazardous Materials Release Response Plans and Inventory (Business Plan) are submitted to CUPA electronically via the California Environmental Reporting System.

Spill Prevention, Control, and Countermeasure Plans (SPCC Plans) have been prepared for the Landfill and ReSource Center. The Landfill's SPCC Plan was last updated in October 2021 and includes measures to avoid discharges of hazardous materials (such as containment around oil and gasoline storage tanks), tank inspections and testing, discharge response and reporting procedures.

Hazardous materials currently used and stored at the Landfill include motor fuels (diesel and gasoline), oils, welding gases, antifreeze, and other materials used for equipment maintenance and small quantities of household hazardous waste recovered from the MSW. Motor fuels are stored in one portable 2,000-gallon diesel refueling vehicle, and three above-ground unpressurized tanks, including a 20,000-gallon red-dyed diesel (off-road) tank, 550-gallon diesel tank and 230-gallon unleaded gasoline tank. The fuels are used for off-road Landfill equipment, and motor vehicles utilized by RRWMD staff for transportation (on-site and off-site). The oil service fluids (i.e., motor oil, hydraulic fluid, and gear oil) are currently stored in double-walled tanks inside a storage shed near the Landfill maintenance shop.

Hazardous materials used, stored and generated by the ReSource Center are discussed in 12EIR-00000-00002, Section 4.4 and the 2017 Addendum and are incorporated by reference.

During the Alisal Fire in October 2021, a spill was reported to the CUPA and California Governor's Office of Emergency Services regarding the release of an estimated 3,000 gallons of sulfuric acid from the holding tank located on the south side of the MRF biofilter. On October 12, 2021, the sulfuric acid and fire suppression water mixture entered into the MRF storm drain system and discharged into a constructed earthen channel, created by RRWMD Operations staff to contain the liquids and prevent them from entering into the storm drain riser, which carries runoff from the Landfill into Pila Creek. An emergency U.S. Army Corps of Engineers, Regional General Permit 63 and RWQCB Notice of Intent 34221WQ15 were filed on October 15, 2021 to perform repairs and protection activities in the earthen channel. Sulfuric acid remediation activities were initiated on October 14, 2021 and overseen by the CUPA, Local Enforcement Agency, California Environmental Protection Agency, and RWQCB, and completed by October 24, 2021.

4.4.1.5 Fire Hazards

Wildfire

The Tajiguas Landfill is located within a high fire hazard severity zone designated by the California Department of Forestry and Fire Protection (CalFire). The surrounding areas are mapped as high and very high fire hazard severity zones by CalFire. The Gaviota Coast has a Mediterranean type climate in which hot summer droughts are followed by winter season rainfall. The hot, dry summers subject vegetation to prolonged periods of moisture stress at times when wildfire is most likely. In addition to the long, dry summers, the area is subject to Sundowner wind storms with speeds up to 50 mph or more. These strong winds bring very warm, dry air onto the coastal plain, further removing moisture from vegetation and resulting in very high fire hazard conditions.

Regional fires affecting the Gaviota coast include:

- Gaviota Fire: 2004
- Mariposa Fire: 2007
- Sherpa Fire: 2016
- Real Fire: 2019
- Alisal Fire: 2021

The Landfill property was not burned in the Gaviota, Mariposa, Sherpa or Real fires. Virtually the entire Landfill property burned in October 2021 as part of the regional Alisal Fire. The ReSource Center facilities were affected as the MRF biofilter woodchip media ignited, causing heavy damage to the biofilter structures, air ducting, baghouse filters, support systems, scrubbers, sulfuric acid tanks and ancillary systems. Fire damage to a sulfuric acid tank that served the biofilter scrubbers resulted in a spill that was contained and cleaned up in compliance with regulatory requirements (see Section 4.4.1.4). The MRF biofilters and associated sulfuric acid tanks are in the process of being removed and replaced with an alternative air quality management system.

The proposed Capacity Increase Project area supports flammable vegetation, including remnant non-native and native vegetation in the previously undisturbed area and planted coastal scrub vegetation and other non-native species on the manufactured Landfill cut slopes.

Fire protection services in the vicinity of the Tajiguas Landfill are provided by the Santa Barbara County Fire Department. County Fire Station #18 is located in Gaviota (approximately 5 miles west of the Landfill) and could respond to a fire or other emergency associated with the proposed project within nine minutes.

In addition, to address wildfire prevention and protection along the entire Gaviota Coast, the FireSafe Council of Santa Barbara County has prepared the Gaviota Coast Community Wildfire Protection Plan. This Plan evaluates the area's fire environment and the risk posed by wildland fire, identifies actions to reduce the threat to the community from wildland fire, and identifies and prioritizes vegetation management projects to reduce wildfire threat. This Plan was adopted by the Board of Supervisors on February 7, 2023.

Local Fires at the Landfill Property

Since the Landfill Expansion Project was approved in 2002, three fires have occurred on the Landfill property and none were caused by Landfill operations. None of these fires impacted areas off of the Landfill property. A small fire was ignited on October 15, 2018 by shorting of electrical wires by a bird, and burned about one acre at the Landfill property. This fire was extinguished immediately using fire prevention resources at the Landfill property.

Compost caught fire at the CMU on May 12, 2022, likely due to heat from a compost screener. The compost screener was destroyed, and the compost residue bin, hydraulic fluid tank and a storm drain pipe were damaged. No leakage of hydraulic fluid occurred. The Santa Barbara County Fire Department and U.S. Forest Service responded to the fire, which was extinguished on May 13, 2022 using well water applied by the Landfill's water trucks. Additional fire suppression water pressure was recommended by the Santa Barbara County Fire Department and has been implemented. In addition, the frequency of compost residue removal around the screens has been increased to reduce the potential for the screener to ignite this material.

A small fire occurred during the commissioning of the paper dryer at the MRF on December 8, 2022 as a result of faulty sensors. The fire burned for about 30 minutes and damaged a conveyor belt and electric motors inside the paper dryer. The fire was extinguished using a fire hydrant at the MRF, with the Santa Barbara County Fire Department providing assistance.

Landfill Fire

There is the potential for fire to occur at the Landfill due to waste containing smoldering materials that ignite when exposed to air (also referred to as a "hot load"); and from a rapid oxidation of organic waste that is buried at the Landfill (subsurface fire). Because the majority of the MSW passes through the MRF (where organic waste is recovered) the potential for a hot load to be disposed of in the Landfill is decreased. However, to further minimize fire hazards at the Landfill, the working face (active waste unloading and disposal area) is kept under one acre during operating hours so that the area of uncovered waste is minimal, and there is no exposed waste at the end of the day.

If a hot load was delivered at the working face, a subsequent fire would likely be small and of short duration since there is limited available combustible material at the surface of the Landfill. Application of daily and intermediate cover materials is one of the primary methods required by California Code of Regulations (CCR) Title 27 to prevent subsurface fires in covered waste. These cover materials control such fires should they occur, and they prevent fires from spreading throughout the landfilled waste. Cover materials control the source of oxygen, odor, litter, and percolation of rainwater. Cover materials also operate in conjunction with the insulating characteristics of the buried waste to retain heat generated by anaerobic decomposition of waste.

Decomposition of buried waste is dependent on 1) waste composition; 2) moisture content; 3) subsurface oxygen levels; 4) soil and air pressure; 5) insulating capabilities of the cover material; and 6) temperatures in the waste from biodegradation. The potential for subsurface fires occurs when the heat generated by anaerobic decomposition accelerates the chemical oxidation and causes a spontaneous combustion of the buried waste. To minimize subsurface fire hazards at the Landfill, the landfill gas collection system is continuously operated and diverts subsurface landfill gas to the flares and engines for controlled destruction. Landfill gas wells are also monitored monthly to ensure proper operation and avoid overdrawing on the landfill gas collection system.

Fire Suppression

Tajiguas Landfill. The Landfill reserves 32,000 gallons of water stored in two 10,000-gallon tanks and in one 12,000-gallon tank for use in the event of a fire. If needed, water may be obtained from other storage tanks and from the sedimentation basins, as available. To minimize fire hazards, the following measures are implemented at the Landfill:

- Fire suppression equipment such as fire extinguishers, dedicated water storage, and fire hydrants are provided and operated in compliance with County Fire Department and OSHA standards.
- Landfill equipment is inspected and cleaned on a daily basis to reduce the potential for equipment fires.
- Access roads are maintained daily to allow emergency vehicles access to the working face.
- Stockpile areas are accessible for fire suppression.
- A 15-foot area of access is maintained around green waste stockpiles.

ReSource Center - MRF. Measures and facilities in place to prevent and suppress fire include:

- Fire suppression sprinkler systems in the MRF buildings.
- 256,000-gallon fire suppression water storage tank located just northwest of the MRF which can supply fire flows of up to 1,750 gallons per minute with a two-hour fire duration.
- A dedicated fire protection water distribution system to convey fire flows to on-site fire hydrants and to the MRF sprinkler systems.
- Portable fire extinguishers are located through the MRF site.
 - Fire lanes and 26-foot-wide driveway that loops around the MRF to allow fire control equipment access to all operation areas.
 - The misting system charged with flocculent and deodorizers in the MRF tipping floor area used to reduce dust and odors would also prevent fires.

ReSource Center – ADF and CMU. Measures and facilities in place to prevent and suppress fire include:

- Fire suppression sprinkler systems at the ADF delivery, mixing and storage areas.
- Fire lanes to allow fire control equipment access to all operation areas.
- A 26-foot-wide driveway with fire hydrants on the west side of the ADF to provide fire control equipment access.
- 109,000-gallon fire suppression water storage tank.
- A dedicated fire protection water distribution system to convey fire flow to the on-site fire hydrants and to the ADF sprinkler systems.
- Portable fire extinguishers are located throughout the ADF.

4.4.1.6 Regulatory Setting

The management of hazards, hazardous materials, hazardous waste, and public safety is subject to numerous laws and regulations at all levels of government. Regulations applicable to the proposed project are designed to regulate hazardous materials and hazardous wastes, as well as to manage sites contaminated by hazardous waste. These regulations are designed to limit the risk of upset during the use, transport, handling storage and disposal of hazardous materials. Summaries of federal and state laws and regulations related to hazards and hazardous materials management are presented in this section. Note that summaries of worker safety regulations are provided below, however; impacts related to worker safety are not addressed in this SEIR as impacts under CEQA are limited to public exposure.

Regulatory Definitions

The following hazardous materials and hazardous waste definitions provide a simplified overview of a very complicated subject; they are not legal definitions.

Hazardous Material. Any material that because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering regulatory agency has a reasonable basis for believing would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment. A number of properties may cause a substance to be considered hazardous, including toxicity, ignitability, corrosivity, or reactivity.

Hazardous Waste. A waste or combination of waste which because of its quantity, concentration, or physical, chemical, or infection characteristics, may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitation-reversible illness; or pose a substantial present or potential hazard to human health or the environment, due to factors including, but not limited to, carcinogenicity, acute toxicity, chronic toxicity, bio-accumulative properties, or persistence in the environment, when improperly treated, stored, transported, or disposed of or otherwise managed.

Federal Regulations

U.S. Environmental Protection Agency. The U.S. Environmental Protection Agency (EPA) is the principal regulatory agency responsible for the safe use and handling of hazardous materials.

Superfund Amendments and Reauthorization Act (SARA) Public Law 99-499 (100 Stats. 1613). SARA amended the Comprehensive Environmental Response, Compensation, and Liability Act (*CERCLA*, 42 U.S.C. § 9601 *et seq.*) on October 17, 1986. SARA specifically addresses the management of hazardous materials by requiring public disclosure of information relating to the types and quantities of hazardous materials used at various types of facilities. SARA Title III (42 U.S.C. § 11001 *et seq.*) is referred to as the Emergency Planning and Community Right to Know Act. The Act addresses community emergency planning, emergency release notification, and hazardous materials chemical inventory reporting.

Resource Conservation and Recovery Act (RCRA) 42 U.S.C. §6901 et seq. RCRA gave the EPA the authority to control hazardous waste from the “cradle-to-grave.” This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA regulates disposal of solid and hazardous waste, adopted by congress on October 21, 1976. Subtitle D of RCRA established the solid waste program, which encourages states to develop comprehensive plans to manage nonhazardous industrial solid waste and municipal solid waste, sets criteria for municipal solid waste landfills and other solid waste disposal facilities, and prohibits the open dumping of solid waste. RCRA encourages environmentally sound solid waste management practices that maximize the reuse of recoverable material and foster resource recovery.

Criteria for Municipal Solid Waste Landfills, 40 CFR Part 258. This section provides landfill siting restrictions, design and operating criteria, groundwater monitoring requirements, closure and post-closure requirements as well as financial assurance criteria.

Clean Air Act of 1990, 42 U.S.C. 7401-7671. The Clean Air Act (CAA) as amended in 1990 also requires states to implement a comprehensive system to inform local agencies and the public when a significant quantity of such materials is stored or handled at a facility. It establishes a nationwide emergency planning and response program and imposes reporting requirements for business that store, handle, or produce significant quantities of extremely hazardous materials.

Clean Air Act Amendments, Section 112(r). This Section requires EPA to publish regulations and guidance for chemical accident prevention at facilities that use certain hazardous substances. These regulations and guidance are contained in the Risk Management Program rule, which requires facilities that use extremely hazardous substances to develop a risk management plan that identifies the potential effects of a chemical accident, identifies steps the facility is taking to prevent an accident, and spells out emergency response procedures should an accident occur.

Occupational Safety and Health Act of 1970 (OSHA), 29 USC §651 et seq.; 29 CFR §§1910 et seq.; and 29 CFR §1926 et seq. OSHA establishes occupational safety and health standards (e.g., permissible exposure limits for toxic air contaminants, electrical protective equipment requirements, electrical workers safety standards, and the requirement that information concerning the hazards associated with the use of all chemicals is transmitted from employers to employees and safety and health regulations for construction. Subpart I of §1910 and Subpart E of §1926 address personal protective equipment. Section 1910.119 addresses process safety management and management of highly hazardous chemicals and includes requirements for preventing or minimizing the consequences of catastrophic releases of toxic, reactive, flammable, or explosive chemicals.

Under the Operational Status Agreement of October 5, 1989, between the federal OSHA and the California Department of Industrial Relations, Division of Occupational Safety and Health (Cal-OSHA), the state resumed full enforcement responsibility for most of the relevant federal standards and regulations. Federal OSHA has retained concurrent enforcement jurisdiction with respect to certain federal standards, including standards relating to hazardous materials provided in 29 CFR §1910.120.

National Fire Protection Association. The National Fire Protection Association (NFPA) sets forth minimum standards to establish a reasonable level of fire safety and property protection from the hazards created by fire and explosion. The standards apply to the manufacture, testing, and maintenance of fire protection equipment. The NFPA also provides guidance on safe selection and design, installation, maintenance, and construction of electrical systems.

U.S. Department of Transportation. The U.S. Department of Transportation (DOT) has the regulatory responsibility for the safe transportation of hazardous materials.

State of California Regulations

California Governor's Office of Emergency Services. The Office of Emergency Services Response Directorate addresses all types of threats and hazards, ranging from accidents, technological hazards, natural disasters, human-caused incidents, pre-planned events, proactive preparedness measures, and mutual aid coordination. The Response Directorate reinforces local responses to incident areas by coordinating state-level government, private sector, and nongovernmental roles in support of local governments and other entities.

California Health and Safety Code § 25500. The California Health and Safety Code, Section 25500, requires companies that handle hazardous materials in sufficient quantities to develop a hazardous materials business plan. The plan must include basic information on the location, type, quantity, and health risks of hazardous materials handled, stored, used, or disposed of that could be accidentally released into the environment. Each plan includes training for new personnel, and annual training of all personnel in safety procedures to follow in the event of a release of hazardous materials. It also includes an emergency response plan and identifies the business representative able to assist emergency personnel in the event of a release.

California Department of Toxic Substances Control. The objective of the DTSC is to protect human health and the environment from exposure to hazardous material and waste. The DTSC has the authority to respond to and enforce the cleanup of hazardous substance releases. Waste streams at oil production sites are generally considered waste, not substances, and are thus regulated by the DTSC when hazardous. Certain waste streams can be considered as recyclable material, not waste, provided that their ultimate disposal to land does not release contaminants to the environment.

Central Coast Regional Water Quality Control Board (CCRWQCB). The CCRWQCB protects ground and surface water quality in the Central Coast Region through the development and enforcement of water quality objectives and implementation of the Water Quality Control Plan for the Central Coast Basin (updated 2019). The CCRWQCB governs requirements; issues waste discharge permits, takes enforcement action against violators, and monitors water quality. Landfill design, construction, and maintenance are regulated by CCRWQCB to ensure the environmental safety of the facility both during its operation and upon its closure. In addition, the CCRWQCB prescribes proper drainage design practices to be used to prevent standing water and other areas conducive to vector habitats.

California Department of Resources Recycling and Recovery (CalRecycle). CalRecycle is a component of the California Environmental Protection Agency (Cal/EPA). CalRecycle is responsible for managing California's solid waste stream and protects public health and the environment by regulating waste management facilities. CalRecycle sets operations and design standards for solid waste facilities such as the Tajiguas Landfill, including composting facilities.

Aboveground Petroleum Storage Act. The Act is intended to ensure compliance with the federal CWA. The law applies if a facility has an aboveground storage tank with a capacity greater than 660 gallons or a combined underground tank capacity greater than 1,320 gallons and if there is a reasonable possibility that the tank(s) may discharge oil in "harmful quantities" into navigable waters or adjoining shore lands. If a facility falls under these criteria, it must prepare a spill prevention, control and countermeasure plan. The law does not cover underground tank design, engineering, construction, or other technical requirements, which are usually determined by local fire departments.

Safe Drinking Water and Toxics Enforcement Act (Proposition 65). Proposition 65 requires the state to identify chemicals that cause cancer and reproductive toxicity, contains requirements for informing the public of the presence of these chemicals, and prohibits discharge of the chemicals into sources of drinking water. Lists of the chemicals of concern are published and updated periodically by the California Office of Environmental Health Hazard Assessment (OEHHA).

California Fire Code, Article 80. This article includes provisions for storage and handling of hazardous materials. Considerable overlap exists between this Code and the California Health and Safety Code. However, the Fire Code contains independent provisions regarding fire protection and neutralization systems for emergency venting.

California Code of Regulations Title 8. Title 8 prescribes general occupational safety and health regulations and standards in addition to the construction and industrial safety regulations, standards, and orders. Title 8 Sections 1509 (Construction) and 3203 (General Industry) direct the emphasis of Cal-OSHA toward ensuring that employers have an effective work site illness and injury prevention plan, to focus Cal-OSHA discretionary inspections in the highest hazard industries as determined by workers' compensation and other occupational injury data, and to limit the number of follow-up inspections that Cal-OSHA must perform. Title 8 Section 5189 requires facility owners to develop and implement effective Safety Management Plans to ensure that large quantities of hazardous materials are handled and managed safely.

Local Authorities and Administering Agencies

Certified Unified Program Agency (CUPA). The CUPA is a local agency certified by the DTSC to conduct the Unified Program, which consists of hazardous waste generator and onsite treatment programs; aboveground and underground storage tank programs; hazardous materials management, business plans, inventory statements; and the risk management and prevention program. In the Landfill area, the CUPA is the Santa Barbara County Environmental Health Services Division. The Environmental Health Services Division supervises the remediation of contaminated soil sites in Santa Barbara County. The Environmental Health Services Division will grant closure of an impacted site when confirmatory samples of soil and groundwater taken demonstrate that levels of contaminants are below the standards set by DTSC and CCRWQCB.

Santa Barbara County Comprehensive Plan. The Plan provides guidance for issues of public health and safety within the County. The County reviews proposed projects for consistency with the Comprehensive Plan.

Santa Barbara County Environmental Health Services Division. The Environmental Health Services Division is the designated Local Enforcement Agency (LEA) responsible for the monitoring of the Landfill regarding the performance standards in CCR Title 27, including health and safety requirements.

4.4.2 Impact Analysis and Mitigation Measures

4.4.2.1 Thresholds of Significance

The criteria for determining significant impacts related to hazards and hazardous materials were developed in accordance with Section 15065(a) and Appendix G of the State CEQA Guidelines and the County's Guidelines Manual (updated 2021).

State CEQA Guidelines Appendix G

Implementation of the proposed project may have potentially significant adverse impacts if it would result in any of the following:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and as a result, create a significant hazard to the public or environment.
- For a project located within an airport land use plan or where such a plan has not been adopted, within two miles of a public airport or public use airport, result in safety hazard for people residing or working in the project area.
- For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

Santa Barbara County Environmental Thresholds and Guidelines Manual

Public safety thresholds contained in the County's Guidelines Manual focus on involuntary public exposure to acute risks that stem from certain types of activities with significant quantities of hazardous materials or land uses proposed in proximity to existing hazardous facilities. The County's public safety thresholds employ quantitative measures of societal risk of a proposed development to indicate whether the annual probability of expected fatalities or serious injuries is significant or not. The thresholds apply to risks from specific facilities, activities, and handling of specific hazardous materials. The proposed project does not include any of the facilities or activities, or handling of such hazardous materials identified in the applicability section of the County's public safety thresholds. Therefore, these thresholds are not applicable to this analysis. However, the concepts of risk to public safety (involuntary exposure) provided in the Guidelines Manual are applied in this impact analysis.

4.4.2.2 Approved Tajiguas Landfill Expansion Project

01-EIR-05 prepared for the Tajiguas Landfill Expansion Project (see Section 1.6.2) identified the following public safety impacts:

1. Impacts to Landfill personnel, equipment and structures associated with a wildland (off-site) fire were considered significant but mitigable. Mitigation Measure HS-1 was adopted to improve fire prevention and suppression practices.
2. Risk of fire associated with on-site storage of petroleum products was considered a significant but mitigable impact. Mitigation Measure HS-1 was adopted to improve fire prevention and suppression practices.
3. Impacts to Landfill personnel, equipment and structures associated with a fire originating at the Landfill were considered less than significant.
4. Risk of a subsurface fire at the Landfill was considered a significant but mitigable impact. Mitigation Measure HS-1 was adopted to improve fire prevention and suppression practices.
5. The potential for unauthorized dumping of unacceptable wastes either during or after Landfill normal operation hours was considered a significant but mitigable safety impact. Mitigation Measure HS-2 was adopted to improve site security practices.
6. Explosion or other incidents due to Landfill gas emissions were considered a significant but mitigable safety impact. Continued implementation of the landfill gas collection and disposal system and implementation of Mitigation Measures HS-3 and HS-4 were identified to improve landfill gas monitoring and inspection for cracks in Landfill cover materials.

7. The potential for workers becoming exposed to disease due to contact with rodents attracted to the waste was identified as a significant but mitigable safety impact. Mitigation measures adopted for nuisance impacts were considered adequate to reduce this potential health and safety impact.
8. Safety risks associated with heavy equipment use, elevated noise and dust inhalation was identified as a significant but mitigable safety impact. Existing safety procedures were determined to be adequate to mitigate this potential impact.
9. Workers access to and use of steep access roads and narrow switchbacks was considered to result in significant but mitigable safety impact. Mitigation Measure HS-5 was adopted to improve on-site traffic control.

4.4.2.3 Approved Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project

Landfill reconfiguration was determined to have no effect on proposed Landfill operations, the amount of waste handled, the permitted waste disposal capacity, or result in any increase in health hazards previously disclosed in 01-EIR-05 or create any new health hazards.

4.4.2.4 Approved Tajiguas Resource Recovery Project (ReSource Center)

12EIR-00000-00002 prepared for the ReSource Center (see Section 1.6.3) identified the following public safety impacts:

1. Construction activities associated with the proposed project may result in an adverse but less than significant impact related to inadvertent discharge of small quantities of hazardous materials (i.e., fuel, lubricating oils, hydraulic fluid, engine coolant) due to the small amounts of hazardous materials used during construction activities and the implementation of applicable regulations.
2. Use or storage of hazardous materials associated with project operations (including diesel fuel, propane and sulfuric acid) would not significantly affect the public or the environment due to implementation of a hazardous materials business plan.
3. Operation of the ADF could result in an accidental release of bio-gas which could result in an adverse but less than significant increase in the risk of fire or explosion. Impacts are considered less than significant due to the very low probability of an explosion, and if one occurred it would not affect areas beyond the Landfill property.

4. With implementation of the proposed landfill gas barrier and monitoring system and the existing landfill gas collection system there is a less than significant potential for landfill gas to collect within the MRF and/or ADF and reach flammable concentrations.
5. Construction activities could encounter contaminated soils and potentially expose construction personnel, the public, or the environment to hazardous materials. Contaminated soil could also require disposal as a hazardous waste. Impacts associated with exposure of hazardous materials are considered a potentially significant impact. Implementation of Mitigation Measure MM TRRP HAZ-1 (Hazardous Materials Assessment and Remediation) would reduce impacts to a level of less than significant.
6. The proposed project would not significantly interfere with emergency response and evacuation of the Landfill property.
7. The project would increase site structural development, introduce new fuel sources, new ignition sources and increase the number of personnel at the landfill site in a high fire hazard area, which could significantly increase fire risk. Implementation of Mitigation Measure MM TRRP HAZ-2 (Fire Protection and Prevention Plan) would reduce impacts to a level of less than significant.

4.4.2.5 Proposed Tajiguas Landfill Capacity Increase Project

In general, the proposed project would not increase the risk to the public or environment associated with existing hazards at the Landfill property, including landfill gas, hazardous materials and landfill fires. The proposed Phase IV waste fill area would be provided with a landfill gas collection system and connected to existing landfill gas treatment and control systems. Monitoring of these systems as described in Section 4.4.1.4 would continue as required by CCR Title 27 and SBCAPCD permits to detect upset conditions that could lead to excessive landfill gas emissions and possible fire hazard.

Implementation of the proposed project would not affect the use or storage of hazardous materials at the Landfill property, including diesel fuel, gasoline, household hazardous waste or other hazardous waste found during MSW processing at the MRF.

Implementation of the proposed project would not increase the potential for landfill fires because no change in ignition sources, fire prevention and fire suppression practices or facilities would occur.

Impact HAZ-1: Construction activities associated with the proposed project may result in inadvertent discharge of small quantities of hazardous materials – Insignificant Impact.

During construction of the proposed Phase IV waste fill area, small quantities of hazardous materials (i.e., fuel, engine oil, lubricants, hydraulic fluid, engine coolant) would be used at the landfill site and transported to and from the site. Small quantities of these substances could be accidentally released and result in soil contamination. However, hazardous materials handling procedures and worker safety procedures would be implemented as required by applicable regulations, and RRWMD landfill contractor requirements. Due to the small amounts of hazardous materials used during construction activities and the implementation of applicable regulations, potential impacts associated with use of hazardous materials for project construction purposes would be less than significant.

Impact HAZ-2: Hazardous materials may be encountered during construction and released to the environment – Significant but Mitigable Impact.

The western portion of the proposed Capacity Increase Project area was excavated prior to 1989, while most of the eastern portion (near the eastern perimeter access road) was excavated in 2009. The previously undisturbed area shown on Figure 3-4 may contain pre-landfill soils. Overall, the potential to discover soil contamination associated with past land uses (such as pesticides associated with pre-Landfill agricultural land use) during construction of the proposed Phase IV waste fill area is considered very low. In addition, there is no evidence of agricultural activities in that area (such as orchards) that would have involved significant use of pesticides).

However, localized soil contamination from spills or leaks may be present in areas where hazardous materials may have been or are currently used as a part of existing Landfill operations, primarily in the Landfill maintenance and storage area where fuel and hazardous materials use and storage and equipment maintenance activities have historically occurred. This area is part of the Capacity Increase Project area and the existing facilities in this area would be removed and filled in the last few years of the project. Construction activities could encounter contaminated soils and potentially expose construction personnel, the public, or the environment to hazardous materials. Contaminated soil could also require disposal as a hazardous waste. Impacts associated with exposure of hazardous materials are considered potentially significant.

Mitigation Measures:

MM HAZ-1: Hazardous Materials Assessment and Remediation. Prior to earth disturbing activities within the Landfill maintenance and storage area, a preliminary assessment of areas within the project footprint where historical hazardous materials use occurred shall be conducted to identify the potential presence of contaminated soil. A soil sampling and management plan shall be developed to provide guidance for the delineation of the contaminated area and proper identification, handling, on-site management, treatment and disposal of contaminated soil that may be encountered during construction activities.

If contaminated soil is identified, the contaminated area shall be delineated, construction work shall not be initiated in the contaminated area and the soil management plan implemented. The soil management plan shall be modified as needed to fully address the soil contamination found. If the results of the soil assessment identify contaminants that exceed threshold levels, affected soils shall be remediated to the satisfaction of the Environmental Health Services Division.

Plan Requirements and Timing: These measures shall be included in the required soil management plan, project's plans and specifications and implemented prior to excavation of the proposed Phase IV waste fill area.

Monitoring: RRWMD shall ensure these measures are implemented and review the results of the preliminary assessment, the work plan and soil management plan. If contaminated soil is identified, RRWMD shall verify that soil remediation is completed as per Environmental Health Services Division requirements.

Residual Impacts: Implementation of ***MM HAZ-1*** would reduce impacts associated with exposure of hazardous materials during construction to a less than significant level.

4.4.2.6 Extension of Landfill Life Impacts

Impact HAZ-EXT-1: Project-related extension of the life of the Tajiguas Landfill would extend landfill-related hazards (e.g., storage and use of hazardous materials, subsurface landfill fire, risk of fire due to petroleum product storage and unauthorized dumping) and exposure of Landfill operations to wildfires further in time – Significant but Mitigable Impact.

As discussed in Section 3.7.1, the proposed Capacity Increase Project would result in extending the active life of the Landfill by approximately 12.75 years. Therefore, hazards associated with operation of the Landfill (see Section 4.4.2.2) would continue further in time as compared to earlier closure of Landfill in the absence of the proposed project. Small quantities of hazardous waste may continue to enter the Landfill property as a part of the MSW but this would continue to occur in association with the ReSource Center operations regardless of the proposed Capacity Increase Project. Screening processes that currently occur at the scale house and MSW sorting and processing at the MRF would continue and reduce the potential for hazardous materials to be discharged or buried. The current use of hazardous materials and infrequent generation of hazardous waste (oil waste, oily debris, batteries, etc.) at the Landfill would continue at rates equal or less than current operations. These activities have not resulted in significant hazards in the past and are not expected to increase due to the extension of Landfill life.

The Landfill would continue to receive bypass waste and residual waste and the generation of the landfill gas would continue (although reduced due to the removal of organics associated with operation of the MRF as discussed in 12EIR-00000-00002 and Addendum), as the waste currently disposed of in the Landfill continues to degrade. Federal and State landfill gas regulations would continue to apply to Landfill operations and the landfill gas collection system would continue to operate (collect and control landfill gas) and would be used to power MRF and ADF operations. Landfill disposal activities could be interrupted, and infrastructure could be impacted by wildfires that may occur during the extended life. However, the Landfill has already been impacted by a major wildfire (Alisal Fire) which has reduced vegetation fuel loads, operation of the Landfill and repair of infrastructure was able to be accomplished within 10 days after the Alisal Fire, and new management actions are being undertaken under CWPP to help reduce future wildfire impacts. Further, compliance with Federal and State hazardous materials regulations, CCR Title 27 regulations and Mitigation Measures HS-1, HS-2, HS-3, and HS-4 identified for the Tajiguas Landfill Expansion Project in 01-EIR-05 (addressing fire prevention and suppression, improved site security, landfill gas monitoring, on-site traffic control) would continue to be implemented to avoid or offset significant impacts associated with hazards and hazardous materials.

4.4.2.7 Cumulative Impacts of the Tajiguas Landfill Capacity Increase Project

The proposed project would incrementally contribute to cumulative hazard impacts when considered with other planned projects in the region (see Section 3.9).

Impact HAZ-CUM-1: Hazardous materials use, storage and disposal and potential discovery of contaminated soil associated with the project combined with the cumulative projects would contribute to the cumulative exposure of the public – Significant but Mitigable Cumulative Impact; Project Contribution – Not Considerable with Mitigation.

Many of the cumulative projects would involve the transportation, use and disposal of hazardous materials, primarily associated with fuel for construction equipment. Contaminated soils are under treatment, removal and replacement at the Erburu Lease. Contaminated soils could be discovered during excavation at other project sites listed in Section 3.9 and result in exposure of the public to hazardous materials. In particular, implementation of the Landfill Gas to Renewable Natural Gas Project may result in exposure of hazardous materials at the Landfill's former energy facility site. These materials would be handled according to State law, such that the potential for cumulative public exposure is considered less than significant and the incremental contribution of the project with implementation of Mitigation Measure **MM HAZ-1** would not be considerable.

Impact HAZ-CUM-2: The project combined with the cumulative projects could contribute to a cumulative increase in fire hazard in the region – Significant but Mitigable Cumulative Impact; Project Contribution – Not Considerable.

Most of the cumulative projects are located in high or very high fire hazard areas which have been subject to wildfires in the past. These cumulative projects would increase the amount of structural development, increase potential ignition sources, and increase the number of persons exposed to fire hazard. However, these projects (including the proposed project) would be required to comply with local fire prevention requirements of the Santa Barbara County Fire Department which generally include adequate water supply and pressure for firefighting, adequate access for fire equipment, and reduction of flammable vegetation in proximity to structural development.

The Tajiguas Landfill currently implements fire prevention measures (provision of water for firefighting, vegetation management, fire breaks, etc.) as discussed in Section 4.4.1.5. The ReSource Center has implemented additional measures including fire hydrants around the facilities and preparation and implementation of a Fire Protection and Prevention Plan. The cumulative fire risk impact is considered less than significant with compliance with Santa Barbara County Fire Department requirements and project-specific CEQA mitigation requirements. The incremental contribution of the project would not be considerable since the proposed project would not increase the existing potential for landfill fires or ignition of wildland fires.

4.5 GEOLOGIC PROCESSES

The following analysis of geologic impacts is based on a Geotechnical Evaluations Report (Geosyntec Consultants, 2023) prepared for the project, as well as the Tajiguas Landfill Environmental Documents and studies prepared for the ReSource Center:

- Soils Engineering Report and Engineering Geology Investigation (GeoSolutions, Inc., 2013)
- Slope Stability Evaluation Tajiguas Resource Recovery Project Compost Management Unit (Geo-Logic Associates, 2013).

4.5.1 Setting

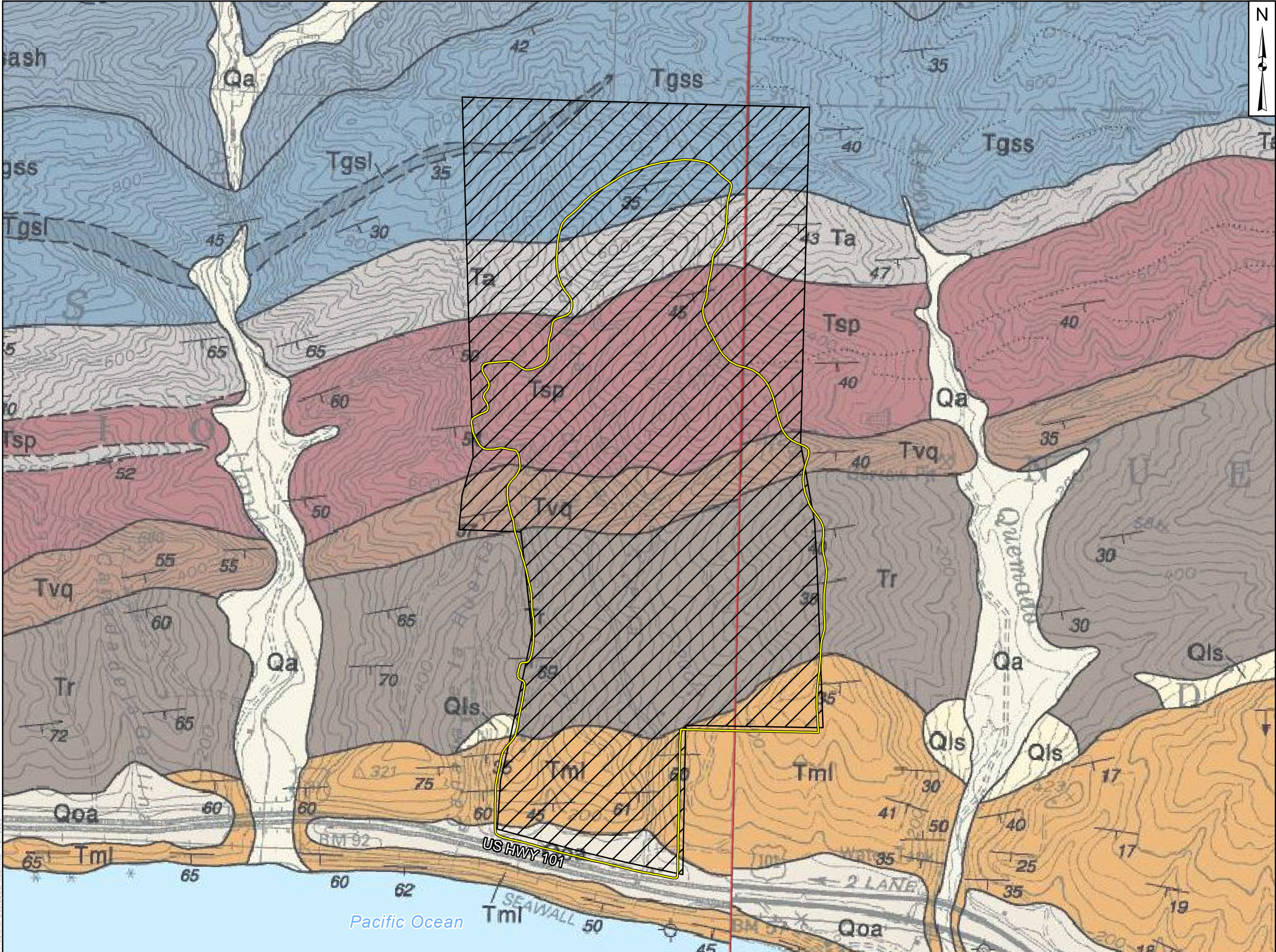
4.5.1.1 Regional Geology

The Tajiguas Landfill is located on the south flank of the Santa Ynez Mountains, a component of the Transverse Range Geomorphic Province. This geomorphic province is characterized by generally east-west trending mountain ranges and intervening valleys. Older uplifted bedrock is exposed in the mountains, while the valleys are filled with sedimentary rocks and alluvial deposits. The Transverse Ranges are bordered by the Santa Monica fault to the south and the Santa Ynez fault to the north.

The Santa Ynez Mountains extend from Gaviota Canyon eastward to the Matilija Gorge in Ventura County. The range is composed of a single main crest that is continuous for approximately 50 miles. The northern flank of the Santa Ynez Range is a steep escarpment created by uplift along the Santa Ynez fault. The southern flank, where the Landfill property is located is characterized by south-plunging ridges that separate incised drainage canyons. These canyons generally include a perennial stream bounded by steep east- and west-facing slopes. The indurated sandstone units typically form prominent, more resistant outcrops and generally support dense chaparral vegetation. The poorly indurated and finer-grained units typically form more gently-sloping, grass-covered hills (Geosyntec, 2008).

4.5.1.2 Local Geology

The Landfill property is located within the Santa Ynez Mountain uplift, which is generally composed of sedimentary rocks ranging from late Mesozoic to Quaternary in age. The total stratigraphic thickness of the exposed section is approximately 40,000 feet. Bedrock units underlying the Landfill property include the Alegria Formation (Ta), Sespe Formation (Tsp), Vaqueros Sandstone (Tvq) and Rincon Shale (Tr) (see Figure 4.5-1). The Alegria Formation is a marine form of the continental Sespe Formation, such that they are often referred to as a unit (Sespe-Alegria Formation) in the project area. Excavation associated with the proposed project would occur solely within the Sespe-Alegria Formation to the north of the existing waste fill area.

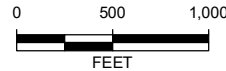


LEGEND:

- Tajiguas Landfill Operational Boundary
- Tajiguas Landfill Property

Qs – Superficial Sediments; Beach sand deposits
Qa – Superficial Sediments; Valley and floodplain deposits of silt, sand and gravel
Qls – Landslide Debris
Qoa – Older Dissected superficial Sediments; Undivided former terrace remnants
Tm – Monterey Shale; Upper shale unit: white-weathering, thin-bedded, hard, brittle siliceous shale, locally cherty, Mohnian Stage
Tml – Monterey Shale; lower shale: white-weathering, soft, punky, fissile to platy, semi-siliceous shale, containing thin, grey-white calcareous strata; Luisian-Relizian Stages
Tr – Rincon Shale; poorly bedded gray clay shale or claystone, Saucesian and upper Zemorrian Stages
Tvq – Vaqueros Sandstone; North of Santa Ynez fault: greenish-tan sandstone and interbedded greenish siltstone, with local calcareous lenses, south of Santa Ynez fault: light grey calcareous sandstone
Tsp – Sespe Formation; Gray to tan sandstone and green to red siltstone and claystone; basal part intertongues westward with Alegria Formation south of Santa Ynez fault
Ta – Alegria Formation; tan arkosic sandstone and greenish-grey siltstone, locally fossiliferous, intertongues eastward into part of Sespe Formation, lower Zemorrian and Refugian Stage
Tgss - Gaviota Formation; Hard thick bedded tan arkosic standstone, locally fossiliferous, and minor gray siltstone, Refugian Stage
Tgsl – Gaviota Formation; Gray concretionary siltstone

MAP EXTENT:



Source: Dibblee Gaviota 1967 & Solvang 1995
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: According to the Dibblee Gaviota / Solvang geology maps which cover the project site, there are no areas of landslide debris within the project site. Also according to the Dibblee maps, the nearest fault is about 1 mile from the project site. It is described as a minor inferred fault. The USGS Quaternary fault database does not show any faulting in the area, although its inventory is of more major or regionally significant faults.
This map was created for informational and display purposes only.

padre
associates, inc.
ENGINEERS, GEOLOGISTS &
ENVIRONMENTAL SCIENTISTS

PROJECT NAME: TAJIGUAS LANDFILL CAPACITY INCREASE PROJECT SANTA BARBARA COUNTY, CA		
PROJECT NUMBER: 2202-4091	DATE: April 2023	

REGIONAL GEOLOGICAL MAP

FIGURE
4.5-1

4.5.1.3 Formational Units

Formational units underlying the existing and proposed waste fill areas are Sespe Formation, Vaqueros Sandstone and Rincon Shale. These units are briefly discussed below. A comprehensive discussion of formational units underlying the entire Landfill property is included in the Tajiguas Landfill Environmental Documents including 01-EIR-05 Section 3.2.

Sespe Formation

The Oligocene age (33.7-23.8 million years old) Sespe Formation is composed of gray to tan sandstone and green to red siltstone and claystone (Dibblee, 1988). The Sespe Formation at the Landfill property was observed as tan to red to green thinly to thickly bedded siltstone and claystone in a dry and hard condition.

Vaqueros Sandstone

The early Miocene age Vaqueros Formation south of Santa Ynez fault is composed of light gray calcareous sandstone (Dibblee, 1988). The Vaqueros Sandstone at the Landfill property is light brown sandstone in a dry and hard condition.

Rincon Shale

The early Miocene age (11-1.8 million years old) Rincon Shale unit is composed of poorly bedded gray clay shale or claystone (Dibblee, 1988). Rincon Shale was observed in cut slopes throughout the operations deck including the west borrow area to the west. The Rincon Shale at the Landfill property was observed as light gray shale and claystone in a dry to slightly moist condition. The observed Rincon Shale is massive, fresh to slightly weathered (severely weathered at the surface), and moderately soft to moderately hard. Based on rock coring at the site, the Rincon Shale is fair to good rock quality, with layers of poor, very poor, and excellent quality.

4.5.1.4 Landslides

The Rincon Shale is generally a weaker unit and prone to landslides when saturated; therefore, within the Rincon Shale units there is a moderate potential for landslides. Due to the character of the Vaqueros Sandstone and Sespe Formation, there is a low potential for landslides within these units. Dibblee (1988) did not identify any landslides at the Landfill property. During site mapping and identified in previous reports (Geo-Logic, 2008), two surficial landslides were observed within the cut slope at the west borrow area. The northern landslide appears to be a shallow rotational instability within the Rincon shale, while the southern landslide appears to be a shallow mud-flow type of instability. The upper portion of the southern landslide was removed during past modification to the west borrow area. The northern landslide was partially removed by earthwork associated with construction of the ReSource Center's MRF. There are no known landslides that may affect the proposed Capacity Increase Project area.

4.5.1.5 Faulting and Seismicity

Similar to the surrounding areas, the Landfill property may be affected by moderate to major earthquakes centered on one of the known large, active faults. These faults include the Santa Ynez Fault located approximately 15.5 miles from the site, the Los Alamos Fault located 16 miles from the site, and the San Andreas Fault located 52 miles from the site. The closest known Holocene age fault is the Santa Ynez Fault; however, the San Andreas Fault is the most likely active fault to produce ground shaking at the site.

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 requires that the California State Geologist establish Earthquake Fault Zones around the surface traces of active faults and to issue appropriate maps. The Landfill property is not located within an Earthquake Fault Zone (maps.conservation.ca.gov/cgs/EQZApp).

A deterministic seismic response spectrum was developed for the proposed project by Geosyntec Consultants (2023), which indicates the Maximum Credible Earthquake (MCE, capable of occurring under the presently known geologic framework) would generate a peak horizontal ground acceleration of 0.660 g. The Maximum Probable Earthquake (MPE, maximum likely to occur during a 100-year interval) would generate a peak horizontal ground acceleration of 0.566 g at the Landfill property. The source of the ground acceleration is movement of the Pitas Point (Lower, west) fault.

4.5.1.6 Tsunami/Seiches

Tsunamis and seiches are two types of water waves that are generated by earthquake events. Tsunamis are broad-wavelength ocean waves and seiches are standing waves within confined bodies of water, typically reservoirs. The proposed Capacity Increase Project area is located approximately 0.9 miles north of the tsunami hazard area as designated by the Governor's Office of Emergency Services. Seiches are not anticipated to occur within the North Sedimentation Basin located within proposed Capacity Increase Project area, since it is too small and drained regularly using a skimmer system.

4.5.1.7 Settlement

Seismically-induced settlement occurs in loose to medium dense unconsolidated soil above groundwater. These soils compress (settle) when subject to seismic shaking. The settlement can be exacerbated by increased loading, such as from the construction of buildings. Based on the presence of clay in the fill and formational units, there is a low potential for seismically-induced settlement at the Landfill property.

Buried MSW is known to undergo settlement and may affect structures constructed in disposal areas. Settlement of MSW is attributed to physical and mechanical processes, chemical processes, dissolution processes, and biological decomposition. In addition, studies show that primary (or short term) and secondary (long-term) settlement occurs. Primary settlement usually occurs within the first four months of placement, and secondary settlement occurs under constant load after completion of primary settlement (Sharma and De, 2007). Settlement of MSW has been observed just east of the ReSource Center's MRF site.

4.5.1.8 Liquefaction Potential

In the context of soil mechanics, liquefaction is the process that occurs when the dynamic loading of a soil mass causes the shear strength of the soil mass to rapidly decrease. Liquefaction can occur in saturated cohesion-less soils. The most typical liquefaction-induced failures include consolidation of liquefied soils, surface sand boils, lateral spreading of the ground surface, bearing capacity failures of structural foundations, flotation of buried structures, and differential settlement of above-ground structures.

The presence of loose, poorly graded, fine sand material that is saturated by groundwater within an area that is known to be subjected to high intensity earthquakes and long-duration ground motion are the key factors that indicate potentially liquefiable areas and conditions that lead to liquefaction. Based on the consistency and relative density of the in-situ soils (clay/rock) and the depth to groundwater, the potential for seismic liquefaction of soils at the Landfill property is very low.

4.5.1.9 Expansive Soils

Expansive soils are primarily clay-rich soils subject to changes in volume with changes in moisture content. The resultant shrinking and swelling of soils can influence fixed structures, utilities and roadways. In addition, as expansive soils on sloping ground expands and contracts, it tends to move downslope in response to gravity. Soil from the Rincon Formation present at the Landfill property was classified as having a medium expansion index based on laboratory testing (GeoSolutions, 2013).

4.5.2 Impact Analysis and Mitigation Measures

4.5.2.1 Thresholds of Significance

The assessment of geologic impacts is based on guidance and thresholds from the State CEQA Guidelines (Appendix G, Initial Study Checklist), the County's Guidelines Manual (Geologic Constraints Guidelines) and California Code of Regulations (CCR) Title 27 standards.

Appendix G of the State CEQA Guidelines. A potential geologic impact would occur if the project would:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault, strong seismic ground-shaking, seismic-related ground failure, including liquefaction and landslides.
- Result in substantial soil erosion or the loss of topsoil.
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property.
- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.
- Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature.

Santa Barbara County Environmental Thresholds and Guidelines Manual.

Geologic impacts have the potential to be significant if the project involves any of the following characteristics:

- Project sites or part of the project located on land having substantial geologic constraints, such as active or potentially active faults, underlain by rock types associated with compressible/collapsible soils, or susceptible to landslides or severe erosion.
- The project results in potentially hazardous geologic conditions such as construction of cut slopes exceeding a grade of 1.5H:1V.
- The project proposes construction of a cut slope over 15 feet in height as measured from the lowest finished grade.
- The project is located on slopes exceeding 20 percent grade.

California Code of Regulations - Title 27 and California Department of Water Resources Slope Stability Criteria.

- Permanent cut slopes and waste fill slopes must be constructed to provide a minimum Factor of Safety of 1.5.
- The maximum permanent seismic displacement caused by the MCE must not exceed 36 inches for permanent cut slopes.
- The maximum permanent seismic displacement caused by the MCE must not exceed 12 inches for permanent waste fill slopes.
- The maximum permanent seismic displacement caused by the MPE must not exceed six inches for permanent waste fill slopes.

4.5.2.2 Approved Tajiguas Landfill Expansion Project

The following is a summary of the geologic impacts identified in 01-EIR-05 for the approved Tajiguas Landfill Expansion Project (see Section 1.6.2).

1. Earthquake faults mapped within the Landfill footprint were evaluated to be inactive and not a constraint to landfill development. Impacts to Landfill environmental control systems, structures and access roads from potential fault rupture were identified as less than significant.
2. Earth materials underlying the Landfill expansion were identified as primarily Tertiary sedimentary rock, which are not typically susceptible to liquefaction. Potential liquefaction impacts were considered to be less than significant.
3. Shallow landslides have been reported on natural slopes adjacent to the Landfill, and may adversely affect Landfill operations. It was expected that grading plans and drainage improvements would minimize the potential for landslides by limiting the size of exposed areas, diversion of storm water away from landslides and geologic monitoring. Potential landslide impacts were identified as less than significant.
4. Portions of cut slopes within moderately to extremely weathered materials could become unstable if inclined steeper than 2:1. Potential landslide impacts were considered significant but mitigable. Mitigation measure GEO-1 was provided to limit the gradient of cut slopes to 2:1 and/or orienting cut slopes to avoid adverse bedding planes.
5. Vertical expansion may result in slopes with gradients of up to 2.5:1. Based on the results of a slope stability analysis included in 01-EIR-05, the engineered buttress fill along the west refuse toe was determined to provide adequate stability under static and seismic conditions. Potential landslide impacts were identified as less than significant.
6. Collapsible soils were not observed at the site, and were not expected to impact the project. Expansive soil formed by weathering of Rincon mudstones occurs at the Landfill property. If used for engineered fills the expansive soils had the potential to result in damage to structures or roads built over them. Potential damage to structures or roads resulting from construction on expansive soil was considered a significant but mitigable impact. Mitigation measure GEO-2 was provided to require excavation of expansive soil prior to waste placement and implementation of geotechnical engineering practices if expansive soils are used as fill under sensitive structures or pavements.

7. Severe erosion of on-site soils was identified as a potentially adverse but less than significant impact with the continued implementation of best management practices (soil berms, soil compaction, drainage systems, benching, revegetation, straw bales and wattles, etc.).
8. With proper engineering design and monitoring, excessive differential settlement of waste material, soil cover, or Landfill foundation material was not expected. Potential impacts due to differential settlement were considered less than significant.

4.5.2.3 Approved Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project

Landfill reconfiguration would create different waste fill slopes and cut slopes as compared to the approved expansion and would eliminate the proposed engineered buttress. The slope stability analysis indicated the reconfigured slopes would have adequate static and seismic stability to meet CCR Title 27 requirements. Therefore, impacts associated with the stability of the new waste slopes and cut slopes would be less than significant.

4.5.2.4 Approved Tajiguas Resource Recovery Project (ReSource Center)

The following summarizes the impacts to geologic processes identified in 12EIR-00000-00002 for the ReSource Center (see Section 1.6.3).

1. A numerical slope stability analysis was conducted for the proposed cut slope west of the proposed MRF/AD Facility site, proposed fill slope south of the proposed MRF/AD Facility site: 2:1, and the proposed fill slope west of the proposed maintenance building site indicates the minimum safety standards are met for both static and pseudo-static conditions. However, slope erosion by storm flows may substantially affect slope stability over time. Impacts to the proposed MRF, AD Facility and maintenance building associated with landslides and seismically-induced slope failures are considered potentially significant. This impact would be mitigated with the implementation of MM TRRP G-1 (Slope Stability Control), which would reduce residual impacts to a less than significant level.
2. Two-dimensional slope stability analyses were performed for five cross-sections using the computer program SLOPE/W. The minimum static factor of safety for the cross sections analyzed with the proposed compost in place is 1.55 which exceeds the engineering standard of 1.5 provided by the CCR Title 27. Therefore, the waste fill slopes are considered adequately stable under static conditions, and impacts would be less than significant. In addition, seismic-induced permanent displacement of the waste fill slopes due to the MPE was estimated, and proposed fill slopes found to be adequately stable under seismically-induced conditions, and impacts would be less than significant.

3. Grading and irrigation of the manufactured slope west of the proposed MRF/AD Facility site would not result in severe erosion and would not significantly affect the stability of the existing mapped landslides, less than significant impact.
4. The proposed facilities would not be impacted by fault rupture but may be subject to adverse but less than significant damage due to seismic ground-shaking.
5. The proposed facilities have a less than significant potential for damage due to seismic liquefaction.
6. Additional fill at the operations deck is proposed to be Rincon Formation-derived soils. Without proper engineering design, use of these potentially expansive soils could significantly impact the structural integrity of the proposed MRF and AD Facility buildings. The proposed maintenance building would be constructed on fill derived from the Sespe Formation (typically with a moderate shrink-swell potential) and may also be significantly affected by expansive soils. This impact would be mitigated with the implementation of MM TRRP G-2 (Expansive Soils), which would reduce residual impacts to a less than significant level.
7. Differential settlement, associated with previously buried MSW and as a result of the differing soil types across the proposed building area, could significantly impact the MRF and AD Facility structures. This impact would be mitigated with the implementation of MM TRRP G-3 (Differential Settlement Control – MRF/AD Facility Site), which would reduce residual impacts to a less than significant level.
8. Settlement associated with existing and planned MSW disposal in the Tajiguas Landfill top deck area could significantly impact the operation of the composting area. This impact would be mitigated with the implementation of MM TRRP G-4 (Settlement Control – Composting Area), which would reduce residual impacts to a less than significant level.

4.5.2.5 Proposed Tajiguas Landfill Capacity Increase Project

The following impact analysis addresses all project components, including construction of the proposed Phase IV fill area (excavation, blasting, liner installation, environmental protection/control system installation), construction of the proposed toe berm, modifications to the North Sedimentation Basin, modifications to the storm flow control structure in Pila Creek, relocation of Landfill facilities and relocation of ReSource Center utilities.

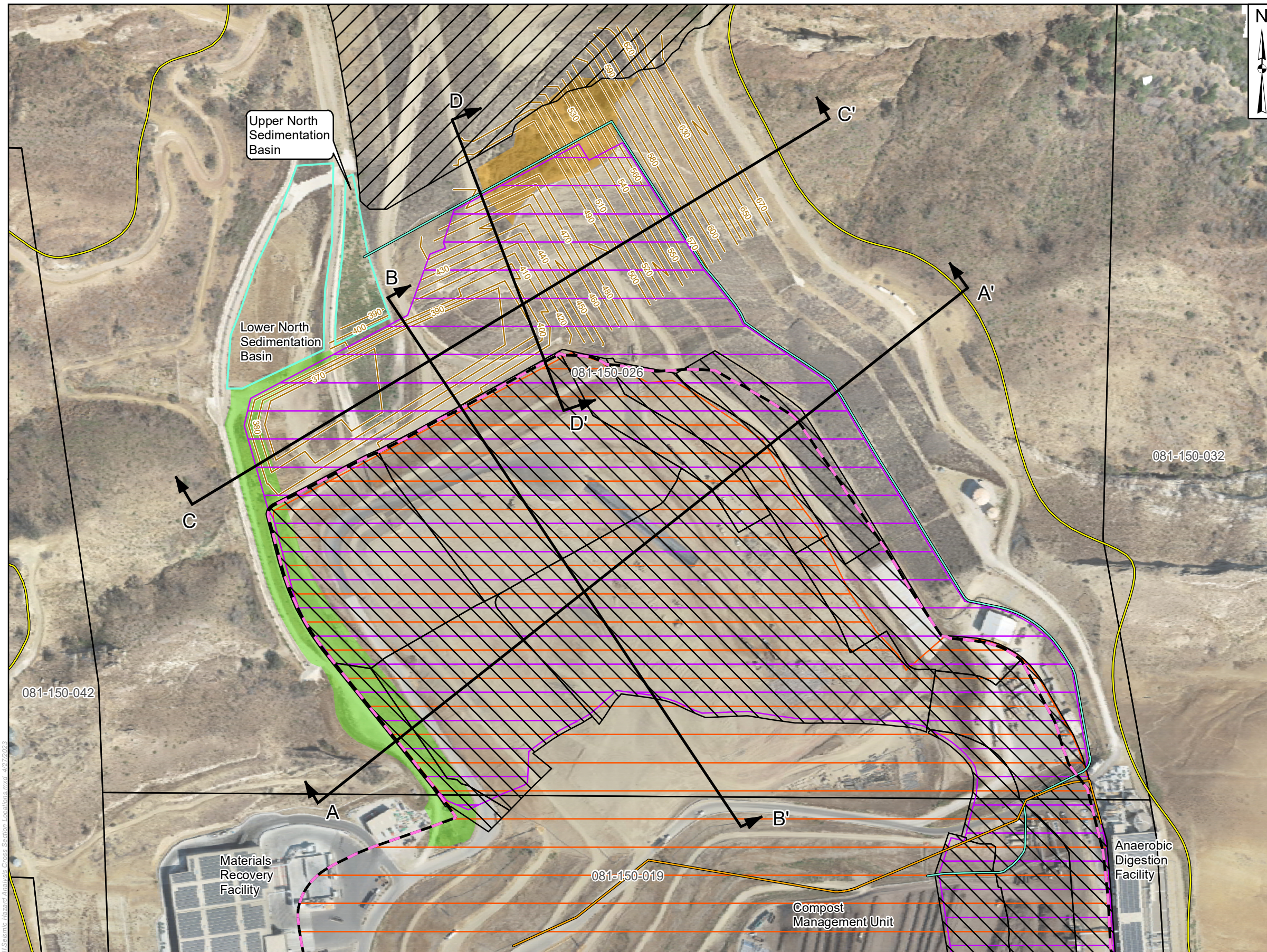
Operational changes associated with the scale house hours of operation and moving from a daily to working week maximum tonnage would have no impact on geological resources. With respect to the following County thresholds identifying construction of cut slopes exceeding a grade of 1.5H:1V, construction of a cut slope over 15 feet in height as measured from the lowest finished grade, and slopes exceeding 20 percent grade as resulting in potentially significant geologic impacts, these thresholds typically apply to standard development projects. By necessity landfill construction involves significant grading and excavation including creation of cut slopes exceeding the thresholds identified and grading and creating slopes greater than 20 percent. Therefore, the impacts analysis is based on seismic hazard analysis and slope stability analyses conducted by Geosyntec Consultants, Inc. (2023) in compliance with CCR Title 27. Based on visual field observations performed by Geosyntec and review of relevant/available site information, no other geologic hazards (including surface faults) were observed in the proposed Capacity Increase Project area.

Impact G-1: New cut slopes and permanent waste fill slopes may be unstable and result in seismic-induced landslides – Insignificant Impact.

A deterministic seismic hazard analysis was conducted for the proposed project by Geosyntec Consultants (2023) which included the following components:

- Seismic hazard analysis to identify the MCE and MPE magnitude, and to characterize anticipated ground motion at the Landfill property.
- Static and pseudostatic slope stability analysis using a two-dimensional model (SLOPE/W) for proposed cut slopes and a three-dimensional model (SVSlope 3-D) for final waste fill slopes. The location of representative cross-sections used in the analysis are shown in Figure 4.5-2, which include sections A-A' and B-B' for permanent waste fill slopes and sections C-C' and D-D' for temporary cut slopes. The topography and slope stability data along each of these cross-sections is provided in Appendix F. The three-dimensional analysis included assessing the stability of waste fill slopes using both the residual and peak shear strength of the composite liner system underlying the waste fill.
- Site response and displacement analyses to identify the response of the waste fill area and potential permanent displacement of the waste fill/landfill liner system by the MCE and MPE at the Landfill property. These analyses used a one-dimensional non-linear model (DEEPSOIL) for site response and a seismic landslide movement model (SLAMMER) for the displacement analysis.

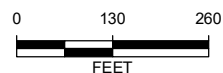
The seismic hazard analysis was conducted based on the proposed toe berm (see Figure 3-4) in place to control westward movement of the buried waste fill mass.



LEGEND:

- Tajiguas Landfill operational boundary
- Parcel Boundary
- North Borrow/Stockpile
- Permitted Waste Boundary
- Previously Undisturbed Area
- Existing Liner Limit
- Existing Waste Limits
- Increased Capacity Liner/Waste Limit
- Relocated Landfill Gas Supply Line
- Relocated CMU Stormwater Drain
- Additional Excavation Area
- Proposed Toe Berm with Haul Road
- Sedimentation Basin Boundary
- A' A' Cross Section Location

MAP EXTENT:



Source: Orthophoto
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

padre
associates, inc.
ENGINEERS, GEOLOGISTS &
ENVIRONMENTAL SCIENTISTS

PROJECT NAME:
TAJIGUAS LANDFILL CAPACITY INCREASE PROJECT
SANTA BARBARA COUNTY, CA
PROJECT NUMBER:
2202-4091
DATE:
April 2023

**SEISMIC HAZARD ANALYSIS
CROSS-SECTION LOCATION**

**FIGURE
4.5-2**

Table 4.5-1. Results Summary of the Seismic Hazard Analysis

Slope Type	Representative Cross-section	Static Factor of Safety	MPE Seismic Displacement (inches)	MCE Seismic Displacement (inches)
3-D Analysis using Residual Shear Strength of the Composite Liner System				
Permanent waste fill	A-A'	1.50	<1	~3
Permanent waste fill	B-B'	1.53	~2	~5
3-D Analysis using Peak Shear Strength of the Composite Liner System				
Permanent waste fill	A-A'	1.88	<1	<1
Permanent waste fill	B-B'	1.84	<1	<1
2-D Analysis				
Temporary cut	C-C'	1.74	~1	~2
Temporary cut	D-D'	2.04	<1	<1
Engineering Standard	--	1.50	6	12

The results of the seismic displacement analysis of proposed Landfill slopes (see Table 4.5-1) indicate the minimum factor of safety (1.50) would be met and seismic displacement would be less than 6 inches by a MPE and 12 inches by an MCE. Therefore, the proposed slopes are considered stable, and the risk of seismic-induced landslides is considered less than significant.

Impact G-2: The proposed toe berm would be partially inundated during large storm events for a short period of time (several hours), which may adversely affect the stability of the waste fill mass – Insignificant Impact.

As discussed in Section 3.8.2.5, an existing flow control structure in the Pila Creek channel currently regulates the detention capacity of the Pila Creek Inundation Area and the peak downstream stormwater discharge rate. Proposed earthwork would reduce the stormwater storage volume of the Pila Creek Inundation Area. Therefore, the proposed project includes modifications to the spillway height of the flow control structure to increase stormwater storage volume and limit the peak stormwater flow to existing conditions (187 cubic feet per second during a 100-year event). The increased spillway height would increase peak water surface elevation within the Pila Creek Inundation Area during a 100-year storm by 2.6 feet.

The proposed toe berm would extend westward to the top of the eastern bank of the Pila Creek channel (see Figure 3-4). Therefore, the western margin of the toe berm would be located within the Pila Creek Inundation Area. However, inundation of the toe berm would be infrequent and for a duration on the order of a few hours (HDR, 2023). The peak water surface elevation would be below the elevation of the proposed toe berm over which the buttressing effect is developed. In addition, because the inundation period would be relatively short, it is not anticipated that the proposed toe berm would become saturated and/or a sudden drawdown condition occur; therefore, the potential inundation is not anticipated to have direct impact on the global stability of the waste fill mass (Geosyntec Consultants, 2023a). The potential short-term inundation of the outer face of the lower part of the toe berm would not substantially affect the slope stability function of the toe berm and would have a less than significant impact on stability of the waste fill mass.

Impact G-3: Grading and excavation activities and creation of 2:1 (horizontal:vertical) waste disposal slopes could result in erosion and sedimentation – Insignificant Impact.

To provide the additional disposal capacity, approximately 566,400 cy of grading (excavation) would be required to provide approximately 12.5 acres of additional slope liner area and approximately 1.75 acres of additional base liner area (see purple contours in Figure 3-4).

The proposed Phase IV fill area would be constructed by excavating and/or blasting a maximum of approximately 30 feet below the ground surface of the existing North Sedimentation Basin floor, as well as excavating the slopes north of the existing waste footprint to match the overall existing cut slopes of Phase III. All slopes will be constructed to a 2:1 (horizontal:vertical) inclination except for the northern excavated slope at the bottom of Phase IV which would be constructed at a 1:1 inclination for stability purposes. Excavated material would be used to construct the proposed slope stability toe berm with the remainder being placed in the North Stockpile/Borrow area and used for daily cover and final closure. Exposed graded slopes may be subject to erosion during rain events which could result in downstream sedimentation.

Construction and installation of the liner system would occur over two or more dry seasons which would help reduce potential erosion. In addition, erosion control best management practices would continue to be implemented including:

- Fiber rolls installed to break up long flat drainage surfaces, to slow sheet flow and allow sediment to drop out of the drainage flows, also used on slopes to slow down sheet flow run-off to reduce erosion.
- Straw mats and bales, typically placed at drainage inlets to prevent erosion at the inlet and to direct flow to the drain and away from erodible areas.

- Hydroseeding/manual seeding, applied to the outside faces of the Landfill and other areas that will not receive waste, or be disturbed by Landfill operations for extended periods of time (see also 01-EIR-05, Mitigation Measure BIO-6).
- Earth berm and drainage swales, used in the active waste disposal area to divert and control stormwater run-off.
- Soil stabilizer, applied to areas of the Landfill that will not be disturbed by Landfill operations for extended periods of time; and
- Mulch, used on and around the Landfill to prevent the erosion of areas that have been disturbed by Landfill operations and do not have an established vegetative cover, including slopes and benches.

These erosion control measures are installed prior to and during the rainy season. Continuous erosion control measures are utilized during Landfill operations and closure to minimize soil loss. Furthermore, activities to establish interim vegetation on the deck and slope areas of the site are performed as these areas reach final grade.

After the Landfill is closed, native vegetation will be established over the surface of the Landfill to serve as the primary erosion control feature. Other stormwater best management practices (such as the sedimentation basins) that are currently implemented and would continue to be implemented are discussed in Section 4.10.1.1.

These best management practices would continue to be implemented and erosion impacts would be adverse and less than significant.

4.5.2.6 Extension of Landfill Life Impacts

Impact G-EXT-1: Project-related extension of the life of the Tajiguas Landfill would extend the duration of less than significant erosion and sedimentation impacts – Insignificant Impact.

As discussed in Section 3.7.1, the proposed Capacity Increase Project would result in extending the active life of the Landfill by approximately 12.75 years and delay full closure and revegetation of the Landfill. Geologic processes impacts associated with construction of the proposed Phase IV waste fill area and increases in the waste fill mass have been addressed above. Therefore, no additional geologic processes impacts associated with project-related extension of landfilling activities would occur.

Because closure and placement of a final cover system over the entire Landfill area would be delayed, there may be some extension of less than significant Landfill-related erosion and sedimentation impacts. These impacts would continue to be minimized by the Landfill storm water management systems, interim erosion control measures during construction and operations, and phased closure of areas of the Landfill where waste placement has been completed.

4.5.2.7 Cumulative Impacts of the Tajiguas Landfill Capacity Increase Project

Other projects in the region (see Section 3.9) may generate or be exposed to local and regional geologic hazards, including landslides, fault rupture, ground-shaking, liquefaction, expansive soils and tsunami inundation. However, geologic impacts, by their nature, primarily involve site specific effects related to the particular geologic conditions and geologic hazards present in the immediate vicinity of the project site and their effect on project facilities (e.g., damage to structures due to expansive soils or differential settlement) or directly affected by project activities (e.g., grading that would impact slope stability).

Of the other projects in the region, only the Landfill Gas to Renewable Natural Gas Project is proposed on the Landfill property or the immediate project area and could impact or be impacted by the same geologic conditions as the proposed project. Proposed facilities associated with this project would be located at existing (or former) Landfill operation areas, which have been stabilized by past construction activities and would require very little ground disturbance prior to installation of project components. Therefore, this project is not anticipated to produce unstable earth conditions, or otherwise contribute to geologic processes impacts of the Tajiguas Landfill Capacity Increase Project. Overall, the project would not contribute to cumulative geologic impacts.

4.6 CULTURAL RESOURCES

This analysis is based on a supplemental Phase I survey and cultural resources record search conducted for the project as well as cultural resource analyses prepared for the ReSource Center and Tajiguas Landfill Project Environmental Documents and incorporated by reference.

4.6.1 Setting

4.6.1.1 Ecological Setting

The study area is located in the western half of the Santa Barbara Channel region, which supports a wide variety of habitats. There is a general elevational zonation of the upland vegetation from the beach through the coastal plain and foothills up the southern slopes of the Santa Ynez Mountains. Native vegetative habitats in the area include coastal strand, coastal bluff, coastal sage scrub, grassland, oak savanna, oak woodland, chaparral, and riparian woodland. Non-native habitats include ruderal vegetation (non-native weeds growing in disturbed areas) and cultivated areas. The various vegetation habitats in turn support a wide array of wildlife species.

The marine environment of the Santa Barbara Channel also supports a wide variety of habitats that include kelp beds, sandy beaches, rocky intertidal, bays, estuaries, and lagoons. Historically, the largest kelp beds on the California coast occurred between Point Conception and Rincon Point. Kelp beds support a large invertebrate community including abalone, crabs, clams, oysters, shrimp, lobster, and squid. Kelp beds also feed and provide shelter for numerous species of fish. Seals and sea lions feed in the kelp beds and haul out and breed on adjacent sandy beaches. The bays, estuaries, and lagoons are important habitats for resident bird species as well as migrating waterfowl.

The Mediterranean climate of the project area is typified by long, hot summers, and wet, mild winters. Perennial and seasonal drainages run down the slopes of the Santa Ynez Mountains and foothills to the coast.

The rich plant and animal resources of the surrounding terrestrial and marine environments, availability of fresh water, and Mediterranean climate combined to make the Santa Barbara Channel region a desirable location for prehistoric habitation and supported one of the highest prehistoric population densities among hunter-gatherers anywhere in the world. These same attributes would later encourage settlement of the Santa Barbara Channel region by the Spanish, Mexican, and American cultures.

The Tajiguas Landfill is located within Cañada de la Pila, a narrow coastal canyon within the Santa Ynez Mountain range. Pila Creek is seasonal and dry most of the year. The Landfill has been in operation since 1967 and its use has resulted in major modifications to the canyon. Los Padres National Forest is located to the north of the landfill, while U.S. Highway 101, the Union Pacific Railroad tracks and the Pacific Ocean are located to the south. The lands to the east and west of the project site are primarily open space or used for agriculture.

4.6.1.2 Regional Prehistoric Overview

This section briefly summarizes the regional and cultural history of the Santa Barbara coastal area. For detailed information on the description of time frames, establishment, organization, and cultural or physical affinities of earlier populations the reader is referred to Moratto (1984), King (1990), and Grant (1978).

The archaeological record indicates that sedentary populations occupied the coastal regions of California more than 9,000 years ago (Greenwood 1972). Several chronological frameworks have been developed for the Chumash region. One of the most definitive works on Chumash chronology is that of King (1990). King postulates three major periods; Early, Middle and Late. Based on artifact typologies from a great number of sites, he was able to discern numerous style changes within each of the major periods.

The Early Period (8000 to 3350 Before Present [B.P.]) is characterized by a primarily seed processing subsistence economy. The Middle Period (3350 to 800 B.P.) is marked by a shift in the economic/subsistence focus from plant gathering and the use of hard seeds, to a more generalized hunting-maritime-gathering adaptation, with an increased focus on acorns. The full development of the Chumash culture, one of the most socially and economically complex hunting and gathering groups in North America, occurred during the Late Period (800 to 150 B.P.).

4.6.1.3 Regional Ethnographic Overview

The project area lies within the historic territory of the Native American Indian group known as the Chumash. The Chumash occupied the region from San Luis Obispo County to Malibu Canyon on the coast, and inland as far as the western edge of the San Joaquin Valley, and the four northern Channel Islands (Grant 1978). The Chumash are subdivided into factions based on distinct dialects. The Barbareño Chumash occupied the narrow coastal plain from Point Conception to Punta Gorda in Ventura County (Grant, 1978). The name Barbareño is derived from the mission with local jurisdiction, Santa Barbara.

Chumash society developed over the course of some 9,000 years and achieved a level of social, political and economic complexity not ordinarily associated with hunting and gathering groups (Morrato, 1984). The prehistoric Chumash are believed to have maintained one of the most elaborate bead money systems in the world, as well as one of the most complex non-agricultural societies (King, 1990).

The Chumash aboriginal way of life ended with Spanish colonization. As neophytes brought into the mission system, they were transformed from hunters and gatherers into agricultural laborers and exposed to diseases to which they had no resistance. By the end of the Mission Period in 1834, the Chumash population had been decimated by disease and declining birthrates. Population loss as a result of disease and economic deprivation continued into the next century.

Today, many people claim their Chumash heritage in Santa Barbara County. In general, they place high value on objects and places associated with their past history, especially burials, grave goods, and archaeological sites.

4.6.1.4 Regional Historic Overview

In 1769, Gaspar de Portola and Father Junipero Serra departed the newly established San Diego settlement and marched northward toward Monterey, with the objective to secure that port and establish five missions along the route. The combined sea and land 1769-1770 Portola expedition, which passed through Santa Barbara County on its way to Monterey, was the prelude to systematic Spanish colonization of Alta California.

In 1795, Jose Francisco Ortega (the original founder of the Santa Barbara Presidio) was granted six leagues known as the *Rancho Nuestra Senora del Refugio* (Cowan, 1977). This was the only land grant licensed under Spanish Rule in what today is known as Santa Barbara County. The Ortegas built adobes at Refugio and later at Tajiguas Canyon, Arroyo Hondo, and Cañada del Corral. They grew wheat, maintained a vineyard, and ran large herds of cattle and horses on the rancho.

By the early 1800's, Refugio Bay was a well-known port to ships visiting the California coast, as the captains could trade at the Ortega settlement free of the duties imposed by the Spanish colonial government (Bancroft 1886, Tomkins 1960). However, the pirate Bouchard effectively ended the bay's era as a trading/smuggling port when he sacked and burned the Refugio hacienda in 1818.

In 1822, Mexico gained its independence from Spain, and in 1834 the Missions were secularized and their lands granted as rewards for loyal service or in response to an individual's petition. Ortega's grandson, Don Jose Vicente Ortega obtained the *Rancho Nuestra Senora del Refugio* in 1834. By this time, separate Ortega ranchos had been established in the Arroyo Hondo, Arroyo Quemado, and Tajiguas canyons to the west (Tompkins, 1960).

Following conquest of California by the United States in 1847, California became a state in 1850. The U.S. Land Commission patented the claim of 26,529 acres of *Rancho Nuestra Senora del Refugio* to Antonio Maria Ortega in 1866. Declining cattle prices and a serious four-year drought in the 1860s led to the sale of various rancho lands throughout California.

The landfill site opened in 1967 and has been in continual use for MSW disposal since then. Waste disposal operations take place approximately 1/4 mile from U.S. Highway 101 and currently occur within a 118 acre permitted area. The 1,083 acre Baron Ranch was purchased by the County in 1991 to provide a buffer zone between the landfill and adjacent private holdings, to prevent future subdivision and residential development adjacent to the landfill, provide flexibility for RRWMD solid waste operations, provide options for mitigation and possible future public access. In 2016, the County purchased two parcels immediately south of the Landfill; a 24.24-acre parcel (APN 81-150-034) and a 20.00-acre parcel (APN 81-150-033) (see Figure 3-2).

4.6.1.5 Records Search

A record search for the Landfill property was conducted at the Central Coast Information Center for the ReSource Center in 2013. This record search was updated on March 22, 2023, and included a review of all archaeological site records and investigative reports within a 0.25-mile radius of the project site.

Archaeological Sites

Based on a cultural resources record search conducted in 2013, three archaeological sites have been recorded within a 0.5-mile radius of the Landfill property. The record search update conducted for the proposed project did not identify any additional sites. There are no recorded sites or isolates within areas to be affected by the proposed project. The nearest archaeological site to the project site is CA-SBa-3494, which is located approximately 2,000 feet northwest of the proposed Capacity Increase Project area. Two prehistoric sites, CA-SBa-92 & CA-SBa-1990, are recorded at the mouth of Cañada de la Pila adjacent to the Tajiguas Landfill entrance. A description of these three sites is provided below.

CA-SBa-3494 was recorded as “...*light density shell scatter (chione, oyster, turritella, razor clam) and a Monterey chert flake near the mouth of the canyon. This scatter could be a secondary deposit. A rock shelter is approximately 50’ (15 meters) above the canyon in the north wall and 20’ (6 meters) east of the scatter...The shelter measures about 6’ (2 meters) in depth (front to back) by 7’ (2 meters in width and is about 5’ (1.5 meters) in height. The ceiling is blackened. No indication of pictographs or petroglyphs was observed...* (Brown, 1998).”

In 2004, an Extended Phase 1 Archeological Investigation (SAIC, 2004) was completed at this site due to encroaching soil stockpiling activities. The results of the Investigation determined that the shell scatter associated with CA-SBa-3494 was a secondary, disturbed deposit, meaning that the cultural material originated from a different location. The shell fragments found on the modern ground surface may have eroded down from somewhere further up the small canyon, or may have been imported with the modern trash noted in the trenches. Further, no evidence of prehistoric or historic use was noted within the rock shelter, and the geologic feature has no association with the shell scatter below. CA-SBa-3494, therefore, consists of a light shell scatter that originated from an unknown source, and the site has no spatial integrity.

CA-SBa-92 may represent the remnants of a village site first recorded by D.B. Rogers in 1929 as “*Park*” (Rodgers Site No. 92) (Rodgers 1929). Ruby (1999a) indicates that only a low density scatter of shell and chert debitage is now visible on the surface of the site. The site area has been highly impacted by highway construction, buried gas and electric lines, and the road leading up to the Tajiguas Landfill. However, it is possible that the site maybe partially intact below the disturbed surfaces (Ruby, 1999a). CA-SBa-92 is located adjacent to the entrance road to the Tajiguas Landfill.

CA-SBa-1990 is located near the entrance road to the Tajiguas Landfill and was recorded as a “*moderate density frequently used temporary campsite*” (Neff and Rudolph, 1986).

Previous Archaeological Investigations

The following archaeological investigations have been conducted within the Tajiguas Landfill property and are described below:

- Billman (1986) conducted a field survey of much of the Tajiguas Landfill property, and no cultural resources were identified within the areas surveyed.
- Brown (1998) conducted a ten-acre survey within northern portions of the Tajiguas Landfill property, and identified a rock shelter and associated small shell scatter, which was later designated site CA-SBA-3494. Brown (1998) recommended that the rock shelter be subjected to Extended Phase 1 archaeological testing.

- In 2004, Science Applications International Corporation (SAIC) conducted an Extended Phase 1 Archaeological Investigation at CA-SBa-3494 and determined the site did not qualify as a unique resource under Public Resources Code 21083.2 because the rock shelter had no evidence for prehistoric or historic use, and the light shell scatter of material represented a redeposit from an unknown source. No further archaeological investigation or monitoring was recommended for CA-SBa-3494.
- Conejo Archeological Consultants conducted a survey of 62 acres for the Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project in 2008, which included approximately 11.8 acres just north of the proposed MRF/AD Facility site. No prehistoric or historic resources were identified during this field survey (Conejo Archeological Consultants, 2008).
- In 2013, Conejo Archeological Consultants conducted a survey of three ReSource Center facility sites located along the perimeter of the Landfill, including two small tank sites, and a slope cut-back area (west borrow area). No evidence of prehistoric or historic resources was observed at either tank location or in the vicinity of the slope cut-back area.
- On November 19, 2019, Conejo Archeological Consultants conducted a Phase 1 archeological survey of the component sites for the Landfill Gas to Renewable Natural Gas Project (described in Section 3.9.2). No archaeological resources were observed.

Federal, State & County Listings

The listings of the National Register of Historic Places, California Historical Landmarks and California Points of Historical Interest include no properties within a 0.5-mile radius of the Landfill property. The California State Historic Resources Inventory also lists no historic properties within a 0.5-mile radius of the Landfill property. There are no Santa Barbara County Historical Landmarks or Places of Historical Merit within a 0.5-mile radius of the project site (reviewed April 20, 2023).

4.6.1.6 Supplemental Phase I Field Survey

Padre Associates Staff Archaeologist Val K. Kirstine conducted a supplemental Phase I archaeological survey on March 31, 2023. Because of the significant prior disturbance associated with permitted Landfill operations, the survey focused on a five-acre area. The five-acre survey area consisted of a portion of the Capacity Increase Project area including the previously undisturbed area (see Figure 3-4), located east of the North Sedimentation Basin.

The archaeologist examined the survey area using parallel transects spaced at no more than 15-meter intervals, where not constrained by terrain and vegetation. With the exception of exposed margins along the V-ditches and a roughly graded access road servicing a utility pole near the eastern edge of the survey area, extremely dense vegetation predominated. Sufficient opportunity for the inspection of surface soils was provided by patches of thinner vegetation and areas where subsurface soils had been exposed in profile by recent fluvial action. No cultural materials were observed within the survey area.

4.6.1.7 Native American Consultation

On April 18, 2023, RRWMD mailed (certified mail) letters to culturally affiliated Native American tribal contacts that had requested to be notified under Public Resources Code Section 21080.3.1.b. notifying of an opportunity for consultation. RRWMD received a letter dated May 18, 2023 from the Santa Ynez Band of Chumash Indians requesting formal consultation.

A virtual tribal consultation meeting was held on May 31, 2023, and was attended by Dr. Wendy Teeter representing the Santa Ynez Band of Chumash Indians, RRWMD staff (Joddi Leipner), and Padre Associates' senior archaeologist (Rachael Letter) and project manager (Matt Ingamells). Dr. Teeter was provided a presentation describing the history of the Landfill and a brief project description by Ms. Leipner. Dr. Teeter requested a map be provided showing the location of current and past archaeological field surveys and cultural resources reported in the Landfill vicinity, in relation to the Capacity Increase Project area. A summary description of previously recorded cultural resources, a map showing the location of recorded cultural resources and a map of the extent of previous archeological surveys in the Landfill area was provided to Dr. Teeter on June 17, 2023. An email was received from Dr. Teeter on July 19, 2023 indicating the Santa Ynez Band of Chumash Indians has no further comments on the information provided.

4.6.2 Impact Analysis and Mitigation Measures

4.6.2.1 Thresholds of Significance

State CEQA Guidelines Section 15064.5

A project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.

(1) Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.

(2) The significance of an historical resource is materially impaired when a project:

(A) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or

(B) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

(C) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a Lead Agency for purposes of CEQA.

Santa Barbara County Environmental Thresholds and Guidelines Manual – Cultural Resource Guidelines

A project is considered to have a significant impact if it would damage an important cultural resource. For the purposes of CEQA, an "important archaeological resource" can be defined as having one or more of the following characteristics:

1. Is associated with an event or person with recognized significance in California or American history; or recognized scientific importance in prehistory.
2. Can provide information which is of both demonstrable public interest and useful in addressing scientifically consequential and reasonable or archaeological research questions,
3. Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind.
4. Is at least 100 years old and possesses substantial stratigraphic integrity; or
5. Involves important research questions that historical research has shown can be answered only with archaeological methods.

4.6.2.2 Approved Tajiguas Landfill Expansion Project

The following is a summary of the impacts identified in 01-EIR-05 for the Tajiguas Landfill Expansion Project (see Section 1.6.2).

1. According to 01-EIR-05, the Tajiguas Landfill Expansion Project was expected to result in direct disturbance to Site CA-SBa-3494 since the site is located within the footprint of the landfill expansion. This impact was considered significant and unavoidable. Mitigation measures provided in 01-EIR-05 required further field surveys and, if applicable, data recovery for all known or potential cultural sites subject to ground disturbance. Pursuant to these mitigation measures, an Extended Phase 1 Archaeological Investigation was conducted by SAIC in 2004 and monitored by Mike Lopez, Chumash monitor with DNA and Associates. The investigation determined that the shell associated with CA-SBa-3494 was a secondary, disturbed deposit and the rock shelter was not associated with any prehistoric or historic cultural activity and no further testing, monitoring or other measures were required.
2. 01-EIR-05 determined Sites CA-SBa-92, CA-SBa-1990 and SBA-iso-645 would not be directly impacted by landfill expansion but may be indirectly impacted through continued landfill operation and landfill closure activities. These impacts were considered significant, but mitigable (Class II) with the implementation of additional surveys if the sites were subject to ground disturbance, stopping or redirecting work if cultural remains were encountered, and cultural resource training program for landfill staff.

4.6.2.3 Approved Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project

Based on field surveys completed for the Subsequent EIR prepared for the Reconfiguration Project (see Conejo Archeological Consultants, 2008), landfill reconfiguration would not impact any cultural resources at the Tajiguas Landfill site.

4.6.2.4 Approved Tajiguas Resource Recovery Project (ReSource Center)

The following summarizes impacts to cultural resources identified in 12EIR-00000-0002 for the ReSource Center (see Section 1.6.3).

1. Based on past archeological field surveys and those conducted for the project, no evidence of archeological resources was found in areas that would be affected by project-related ground disturbance. However, excavation at the tank sites has the potential to encounter unknown buried cultural resources. This impact was mitigated with implementation of MM TRRP CR-1 (Evaluation and Protection of Discovered Resources), which would reduce residual impacts to less than significant level.

2. Relocation of operations facilities and Landfill equipment maintenance facilities would affect previously disturbed areas; therefore, discovery of cultural resources is not anticipated. Overall, no impacts to cultural resources would occur as a result of operation or relocation of Landfill facilities.

4.6.2.5 Proposed Tajiguas Landfill Capacity Increase Project

Impact CR-1: Ground disturbance associated with implementation of the proposed project may result in damage to unknown archeological resources at the Landfill property – Significant but Mitigable Impact.

Based on past archeological field surveys and those conducted within the Capacity Increase Project area for the project, no evidence of archeological resources was found in areas that would be affected by project-related ground disturbance. However, excavation within the previously undisturbed area (as shown in Figure 3-4) has the potential to encounter unknown buried cultural resources.

Mitigation Measures:

MM CR-1: Cultural Resources Awareness Program and Evaluation and Protection of Discovered Resources. A worker cultural resources awareness program shall be implemented for the project. Prior to any ground-disturbing activity, RRWMD shall provide an initial cultural resources sensitivity training session to all project employees, contractors, subcontractors, and other workers prior to their involvement in any ground-disturbing activities, with subsequent training sessions to accommodate new personnel becoming involved in the project. The program may be conducted together with other environmental or safety awareness and education programs for the project, provided that the program elements pertaining to cultural resources are provided by a qualified archaeologist.

In the event that archaeological resources are exposed during construction, all earth disturbing work within the vicinity of the find shall be temporarily suspended or redirected until a professional archaeologist has been retained to evaluate the nature and significance of the find pursuant to a Phase 2 investigation. The RRWMD shall be notified immediately of any such find. The find shall be appropriately documented through a Phase 3 data recovery program and/or avoided if deemed necessary by a qualified archaeologist.

If human remains are unearthed, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the NAHC.

Plan Requirements and Timing. The above measures shall be reflected in the contract specifications for the Capacity Increase Project. The cultural resources awareness program shall be implemented prior to any project-related ground disturbance. Resource evaluation and protection (as appropriate) shall be initiated if evidence of cultural resources are observed during project-related earth disturbing activities.

Monitoring: RRWMD shall monitor for compliance.

Residual Impacts. Implementation of this mitigation measure would reduce cultural resources Impact CR-1 associated with implementation of the proposed project to a level of less than significant.

4.6.2.6 Extension of Landfill Life Impacts

Impact CR-EXT-1: Project-related extension of the life of the Tajiguas Landfill would extend indirect impacts to archeological sites further in time – Significant but Mitigable Impact.

As discussed in Section 3.7.1, the proposed Capacity Increase Project would result in extending the active life of the Landfill by approximately 12.75 years and delay full closure and revegetation of the Landfill. Therefore, CA-SBa-1990 and SBA-iso-645 may continue to be indirectly impacted through Landfill operation (continued presence of Landfill staff) and Landfill closure activities. These impacts were considered significant, but mitigable with the implementation of cultural resource training program for Landfill staff, additional archeological investigation if these sites are impacted by closure or post-closure activities, and stopping or redirecting work if resource are discovered. Existing mitigation measures (01-EIR-05 Mitigation Measures CR-1, CR-2 and CR-3) would continue to be applicable to the Landfill over its extended life and no new Landfill associated impacts to cultural resources would occur.

4.6.2.7 Cumulative Impacts of the Tajiguas Landfill Capacity Increase Project

The proposed project may incrementally contribute to cumulative impacts to cultural resources when considered with other planned projects in the region (see Section 3.9).

Impact CR-CUM-1: Ground disturbance associated with the proposed project combined with disturbance associated with the cumulative projects could result in significant disturbance of known and/or unreported cultural resources – Significant but Mitigable Cumulative Impact; Project Contribution – Not Considerable with Mitigation.

The project region (Gaviota coast) provides abundant resources for pre-historic human populations and includes numerous archeological sites, as indicated by 14 sites located within 0.5 miles of the landfill site (Conejo Archeological Consultants, 2008). Over 260 archaeological sites and 425 isolated artifacts have been identified within the Gaviota Coast Plan planning area (Santa Barbara County, 2016).

Cumulative projects listed in Section 3.9 have the potential to disturb known and/or unreported cultural resources in the region. The importance of cultural resources that may be affected by these projects is unknown; therefore, the significance of such impacts cannot be determined. Given the cultural sensitivity of the area, most of these cumulative projects would also include measures requiring ground disturbing activities to be stopped or redirected if resources are discovered. However, such impacts are considered potentially significant for the purposes of this Subsequent EIR.

The proposed project would not contribute to any cumulative impacts associated with recorded cultural resource sites and with implementation of site-specific cultural resource measures **MM CR-1**, the project's contribution to potentially significant impacts to unreported cultural resources in the region would not be cumulatively considerable.

4.7 NOISE

This analysis is based on a Community Noise Technical Study (URS, 2013) prepared for the ReSource Center, as well as Environmental Documents prepared for the Tajiguas Landfill Project (discussed in Section 1.6.2).

4.7.1 Setting

4.7.1.1 Characteristics of Noise

The Santa Barbara County Comprehensive Plan Noise Element provides a thorough background discussion of noise and its effects on human health and quality of life, as well as a discussion of noise measurement descriptors used in establishing noise standards. The following paragraphs present a brief summary of the terms and standards used in community noise analysis.

Noise levels are measured in a logarithmic scale (with units of decibels) in a way that duplicates the frequency sensitivity of the human ear (the “A” scale), with the abbreviation of dBA. Typically, noise levels in rural and suburban areas range from low values between 35 to 45 dBA, up to levels between 65 to 75 dBA, which may be associated with locations near highways or arterial roadways. Normal human speech becomes nearly inaudible when background noise levels are around 60 to 65 dBA. Noise levels in close proximity to machinery such as lawn mowers or heavy trucks or earth moving equipment, may reach 95 to 100 dBA.

Often noise levels vary over short periods of time and it is necessary to use a single dBA value to represent such changing noise levels. The single value, which may be measured or computed to represent the same amount of acoustic energy transmitted by a varying noise level, is called the Equivalent Noise Level (Leq) and must always be associated with the defined time period over which it applies. It is common to express Leq values for one-hour time periods, but shorter and longer periods might also be specified.

Many standards and guidelines for acceptable noise levels are based on 24-hour periods. For these types of standards, the hourly Leq values are determined for different portions of the day, and then “penalty” dBA values are added to the noise levels during the evening and/or nighttime periods to account for the added nuisance of noise during these periods. Two common noise descriptors of this type are the Day-Night Average Noise Level (Ldn) and the Community Noise Equivalent Level (CNEL). The Ldn includes a 10 dBA addition during the nighttime hours (10:00 p.m. to 7:00 a.m.). Ldn is calculated from day and night noise values as follows:

$$Ldn = 10\log_{10}[(15/24)(10^{Ld/10}) + (9/24)(10^{(Ln+10)/10})]$$

Where:

Ldn = Day-Night Average Noise Level, dBA

Ld = Equivalent Noise Level during Daytime, 15 hours from 7:00 a.m. to 10:00 p.m.

Ln = Equivalent Noise Level during Nighttime, 9 hours from 10:00 p.m. to 7:00 a.m.

The CNEL is similar to Ldn, but also includes a 5 dBA addition during the evening hours (7:00 p.m. to 10:00 p.m.). The numerical difference between Ldn and CNEL values is small. Many publications, including the Santa Barbara County Comprehensive Plan Noise Element, use the two terms interchangeably.

Most noise levels are measured or computed to show their value at a standardized distance from the noise source, commonly 50 feet. Whenever a source noise level is measured or cited, the distance to the source should always be specified or clearly known. As the distance to the receiver location becomes greater, the noise level decreases in a logarithmic fashion. For a doubling of the distance from most point noise sources, the dBA value of the noise will decrease by 6 dBA. For a perfect line source, the decrease amounts to only 3 dBA for each doubling of distance. Depending on their traffic volume and geometry, roadways are treated as either a line source or as something between a point and a line source, with the rate of decrease usually estimated as either 3.0 dBA (line source) or 3.5 to 4.5 dBA (between a line and a point source) for each doubling distance.

Noise levels are often summarized graphically by showing contours, which are lines depicting equal noise values associated with a particular source (either a single source, or an aggregate of multiple sources from one or more geographic locations). For instance, a single noise level contour might show where 60 dB is expected with respect to noise emission from a source; or, multiple contours showing a range of dB values, often in decrements of 5 dB, could illustrate how sound propagates away from that source and how it attenuates with distance.

Noise contours superimposed on an aerial photograph or map of noise-sensitive land uses can help show where noise level exposure may exceed an allowable threshold. Santa Barbara County considers the following as noise-sensitive land uses:

- Residential, including single and multifamily dwellings, mobile home parks, dormitories, and similar uses.
- Transient lodging, including hotels, motels, and similar uses.
- Hospitals, nursing homes, convalescent hospitals, and other facilities for long-term medical care.

- Public or private educational facilities, libraries, churches, and places of public assembly.

4.7.1.2 Characteristics of Ground-borne Vibration and Noise

In contrast to airborne noise, ground-borne vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of ground-borne vibration are trains, buses on rough roads, and construction activities such as blasting, pile-driving and operating heavy earth-moving equipment.

The effects of ground-borne vibration include detectable movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings. Building damage is not a factor for most projects, with the occasional exception of blasting and pile-driving during construction. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by only a small margin. A vibration level that causes annoyance would be well below the damage threshold for normal buildings.

Vibration is an oscillatory motion which can be described in terms of the displacement, velocity, or acceleration. Because the motion is oscillatory, there is no net movement of the vibration element and the average of any of the motion descriptors is zero. Displacement is the easiest descriptor to understand. For a vibrating floor, the displacement is simply the distance that a point on the floor moves away from its static position. The velocity represents the instantaneous speed of the floor movement and acceleration is the rate of change of the speed. The peak particle velocity (PPV) is defined as the maximum instantaneous positive or negative peak of the vibration signal. PPV is often used in monitoring of blasting vibration since it is related to the stresses that are experienced by buildings.

4.7.1.3 Noise Sources in the Project Area

Noise sources in the project vicinity include U.S. Highway 101, Union Pacific Railroad operations, and existing operations at the Tajiguas Landfill. Noise data provided in the Gaviota Coast Plan Final EIR indicates the 65 dBA CNEL traffic noise contour extends approximately 449 feet from U.S. Highway 101 in the Landfill area.

Along the Union Pacific Railroad tracks, at a distance of 100 feet from the tracks, the maximum noise levels from passing trains are 96 dBA to 100 dBA. At this same distance, the Santa Barbara County Comprehensive Plan Noise Element estimates noise levels are between 70 and 75 dBA CNEL. The 65 dBA CNEL contour is estimated to be about 335 feet from the tracks (Santa Barbara County, 2016).

4.7.1.4 Noise Measurements

As part of the Community Noise Technical Study prepared for the ReSource Center project, noise levels were measured at two locations on April 4, 2013:

- Calle Real near the Landfill Property boundary (100 feet north of the centerline of the U.S. Highway 101 northbound lanes (9:56 to 10:06 a.m.);
- Tajiguas Landfill, 65 feet northwest of the Landfill gas power plant (9:44 to 9:48 a.m.).

The noise level measured in April 2013 along Calle Real was 66.7 dBA Leq, which is expected to be very similar to existing conditions (2023) since traffic volumes on U.S. Highway 101 (primary noise source) have not substantially increased (32,000 average annual daily traffic volume in 2013, 28,500 average annual traffic volume in 2021 at El Capitan State Park [latest available]).

The noise level measured within the Landfill was 75.8 dBA Leq. Using the 75.8 dBA as a reference level, and after applying only geometric divergence attenuation, an extrapolated Leq of 60 dBA would be expected at a distance of 420 feet, which after conversion to the CNEL metric becomes 66 dBA and agrees (within 1 dBA CNEL) with the estimate of noise levels associated with Tajiguas Landfill operations provided in the Landfill Reconfiguration Project Subsequent EIR.

A noise measurement was conducted near the Landfill access road approximately 160 feet north of the U.S. Highway 101 centerline on May 18, 2023 from 12:52 to 1:12 p.m. The measurement location is provided on Figure 4.7-1. The measurement result was 66.6 dBA Leq, which is consistent with past noise measurements along U.S. Highway 101.

4.7.1.5 Noise Generated by Existing Landfill and ReSource Center Operations

The Tajiguas Landfill is currently permitted to receive up to 1,500 tons per day of solid waste. MSW is processed at the MRF and bypass or residual MSW is brought to the Landfill in packer trucks and larger trucks (consolidated loads) and placed in prepared disposal cells with large dozers (Caterpillar D9 or D10) and steel-wheeled compactors (Caterpillar 836). Dual-engine scrapers (Caterpillar 637) are used to obtain and transport cover material from the North Borrow/Stockpile to the working face. This equipment is also used in construction operations to obtain fill material, to prepare waste disposal areas and to construct drainage and other improvements within the Landfill.

The ReSource Center utilizes stationary and mobile equipment at the MRF, ADF and CMU, including heavy-duty trucks, wheeled loaders, forklifts, material handlers, screening equipment, windrow turner, materials sorting equipment, tub grinder and large internal combustion engines (energy facility).

Figure 4.7-1 provides the estimated 65 dBA CNEL noise contour for existing conditions based on the following data and assumptions:

- The 65 dBA CNEL noise contour associated with Landfill-related heavy equipment operation is located approximately 420 feet from Landfill operating areas (consistent with the Reconfiguration Project Subsequent EIR and ReSource Center Subsequent EIR).
- MRF operational noise extends to the west outside of Landfill operating areas and is additive to Landfill heavy equipment noise.
- MRF operation generates a combined noise level of 91.0 dBA Leq at 50 feet (see Table 4.7-2 of the ReSource Center Subsequent EIR).
- MRF operation generates a noise level of 93.0 dBA CNEL at 50 feet (revised from 92.2 dBA in Table 4.7-2 of the ReSource Center Subsequent EIR based on the modified MRF operating hours of 5 a.m. to 9 p.m.).

Noise levels from existing Landfill and ReSource Center operations at noise-sensitive land uses (residences) were estimated as part of the Subsequent EIR (12EIR-00000-00002) prepared for the ReSource Center. These noise level estimates were subsequently revised to address relocation of the ADF (Addendum to the Subsequent EIR, October 26, 2017) and minor ReSource Center operational changes (analyzed in four CEQA 15162 Determinations and one CEQA 15164 Determination), with the last noise estimate revisions documented in the August 2023 CEQA 15164 Addendum (PD Change No. 5). The noise level estimates for current operations are provided in Table 4.7-1.

Table 4.7-1. Noise Levels at Noise-Sensitive Land uses associated with Existing Operations (dBA CNEL)

Noise-Sensitive Land Use	Existing Noise Level	Significance Threshold
Arroyo Hondo residence	59.9	65
Arroyo Quemada community	60.0	65
Baron Ranch residence*	59.0	65
Calle Real residences	54.7	65

*Lost in the Alisal Fire in October 2021

4.7.1.6 Regulatory Setting

Federal

The U.S. Environmental Protection Agency has established maximum noise level standards for a variety of vehicles and equipment (see 40 CFR Part 201). For on-highway medium and heavy-duty trucks, the applicable standards are in Part 205, and require that all such vehicles manufactured after January 1, 1988, have a maximum noise level of no more than 80 dBA at 50 feet under specified conditions of acceleration and other measurement procedures.

The Federal Department of Transportation has standards and guidelines for federally funded transportation projects such as highways, rail transit, and airports. The regulations and procedures related to highways are found at 23 CCR Part 772, which applies to programs of the Federal Highway Administration (FHWA). The FHWA developed the Traffic Noise Model, which was used to estimate traffic noise for this project. Noise abatement criteria for residential areas used in federal projects is based on the highest one-hour Leq, and is 67 dBA. Other standards and procedures are defined in the regulations to establish a uniform review system and approach to mitigating traffic noise impacts.

For all motor vehicles (trucks and heavy equipment) used at off-highway job sites, federal regulations require backup or reverse signal alarms that are audible above the surrounding noise level (29 CFR 1626.601).

There are no specific federal laws related to allowable community noise levels. However, residential projects that rely on federal Housing and Urban Development (HUD) financing must meet exterior noise guidelines established by HUD. HUD and other federal guidelines commonly use a 65 dBA CNEL as the maximum noise level compatible with residential uses.

California

The California Government Code (Section 65302(f)(1)) requires the inclusion of a Noise Element within the General Plan, the contents of which are specified by the Governor's Office of Planning and Research as part of their General Plan Guidelines. California building standards that relate to noise levels and required insulation provisions for residential uses are found in the state Building Code (24 CCR Chapter 12) but apply only to multi-family residential structures.

Caltrans prepares traffic noise analyses in a manner that implements the FHWA regulations at 23 CFR Part 772, described in the preceding section. For off-highway vehicles capable of hauling or carrying more than 2.5 cubic yards of material, automatic backup alarms must be provided that can be heard for at least 200 feet in all directions (8 CCR 1592(a)).

Santa Barbara County

The Santa Barbara County Land Use and Development Code does not have a separate noise section. Instead, noise performance standards are set forth in the various zones defined in the code. The Tajiguas Landfill, however, is in an area with the Agriculture zone (AG-II-320 and AG-II-100), for which there is no specific noise performance standard. The County Noise Ordinance (Section 40 of the County Code) prohibits excessive noise in all areas between the hours of 10:00 p.m. and 7:00 a.m., but does not set forth any other quantitative restrictions. Applicable noise criteria to be used in assessing potential noise impacts are found in the County's Comprehensive Plan Noise Element and Guidelines Manual (see Section 4.7.2.1).

The Tajiguas Landfill, including the proposed Capacity Increase Project area is located within the Gaviota Coast planning area. The Gaviota Coast Plan updates the County Comprehensive Plan and Coastal Land Use Plan, and provides policy direction for land use issues. The Plan does not include any policies related to noise but acknowledges that development of new noise-sensitive land uses may be affected by noise generated by Union Pacific Railroad and U.S. Highway 101 operations.

4.7.2 Impact Analysis and Mitigation Measures

4.7.2.1 Thresholds of Significance

State CEQA Guidelines

The State CEQA Guidelines (Appendix G 2023 update) suggest that a project may have a significant impact with respect to noise if it results in any of the following:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- Generation of excessive ground-borne vibration or ground-borne noise levels.
- Expose people residing or working in the project area to excessive noise levels for projects located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport.

Santa Barbara County Thresholds

The Guidelines Manual includes several criteria used to define significant noise impacts:

- a. A proposed development that would generate noise levels in excess of 65 dBA CNEL and could affect sensitive receptors would generally be presumed to have a significant impact.
- b. Outdoor living areas of noise-sensitive uses that are subject to noise levels in excess of 65 dBA CNEL would generally be presumed to be significantly impacted by ambient noise.
- c. A significant impact would also generally occur where interior noise levels cannot be reduced to 45 dBA CNEL or less.
- d. A project will generally have a significant effect on the environment if it will substantially increase the ambient noise levels for noise-sensitive receptors adjoining areas. Per item a., this may generally be presumed when ambient noise levels affecting sensitive receptors are increased to 65 dBA CNEL or more. However, a significant effect may also occur when ambient noise levels affecting sensitive receptors increase substantially but remain less than 65 dBA CNEL, as determined on a case-by-case level.
- e. Noise from grading and construction activity proposed within 1,600 feet of sensitive receptors, including schools, residential development, commercial lodging facilities, hospitals or care facilities, would generally result in a potentially significant impact. According to EPA guidelines, the average construction noise is 95 dBA at a 50 foot distance from the source. A 6 dB drop occurs with a doubling of the distance from the source. Therefore, locations within 1,600 feet of the construction site may be affected by noise levels over 65 dBA.

Caltrans

The County's Guidelines Manual does not address ground-borne vibration. Caltrans has published a Transportation- and Construction-Induced Vibration Guidance Manual, which provides criteria for allowable vibration (peak particle velocity, PPV) with regard to potential annoyance to people, as well as potential damage to buildings:

- a. Guideline for vibration damage to buildings (continuous sources): 0.08 to 0.5 PPV (inches/second) depending on the age and condition of affected structures.
- b. Guideline for annoyance to people (continuous sources): 0.01 (barely perceptible) to 0.4 PPV (inches/second) (severe annoyance).

4.7.2.2 Approved Tajiguas Landfill Expansion Project

01-EIR-05 for the Tajiguas Landfill Expansion Project (see Section 1.6.2) identified the following noise impacts for the approved Front Canyon Expansion:

1. Short-term noise associated with construction of a new scale-house and maintenance shop was considered a less than significant impact. However, mitigation measure N-1 (maintenance of Landfill equipment) was adopted to reduce noise levels from Landfill equipment.
2. Noise levels at the Arroyo Quemada community associated with expanded Landfill operations were considered a less than significant impact. However, mitigation measure N-1 was adopted to reduce noise levels from Landfill equipment.
3. Noise levels at residences at Baron Ranch associated with expanded Landfill operations were considered a less than significant impact. However, mitigation measure N-1 was adopted to reduce noise levels from Landfill equipment.
4. Noise levels associated with blasting of the north and west borrow areas at nearby sensitive receptors were also considered a less than significant impact. However, mitigation measure N-2 (limitations on the hours when blasting can occur, 8:00 am to 4:00 pm, Monday through Friday) was adopted to further reduce impacts from blasting events.
5. Noise levels associated with closure and post-closure activities was considered a less than significant impact. However, mitigation measure N-1 was adopted to reduce noise levels from Landfill equipment.

4.7.2.3 Approved Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project

The Subsequent EIR for the Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project (see Section 1.6.2) estimated Landfill operations noise by assuming the worst-case scenario consisting of several pieces of heavy equipment operating along the perimeter of the disturbance limits of the Landfill. Under this scenario, the 65 dBA CNEL contour was estimated to extend approximately 420 feet beyond the disturbance limits and noise impacts were determined to be adverse but less than significant.

4.7.2.4 Approved Tajiguas Resource Recovery Project (ReSource Center)

The Subsequent EIR for the Tajiguas Resource Recovery Project (see Section 1.6.3) identified the following noise impacts for the approved ReSource Center.

1. Project-related construction could generate short-term noise that would result in an adverse but less than significant impact on noise-sensitive receptors on adjacent agriculturally zoned land (planned Hart residence).
2. Project-related vehicle traffic on U.S. Highway 101 would result in an adverse but less than significant increase in noise levels at noise-sensitive receptors near the Landfill (Arroyo Hondo residence, Arroyo Quemada community, Baron Ranch residence, Calle Real residences and planned Hart residence).
3. Noise associated with operation of project facilities would result in an adverse but less than significant impact on noise-sensitive land uses near the Landfill (Arroyo Hondo residence, Arroyo Quemada community, Baron Ranch residence, Calle Real residences and planned Hart residence).
4. Vibration associated with operation of project facilities would result in an adverse but less than significant impact on residential land uses near the Landfill (Arroyo Hondo residence, Arroyo Quemada community, Baron Ranch residence, Calle Real residences and planned Hart residence).
5. Operations facilities (primarily portable offices) may be temporarily relocated during the project construction period to an area north of the Landfill top deck or to the southern portion of the Landfill. Landfill equipment maintenance facilities would be relocated to the area north of the Landfill. Noise impacts associated with relocated Landfill facilities would be less than significant.

4.7.2.5 Proposed Tajiguas Landfill Capacity Increase Project

To provide the additional disposal capacity, approximately 566,400 cy of grading (excavation) would be required to provide approximately 12.5 acres of additional slope liner area and approximately 1.75 acres of additional base liner area (see purple contours in Figure 3-4). The additional waste disposal capacity would be created by placing waste on top of the existing permitted waste disposal area, thereby increasing the existing design height of the existing Phase II and Phase III fill area from approximately 576 feet to a maximum height of 650 feet above mean sea level, with the overall maximum permitted height of the Landfill increasing from 620 to 650 feet above mean sea level.

The proposed Phase IV fill area would be constructed by excavating and/or blasting a maximum of approximately 30 feet below the ground surface of the existing North Sedimentation Basin floor, as well as excavating the slopes north of the existing waste footprint to match the overall existing cut slopes of Phase III

Equipment used to construct the new Phase IV fill area would include the following:

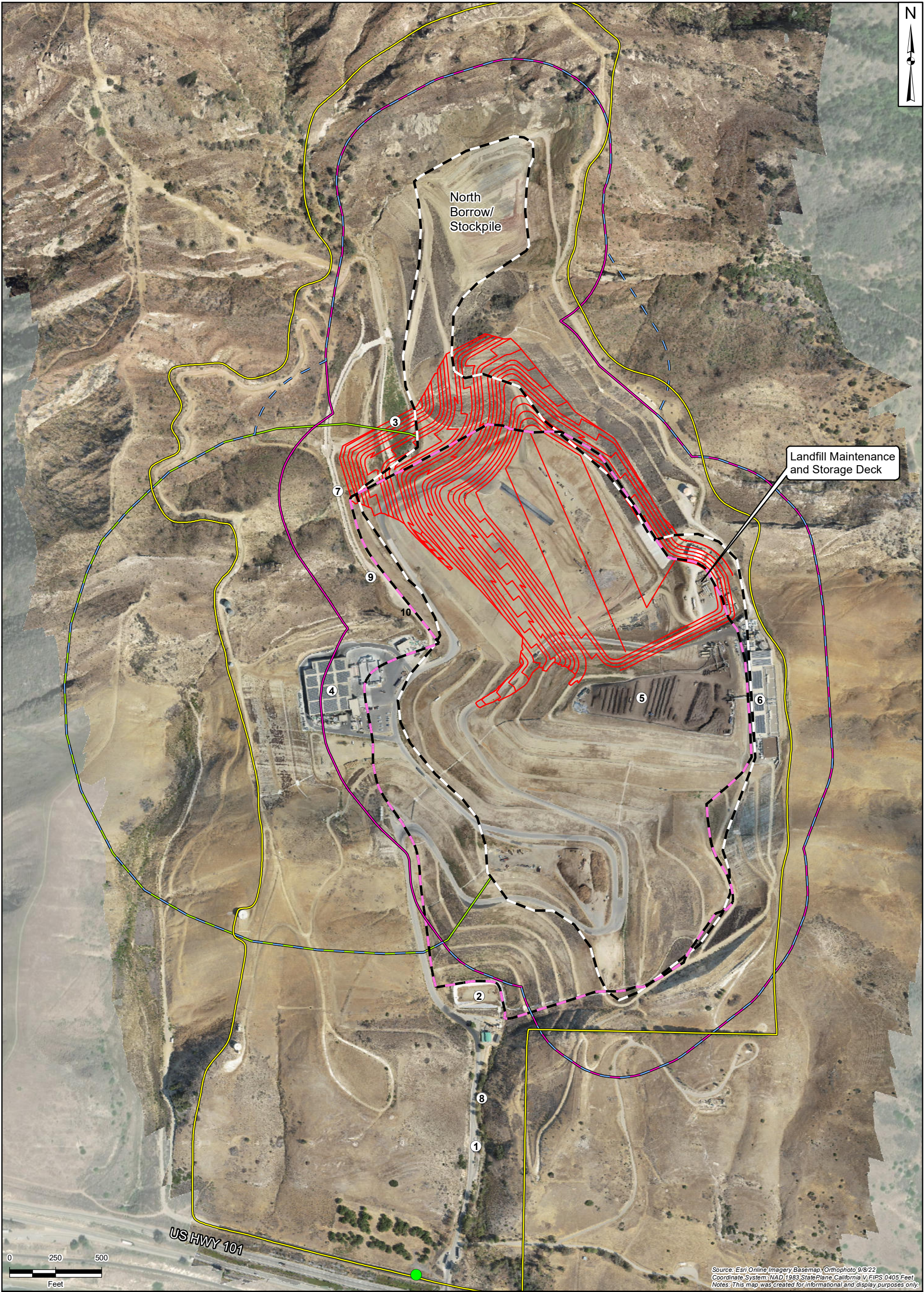
- Scrapers
- Dozers
- Loaders
- Excavators
- Drill rig for blasting
- Compactors
- Dump trucks
- Haul trucks
- Vibrating soil screener
- Motor grader
- Water truck
- Off-road forklift with liner roll handling attachment
- Pick-up trucks
- Low-pressure all-terrain vehicles

Equipment to conduct landfilling operations would include the same equipment that is currently used and typically falls into three functional categories: MSW movement and compaction, cover transport and compaction, and support functions and includes motor graders, scrapers, trash compactors, loaders, bulldozers, pick-up trucks, tarp machines, excavator and green-waste grinder. Closure activities include similar equipment as construction, but do not involve blasting.

Impact N-1: Noise associated with construction of the proposed Phase IV waste fill area may adversely affect noise-sensitive land uses near the Landfill – Insignificant Impact.

The estimated 65 dBA CNEL existing noise contour shown in Figure 4.7-1 was modified to address proposed heavy equipment operation within the proposed Phase IV waste fill area. The proposed change in the start of waste receipt hours (6 a.m. instead of 7 a.m., see Table 3-2) would not affect the 65 dBA CNEL noise contour since this contour is based on heavy equipment operation from 6 a.m. to 8 p.m. (see page 4.6-4 of the Reconfiguration Project Subsequent EIR).

Implementation of the proposed project would extend the estimated 65 dBA CNEL noise contour associated with Landfill construction and operation about 400 feet to the east. The estimated 65 dBA CNEL noise contour associated with proposed heavy equipment operation within the proposed Phase IV waste fill area would extend the existing contour to the west, but not as far as the existing contour associated with MRF operations (see Figure 4.7-1).



LEGEND:		
Tajiguas Landfill Operational Boundary	Proposed Operational 65 dBA CNEL Noise Contour	⑤ Compost Management Unit
Permitted Waste Boundary	Noise Measurement Location	⑥ Anaerobic Digestion Facility
Existing Equipment Operating Area	① Scale House	⑦ Pila Creek Concrete Channel
Proposed Final Contours at Closure	② South Sedimentation Basin	⑧ Pila Creek Earthen Channel
Landfill Operational 65 dBA CNEL Noise Contour	③ North Sedimentation Basin	⑨ Flow Control Structure
Existing MRF 65 dBA CNEL Noise Contour	④ Materials Recovery Facility	

Since the nearest noise-sensitive land uses are located to the south (Arroyo Quemada community, Calle Real residences) and west (Arroyo Hondo residence), the project-related change in Landfill-related noise would not increase noise levels at these residences.

Impact N-2: The proposed change in the start of waste receipt hours would result in waste disposal vehicle traffic on U.S. Highway 101 during nighttime hours which may adversely affect noise-sensitive land uses near the Landfill – Insignificant Impact.

The proposed project would not increase Landfill-related vehicle trips on U.S. Highway 101 because no change permitted waste volumes would occur. However, the project proposes to modify the solid waste facility permit to allow for a work week maximum volume of 9,000 tons as compared to the current permitted daily maximum of 1,500 tons. With respect to baseline conditions, daily waste volumes are variable but the peak volume of 1,500 tons has been recorded during existing operations.

No changes to processing of green-waste at the green-waste operations deck, processing MSW at the MRF, processing organic waste at the ADF, compost management at the CMU, outgoing recyclables or Landfill or ReSource Center staffing would occur. However, the proposed earlier Landfill waste acceptance hours (6 a.m. start) would result in an increase in CNEL noise levels since a portion of Landfill-related traffic on U.S. Highway 101 would be shifted into nighttime hours (7 p.m. to 7 a.m.). Noise generated in the nighttime is considered more impactful such that CNEL calculations include a 10 dBA penalty (noise levels are increased by 10 dBA during nighttime hours when calculating CNEL).

Based on Table 1-2, 63 waste disposal vehicles offload at the Landfill on an average day. Assuming vehicles are evenly distributed over the Landfill's proposed waste receipt hours (6 a.m. to 4 p.m.), approximately seven waste disposal vehicles would be travelling on U.S. Highway 101 in the project area during nighttime hours (before 7 a.m.). Traffic counts conducted by Caltrans in 2021 on U.S. Highway 101 provide an a.m. peak hour (7 to 8 a.m.) volume of 2,868 vehicles per hour at Storke Road (15 miles east of the Landfill access road). The project-related CNEL noise increase associated with shifting seven waste disposal vehicle trips to nighttime hours is not expected to be detectable at any noise-sensitive land uses along U.S. Highway 101 due to the small traffic volume (0.2 percent of a.m. peak hour traffic) and lack of any increase in total daily vehicle trips.

Impact N-3: Vibration generated by construction of the proposed Phase IV waste fill area may adversely affect residential land uses near the Landfill - Insignificant Impact.

As indicated by the noise contours provided in Figure 4.7-1, heavy equipment operation in the proposed Phase IV waste fill area would be located further to the east as compared to existing conditions. Therefore, vibration generated by heavy equipment operation would be located further from the nearest residential land uses (located to the south and west). Therefore, no increases in Landfill-related vibration would occur and vibration levels would not be detectable at other land uses (PPV much less than 0.01 inches/second as shown in Table 4.7-8 of the ReSource Center Subsequent EIR).

Impact N-4: Blasting-related noise and vibration may adversely affect residents near the Landfill property – Significant but Mitigable Impact.

Noise. Blasting may be required to fracture bedrock that can't be ripped using dozers or fractured using an excavator-mounted hydraulic demolition breaker. Noise monitoring of bedrock blasting at Lake Sherwood, Ventura County indicate noise levels of 117 dBA or less, at a distance of 250 feet (Envicom Corporation, 1994). Impulse noise (including blasting) exceeding the background noise by more than 10 dB can be startling or sleep disturbing (USEPA, 1974). Existing background noise levels at the nearest residences are about 67 dBA Leq (see Section 4.7.1.4). The estimated blasting noise at the nearest residence (Arroyo Quemada community) during a blasting event could be 90.5 dBA. This noise level could be reduced due to intervening topography such as the existing waste prism but because blasting noise could exceed the 10 dBA threshold it is considered a potentially significant impact. Similar to 01-EIR-05 Mitigation Measure N-2 blasting would be limited to the daytime hours (see Section 3.8.2.1 and notification of blasting events will be provided to surrounding properties.

Vibration. Ground vibration generated by blasting was estimated at the nearest residence (Arroyo Quemado community) and the nearest off-site structure (at the Arroyo Hondo Preserve) using equations provided in Caltrans (2020), assuming 200 pounds of explosives are detonated in a single multi-hole blast. The estimated vibration level (PPV) at the nearest residence is 0.000076 inches/second which would not be detectable (less than 0.035 inches/second). The estimated PPV is 0.00011 inches/second at the nearest structure which is much less than 0.5 needed to damage older structures. Therefore, vibration impacts to nearby persons and structures would be less than significant.

Mitigation Measures

MM N-1: Blasting Hours and Notification

- Blasting shall be limited to the hours of 7 a.m. to 4 p.m.
- Local residents shall be notified of the blasting schedule at least one week in advance through direct mailing or emailing to all residences located within two miles of the Landfill property.

Plan Requirements and Timing: Blasting hours restrictions shall be included on the construction plans and specifications and be in effect during the entire construction period.

Monitoring: RRWMD staff shall verify blasting activities have been noticed and comply with operating hours restrictions.

Residual Impacts: Implementation of **MM N-1** would reduce noise **Impact N-4** to a level of less than significant.

4.7.2.6 Extension of Landfill Life Impacts

Impact N-EXT-1: Project-related extension of the life of the Tajiguas Landfill would extend adverse Landfill operational noise impacts further in time - Insignificant Impact.

As discussed in Section 3.7.1, the proposed Capacity Increase Project would result in extending the active life of the Landfill by approximately 12.75 years and delay full closure, which would prolong Landfill noise impacts. However, it would only primarily extend noise associated with the use of disposal equipment as the MRF would continue to accept and process MSW, other ReSource Center activities would continue as wood green-waste processing activities. Prior environmental documents prepared for the Tajiguas Landfill determined that noise impacts associated with Landfill operations were less than significant (see Sections 4.7.2.2 and 4.7.2.3). These analyses were based on presumed operation of equipment simultaneously along the entire Landfill perimeter. However, the proposed Phase IV waste fill area would be located further to the north than the permitted disposal area, which would increase the distance from this existing noise source to noise-sensitive land uses. With implementation of the proposed project, less than significant noise impacts associated with Landfill operations would continue further in time as compared to earlier closure of the Landfill in the absence of the proposed project.

4.7.2.7 Cumulative Impacts of the Tajiguas Landfill Capacity Increase Project

Impact N-CUM-1: Noise associated with construction and operation of the proposed Phase IV waste fill area combined with noise generated by other cumulative projects may adversely affect noise-sensitive land uses near the Landfill property – Insignificant Cumulative Impact; Project Contribution – Not Considerable.

Only the Landfill Gas to Renewable Natural Gas Project is located within two miles of the Landfill property (see Figure 3-7), such that noise generated by this project may affect the same noise-sensitive land uses as the proposed project. This project includes additional noise sources at the Landfill property (blowers, compressors, pressure dryer, transformer, trucks utilizing the proposed compressed natural gas fueling station) that would increase noise levels at noise sensitive land uses. Overall, cumulative noise levels would not exceed the 65 dBA CNEL threshold at noise-sensitive land uses and therefore noise impacts would not be significant. The incremental contribution of the proposed project to cumulative noise impacts would not be cumulatively considerable.

4.8 LAND USE/RECREATION

This section of the Subsequent EIR describes the existing land use setting at the Landfill property including applicable regulations and physical land use. In addition, a discussion is provided of the consistency of the Capacity Increase Project with Santa Barbara County policies included in the Santa Barbara County Comprehensive Plan, Gaviota Coast Plan and other applicable plans. This section also addresses compatibility of the project with existing and future land uses. Due to the proximity of recreational uses to the Landfill, adverse impacts to these uses are addressed in this section in terms of land use compatibility as no direct physical impacts to recreational resources would occur.

4.8.1 Setting

4.8.1.1 Applicable Standards

Santa Barbara County Standards

County planning documents relevant to the proposed project include:

- Inland Zoning Ordinance (Article III of Chapter 35).
- Coastal Zoning Ordinance (Article II of Chapter 35).
- Santa Barbara County Comprehensive Plan.
- Gaviota Coast Plan.
- Santa Barbara County Coastal Plan.

A description of relevant policies contained in these documents and a policy consistency discussion is provided below in Section 4.8.2.6.

Santa Barbara County Climate Action Strategy

Santa Barbara County completed the first phase (Climate Action Study) of its climate action strategy in September 2011. The Climate Action Study provides a County-wide GHG inventory and an evaluation of potential emission reduction measures. The second phase of the County's climate action strategy is an Energy and Climate Action Plan (ECAP), which was adopted by the County Board of Supervisors on June 2, 2015. The ECAP includes a base year (2007) GHG inventory for unincorporated areas of the County, which identifies total GHG emissions of 1,192,970 metric tons CO₂E and 28,560 metric tons CO₂E for construction and mining equipment. Note that the base year inventory does not include stationary sources and energy use (natural gas combustion and electricity generation).

The focus of the ECAP is to establish a 15 percent GHG reduction target from baseline (by 2020) and develop source-based and land use-based strategies to meet this target. The County has been implementing the ECAP's emission reduction measures since 2016. However, the County did not meet the 2020 GHG emission reduction goal contained within the ECAP. A draft 2030 Climate Action Plan was completed in June 2023 with a target of reducing GHG emissions by 50 percent from the 2018 baseline.

In November 2021, Santa Barbara County completed a Climate Change Vulnerability Assessment as a first step to improving regional resiliency by analyzing how climate change may harm the community. The Assessment considered how severe the effects of climate change hazards are likely to be for the county's people and assets and identifies which groups of people and assets face the greatest potential for harm. The County will use these results to prepare an Adaptation Plan and update the Santa Barbara County Seismic Safety and Safety Element to increase resiliency throughout the unincorporated county.

Santa Barbara County 2022 Ozone Plan

The Santa Barbara County Air Pollution Control District's 2022 Ozone Plan is discussed in Section 4.2.1, Air Quality.

Water Quality Control Plan for the Central Coast Basin (Basin Plan)

The Basin Plan and Ocean Plan are described in Section 4.10.1.4 (Water Quality Setting) of this Subsequent EIR. The Basin Plan includes water quality objectives, which may be in numeric form, or more typically, narrative standards considered necessary to protect designated beneficial uses. Water quality objectives are achieved through enforcement of, and compliance with, the Regional Water Quality Control Board's permit actions (i.e., the Landfill's General Industrial Permit and Waste Discharge Requirements) and through the implementation of the Basin Plan. Water quality objectives for ocean waters are defined in the Ocean Plan for bacterial, physical, chemical, and biological characteristics, as well as radioactivity.

4.8.1.2 Existing Conditions

The Tajiguas Landfill has been used as a County MSW disposal facility since 1967 and has a Waste Disposal Overlay in the Land Use Element recognizing its use as a landfill. Prior to 1967, the County operated the Foothill Landfill in the Eastern Goleta area of the South Coast adjacent to the El Sueno neighborhood and the current location of the SCRTS.

Provision of safe and environmentally sound solid waste disposal for the community is a critical public works function. The inland areas of the Tajiguas Landfill are located within areas zoned for agriculture under the County's Land Use Development Code. The southern portion of the Landfill is located within the coastal zone within areas zoned AG-II-320 under the County's Coastal Zoning Ordinance, which permits agricultural uses within a 320-acre minimum lot size. The portion of the Landfill within the Coastal Zone pre-dates the Coastal Zone Management Act of 1972, the Coastal Act of 1976, and the Coastal Zoning Ordinance and is considered a legal, non-conforming use. In a letter dated September 13, 2018, the California Coastal Commission withdrew their request that the County pursue a formal determination of vested right for continued operation of the Landfill in the coastal zone thereby acknowledging the historic development and operation of the Landfill.

The proposed project would be entirely located within the inland area of the Landfill property. However, existing Landfill facilities located in the Coastal Zone would continue to be used including access roads, scale house, the landfill gas collection and treatment system, landfill gas condensate tank, leachate storage tanks, green-waste processing area, electrical lines and associated components, and the South Sedimentation Basin and other stormwater drainage features.

Pursuant to the Santa Barbara County Land Use and Development Code within the unincorporated inland areas of the County, the provisions of the Development Code do not apply to "development by the County or any district of which the Board is the governing body" (Section 35.10.040.G.1.b.). Therefore, no new land use permits are required for operation of the Landfill as modified by the proposed project. Table 4.8-1 summarizes land use characteristics of the Tajiguas Landfill property and adjacent land uses. Figure 4.8-1 provides a map of the project area, showing the Coastal Zone boundary, zoning and land use designations.

Table 4.8-1. Land Use Summary

Parameter	Tajiguas Landfill Property
Parcels	Tajiguas Landfill 081-150-019: 130.00 ac 081-150-026: 282.28 ac 081-150-042: 85.06 ac Landfill Total: 497.34 ac
Comprehensive Plan Designation	A-II-100 (inland) Agriculture II 100-acre minimum parcel size Waste Disposal Facility Overlay A-II-320 (coastal) Agriculture II 320-acre minimum parcel size
Zoning	AG-II-100 (inland portion) AG-II-320 (coastal portion)
Existing Land Use	Landfill and support facilities
Access	U.S. Highway 101, via existing County-owned access road
Public Services	Water supply: on-site wells Sewage: on-site septic system Fire: Santa Barbara County Fire Electricity: Southern California Edison
Surrounding Zoning/Land Designation	West: former Hercules Gas Plant (now open space): AG-II-320/A-II-320 Arroyo Hondo (resource management/recreation): RMZ-100/MA-100
	North: Los Padres National Forest: RMZ-100 and MT-320/MA-100 and MA-320
	East: Baron Ranch (County-owned, habitat conservation, native plant restoration): AG-II-100/A-II-100
	South: U.S. Highway 101, Union Pacific Railroad Agriculture/Residential/AG-II-320/A-II-320

4.8.1.3 Adjacent Land Uses

Arroyo Quemada Residential Neighborhood

South of U.S. Highway 101 and the Union Pacific Railroad and 2,000 feet southeast of the Landfill property boundary is the residential community of Arroyo Quemada. Arroyo Quemada is designated by the County Planning and Development Department as a “Rural Neighborhood” which recognizes previous historical development of homes on lots much smaller than that currently allowed. Approximately 20 developed lots are present within the neighborhood.

Baron Ranch

The 1,083-acre County-owned Baron Ranch is located to the east of the Landfill property and includes APN 081-150-032, APN 081-100-005, and APN 081-090-009. The Baron Ranch was historically used for agriculture (avocado, cherimoya orchards, and grazing), a quarry, and supported a single-family caretaker dwelling that was destroyed in the Alisal Fire in October 2021. Baron Ranch is currently used for native habitat restoration and habitat conservation (restricted covenant area and conservation easement area) associated with Landfill CEQA mitigation requirements and resource agency permits, as a receiver site for sensitive species translocated from the operational areas of the Landfill, and public recreation (Arroyo Quemado Trail at Baron Ranch).

The Arroyo Quemado Trail opened in December 2010 and is located within the County-owned Baron Ranch east of the Landfill. The trailhead is located off U.S. Highway 101 on Calle Real about 2.6 miles west of Refugio State Beach entrance road. The trail leads inland through Baron Ranch and into the Santa Ynez Mountains and is a 6.6-mile loop trail with a 3.4-mile-long spur trail connection to the Los Padres National Forest/Camino Cielo. The Arroyo Quemado Trail is managed by the Santa Barbara County Community Services Department, Parks Division and is currently open for public multi-use (hikers, bicyclists, and equestrians) public use from 8:00 am to sunset, seven days a week. The Parks Division is undertaking a realignment of the lower section of the trail on the west side of Arroyo Quemado to move the trail further away from the sensitive areas associated with Arroyo Quemado riparian corridor. Based on incidental observations, the trail is receiving high use by hikers, bicyclists and equestrians even with existing operations occurring at the adjacent Tajiguas Landfill. A Draft Baron Ranch Management Plan was released in November 2020 and identifies other potential recreational and agricultural activities at the Ranch and identifies the Ranch as an important buffer and mitigation site for Landfill operations. The Plan has not yet been adopted.

Arroyo Hondo Preserve

The 782-acre Arroyo Hondo Preserve (Preserve) is located north, west and adjacent to the Tajiguas Landfill. The Preserve property was purchased from the Hollister family in late 2001 and is now protected and managed by the Land Trust for Santa Barbara County as a natural and historic preserve. The Preserve includes a number of hiking trails including the Upper Outlaw Trail, Lower Outlaw Trail, West Ridge Trail and West Creek Trail. The Preserve is open to the public by reservation the first and third full weekends of each month, and every Monday and Wednesday for school and community groups.

Former Shell Hercules Property

The former Shell Hercules Gas Plant is located in Cañada de la Huerta, immediately west of the Landfill property. Natural gas produced from offshore wells was processed at the former facility for pipeline transport and for propane-tank sale between 1963 and 1989. Soil contamination associated with natural gas processing was remediated at the property from 1997 through 2004 (see Section 4.4.1.3). On September 6, 2019, a land use covenant was recorded with the County of Santa Barbara to restrict use of the property from any development. Therefore, this property is considered permanent open space.

Los Padres National Forest

The Los Padres National Forest borders the Landfill Property to the north. Recreational activities within the Forest primarily consist of but are not limited to hiking, mountain biking, horseback riding, and nature study along the crest of the Santa Ynez Mountain range.

Recreation Along the Gaviota Coast

According to the Gaviota Coast Plan (Santa Barbara, County, 2016), “the Gaviota Coast is well known as a coastal recreation destination of local and statewide importance due in part to the unspoiled beauty of the Gaviota coast and miles of relatively undeveloped coastline.” (p. 4-1.) Three major state parks exist within the Plan Area: Gaviota State Park, El Capitan State Beach, and Refugio State Beach.

Activities at the state parks include camping, picnicking, swimming, surfing, windsurfing, diving, fishing, walking on the beach, hiking, horseback riding, and bicycling. In addition to the developed parks, offshore recreational activities in the Plan Area include sport fishing, diving, kayaking, and recreational boating. As mentioned above the two recreational resources closest to the project site are the public trails on the Baron Ranch and the Arroyo Hondo Preserve. In addition, Refugio State Beach is located 3.0 miles east of the Landfill property and El Capitan State Beach is located 5.2 miles east of the Landfill property. No recreational uses or facilities occur on the Landfill property, although the Landfill and ReSource Center are open to the public for guided educational tours.

4.8.2 Impact Analysis and Mitigation Measures

4.8.2.1 Thresholds of Significance

State CEQA Guidelines

Land Use. The State CEQA Guidelines (Appendix G, updated 2023) indicate a project may have a significant impact with respect to land use if it would do any of the following:

- Physically divide an established community.

- Cause a significant environmental impact due to a conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Recreation. The State CEQA Guidelines (Appendix G, updated 2023) indicate a project may have a significant impact with respect to recreation if it would do any of the following:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Santa Barbara County CEQA Checklist

Land Use. The following issues are included in the Santa Barbara County CEQA Initial Study Checklist under land use and may be used as indicators of significance.

- a. Structures and/or land use incompatible with existing land use.
- b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
- c. The induction of substantial growth or concentration of population.
- d. The extension of sewer trunk lines or access roads with capacity to serve new development beyond this proposed project.
- e. Loss of existing affordable dwellings through demolition, conversion or removal.
- f. Displacement of substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- g. Displacement of substantial numbers of people, necessitating the construction of replacement housing elsewhere.
- h. The loss of a substantial amount of open space.
- i. An economic or social effect that would result in a physical change (i.e. closure of a freeway ramp results in isolation of an area, businesses located in the vicinity close, neighborhood degenerates, and buildings deteriorate. Or, if construction of new freeway divides an existing community, the construction would be the physical change, but the economic/social effect on the community would be the basis for determining that the physical change would be significant.)
- j. Conflicts with adopted airport safety zones.

Recreation. The following issues are included in the Santa Barbara County CEQA Initial Study Checklist under recreation and may be used as indicators of significance.

- a. Conflict with established recreational uses of the area.
- b. Conflict with biking, equestrian and hiking trails.
- c. Substantial impact on the quality or quantity of existing recreational opportunities (e.g., overuse of an area with constraints on numbers of people, vehicles, animals, etc. which might safely use the area).

Santa Barbara County Thresholds and Guidelines Manual – Agricultural Resource Guidelines

With respect to agricultural land use issues, a project is generally considered to have a significant adverse agricultural impact under the County's Agricultural Thresholds if a property is considered to be agriculturally viable and would become unviable as a consequence of implementing a proposed project.

Santa Barbara County Thresholds and Guidelines Manual – Quality of Life Considerations

According to the State CEQA Guidelines and the County's Thresholds, economic and social changes resulting from a project are not treated as "significant effects on the environment" if there is no resulting physical change to the environment. However, the Guidelines Manual does discuss Quality of Life effects which can be broadly defined as the aggregate effect of a project's impacts on individuals, families, communities, and other social groups, and on the ways in which those groups function. They are social changes that result from a project, rather than physical effects on the environment. Quality of life effects are typically subjective and not based on quantifiable measures. Many thresholds (e.g., noise) include quality of life considerations. In addition, although changes to quality of life are not treated as significant effects on the environment pursuant to CEQA, many quality of life considerations are addressed in Comprehensive Plan policies.

4.8.2.2 Approved Tajiguas Landfill Expansion Project

01-EIR-05 for the Tajiguas Landfill Expansion Project (see Section 1.6.2) identified the following land use impacts for the approved Front Canyon Expansion:

1. The expansion was determined to be potentially consistent with the policies, recommendations and goals of the Comprehensive Plan; therefore, it would result in less than significant land use impacts associated with Comprehensive Plan policy consistency.

2. The expansion was determined to be potentially consistent with the Coastal Zoning Ordinance and the County Local Coastal Plan; therefore, it would result in less than significant land use impacts associated with coastal policy consistency.
3. The expansion was determined to be potentially consistent with the California Integrated Waste Management Plan; therefore, it would result in less than significant land use impacts associated with consistency.
4. The expansion was determined to result in potentially significant but mitigable impacts to surrounding residences. Because the Landfill is an existing use that predated the zoning and is consistent with land use policies, no further mitigation related to land use was required. However, additional mitigation for issues potentially related to land use were provided in Section 3.2 (Geology), 3.3 (Water Resources), 3.6 (Nuisances), 3.8 (Visual Resources), 3.9 (Noise), 3.11 (Air Quality), and 3.12 (Health and Safety) of the EIR.
5. The expansion would result in less than significant impacts to the residences of Arroyo Quemada due to the distance from this community and intervening topography.
6. Modification of the southeast corner of the Landfill was determined to result in short-term land use conflicts that were considered significant, but mitigable. Mitigation measures required under Sections 3.6 (Nuisances), 3.9 (Noise) and 3.11 (Air Quality) of the EIR would reduce the impact to a less than significant level.¹⁰
7. Adverse, but less than significant impacts related to recreation (coastal recreation and uses within the Los Padres National Forest) were identified.
8. The expansion was determined to result in potentially adverse, but less than significant impacts to agriculture.

4.8.2.3 Approved Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project

The Subsequent EIR (08EIR-00000-00007) prepared for the Reconfiguration Project identified the following additional land use impacts associated with restoration activities at Baron Ranch:

1. Implementation of the proposed Baron Ranch Restoration Plan would result in the conversion of ~16 acres of active orchards into native vegetation, a less than significant impact.

¹⁰ Note: The southeast corner modification was subsequently removed from the Landfill Project under a CEQA Addendum (CEQA Guidelines 15164) dated November 8, 2006 accepted by the Board of Supervisors on December 5, 2006.

2. Implementation of the proposed Baron Ranch Restoration Plan was determined to be consistent with the Santa Barbara County Comprehensive Plan and Coastal Plan.

4.8.2.4 Approved Tajiguas Resource Recovery Project (ReSource Center)

The Subsequent EIR (12EIR-00000-00002) prepared for the ReSource Center identified the following land use impacts:

1. The project could result in significant but mitigable land use conflicts with adjacent and nearby residential, agricultural and recreational uses associated with visual impacts, odors¹¹, air pollutant emissions, noise, loss of wildlife habitat and release of hazardous materials. These impacts would be mitigated with the implementation of MM TRRP VIS-1a and VIS-1b, MM TRRP BIO-1, MM TRRP BIO-2, MM TRRP BIO-3, MM TRRP BIO-4, MM TRRP BIO-5, MM TRRP BIO-6 and MM TRRP HAZ-1, which would reduce residual impacts to a less than significant level.
2. The ReSource Center was found to be consistent with Statewide Waste Management and Waste Reduction Legislation, the County's Climate Action Strategy, the 2013 Clean Air Plan, and Central Coast Basin Plan.
3. The ReSource Center was found to be potentially consistent with the policies of the Santa Barbara County Comprehensive Plan Land Use Element and Agricultural Element.
4. The ReSource Center was found to be potentially consistent (with mitigation) with the policies of the Santa Barbara County Comprehensive Plan Conservation Element.
5. The ReSource Center was found to be potentially consistent with the policies of the Santa Barbara County Coastal Plan.
6. The ReSource Center was found to be potentially consistent with the policies of the City of Santa Barbara General Plan, City of Goleta General Plan, City of Solvang General Plan and City of Buellton General Plan.

¹¹ During limited operation of the ReSource Center ADF and CMU numerous odor complaints have been received and neighbors have identified quality of life concerns particularly in the Arroyo Quemada community. A Notice of Violation has been issued to MSB the ADF/CMU operator by the LEA. RRWMD is working with the ADF/CMU operator to address odor issues through additional operational and physical measures as discussed further in Section 4.11.1.6.

4.8.2.5 Tajiguas Landfill Capacity Increase Project

Although the Landfill property is designated and zoned for agricultural use, it has been used as a County municipal waste disposal facility since 1967 and has a Waste Disposal Overlay in the Land Use Element recognizing its use as a landfill. The proposed project would be located within the existing Landfill permitted operational area and within the Waste Disposal Facility Overlay area and would not result in any changes in the existing use of the site. The proposed project is limited to a relatively small (~12 percent) increase in the waste disposal footprint and overall permitted Landfill height, and additional heavy equipment activity to construct the proposed Phase IV waste fill area. Overall, the amount of public facility-related development and activity (except during construction of the Phase IV waste fill area) would not increase. However, the project would also extend the active life of the Landfill (and associated operations) for approximately 12.75 additional years.

Because the proposed project would be completely located within the existing Landfill operational area, its footprint would not directly impact adjacent agricultural properties, the National Forest, Arroyo Hondo Preserve or former Hercules Gas Plant site. Properties to the immediate south of the Landfill are agriculturally zoned, but undeveloped. Residential land uses are limited in the immediate project area and along the Gaviota Coast in general, however, A “Rural Neighborhood” (RN) (Arroyo Quemada) is located south/southeast of the Landfill property south of U.S. Highway 101 and the Union Pacific railroad corridor. The RN designation for Arroyo Quemada recognizes the previous historical development of homes on lots much smaller than currently allowed within the Rural Area.

The proposed project is designed to meet projected waste disposal needs of the communities it currently serves and would not include components that would be a catalyst for growth. The project would not divide existing communities, displace substantial numbers of people, or result in a loss of affordable housing. The Capacity Increase is consistent with the current use of the Landfill property and the 14.25 acres of lined area would not represent a substantial loss of open space as the project area is adjacent to, and on top of the existing Landfill waste footprint. The project site, although zoned for agriculture, is not used for agricultural production. The project may result in some environmental impacts that could have indirect effects on nearby residential land uses which could result in land use conflicts as summarized below.

Residential Land Uses

Impact LU-1: The project could result in land use conflicts with adjacent and nearby residential uses – Significant but Mitigable Impact.

The project would not be visible from public viewing corridors including U.S. Highway 101. Visual impacts were considered less than significant (see Section 4.1 (Visual Resources/Aesthetics)).

Operation of the Landfill historically has not resulted in significant conflicts with adjacent land uses. However, air pollutant emissions and noise generated by the proposed project may conflict with nearby residential land uses, but not to a significant degree as described in Section 4.2 (Air Quality/Greenhouse Gases), and Section 4.7 (Noise).

As discussed in Section 4.4 (Hazards and Hazardous Materials), hazardous materials may be encountered during construction of the Phase IV waste fill area. However, this potential effect would be localized and mitigated by the implementation of **MM HAZ-1**.

The proposed project would not result in significant impacts to traffic safety at the Landfill entrance or significant increase in VMT associated with Landfill operations (see Section 4.9, Transportation).

The proposed project would not result in any significant increase in existing health/nuisance effects (e.g. vectors, pathogens, litter, odors) associated with Landfill operations as discussed in Section 4.11 (Public Health/Nuisance).

Therefore, considering the historic (over 50 years) and ongoing public facility use of the Tajiguas Landfill property, its remote location, the nature of the surrounding land uses (primarily agricultural, open space, former oil and gas), and with implementation of identified mitigation measures, potential land use conflicts with adjacent and nearby residential uses associated with the proposed project would be potentially significant but mitigable.

Recreational Land Uses

Impact LU-2: The project could result in land use conflicts with adjacent recreational uses – Significant but Mitigable Impact.

The proposed project would not directly physically impact any of the public recreation area or trails and would not increase public resulting in physical/environmental impacts. The project (including the proposed Capacity Increase Project area and higher final Landfill elevation) would be visible from the Upper Outlaw Trail at the Arroyo Hondo Preserve (see Figure 4.1-4) and possibly from elevated portions of the Baron Ranch Arroyo Quemado trail and Camino Cielo. However, this visual impact was considered less than significant as described in Section 4.1 (Visual Resources/Aesthetics).

Elevated noise may be discernable on the adjacent trails particularly during construction. However, recreation is not considered a noise sensitive land use.

Air quality impacts (including odors) associated with operation of the ReSource Center affecting Baron Ranch (including the Arroyo Quemado Trail) would not be increased and remain less than significant as described in Section 4.2 (Air Quality/Greenhouse Gases).

The proposed project would not result in the loss of open space and with implementation of mitigation measures provided in Section 4.3, all potential biological impacts (excluding extension of Landfill life) would be reduced to a level of less than significant (**MM BIO-1, MM BIO-2, MM BIO-3**).

As discussed in Section 4.4 (Hazards and Hazardous Materials), hazardous materials may be encountered during construction of the Phase IV waste fill area. However, the impacts are expected to be localized and this potential effect would be further mitigated by the implementation of **MM HAZ-1**.

Access to the Baron Ranch and Arroyo Quemado Trail is also off of U.S. Highway 101 in the vicinity of the Landfill and use at-grade crossings. The proposed project would not result in significant impacts to traffic safety at the Landfill entrance or significantly increase VMT associated with Landfill operations (see Section 4.9, Transportation).

Although odors have currently occurred at the Arroyo Quemado Trail at Baron Ranch in association with the ADF/CMU operations, historically the Landfill has not been a source of odors in the area (see Section 4.11.1.5). Dust, vectors and litter would also continue to be controlled pursuant to 01-EIR-05 mitigation measures NUI-1, NUI-3 and NUI-4. as discussed in Section 4.11 (/Nuisance).

Therefore, considering the historic and existing public facility use of the Tajiguas Landfill property since 1967, the continued high use of recreational trails adjacent to the Landfill property with the historic and current operations, the absence of physical impacts to the Trail and with implementation of identified mitigation measures, potential land use conflicts with adjacent recreational uses associated with the proposed project would be potentially significant but mitigable.

4.8.2.6 Consistency with Land Use and Environmental Plans and Policies

Climate Action Strategy

Section 4.2, Air Quality and Greenhouse Gas (GHG) Emissions of this Subsequent EIR provides a thorough quantification and assessment of GHG emissions associated with the proposed project and alternatives. The proposed project would not modify current programs in place to recover green-waste, recyclable materials and organic waste to reduce landfilling of solid waste and reduce landfill gas GHG emissions. Therefore, the proposed project is consistent with the Draft 2030 Climate Action Plan (including Measure W-1: recycling organics).

2022 Ozone Plan

As discussed in Section 4.2 (Air Quality), the proposed project would be consistent with the 2022 Ozone Plan.

Water Quality Control Plan for the Central Coast Basin

Water quality objectives are achieved through enforcement of, and compliance with, the RWQCB's permits (i.e., the Landfill's General Industrial Permit and waste discharge requirements [WDRs]). With continued compliance with the General Industrial Permit and WDRs for the Landfill, the project would be consistent with the water quality objectives set forth in the Water Quality Control Plan.

Santa Barbara County Land Use & Development Code

The inland areas of the Tajiguas Landfill are located within areas zoned for agriculture under the County Land Use and Development Code. Pursuant to the Santa Barbara County Land Use and Development Code within the unincorporated Inland areas of the County, the provisions of the Development Code do not apply to "development by the County or any district of which the Board is the governing body" (Section 35.10.040.G.1.b.). Therefore, no new land use permits are required for operation of the Landfill as modified by the proposed project.

Santa Barbara County Coastal Zoning Ordinance

The Coastal Zone boundary runs through the southern portion of the Landfill property (see Figure 3-3). The portion of the Landfill within the Coastal Zone pre-dates the Coastal Act of 1972 and the Coastal Zoning Ordinance and is considered a legal, non-conforming use. Activities that support this historic legal non-conforming landfill use have not required Coastal Development Permits. Pursuant to the County's Coastal Zoning Ordinance section 35.69.2 on lands zoned AG-II, a Coastal Development Permit is required for development including grading¹².

The proposed project would be entirely located within the inland area of the Landfill property. However, existing Landfill facilities located in the Coastal Zone would continue to be used including access roads, scale house, the landfill gas collection and treatment system, landfill gas condensate tank, leachate storage tanks, green-waste processing area, electrical lines and associated components, and the South Sedimentation Basin and other stormwater drainage features.

¹² Grading activities at the County-owned landfill would not require either land use or grading permits as Section 14-6(a) of the County Grading Ordinance specifies that the ordinance applies to grading activities conducted on privately owned land.

Expansion of these existing facilities is not proposed in association with the proposed project. The County's Planning & Development Department was consulted regarding the change in the hours of operation and determined that the proposed change does not trigger any new permit requirements in the coastal zone (email from Alex Tuttle, Santa Barbara County Planning and Development January 25, 2023).

Santa Barbara County Comprehensive Plan - Land Use Element (amended 2016)

Land Use Development - Policy 4: *Prior to issuance of a use permit, the County shall make the finding, based on information provided by environmental documents, staff analysis, and the applicant, that adequate public or private services and resources (i.e., water, sewer, roads, etc.) are available to serve the proposed development.*

Potentially Consistent. Services (on-site well water, on-site wastewater disposal, public roads, etc.) currently exist at the Landfill property to serve the Landfill as well as the ReSource Center. A Hydrogeologic and Water Supply Impact Analysis Report, dated June 5, 2023, was prepared by GeoSyntec Consultants. This study determined that the groundwater resources present at the site are anticipated to be adequate to serve the project. Roads are presently developed on site and would continue to serve the Landfill, including the proposed Capacity Increase Project. Electrical service is currently available at the Landfill property.

Hillside and Watershed Protection - Policy 1: *Plans for development shall minimize cut and fill operations...*

Potentially Consistent. To provide the additional disposal capacity, approximately 566,400 cubic yards of grading (excavation) would be required to provide approximately 12.5 acres of additional slope liner area and approximately 1.75 acres of additional base liner area. The proposed project has been designed to minimize cut and fill operations while providing required waste capacity (air space), stable manufactured cut slopes and proper drainage. The proposed Phase IV waste fill area must be integrated with the existing Landfill, including liners, landfill gas collection systems, slopes, drainage systems, and closure and post-closure plans. Therefore, other construction methods or locations are not available that would substantially reduce the amount cut and fill operations required to provide capacity to a timeframe consistent with completion of debt service associated with the ReSource Center.

Hillside and Watershed Protection - Policy 2: *All developments shall be designed to fit the site topography, soils, geology, hydrology, and any other existing conditions and be oriented so that grading and other site preparation is kept to an absolute minimum. Natural features, landforms, and native vegetation, such as trees shall be preserved to the maximum extent feasible. Areas of the site which are not suited to development because of known soil, geologic, flood, erosion or other hazards shall remain in open space.*

Potentially Consistent. The proposed project has been designed to fit the existing topography and other physical features since the Phase IV waste fill area must be integrated with the existing Landfill slopes and fill areas. Except for a small previously undisturbed area of approximately 1.5 acres in between the existing Landfill active waste disposal area and the North Borrow/Stockpile area, natural features or landforms would not be affected. The removal of native vegetation would be minimized since most of the Capacity Increase Project area supports vegetation planted on manufactured cut slopes or is barren. Oak trees located in the previously undisturbed area would be removed as they cannot be avoided. However, due to excess mitigation provided at the Baron Ranch as a part of the Baron Ranch Restoration Plan, no additional mitigation is required.

Hillside and Watershed Protection - Policy 3: *For necessary grading on hillsides, the smallest practical area of land shall be exposed at any one time during development, and the length of exposure shall be kept to the shortest practicable amount of time. The clearing of land should be avoided during the winter rainy season and all measures for removing sediments and stabilizing slopes should be in place before the beginning of the rainy season.*

Potentially Consistent. The proposed project consists of a new waste fill area and ongoing operation of the Landfill and is not a traditional development. Therefore, the location and timing of earth disturbance is dictated by the construction of the Phase IV waste fill area and ongoing waste disposal activities including tipping, compaction, cover and closure. However, all grading would be conducted during the dry season as specified in the HCP/ITP. The proposed project would be required to comply with existing and modified water quality permits as discussed in Section 4.10.1.4, including implementation of the Landfill's Stormwater Pollution Prevention Plan and stormwater discharge sampling and reporting.

Hillside and Watershed Protection - Policy 4: *Sediment basins (including debris basins, desilting basins, or silt traps) shall be installed on the project site in conjunction with the initial grading operations and maintained through the development process to remove sediment from runoff waters. All sediment shall be retained on-site unless removed to an appropriate dumping location.*

Potentially Consistent. Two sedimentation basins (North and South Sedimentation Basins) currently capture sediment from the Landfill via a network of storm drains. These basins (including the modified North Sedimentation Basin, see Figure 3-6) would continue to provide sediment control for the Landfill and provide sediment control for the proposed Phase IV waste fill area. The proposed project would be required to comply with existing water quality permits as discussed in Section 4.10.1.4, including implementation of the Landfill's Stormwater Pollution Prevention Plan and stormwater discharge sampling and reporting.

Hillside and Watershed Protection - Policy 5: *Temporary vegetation, seeding, mulching, or other suitable stabilization method shall be used to protect soils subject to erosion that have been disturbed during grading or development. All cut and fill slopes shall be stabilized as rapidly as possible with planting of native grasses and shrubs, appropriate non-native plants, or with accepted landscaping practices.*

Potentially Consistent. The proposed project would comply with existing and modified water quality permits as discussed in Section 4.10.1.4, including implementation of the Landfill's Stormwater Pollution Prevention Plan which includes numerous best management practices to reduce erosion such as hydroseeding bare slopes (see Table 4.10-2).

Hillside and Watershed Protection - Policy 6: *Provisions shall be made to conduct surface water to storm drains or suitable watercourses to prevent erosion. Drainage devices shall be designed to accommodate increased runoff resulting from modified soil and surface conditions as a result of development. Water runoff shall be retained onsite whenever possible to facilitate groundwater recharge.*

Potentially Consistent. The proposed project includes new storm drains and stormwater pumping (as needed) to ensure proper drainage to the existing sedimentation basins, where stormwater is detained and sediment is allowed to settle out of suspension. By design, and in compliance with WDRs issued by the RWQCB, the Landfill is sloped to prevent stormwater from infiltrating into the waste and a liner system is installed to prevent water that may enter the waste or leachate this is produced from the waste from reaching groundwater. Temporary and permanent drainage facilities would be installed as the Phase IV area is filled with waste to carry runoff into the sedimentation basins and into the existing drainage facilities (e.g., 48-inch storm drain). Proposed modifications to the Pila Creek flow control structure and inundation area would be designed to avoid increases in the peak 100-year downstream stormwater flow rate (see Section 4.10.2.5).

Hillside and Watershed Protection - Policy 7: *Degradation of the water quality of groundwater basins, nearby streams, or wetlands shall not result from development of the site. Pollutants, such as chemicals, fuels, lubricants, raw sewage, and other harmful waste, shall not be discharged into or alongside coastal streams or wetlands either during or after construction.*

Potentially Consistent. The proposed project includes continued management of MSW in compliance with state and federal stormwater and groundwater quality regulations as discussed in Section 4.10.1.4, including implementation of the Landfill's Stormwater Pollution Prevention Plan and stormwater discharge sampling and reporting. By design, and in compliance with WDRs issued by the RWQCB, the Landfill is sloped to prevent stormwater from infiltrating into the waste and a groundwater protection (liner) system is installed to prevent water that may enter the waste or leachate that is produced from the waste from reaching groundwater.

Construction of the proposed Phase IV waste fill area could result in inadvertent discharge of fuel, oil or lubricants which could adversely affect water quality. However, construction during the dry season, existing construction and industrial stormwater regulations and implementation of spill prevention best management practices (e.g., fueling and maintenance of equipment away from Pila Creek and the North Sedimentation Basin), providing spill containment under stationary equipment, etc.) would limit the potential for discharge of these materials to surface waters.

Streams and Creeks - Policy 1: All permitted construction and grading within stream corridors shall be carried out in such a manner as to minimize impacts from increased runoff, sedimentation, biochemical degradation, or thermal pollution.

Potentially Consistent. Proposed modifications to the existing flow control structure would occur at the southern end of the Pila Creek concrete-lined channel. Work would be conducted when the channel is dry to avoid any downstream sedimentation or thermal pollution.

Flood Hazard Area - Policy 1: All development, including construction, excavation, and grading, except flood control projects and non-structural agricultural uses, shall be prohibited in the floodway unless off-setting improvements in accordance with HUD regulations are provided. If the proposed development falls within the floodway fringe, development may be permitted, provided creek setback requirements are met and finished floor elevations are two feet above the projected 100-year flood elevation, and the other requirements regarding materials and utilities as specified in the Flood Plain Management Ordinance are in compliance.

Flood Hazard Area - Policy 2: Permitted development shall not cause or contribute to flood hazards or lead to expenditure of public funds for flood control works, i.e., dams, stream channelizations, etc.

Potentially Consistent. Due to the lack of adjacent development, neither Cañada de la Pila or Arroyo Quemado are regulated floodplains and no floodways have been identified by the Federal Emergency Management Agency. Drainage from the proposed Phase IV waste fill area would be conveyed to the existing and modified sedimentation basins. As discussed in Section 4.10 (Water Resources), peak flows from the project would not impact facilities downstream of the Landfill. The existing storm drain system was evaluated and would adequately convey peak storm runoff from 100-year events under existing and proposed conditions. Therefore, no flood hazards would be created, and no new flood control works would be required.

Historical and Archeological Sites - Policy 1: All available measures, including purchase, tax relief, purchase of development rights, etc., shall be explored to avoid development on significant historic, prehistoric, archeological, and other classes of cultural sites.

Historical and Archeological Sites - Policy 2: When developments are proposed for parcels where archeological sites or other cultural sites are located, project design shall be required which avoids impacts to such cultural sites if possible.

Historical and Archeological Sites - Policy 3: *When sufficient planning flexibility does not permit construction on archeological or other types of cultural sites, adequate mitigation shall be required. Mitigation shall be designed in accord with guidelines of the State Office of Historic Preservation and the State of California Native American Heritage Commission.*

Historical and Archeological Sites - Policy 4: *Off-road vehicle use, unauthorized collection of artifacts, and other activities other than development which could destroy or damage archeological or cultural sites shall be prohibited.*

Potentially Consistent with Mitigation. There are no known historic properties within 0.5-mile radius of the project site and there is no evidence of archaeological resources within the area of proposed ground disturbance. However, excavation of the proposed Capacity Increase Project area has the potential to encounter unknown buried cultural resources. Therefore, mitigation measure **MM CR-1**, which requires cultural sensitivity training, and stop work and evaluation of materials in the unlikely event of the discovery of resources during construction, is required. With implementation of this measure, the project is consistent with policies relating to cultural resources.

01-EIR-05 mitigation measure CR-3 (training program for Landfill staff) will also continue to be implemented in association with the extension of life of Landfill operations.

Historical and Archeological Sites - Policy 5: *Native Americans shall be consulted when development proposals are submitted which impact significant archeological or cultural sites.*

Potentially Consistent. As indicated above, no archaeological sites or sacred lands are known to exist within the proposed area of disturbance. However, as part of the preparation of this Subsequent EIR, Native American consultation was conducted as required by Section 21080.3.1.b of the Public Resources Code (see Section 4.6.1.7).

Parks/Recreation - Policy 4: *Opportunities for hiking and equestrian trails should be preserved, improved, and expanded wherever compatible with surrounding uses.*

Potentially Consistent. The proposed Capacity Increase Project would be located within the permitted operational area of the Landfill and in the area designated as Waste Disposal Facility overlay. No recreational trails are present within the project area and none are proposed.

Visual Resource - Policy 2: *In areas designated as rural on the land use plan maps, the height, scale and design of structures shall be compatible with the character of the surrounding natural environment, except where technical requirements dictate otherwise. Structures shall be subordinate in appearance to natural landforms, shall be designed to follow the natural contours of the landscape, and shall be sited so as not to intrude into the skyline as seen from public viewing places.*

Potentially Consistent. The proposed project does not include any new structures. The design of the proposed Capacity Increase waste disposal area is dictated by technical requirements included in CCR Title 27 and by the need to provide disposal capacity for the communities served by the Tajiguas Landfill to at least December 2038 to coincide with the completion of debt service on the ReSource Center. The design and appearance would be compatible with the existing waste disposal area, and, at closure, the slopes would be contoured and revegetated to enhance visual compatibility with the surrounding natural area.

Public Facilities – Policy 1a: *The development of public facilities necessary to provide public services is appropriate within the defined Rural and Inter-rural Areas.*

Public Facilities – Policy 1b: *When a public agency proposes that a facility be located in a Rural or Inner-Rural Area, especially when it may create any parcel(s) smaller than the minimum parcel size for the Area and the applicable land use designation(s), conformity with the Comprehensive Plan shall be determined in consideration of the following factors:*

- i. Whether the public interest and necessity require the project, balancing potential inconsistencies with other elements and policies of the Comprehensive Plan; and*
- ii. Whether the project is planned and located in the manner that will be most compatible with the greatest public good and the least private injury; and*
- iii. Whether the property sought to be acquired is necessary for the project.*

Potentially Consistent. The proposed project is not a new facility and does not require acquisition of property, would not affect parcel sizes or result in a change in land use. The project provides a necessary public service. The project would be located at an existing solid waste management facility that has been in continuous operation since 1967 and the site has a Solid Waste Facility overlay designation in the Comprehensive Plan.

Santa Barbara County Comprehensive Plan - Seismic Safety & Safety Element (amended 2015)

Geologic and Seismic Protection Policy 1: *The County shall minimize the potential effects of geologic, soil, and seismic hazards through the development review process.*

Potentially Consistent. The project has been subject to a geotechnical analysis and would not result in any significant geologic, soil or seismic impacts (see Section 4.5.2.5).

Geologic and Seismic Protection Policy 5: *Pursuant to County Code Section 21-7(d)(4) and (5), the County shall require a preliminary soil report prepared by a qualified civil engineer be submitted at the time a tentative map is submitted. This requirement may be waived by the Planning Director if he/she determines that no preliminary analysis is necessary. A preliminary geological report prepared by a qualified engineering geologist may also be required by the Planning Director.*

Potentially Consistent. Although the project does not require a tentative map and is not subject to County land use permit requirements, a Geotechnical Evaluation Report was prepared by Geosyntec Consultants (dated March 24, 2023) focusing on slope stability.

Geologic and Seismic Protection Policy 6: *The County should reference the Santa Barbara County Multi-Jurisdiction Hazard Mitigation Plan when considering measures to reduce potential harm from seismic activity to property and lives.*

Potentially Consistent. The Landfill and other County solid waste management facilities are identified as a potential receiver sites for hazard mitigation. The proposed project includes capacity for disasters. As discussed in Section 4.5 (Geologic Processes), the project incorporates existing design measures (e.g., stability toe berm) to protect against seismically-induced slope failure.

Santa Barbara County Comprehensive Plan - Conservation Element (amended 2010)

Ecological Systems- Chaparral and Scrub Habitats: *To insure the preservation of all species associated with the variety of chaparral and scrub habitat in the County, it will be necessary to restrict use of several areas. In undisturbed areas, productive educational and research programs could be conducted. We recommend low-use chaparral preserves to perpetuate the present high diversity of habitats and communities to be found in the County.*

Potentially Consistent. As described in Section 4.3 (Biological Resources), the project would result in the loss of 10.2 acres of chaparral or coastal scrub habitat, mostly planted on manufactured slopes. Replacement of habitats was and would continue to be required pursuant to 01-EIR-05 mitigation measure BIO-7 (revegetation plan) and Mitigation Measure **MM BIO-4b** (Crotch's bumblebee habitat replacement) included in this Subsequent EIR. The impact area is not located in a chaparral preserve.

Ecological Systems - Forest Habitats: *In Coast Live Oak Forests, urbanization, expansion of agriculture, and moderate or heavy recreational use should not be allowed. A natural park would be desirable.*

Potentially Consistent. The proposed project would not adversely affect any forest habitats.

Oak Tree Protection in the Inland Rural Areas - Policy 1: *Native oak trees, native oak woodlands and native oak savannas shall be protected to the maximum extent feasible in the County's rural and/or agricultural lands. Regeneration of oak trees shall be encouraged. Because of the limited range and increasing scarcity of valley oak trees, valley oak woodlands and valley oak savanna, special priority shall be given to their protection and regeneration.*

Potentially Consistent with Mitigation. The proposed project would result in the loss of five mature coast live oak trees, which have been mitigated through excess planting of oaks on the Baron Ranch as a part of the Baron Ranch Restoration Plan (see Section 5.7 of the Restoration Plan).

Archeological Sites: *Salvage excavation is a last resort in the “preservation” of archeological information. Such short notice excavations destroy relevant information which might be more effectively excavated with future improved archeological methods and techniques. In salvage archeology, it frequently is impossible to generate an adequate research design before excavation is commenced. Considering these factors, the loss of valuable information is inevitable. In addition, salvage operations are expensive undertakings. Consequently, every effort should be made to preserve, rather than excavate, endangered archeological sites.*

Potentially Consistent with Mitigation. As discussed in Section 4.6 (Cultural Resources), there are no historic properties with 0.5-mile radius of the project site and there is no evidence of archaeological resources within the area of proposed ground disturbance. However, excavation of the proposed Phase IV waste fill area has the potential to encounter unknown buried cultural resources. Therefore, mitigation measure **MM CR-1** has been provided in order to reduce potentially significant archaeological resource impacts to less than significant. With implementation of this measure, the project appears consistent with the above policies relating to cultural resources.

Conservation and Energy Recommendation 2: *Identify the potential for energy conservation measures and for the promotion of policies to convert to non-fossil fuel energy sources.*

Conservation and Energy Recommendation 4: *Implement an aggressive conservation and alternative energy program for County and public facilities.*

Conservation and Energy Recommendation 7: *Consider energy conservation and conversion to alternative energy sources as the central focus of an Energy Element for the Santa Barbara County Comprehensive Plan.*

Potentially Consistent. Increased energy consumption associated with the proposed project would be limited to diesel fuel used in heavy equipment to construct the Phase IV waste fill area and for continued Landfill operations. There are no feasible alternatives to diesel fuel for heavy equipment at this time, such that energy conservation is not possible. Landfill gas would continue to be extracted from the existing Landfill and the proposed capacity increase area and used to power on-site facilities and provided off-site to the electrical grid.

Santa Barbara County Comprehensive Plan - Noise Element (republished 2009)

Recommended Policy 1: *In planning of land use, 65 dB Day-Night Average Sound Level should be regarded as the maximum exterior noise exposure compatible with noise-sensitive uses unless noise mitigation features are included in project designs.*

Potentially Consistent. The proposed project would not result in noise levels exceeding County standards at noise sensitive land uses (see Section 4.7.2.5).

Santa Barbara County Comprehensive Plan - Agricultural Element (republished 2009)

Policy I.A: *The integrity of agricultural operations shall not be violated by recreational or other non-compatible uses.*

Policy II.D: *Conversion of highly productive agricultural lands, whether urban or rural, shall be discouraged. The County shall support programs which encourage the retention of highly productive agricultural lands.*

Potentially Consistent. The proposed project would not affect agricultural operations, as the Tajiguas Landfill site has been used for the disposal of municipal solid waste since 1967 and areas affected by the project are either already disturbed or in open space. The Landfill operational area has an agricultural land use designation and is agriculturally zoned but acknowledgement of the site's use as a landfill is specified through the Waste Disposal Overlay designation.

Santa Barbara County Coastal Plan

The proposed project would be entirely located within the inland area of the Landfill property. However, existing Landfill facilities located in the Coastal Zone would continue to be used such as access roads, scale house, the landfill gas collection and treatment system, landfill gas condensate tank, leachate storage tanks, green-waste processing area, electrical lines and associated components, and the South Sedimentation Basin and other stormwater drainage features. These facilities would not be modified by the proposed project. Therefore, Coastal Plan policies are not applicable to the proposed project.

Gaviota Coast Plan

The following policies are potentially applicable to the proposed project:

Policy NS-4: ESH Criteria and Habitat Types. *The following criteria are used in determining which habitats in the Gaviota Coast Plan area warrant the Environmentally Sensitive Habitat Area overlay designation:*

- 1) Unique, rare, or fragile communities which should be preserved to ensure their survival in the future, e.g., dune vegetation, native grasslands.*
- 2) Rare and endangered species habitats that are also protected by Federal and State laws, e.g., harbor seal rookeries and haul out areas.*
- 3) Plant community ranges that are of significant scientific interest because of extensions of range, or unusual hybrid, disjunct, and relict species.*
- 4) Sensitive wildlife habitats which are vital to species survival, e.g., White-tailed Kite habitat, butterfly trees.*
- 5) Outstanding representative natural communities that have values ranging from a particularly rich flora and fauna to an unusual diversity of species.*
- 6) Areas with outstanding educational values that should be protected for scientific research and educational uses now and in the future, e.g., Naples Reef.*

7) Areas that are important because of their biological productivity such as wetlands, kelp beds, and intertidal areas.

8) Areas that are structurally important in protecting natural landforms and species, e.g., dunes which protect inland areas, riparian corridors that protect stream banks from erosion and provide shade, kelp beds which provide cover for many species.

Specific biological habitats are considered environmentally sensitive and shall be subject to the provisions of the Environmentally Sensitive Habitat (ESH) and Environmentally Sensitive Habitat Gaviota (ESH GAV) Overlays including qualifying habitat that exists outside of the mapped ESH and ESH GAV overlays. A general guideline for inclusion is those plant communities that have a California Natural Diversity Database (CNDDDB) rarity ranking of G1, S1, G2, S2, G3, or S3. Two habitat types have been included due to their sensitive nature within the county, although they do not meet the rarity ranking criterion (i.e., Coast Live Oak Woodlands and Western rush marshes). Additional sensitive wildlife habitats are also listed. The list includes, but is not limited to:

1) Native Forests and Woodlands including, but not limited to: madrone forest, tanoak forest, black cottonwood forest, Bishop pine forest, California sycamore woodlands, coast live oak woodland, Valley oak, red willow thickets, and California bay forest;

2) Rare Native Chaparral and Coastal Scrub Habitats, including, but not limited to: Burton Mesa shrubland chaparral, central maritime chaparral, wart leaf Ceanothus chaparral, giant Coreopsis scrub, bush monkeyflower scrub, California brittle bush scrub, sawtooth goldenbush scrub, silver dune lupine-mock heather scrub, lemonade berry scrub, and white sage scrub;

Potentially Consistent. No ESH habitat is designated in the project area. However, the proposed project would involve the loss of approximately 0.1 acres of vegetation dominated by California brittle-bush which was planted on manufactured Landfill cut slopes. This vegetation would be replaced on the Landfill cut slopes and on the Landfill cover at closure.

Policy NS-11: Restoration. *Biological impacts shall be avoided to the maximum extent feasible. In cases where adverse impacts to biological resources cannot be avoided after impacts have been minimized, restoration shall be required. A minimum replacement ratio shall be required to compensate for the destruction of native habitat areas or biological resources. The area or units to be restored, acquired, or dedicated for a permanent protective easement shall exceed the biological value of that which is destroyed. Where onsite restoration is infeasible or not beneficial with regard to long-term preservation of habitat, an offsite easement and/or alternative mitigation measures that provide adequate quality and quantity of habitat and will ensure long-term preservation shall be required.*

Potentially Consistent. Significant impacts to biological resources associated with implementation of the proposed project would be fully mitigated including breeding bird protection (**MM BIO-1**), rare plant replacement (**MM BIO-2**) and oak tree replacement has already been provided through implementation of the Baron Ranch Restoration Plan. Some mitigation may be conducted at Baron Ranch due to the lack of suitable sites at the Landfill property.

Dev Std NS-1: Wildlife Corridors. *Environmental review of development proposals shall evaluate and mitigate for the significant effects on wildlife movement caused by fencing, roads, lighting, and siting.*

Potentially Consistent. This Subsequent EIR did not identify any wildlife corridors in the project area. The proposed project would not adversely affect wildlife movement because all ground disturbance would occur with the Landfill operational area.

Dev Std NS-3: Rare Plants. *Where appropriate and feasible, as determined by County staff, if potentially suitable habitat exists for sensitive plant species, prior to approval of Coastal Development or Land Use Permits for any projects in the Gaviota Coast Plan Area, rare plant surveys focused on the area to be disturbed and/or affected by the project shall be conducted during the appropriate time of year to optimize detection of potentially occurring rare plants. Surveys shall be conducted in accordance with the County's Environmental Thresholds and Guidelines Manual and applicable resource agency survey protocols to determine the potential for impacts resulting from the project on these species.*

Potentially Consistent. Although land use permits are not required for the proposed project because it is a County project in the inland area, sensitive plant surveys were conducted within the Capacity Increase Project area. Santa Barbara honeysuckle was found during these surveys and would be replaced under mitigation measure **MM BIO-2**.

Dev Std NS-4: Sensitive Wildlife Species. *Where appropriate and feasible, as determined by County staff, if potentially suitable habitat or critical habitat exists for sensitive wildlife species on or adjacent to a project site, prior to approval of Coastal Development or Land Use Permits for any projects in the Gaviota Coast Plan Area, presence/absence surveys focused on the area to be disturbed and/or affected by the project shall be conducted in accordance with the County's Environmental Thresholds and Guidelines Manual to determine the potential for impacts resulting from the project on these species.*

Potentially Consistent. Although land use permits are not required for the proposed project, sensitive wildlife surveys (including Crotch's bumble bee) were conducted within the Capacity Increase Project area and the Landfill property is potential dispersal habitat for the California red-legged frog. Other sensitive wildlife potentially occurring includes northern harrier, white-tailed kite, loggerhead shrike and Allen's hummingbird and impacts have been analyzed pursuant to the County's threshold (see Section 4.3.2.5).

Action CS-4: Native American Consultation. *The County shall continue its consultations with the tribes identified by the Native American Heritage Commission (NAHC) pursuant to Assembly Bill 52 and Senate Bill 18 to ensure that cultural resources of concern to Native Americans are identified and taken into account in future development planning.*

Potentially Consistent. Native American consultation was conducted for the project in compliance with State law (Public Resources Code Section 21080.3.1) as discussed in Section 4.6.1.7.

Dev Std CS-1: Phase 1 Archaeological Surveys. *A Phase 1 archaeological survey shall be performed when identified as necessary by a County archaeologist or contract archaeologist. The survey shall include all areas of the project that would result in ground disturbance. The content, format, and length of the Phase 1 survey report shall be consistent with the nature and size of the project and findings of the survey.*

Potentially Consistent. A Phase I archaeological field survey was conducted within the previously disturbed area and adjacent areas (see Section 4.6.1.6).

Policy VIS-13: Development Visibility. *Development within the Critical Viewshed Corridor shall be screened to the maximum extent feasible as seen from Highway 101. Screening shall be achieved through adherence to the Site Design Hierarchy and Design Guidelines.*

Potentially Consistent. The proposed Capacity Increase Project area and the increased final Landfill elevation is not visible from U.S. Highway 101.

Policy TEI-16: Tajiguas Landfill. *Any changes to operations at the Tajiguas Landfill necessary for the management of our community's solid waste should strive to reduce environmental impacts to the Gaviota Coast Plan Area. To reduce impacts, waste delivered to the Tajiguas Landfill should be consolidated and the landfill should only accept waste generated from communities within Santa Barbara County. The County should pursue additional resource recovery projects/programs prior to, or concurrent with, any plan to expand municipal solid waste disposal capacity through landfilling.*

Potentially Consistent. The proposed project has been designed to minimize environmental impacts to the surrounding Gaviota Coast Plan Area (including aesthetics, biological resources, cultural resources) while meeting the capacity needs of the County. The Landfill would continue to only accept solid waste from communities within Santa Barbara County. The RRWMD has constructed the ReSource Center to recover additional recyclables in MSW and to divert organic waste from burial. The County and participating cities have programs in place for the collection of commingled recyclables and green-waste, collection of food waste for communities not served by the ReSource Center and from commercial food waste collection programs operated by the City of Santa Barbara (see Section 1.4).

The purpose of the project is to increase capacity to regain Landfill life that was expected to be provided by the waste diversion from operation of the ReSource Center and avoid costs associated with the off-site transport and disposal of residuals concurrent with debt service on the ReSource Center (debt service will be complete in December 2038). For numerous factors the current remaining capacity and associated Landfill service life has been reduced compared to what was analyzed in the ReSource Center Subsequent EIR. There are no other feasible resource recovery projects/programs that could provide the required landfill capacity to meet the needs of the County (see Section 5.2).

4.8.2.7 Extension of Landfill Life Impacts

Impact LU-EXT-1: Project-related extension of the life of the Tajiguas Landfill would extend land use conflicts further in time – Insignificant Impact.

As discussed in Section 3.7.1, the proposed capacity increase would result in extending the active life of the Landfill by approximately 12.75 years and delay full closure and revegetation of the Landfill. Historically, Landfill operations have not been a significant source of land use conflicts. Therefore, with implementation of the proposed project, less than significant land use conflicts associated with Landfill operations and the closure and post-closure maintenance activities (see Section 4.8.2.2) would continue further in time.

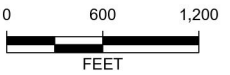
4.8.2.8 Cumulative Impacts of the Tajiguas Landfill Capacity Increase Project

The proposed project (as mitigated) would not result in any significant land use incompatibility or policy inconsistency impacts. Therefore, the incremental contribution of the proposed project to cumulative land use impacts would not be considerable. See the discussion of cumulative impacts for each of the environmental issue areas (aesthetics, air quality, biology, cultural resources, hazards, noise, etc.) for a determination of the significance of cumulative impacts.



- LEGEND**
- Tajiguas Landfill Operational Boundary
 - Tajiguas Landfill Property
 - Parcel Boundary
 - Critical Viewshed Corridor Overlay (Gaviota Coast Plan)
 - Zoning Boundary
 - Land Use Designation
 - Coastal Zone Boundary (approximate)
 - Waste Disposal Facility Overlay
 - Environmentally Sensitive Habitat Overlay

MAP EXTENT:



Source: Esri Online Imagery Basemap, Orthophoto 9/8/22
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.



PROJECT NAME: TAJIGUAS LANDFILL CAPACITY INCREASE PROJECT SANTA BARBARA COUNTY, CA	
PROJECT NUMBER: 2202-4091	DATE: July 2023

ZONING AND LAND USE MAP

FIGURE
4.8-1

4.9 TRANSPORTATION

The following assessment of the impacts of the proposed project on traffic and circulation is based on the following studies prepared by Associated Transportation Engineers

- Traffic and Circulation Study prepared for the ReSource Center Subsequent EIR (revised 2014).
- Traffic Analysis for the US 101/Landfill Access Road prepared for proposed changes in MRF operating hours (2021).
- Traffic Analysis for the Tajiguas Landfill Capacity Increase Project, County of Santa Barbara (2023).

Senate Bill 743 (Steinberg, 2013) required changes to the State CEQA Guidelines regarding the analysis of transportation impacts. Currently, the CEQA Guidelines identify vehicle miles traveled (VMT) as the most appropriate metric to evaluate a project's transportation impacts. Project-related generation of VMT results in greenhouse gas emissions, and other adverse effects to the public and natural environment. Level of service and other similar traffic metrics, generally will no longer constitute a significant environmental effect under CEQA and are not addressed in this section. However, traffic safety impacts are included to be consistent with past analyses.

4.9.1 Setting

4.9.1.1 Previous Analysis

The Tajiguas Landfill has been in operation since 1967. An expansion of the landfill (Tajiguas Landfill Expansion Project) was last approved in 2002. The traffic analysis prepared for the Expansion Project was based on a maximum of 1,500 tons of waste per day with a corresponding traffic level of a maximum of 234 vehicles per day (184 waste haul vehicles per day + 50 other vehicles per day). The EIR (01-EIR-05) prepared for the Expansion Project found that proposed landfill expansion would not generate significant traffic impacts. This impact analysis focused on traffic congestion (level of service) and traffic safety.

No change to the impact determination occurred in association with CEQA review of the Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project since that project did not modify the permitted waste or traffic volumes. The Solid Waste Facility Permit issued to the County is consistent with waste and traffic volumes analyzed in the prior Tajiguas Landfill Environmental Documents and allows for a maximum of 1,500 tons of waste per day with a maximum of 184 waste haul vehicles and 50 other vehicles per day.

An analysis of the impacts of additional vehicle trips associated with operation of the ReSource Center was focused on traffic congestion (level of service) and traffic safety. Overall, impacts were found to be less than significant because the total number of vehicle trips (Landfill baseline plus Resource Center) would not exceed the permitted traffic levels and would not adversely affect LOS and traffic safety on U.S. Highway 101 and the U.S. Highway 101/Landfill access road intersection.

4.9.1.2 U.S. Highway 101/Landfill Access Road Operations

The U.S. Highway 101/landfill access road intersection forms a "T" configuration. There is a median opening on U.S. Highway 101 that provides full access for turning into and out of the landfill access road. There are also turn lanes on both directions of U.S. Highway 101 for turning into and out of the Landfill access road. The intersection is controlled by a stop sign on the outbound approach from the Landfill access road. Outbound traffic turning left from the landfill access road cross the northbound U.S. Highway 101 traffic stream when a gap is available and then merge into the southbound U.S. Highway 101 traffic stream in the existing acceleration lane. Similarly, inbound traffic from southbound U.S. Highway 101 cross the northbound U.S. Highway 101 traffic stream when a gap is available and then turn into the landfill access road. Outbound right turns are not required to wait for gaps in the northbound U.S. Highway 101 traffic stream since there is an acceleration lane for merging into the northbound U.S. Highway 101 traffic stream.

Turn Lanes

The U.S. Highway 101/Landfill access road intersection provides turn lanes for all movements to and from the access road. While not required at such intersections, turn lanes are beneficial to the safety and efficiency of the intersection. Traffic entering and leaving the mainstream of traffic merges and diverges most efficiently with the through traffic when speed differentials are minimized by turn lanes. The existing U.S. Highway 101 northbound deceleration lane is only 180 feet long, which is less than the 530-foot distance (60 mph design speed) recommended by Caltrans (2020). Extension of this lane has been proposed but abandoned due to biological and cultural resource constraints.

Field review was conducted in 2013 to determine if Landfill trucks properly utilize the dedicated turn lanes. A County-owned 18-wheel semi-tractor trailer was used for the analysis. The field review found that semi-tractor trailer truck wheels track within the turn lanes provided. It is noted that trucks use the paved shoulder just prior to the 180-foot turn lanes when turning right from northbound U.S. Highway 101 onto the landfill access road.

Sight Distances

One of the primary safety factors at roadway intersections is the inter-visibility of drivers traversing the intersection. In this case, the “sight distances” for drivers exiting the Landfill access road and turning onto U.S. Highway 101 are a key component for their safety and the safety of those traveling along U.S. Highway 101. The sight distances looking along U.S. Highway 101 from the Landfill access road should be of sufficient in length to provide adequate time for crossing the U.S. Highway 101 traffic lanes without requiring U.S. Highway 101 traffic to radically alter their speed to avoid potential collisions.

The Caltrans Highway Design Manual sight distance standards were used to determine minimum sight distance requirements at the intersection. The Caltrans minimum corner sight distance standard for highways with a 70 mph design speed is 770 feet.

Sight distances were measured at the intersection to determine if the sight lines along U.S. Highway 101 meet standards. The sight distance looking to the south was measured at more than 1,450 feet, which exceeds the Caltrans 770-foot minimum standard. Thus, drivers crossing the U.S. Highway 101 northbound lanes to turn left and proceed to the south towards Goleta are provided nearly double the Caltrans minimum sight distance standard. This same sight distance is provided for drivers turning right from the Landfill access road into the northbound acceleration lane on U.S. Highway 101 northbound.

Vehicles that turn left from the Landfill access road and travel toward Goleta do so in two stages: 1) wait for a sufficient gap to cross the U.S. Highway 101 northbound lanes to reach the highway median, then 2) wait and look for a sufficient gap in the U.S. Highway 101 southbound lanes, and then enter the acceleration lane and merge into the flow of highway traffic. The sight distance looking to the north was measured at more than 1,500 feet, which exceeds the Caltrans 770-foot minimum standard. Thus, drivers entering the U.S. Highway 101 southbound acceleration lane to proceed south towards Goleta are provided nearly double the Caltrans minimum sight distance standard.

Finally, vehicles that turn left from southbound U.S. Highway 101 into the Landfill access road first use the left-turn lane and then wait in the median for a sufficient gap in the U.S. Highway 101 northbound traffic flow prior to entering the Landfill Access Road. The sight distance looking to the south was measured at more than 2,600 feet, which is more than triple the Caltrans 770-foot minimum standard.

The sight distances presented above were measured during daylight hours. Sight distances are longer during “predawn” and “nighttime” hours (dark periods) when vehicles traveling along the highway are operating with their headlights illuminating their path and presence. Drivers waiting to exit the Landfill access road or turning left from U.S. Highway 101 can see oncoming vehicle headlights at farther distances during dark hours than those measured during daylight hours.

Accident Data

The collision history at the U.S. Highway 101/Landfill access road intersection was evaluated to determine its relative safety given the existing conditions in the field and the current landfill operations. Collision data was obtained from Caltrans for the most currently available three-year period, which is from October 1, 2019 through September 30, 2022. It is important to note that Caltrans uses accident data as a screening tool to identify potential safety problems. Pursuant to Caltrans procedures, the rate of collisions is calculated for the subject intersection or roadway segment and then compared to California statewide average rates for similar facilities to identify potential safety issues. If the collision rate experienced on a facility is higher than the statewide average and the number of collisions is deemed statistically significant, more detailed safety investigations are performed by Caltrans to determine if there are collision patterns that can be corrected by changing the design features of the facility (e.g., widen traffic lanes, widen roadway shoulders, change roadway curvatures, add signs, install traffic signals, etc.).

The Caltrans collision history for the U.S. Highway 101/Landfill access road intersection indicates six collisions occurred over the three-year period, with a collision rate of 0.20 per million vehicles. The Statewide average is 0.29 collisions per million vehicles. Three of the collisions were single-vehicle collisions with fixed objects. One collision involved a vehicle that was sideswiped by another vehicle traveling along U.S. Highway 101. One collision involved a vehicle that was broadsided by another vehicle traveling along U.S. Highway 101. One collision involved a vehicle that overturned while traveling along U.S. Highway 101. The primary collision factors by severity were speeding (2), other violation (2), failure to yield, and improper turn. None of the collisions involved trucks.

The collision data indicates that the rate of collisions at the intersection is below the Statewide average for similar intersections, which is expected given the intersection's configuration and environment (good sight distances, low delays, ample gaps, and provision of turn lanes).

Traffic Baseline

As shown on Table 1-2, traffic volumes associated with waste delivery to the Landfill are highly variable and not directly correlated to waste volumes. The permitted level of 184 waste delivery vehicles has not historically been reached at the Landfill and therefore does represent an accurate baseline. Therefore, the baseline traffic volume (vehicles per day) used in this analysis is the highest peak day disposal vehicle volume documented since 2013 (see Table 1-2), or 163 vehicles per day. Because this traffic volume has been documented it is the most realistic basis for determining future impacts. Note that this value does not include vehicles used by employees, contractors, regulatory agencies, visitors or delivery of mail, equipment or materials which are observed to be up to 50 vehicles per day.

4.9.1.3 Regional Transportation Plan

The Santa Barbara County Association of Governments adopted the Connected 2050 Regional Transportation Plan (RTP) in August 2021, which represents an update to the Fast Forward 2040 plan adopted in August 2017 and continues the regional planning vision laid out in the 2017 Plan. Connected 2050 plans how the region will invest limited transportation funds to maintain, operate and improve an integrated, multi-modal transportation system that facilitates the efficient movement of people and goods.

This updated RTP identifies specific strategies, policies and actions, including a list of programmed and planned transportation projects affordable within the region's anticipated reasonably available transportation funding, to achieve regional goals and priorities and meet the current and future needs of the region. The Sustainable Communities and Climate Protection Act of 2008 (Senate Bill 375) requires that the Connected 2050 RTP contain a Sustainable Communities Strategy that considers both land use strategies and transportation projects together in a single, integrated planning process that accommodates regional housing needs and projected growth. The RTP continues the strategy and vision of the adopted 2017 plan, updating it to reflect changes to land use and transportation projects.

The Sustainable Communities Strategy component of the RTP is intended to integrate an analysis of population growth, land use, and housing need into the long-range transportation planning process. The Sustainable Communities Strategy seeks to address transportation planning holistically, understanding transportation patterns in the context of existing and possible future land use and housing configurations. SB 375 specifically requires the Sustainable Communities Strategy to identify areas within the region sufficient to house the entire forecasted population of the region, including all economic segments of the population, and to accommodate regional housing need for the eight-year period from 2023 to 2031 across the County's nine local jurisdictions. If feasible, a Sustainable Community Strategy is supposed to "set forth a forecasted development pattern for the region, which, when integrated with the transportation network, and other transportation measures and policies, will reduce the greenhouse gas emissions from automobiles and light trucks to achieve greenhouse gas reduction targets" approved by the State.

4.9.2 Impact Analysis and Mitigation Measures

4.9.2.1 Thresholds of Significance

Santa Barbara County Environmental Thresholds and Guidelines Manual

The Guidelines Manual was modified in 2020 to be consistent with the State CEQA Guidelines regarding the use of VMT to identify transportation impacts.

Threshold "a" – Potential Conflict with a Program, Plan, Ordinance, or Policy. The Santa Barbara County Association of Governments (SBCAG)'s 2040 Regional Transportation Plan and Sustainable Communities Strategy (SBCAG, 2013) and the County's Comprehensive Plan, zoning ordinances, capital improvement programs, and other planning documents contain transportation and circulation programs, plans, ordinances, and policies. Threshold question "a" considers a project in relation to those programs, plans, ordinances, and policies that specifically address multimodal transportation, complete streets, transportation demand management, and other VMT-related topics.

A transportation impact occurs if a project conflicts with the overall purpose of an applicable transportation and circulation program, plan, ordinance, or policy, including impacts to existing transit systems and bicycle and pedestrian networks pursuant to Public Resources Code Section 21099(b)(1). In such cases, applicants must identify project modifications or mitigation measures that eliminate or reduce inconsistencies with applicable programs, plans, ordinances, and policies. For example, some community plans include provisions that encourage complete streets. As a result, an applicant for a multifamily apartment complex may need to reduce excess parking spaces, fund a transit stop, and/or add bike storage facilities to comply with a community plan's goals and policies.

Threshold “b” – Potential Impact to VMT. Threshold “b” establishes VMT as the metric to determine transportation impacts. Because VMT is a new metric, this section begins with background information on VMT and then outlines a three-step process for analyzing and, if necessary, mitigating a project’s VMT impacts. Threshold “b” includes screening criteria and thresholds of significance for land use projects and transportation projects. The proposed project appears to fall under the employment category for land use projects. Threshold “b” provides a screening criterion for small land use projects of 110 or fewer average daily trips, which is consistent with guidance provided by the Governor’s Office of Planning and Research (2017). Projects meeting this screening criteria are presumed to have less than significant VMT impacts and do not require further analysis.

Threshold “c” – Design Features and Hazards. Threshold “c” considers whether a project would increase roadway hazards. An increase could result from existing or proposed uses or geometric design features. In part, the analysis should review these and other relevant factors and identify results that conflict with the County’s Engineering Design Standards or other applicable roadway standards. For example, the analysis may consider the following criteria:

- Project requires a driveway that would not meet site distance requirements, including vehicle queueing and visibility of pedestrians and bicyclists.
- Project adds a new traffic signal or results in a major revision to an existing intersection that would not meet the County’s Engineering Design Standards.
- Project adds substantial traffic to a roadway with poor design features (e.g., narrow width, roadside ditches, sharp curves, poor sight distance, inadequate pavement structure).
- Project introduces a new use and substantial traffic that would create potential safety problems on an existing road network (e.g., rural roads with use by farm equipment, livestock, horseback riding, or residential roads with heavy pedestrian or recreational use).

If a project would result in potential roadway hazards, the applicant would need to modify the project or identify mitigation measures that would eliminate or reduce the potential hazards. For example, an applicant for a retail shopping center may need to shift the location of a new driveway or add sidewalks or pedestrian crossings to reduce potential conflicts between customers and pedestrians.

Threshold “d” – Emergency Access. Threshold “d” considers any changes to emergency access resulting from a project. To identify potential impacts, the analysis must review any proposed roadway design changes and determine if they would potentially impede emergency access vehicles.

A project that would result in inadequate emergency vehicle access would have a significant transportation impact and, as a result, would require project modifications or mitigation measures. For example, a project that modifies a street and, as a result, impairs fire truck access, would require modifications or redesign to comply with County and fire department road development standards.

Threshold “H” – Commercial Vehicles. With respect to the proposed Capacity Increase Project, the Thresholds of Significance for Transportation Impacts specifies the following:

CEQA Guidelines Section 15064.3(a) focusses on “automobile travel.” The Governor’s Office of Planning and Research Technical Advisory states that “automobile” refers to on-road passenger vehicles, specifically cars and light trucks. It does not include heavy-duty trucks, semi-trailers, construction equipment, or other commercial-type vehicles. As a result, the VMT criteria and thresholds in the CEQA Guidelines and the Guidelines Manual related to employment generating uses do not apply to those components of proposed projects that involve commercial vehicles. However, the VMT criteria and thresholds would apply to those components that involve passenger vehicles. For example, a proposed oil production or agricultural processing facility may involve significant numbers of commercial trucks and semi-trailers that would haul supplies and products to and from the facility. The project may also involve employees and others who would travel to and from the facility in passenger vehicles. In this case, the VMT analysis would not address potential VMT generated by the commercial trucks and semi-trailers and, therefore, would not consider such VMT a significant transportation impact. Rather, the VMT analysis would focus on VMT generated by passenger vehicles traveling to and from the facility (i.e., Threshold “b”).”

4.9.2.2 Approved Tajiguas Landfill Expansion Project

01-EIR-05 for the Tajiguas Landfill Expansion Project (see Section 1.6.2) identified the following transportation impacts:

1. The contribution of landfill-related traffic to total traffic volumes on U.S. Highway 101 was considered less than significant.
2. Due to the schedule of landfill operations, landfill-related traffic was identified as having a less than significant impact to the operation of U.S. Highway 101 and the landfill access road intersection.

3. The traffic safety impact associated with landfill vehicles merging onto U.S. Highway 101 from the landfill access road was considered significant but mitigable) with implementation of measures TRAF-1 (installation of a permanent stop sign and speed dots) and TRAF-2 ("Caution – Trucks Entering the Highway" sign)¹³.
4. Traffic safety impacts associated with stopping sight distance at the U.S. Highway 101/access road intersection and traffic gaps were considered less than significant and further reduced by the implementation of measures TRAF-1 and TRAF-2.

4.9.2.3 Approved Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project

08EIR-00000-00007 determined that landfill reconfiguration would not modify any permitted operational parameters (e.g., hours of operation, trips, maximum daily tonnage, total waste disposal capacity) that would affect traffic volumes or safety issues associated with the approved Expansion Project. Therefore, no new or additional traffic impacts were identified as a result of landfill reconfiguration.

4.9.2.4 Approved Tajiguas Resource Recovery Project (ReSource Center)

12EIR-00000-00002 for the ReSource Center (see Section 1.6.3) identified the following transportation impacts:

1. Implementation of the proposed project would generate construction-related traffic which could result in an adverse but less than significant impact to traffic operations on U.S. Highway 101 and the U.S. Highway 101/landfill access road.
2. Operation of the proposed project would generate additional traffic which could result in an adverse but less than significant impact on U.S. Highway 101 traffic operations (level of service).
3. Implementation of the proposed project would generate additional traffic which could result in an adverse but less than significant impact on the landfill access road/U.S. Highway 101 intersection level of service.
4. Implementation of the proposed project would generate additional traffic at the existing U.S. Highway 101/landfill access road intersection which could result in adverse but less than significant traffic safety impacts.

¹³ Measure TRAF-2 was subsequently determined to not be necessary by Caltrans (Letter to Mark Schleich dated November 14, 2003).

The MRF operating hours approved in 12EIR-00000-00002 (7 a.m. to 11:30 pm) were requested to be modified by the MRF operator to 5 a.m. to 9 p.m. Associated Transportation Engineers conducted a traffic analysis dated January 6, 2021 which determined that the changes in the daily timing of MRF-related vehicle trips associated with the change in MRF operating hours would not result in significant traffic safety impacts.

4.9.2.5 Proposed Tajiguas Landfill Capacity Increase Project

The proposed project would not increase the permitted vehicles per day from the current solid waste facility permit (184 trucks and 50 other vehicles). Historically, the number of vehicles per day has been less than permitted with the peak between 2013 and 2022 of 163 trucks. A one percent growth rate in landfilled waste was assumed for capacity planning purposes so it is anticipated that over the life of the project the permitted level of 184 trucks per day may be achieved (net increase of 21 vehicles per day). However, the majority of those vehicles will already be delivering MSW and commingled recyclables to the ReSource Center and therefore the net increase in trucks delivering bypass waste would be a much smaller fraction of the total increase. Waste would continue to be consolidated at the County transfer stations and at the Marborg MRF/Transfer Station and due to the remote location of the Landfill. As noted in Section 4.9.2.1 Threshold H, the VMT analysis does not apply to the additional trips and VMT associated with transporting MSW.

The number of Landfill employees is not proposed to increase. Carpooling by Landfill operations staff is expected to continue. Based on information prepared for the ReSource Center EIR (12EIR-00000-00002) carpooling is expected to have a continued 1.6 vehicle occupancy. Therefore, there would be no increase in VMT associated with passenger vehicles.

There may also be a short-term increase in construction related vehicle trips but the VMT thresholds do not apply to these trips. Therefore, the transportation analysis focusses on Threshold “c.”, Design Features and Hazards.

Impact T-1: Implementation of the proposed project may reduce traffic safety at the U.S. Highway 101/Landfill access road intersection – Insignificant Impact.

As discussed above, the proposed project may result in a small increase in waste disposal traffic volumes over the extended life of the Landfill. In addition, a short-term increase in vehicle trips may occur during construction of the Phase IV waste fill area. These vehicle trips could exacerbate traffic safety at the U.S. Highway 101/Landfill access road intersection. However, this intersection is not considered to have any substantial safety concerns due to the following factors:

- The vehicle collision rate is lower than the Statewide average.

- None of the recorded collisions involved trucks (potentially including trucks entering or leaving the Landfill access road).
- Available sight distance substantially exceeds Caltrans standards which allows drivers to avoid collisions.

Therefore, the proposed project is not expected to cause or contribute to traffic safety concerns at the U.S. Highway 101/Landfill access road intersection.

Impact T-2: The proposed change in the daily start of waste receipt hours from 7 a.m. to 6 a.m. may reduce traffic safety at the U.S. Highway 101/Landfill access road intersection – Insignificant Impact.

Potential impacts to traffic safety may include a shift of waste disposal vehicle trips to a.m. peak hour, and during periods of darkness. As discussed above, the U.S. Highway 101/Landfill access road intersection is not considered to have any substantial safety concerns. Therefore, an increase in the use of this intersection by waste disposal vehicles during a.m. peak hour on U.S. 101 is not anticipated to exacerbate any traffic safety concerns. An increase in the use of this intersection by waste disposal vehicles during periods of darkness is not anticipated to exacerbate any traffic safety concerns due to the increased sight distance associated with the visibility of vehicle headlights.

4.9.2.6 Extension of Landfill Life Impacts

Impact T-EXT-1: Project-related extension of the life of the Tajiguas Landfill would extend the duration of transportation impacts associated with Landfill operations – Insignificant Impact.

As discussed in Section 3.7.1, the proposed Capacity Increase Project would result in extending the active life of the Landfill by approximately 12.75 years. Impacts associated with extension of life do not represent new impacts but represent impacts that would be extended further in time (see Impacts T-1 and T-2 above). Therefore, the proposed project would extend the duration of time over which insignificant transportation impacts would occur.

4.9.2.7 Cumulative Impacts of Tajiguas Landfill Capacity Increase Project

Because the Capacity Increase Project would not generate additional passenger vehicle trips it would not contribute to cumulative VMT.

4.10 WATER RESOURCES

This section of the Subsequent EIR provides an analysis of the water resources impacts of the proposed Capacity Increase Project. The following technical studies were prepared to assess water resource impacts (drainage/flooding, hydrogeology/water supply) of the proposed project and alternatives:

- Hydrology and Hydraulic Analysis Tajiguas Sanitary Landfill Capacity Increase Project (HDR Engineering, Inc., March 18, 2023)
- Tajiguas Sanitary Landfill Proposed Capacity Increase Project Hydrogeologic and Water Supply Impact Analysis Report (Geosyntec Consultants, June 5, 2023).

A summary of the findings of these studies is provided below.

The analysis of surface and groundwater quality impacts is based on review of data collected at the Landfill property provided in reports to regulatory agencies, including:

- Water Quality Monitoring Report (Third and Fourth Quarter 2022) required by Waste Discharge Requirements (WDR) Order No. R3-2010-0006.
- Quarterly stormwater quality reports required by the Industrial Stormwater General Permit

4.10.1 Setting

Detailed information on the hydrologic/hydrogeologic setting at the Tajiguas Landfill is provided in the Environmental Documents prepared for the Tajiguas Landfill Project. That information is incorporated by reference and the setting information included below summarizes the information and focuses on relevant changes to the water resources setting since completion of those documents, additional information provided by technical studies prepared for the project, and additional data relevant to the current project.

4.10.1.1 Surface Water and Drainage

The Tajiguas Landfill is located within the Cañada de la Pila watershed (approximately 468 acres), which lies within the South Coast Hydrologic Unit as delineated in the Central Coast Region Water Quality Control Plan. The Cañada de la Pila watershed is flanked to the west by the Arroyo Hondo watershed (approximately 2,640 acres) and to the east by the Arroyo Quemado watershed (approximately 1,940 acres) (see Figure 3-2). As compared to the adjacent watershed the Cañada de la Pila watershed is relatively small and does not extend to the crest of the Santa Ynez Mountains. The watershed is divided into three areas for analysis purposes, the upper undeveloped watershed, the Landfill area, and downstream of the Landfill.

Pila Creek is an ephemeral stream that drains the Cañada de la Pila watershed to the Pacific Ocean. The natural channel has been modified on the Landfill property and downstream by construction of U.S. Highway 101 and the Union Pacific Railroad. In the upper watershed area, the northerly reaches of the creek remain in a natural condition. North of the ReSource Center MRF and maintenance shop, as a part of the approved Tajiguas Landfill Reconfiguration Project, Pila Creek has been modified and constructed as a concrete-lined trapezoidal channel.

Pila Creek in the vicinity of the existing and proposed disposal areas is a concrete-lined trapezoidal channel (also referred to as the west concrete channel) which terminates into a flow control structure (42-inch pipe, concrete spillway and earthen overflow channel). The flow control structure routes flow into a 48-inch diameter outlet pipe downstream of the spillway that carries runoff around the western boundary of the Landfill. The flow control structure restricts/meters stormwater flow into the outlet pipe to prevent downstream flooding. A second existing buried 48-inch diameter culvert is located above the primary culvert at a higher inlet elevation to provide back up drainage conveyance capacity. The flow control structure detains peak storm flows for a short period within a 5.8 acre area upstream of the flow control structure comprised of the Pila Creek channel and adjacent areas. This area is known as the Pila Creek Inundation Area and has a capacity of 22.3 acre-feet.

Surface flow reemerges from a box culvert into the aboveground channel of Pila Creek at the southern limit of the Landfill, south of the South Sedimentation Basin. Surface flow in Pila Creek then passes through an access road culvert (prior to leaving the Landfill property) and culverts under U.S. Highway 101 and the Union Pacific Railroad tracks before reaching the Pacific Ocean.

Stormwater runoff from the Landfill is directed to two sedimentation basins which discharge into Pila Creek. These basins (North Sedimentation Basin and South Sedimentation Basin) remove sediment and also function to control the rate of stormwater discharge to Pila Creek. The North Sedimentation Basin is located on the northwestern side of the Landfill (APN 081-150-026) and the South Sedimentation Basin is located at south side of the Landfill (APN 081-150-042, Figure 3-3). Both basins are equipped with a riser and dual skimmers that allow accumulated stormwater to be passively discharged to Pila Creek while retaining sediment in the basin bottom. The North Sedimentation Basin is concrete-lined and the South Sedimentation Basin has a geomembrane liner with protective soil cover.

4.10.1.2 Groundwater Management

Regional

The 2014 Sustainable Groundwater Management Act requires establishment of a groundwater sustainability agency within two years from the date in which the basin was designated medium or high priority, and adoption of a groundwater sustainability plan within 5 years of the date of said designation. The south coast region surrounding the Landfill does not support a designated groundwater basin. The nearest groundwater basin is the Santa Ynez River Valley Groundwater Basin (SYRVGB), located approximately 5.3 miles north of the Landfill property.

The eastern portion of the SYRVGB is nearest to the Landfill property and a groundwater sustainability agency has been formed to manage this sub-basin. The SYRVGB Eastern Management Area Groundwater Sustainability Agency developed a Groundwater Sustainability Plan and submitted the Plan to California Department of Water Resources on April 16, 2022.

Landfill

Groundwater and Leachate Collection Systems. There are four existing and one proposed leachate recovery system and one upgradient groundwater extraction system.

- Leachate Collection and Removal System (LCRS) #1: this system consists of a groundwater extraction trench (cut-off trench) just south of the existing unlined area, below the down-canyon extent of the Landfill. The trench is approximately 200 feet long, three feet wide, 47 feet deep, and is keyed into unweathered Rincon shale. The Landfill uses the trench to intercept polluted groundwater upgradient of the point of compliance.
- LCRS #2: this system collects leachate from a composite lined area east of the unlined active area.
- LCRS #3: this system consists of three 200 feet long horizontal wells within the lower lift of the waste as a horizontal well dewatering system. The system collects leachate from the horizontal wells at the toe of the existing unlined area.
- LCRS #4: this system consists of four vertical dewatering wells (DW 3-1, 3-2, 4-2, and 4-3) constructed within the unlined Landfill.
- LRCS #5: horizontal wells located above the bottom composite liner of the Landfill Phase II and III lined areas to collect leachate.
- LCRS #6 (proposed): this system will overlie the Capacity Increase Project area's bottom composite liner system.

- **North Groundwater Management System:** this system consists of extraction well P-20, a submersible pump, a 10,000-gallon storage tank, and one piezometer. This system extracts groundwater from the buried Pila Creek alluvium channel upgradient of the Landfill, thereby drawing down the water table beneath the unlined portion of the Landfill and decreasing the contact between groundwater and waste.

Landfill Gas Control System. Landfill gas is generated by the decomposition of solid waste at the Landfill and may become dissolved in groundwater (dissolution). The dissolution of landfill gas into groundwater can adversely impact groundwater quality. The Tajiguas Landfill includes a landfill gas collection system (see Section 3.8.3), which collects about 80 percent of the gas generated.

RRWMD collects Landfill gas via landfill gas extraction wells in unlined and lined areas. Landfill gas is generally used by onsite internal combustion engines to create electricity up to a maximum electrical production of 3.1 megawatts. The flare is used to combust excess landfill gas not needed to fuel the engines, or when the engines are not operating. The gas recovery system controls downward and lateral migration of methane and VOCs associated with landfill gas and limits the dissolution of landfill gas in groundwater and soil moisture.

As required by the CCR Title 27 and the Landfill's Waste Discharge Requirements (WDRs), the performance of the leachate collection and recovery system and landfill gas collection system is currently monitored and would continue to be monitored at the Landfill.

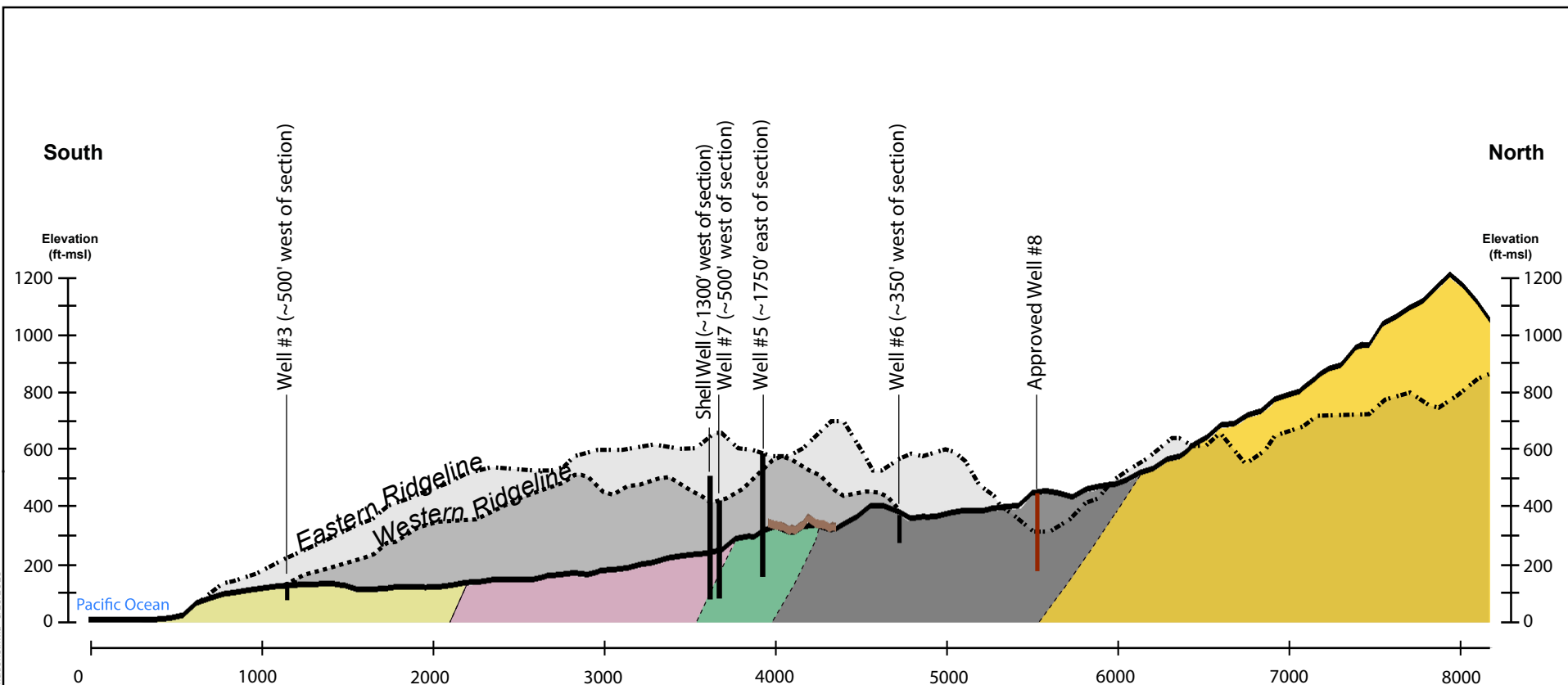
4.10.1.3 Groundwater/Water Supply

Hydrogeologic Setting

The Tajiguas Landfill (including the proposed Capacity Increase Project area) is located on the southern slope of the Santa Ynez Mountains. The project area is underlain by moderately to steeply south-dipping sections of consolidated sedimentary units including from oldest to youngest: Gaviota Formation, Sespe-Alegria Formation, Vaqueros Formation, Rincon Formation, and Monterey Formation (see Figure 4.10-1).

The Gaviota and Vaqueros Formation are consolidated sandstone units, the Sespe-Alegria is an interbedded sandstone and siltstone/claystone unit, and the Rincon and Monterey Formations generally consist of mudstones and shales. Most of the groundwater in these formations is believed to occur in fractures but some intergranular groundwater is also likely to occur in the sandstone units. Groundwater flow direction is generally to the southwest in the Landfill area, although local flow deviations likely occur due to the fractured nature of the aquifer units and the fact that the finer-grained formations, such as the Rincon and Monterey, act as hydraulic boundaries.

Z:\GIS\Projects\GIS Maps\Map Project\TAJIGUAS Landfill\Schematic Cross-Section of Local Geologic Formations.mxd 5/23/2023



Notes:

- Stratigraphy is interpolated using data from Dibblee geologic maps and sparse borehole lithology.
- Lithologic and geologic data used is not comprehensive
- ft-msl = feet above mean sea level
- All locations are approximate

Note: Line of cross-section is located approximately in low point of canyon or former Pila Creek channel. Wells are noted with distance and direction from line of section. Approved Well #8 is proposed to be near canyon low point.

0 1,000 Feet

LEGEND:

- | | | | |
|--------------------------|--------------------------------|--------------------------|--|
| Monterey Formation (Tm) | Sespe-Algeria Formation (Tspa) | Ground Surface | Well projected below ground surface |
| Rincon Formation (Tr) | Gaviota Formation (Tg) | Known Liner Extent | Approved/Uninstalled Well Location |
| Vaqueros Formation (Tvq) | | Projected Ground Surface | Geologic Formation Contact (Approximate) |

Source: Geosyntec Consultants
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

padre
associates, inc.
ENGINEERS, GEOLOGISTS &
ENVIRONMENTAL SCIENTISTS

PROJECT NAME:
TAJIGUAS LANDFILL CAPACITY INCREASE PROJECT
SANTA BARBARA COUNTY, CA

PROJECT NUMBER:
2202-4091

DATE:
May 2023

SCHEMATIC CROSS-SECTION
OF LOCAL GEOLOGIC FORMATIONS

FIGURE
4.10-1

Locally, the Vaqueros and Gaviota Formations are generally considered to be important groundwater sources. The groundwater yield and quality (dissolved general minerals) in these sandstone units is generally considered to be higher compared to the finer-grained Sespe-Alegria, Rincon, and Monterey formations. However, the Sespe-Alegria Formation has previously been an important water source at the Landfill (former Well no. 4) and is currently used as a water supply well for the ReSource Center, and some of the water wells at the adjacent Baron Ranch are also completed in the Sespe-Alegria Formation. The Monterey Formation is also a water source for the Landfill (Well no. 3) and the community of Arroyo Quemado located south of the Landfill along the coastline. The water quality in the Monterey Formation is generally considered poor. The concentration of total dissolved solids in Well no. 3 was measured at 2,500 milligrams per liter in May 2012.

Landfill Water Supply

Groundwater production at the Landfill property is limited to four wells (numbered 3, 5, 6 and 7). Wells no. 5 and no. 7 are completed within the Vaqueros Formation, Well no. 6 is completed within the Sespe-Alegria Formation, and Well no. 3 is completed within the Monterey Formation. An additional off-site groundwater pumping well (Shell Well) completed within the Vaqueros Formation is located in Cañada de la Huerta, the canyon directly west of the Landfill property. This well is available for pumping through license agreement between the well owner, Shell Legacy Holdings, LLC., and the County of Santa Barbara.

Wells nos. 3 and 5 currently serve Landfill operations, and the Shell Well is also available for Landfill use. Wells nos. 6 and 7 serve the ReSource Center. Proposed Well no. 8 (approved but not yet constructed) is also designated for use by the ReSource Center. The ReSource Center also collects stormwater runoff from the CMU deck and reuses it for composting operations.

On-site environmental protection/control systems (see Section 3.8.3) generate water that is currently allowed for dust control use in lined portions of the Landfill only. Water generated by these systems is not suitable for domestic water uses, or dust control outside of lined areas of the Landfill due to elevated concentrations of total dissolved solids, volatile organic compounds, metals, and minerals. The environmental protection/control systems that generate water used for dust control in lined portions of the Landfill and include leachate collection and recovery system described in Section 4.10.1.2. The North Groundwater Management System (Pila Creek in-channel sump pump, north of the Landfill) also provides non-potable water for Landfill use.

Stormwater stored in the North Sedimentation Basin may also be available for construction projects, however pursuant to the Landfill's Habitat Conservation Plan and Incidental Take Permit to protect California red-legged frog, water cannot be stored in the basins before April 1.

Landfill operations require, and supplies include, both potable and non-potable water sources. For example, dust control and construction activities can use either potable or non-potable water. However, only potable supplies can be used for employee's domestic use (e.g., hand washing, emergency showers and eye wash, etc.).

The current baseline annual water use and supply of the Landfill is summarized below and in Table 4.10-1. The water demand has been updated from values provided in the ReSource Center Subsequent EIR (12EIR-00000-00002, Addendum and 15162 determinations) based on actual recorded use by RRWMD staff in 2022. Available supply values for wells are based on safe yield as estimated by Geosyntec Consultants (2023b). Note that groundwater that could be supplied by Well no. 8 is not included in Table 4.10-1 because it may not be constructed as sufficient water is currently available to serve the needs of the Landfill and ReSource Center.

Based on information obtained from 2022 Landfill operations data, an estimated 19.2 acre-feet of potable water is required per year for domestic use, un-lined area dust control, ReSource Center operations and Landfill construction. An estimated total of 6.4 acre-feet of non-potable water is required for Landfill daily operations (i.e., dust control). Combined, the 19.2 acre-feet of potable water, and 6.4 acre-feet of non-potable water, total 25.6 acre-feet of annual water demand.

The difference in overall water supply and water use results in an estimated surplus of 8.1 acre-feet per year of potable water and 7.6 acre-feet per year of non-potable water (see Table 4.10-1). These estimates do not include operation of Well no. 8 which has not been constructed to date. The potable water surplus would be 11.5 acre-feet per year with Well no. 8 in operation.

In future years, some reduction in Landfill water demand will occur as planned construction projects are completed. In addition, less water will be required for dust control as closure of the Landfill occurs.

Table 4.10-1. Tajiguas Landfill Water Use and Supply

Water Source/Use	Volume (acre-feet/year)
Current Water Use (2022)	
Landfill domestic use (potable - Well no. 5)	0.1
Landfill unlined area dust control use (potable - Well no. 5)	3.2
Landfill construction use (potable - Well no. 5)	3.2
ReSource Center use (potable - Well nos. 6 and 7)	12.7
Landfill daily operations (non-potable - Well no. 3, LRCS sources)	6.4
Total Estimated Water Use	25.6
Available Supply	
Well no. 5 (Vaqueros Formation, potable)	11.6
Well no. 6 (Sespe-Alegria Formation, potable)	9.6
Well no. 7 (Vaqueros Formation, potable)	4.1
Shell Well (Vaqueros Formation, potable)	2.0
GLCRS interceptor trench (LRCS-1, non-potable)	2.6
North groundwater management system (non-potable)	Unknown
Leachate collection wells (LRCS-2 through LRCS-5, non-potable)	0.6
Well no. 3 (Monterey Formation, non-potable)	10.8
Total Estimated Water Supply	41.3
Potable Water Surplus (supply minus use)	8.1 (27.3-19.2)
Non-potable Water Surplus (supply minus use)	7.6 (14.0-6.4)

4.10.1.4 Groundwater Quality

Groundwater quality at the Landfill property is regulated by the Central Coast RWQCB under WDR Order No. R3-2010-0006. Groundwater monitoring points have been installed at the Landfill property including three upgradient wells (MW29, MW30 and MW31), two mid-gradient wells (MW10 and MW12) and five down-gradient wells (MW2, MW3, MW4, MW14 and MW15) to evaluate groundwater conditions and monitor potential adverse effects of Landfill operations. In addition to the detection/corrective action monitoring wells, there are water supply wells, monitoring, and piezometer wells that RRWMD monitors primarily for groundwater elevations but these wells can be monitored for supplemental water quality data, if required. The Landfill's Monitoring and Reporting Program under WDR Order No. R3-2010-0006 requires quarterly or semi-annual (varies by monitoring well) sampling and analysis of these monitoring wells.

The most recent Water Quality Monitoring Report (Third and Fourth Quarter 2022) indicates arsenic concentrations in downgradient well MW15 slightly exceeded the primary maximum contaminant level for drinking water (10 parts per billion). Concentrations of arsenic in samples from upgradient and downgradient monitoring wells continue to fluctuate over time. Statistical analyses and upgradient detections indicate naturally occurring and fluctuating background concentrations of arsenic in bedrock formations, and the recent exceedance is not necessarily attributable to a release from the Landfill.

Six compounds (chloride, conductivity, sulfate, total dissolved solids, iron, and manganese) were detected in samples at concentrations above recommended secondary maximum contaminant levels for drinking water. Secondary maximum contaminant levels are established for aesthetic reasons (taste and odor) but do not indicate an adverse health risk. Inorganics including chloride, conductivity, sulfate, total dissolved solids, iron and manganese have been consistently detected in monitoring wells at concentrations in excess of secondary contaminant levels throughout their sampling history. The stable trends observed for these detected compounds is consistent with trends observed in bedrock formations for the neighboring Cañada de la Huerta to the west and suggest they are a natural condition and not attributable to a release from the Landfill.

4.10.1.5 Surface Water Quality

Inland Waters

California's Porter-Cologne Water Quality Control Act (1969) establishes the responsibilities and authorities of the nine Regional Water Quality Control Boards and the State Water Resources Control Board (SWRCB). Each Regional Board is directed to "...formulate and adopt water quality control plans for all areas within the region." A water quality control plan is defined as having three components: beneficial uses which are to be protected, water quality objectives which protect those uses, and an implementation plan which accomplishes those objectives.

The Water Quality Control Plan for the Central Coast Basin (Basin Plan) was last updated in June 2019 and presents a list of 23 beneficial use categories for surface water bodies within the region (including both ocean and inland waters), and identifies which uses apply to individual surface water bodies. The Basin Plan is augmented by the Water Quality Control Plan for Ocean Waters of California (updated in 2019) prepared by the SWRCB.

Arroyo Hondo, Arroyo Quemado and the Pacific Ocean are all listed in the Basin Plan as having a variety of beneficial uses. While Pila Creek is not specifically listed in the Basin Plan, the Basin Plan indicates that surface water bodies not specifically listed are assigned beneficial uses for "domestic and municipal water supply" and "protection of recreation and aquatic life". Designated beneficial uses are regarded as existing whether a water body is perennial or ephemeral, or the flow is intermittent or continuous.

The Basin Plan also includes water quality objectives, which may be in numeric form, or more typically, narrative standards considered necessary to protect designated beneficial uses. Water quality objectives are achieved through enforcement of, and compliance with, the RWQCB's permit actions (i.e., the Landfill's General Industrial Permit and WDRs) and through the implementation of the Basin Plan. Water quality objectives for ocean waters are defined in the Ocean Plan for bacterial, physical, chemical, and biological characteristics, as well as radioactivity.

The Basin Plan also identifies water quality objectives for inland surface waters/enclosed bays/estuaries for color, tastes and odors (water and edible aquatic resources), floating material, suspended material, settleable material, oil & grease, biostimulatory substances, sediment, turbidity, pH, dissolved oxygen, temperature, toxicity, pesticides, chemical constituents, organic substances and radioactivity.

Section 303(d) of the Clean Water Act requires states to identify waterbodies that do not fully support beneficial uses (impaired) and (in some cases) establish total maximum daily pollutant loads for these water bodies. Surface water in Pila Creek is not listed as impaired by the SWRCB.

Surface water quality at the Landfill is regulated under two programs administered by the Central Coast RWQCB, WDR Order No. R3-2010-0006 and the Industrial Storm Water General Permit (SWRCB Order No. 2014-0057-DWQ and National Pollutant Discharge Elimination System [NPDES] General Permit No. CAS00001). WDR Order no. R3-2010-0006 requires RRWMD to complete four stormwater sampling events per reporting period.

The ReSource Center operated under contract to County, operates under three additional water quality permits issued by the Central Coast RWQCB or SWRCB:

- CCRWQCB Order No. WQ 2014-0153-DWQ General WDRs for small domestic wastewater treatment, and MRP Order No. R3-2020-0102 issued January 29, 2021 (for the MRF).
- CCRWQCB Order No. WQ 2016-0068-DDW General WDRs for water reclamation and recycled water use, and MRP Order No. R3-2020-0104 issued January 29, 2021 (for the MRF).
- SWRCB Order No. WQ 2020-012-DWQ General WDRs for commercial composting operations enrollment as a Tier II composting operation issued on June 11, 2021 (for the CMU).

To meet the requirements of both permits (WDR Order No. R3-2010-0006 and SWRCB Order No. 2014-0057-DWQ), stormwater samples are taken at four sampling locations within four hours of the start of discharge. These four sampling locations are:

1. North Sedimentation Basin outlet to the Pila Creek concrete channel.
2. South Sedimentation Basin outlet to lower Pila Creek.
3. Sheet flow run-off from Landfill areas that do not drain to either sedimentation basin (only when stormwater flow occurs).
4. Run-off from the MRF site.

The samples are analyzed for pH, oil and grease, total suspended solids, total iron and nitrate/nitrite as nitrogen (only sampled at the outlet of the South Sedimentation Basin).

The Industrial Storm Water General Permit (SWRCB Order No. 2014-0057-DWQ) provides Numeric Action Levels (NALs) for parameters in discharged stormwater. Historically, discharged stormwater from the Landfill has exceeded NALs for iron and total suspended solids (TSS), and more recently nitrate/nitrite. It's been determined that the average iron concentration in discharged stormwater (22,000 mg/kg) is less than the iron concentration in soil at the Landfill site (28,000 mg/kg).

Exceedances of the total suspended solids NAL in discharged stormwater may be addressed by the addition of a flocculant to stormwater in the North and South Sedimentation Basins. A pilot flocculation study may be conducted during the 2023/2024 wet season to determine the effectiveness of this measure. Flocculant addition (if implemented) is anticipated to also reduce iron levels in stormwater discharges. However, an evaluation of the potential effects of the flocculant on California red-legged frogs that may occupy the basins during dispersal across the Landfill is required before the use can occur.

Recent stormwater sampling in undeveloped areas upgradient of the Landfill has revealed nitrate/nitrite are above the NAL and above the levels of the Landfill's discharged stormwater. Therefore, the Landfill does not appear to be source of elevated nitrate/nitrite in lower Pila Creek.

Potential surface water pollution sources associated with Landfill operations are managed by both structural and non-structural methods at the Tajiguas Landfill. A summary of Best Management Practices (BMP) currently implemented for each activity is provided in Table 4.10-2 taken from the Landfill's Storm Water Pollution Prevention Plan (SWPPP), dated March 2021.

Table 4.10-2. Summary of BMPs Implemented at the Tajiguas Landfill

Area/Activity	Pollutant Source	Potential Pollutants	Best Management Practices
Active Waste Disposal Area	Material handling and storage, dust and particulate generating activities	Aluminum, chemical oxygen demand, iron, oil & grease, lead, pH, total suspended solids, zinc	Good Housekeeping – temporary coverings, Erosion and Sediment Controls – earth dikes and drainage swales, fiber rolls, straw bale barriers, Tracking Control – stabilized access roads, Treatment Controls – concrete channel, bioswale
Green Waste	Material handling and storage	Nitrate+nitrite as nitrogen, pH, total suspended solids	Erosion and Sediment Controls – earth dikes and berms, straw bale barriers, fiber rolls and K-rails
Staging Area	Material handling and storage	Iron, total suspended solids	Erosion and Sediment Controls – earth dikes and berms, fiber rolls and K-rails
Tire Storage	Material handling and storage	Zinc	Exposure Minimization – temporary cover
North Borrow/Stockpile	Erodible surfaces	Iron, total suspended solids	Erosion and Sediment Controls – fiber rolls, gravel bag berms
Storage and Maintenance	Significant spills or leaks	Iron, oil & grease, pH, total suspended solids	Spill Prevention, Control & Cleanup - preventative maintenance, oil tank is stored with secondary containment, Exposure Minimization – covered structure
Vehicle Fueling	Significant spills or leaks	Oil & grease, pH, total suspended solids	Spill Prevention, Control & Cleanup - preventative maintenance, fuel is stored in a double-walled tank

Area/Activity	Pollutant Source	Potential Pollutants	Best Management Practices
Vegetated Hillside (Site-wide)	Material handling and storage, significant spills or leaks, erodible surfaces, dust and particulate generating activities	Iron, total suspended solids	Erosion and Sediment Controls –fiber rolls installed on slopes, maintain/preserve existing vegetation, track walk and hydroseed bare areas, storm drain inlet protection, slope drains

Ocean Waters

The principal State regulatory document for ocean water quality is the California Ocean Plan (SWRCB, updated 2019). The California Ocean Plan sets forth water quality objectives for ocean waters to ensure the reasonable protection of beneficial uses and the prevention of nuisance. The California Ocean Plan includes water quality objectives for four categories, including bacterial characteristics, physical characteristics, chemical characteristics and biological characteristics.

Approximately 3.1 miles of the Pacific Ocean coastline at Arroyo Quemada Beach, located south of the Landfill property has been designated as impaired waters for fecal bacteria (enterococcus) under Clean Water Act Section 303(d).

4.10.1.6 Water Quality Regulatory Setting

Overview

Surface water quality is affected by agricultural, urban, and industrial sources of pollution. Point sources, which are defined as specific outfalls discharging into natural waters, are easily identified and are regulated by California's RWQCBs and the U.S. Environmental Protection Agency (EPA). Nonpoint sources, including polluted runoff from urban and agricultural sources, are more challenging to identify. Nonpoint sources generally drain into a river or waterway over an extended area, or via many individual inlets.

Common classes of water quality pollutants that are regulated under state and federal regulations include inorganics, pathogens, pesticides and other organic compounds. Inorganics include nutrients (phosphorus and various forms of nitrogen including nitrate), salts, and metals (aluminum, antimony, arsenic, copper, cyanide, lead, mercury, nickel, etc.). Pathogens include total coliforms and fecal coliforms, as well as viruses, protozoa, and other microorganisms. Pesticides include herbicides and insecticides. Other organic compounds include VOCs, and petroleum products (fuels, oils, greases, etc.). Water quality physical parameters such as dissolved oxygen are also regulated.

Federal - Clean Water Act

The federal Clean Water Act (CWA) established the basic structure for regulating discharges of pollutants into “waters of the United States.” The CWA specifies a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. The CWA includes the following sections:

- Sections 303 and 304, which provide water quality standards, criteria, and guidelines.
- Section 401, which requires every applicant for a federal permit or license for any activity that may result in a discharge to a water body to obtain a water quality certification that the proposed activity will comply with applicable water quality standards.
- Section 402, which regulates point- and nonpoint-source discharges to surface waters through the NPDES program.
- Section 404, which establishes a program to regulate the discharge of dredged and fill material into waters of the U.S., including some wetlands.

The NPDES permit program was established by the CWA to regulate municipal and industrial discharges to surface waters of the United States. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify the following:

- Effluent and receiving-water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge;
- Prohibitions on discharges not specifically allowed under the permit; and
- Provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

In November 1990, EPA published regulations establishing NPDES permit requirements for municipal and industrial stormwater discharges. Phase 1 of the permitting program applied to municipal discharges of stormwater in urban areas where the population exceeded 100,000 persons. In California, the EPA has delegated its NPDES permitting functions to the SWRCB and the regional boards.

State of California

California State Non-Degradation Policy. In 1968, as required under the federal anti-degradation policy described above, the SWRCB adopted Resolution No. 68-16 a “Statement of Policy with Respect to Maintaining High Quality of Waters in California.” Resolution 68-16 states that the disposal of wastes into state waters shall be regulated to achieve the highest water quality consistent with maximum benefit to the people of the state and to promote the peace, health, safety, and welfare of the people of the state, and provides as follows:

- *“Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies.”*
- *“Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.”*

California Toxics Rule. In May 2000, the SWRCB adopted and EPA approved the California Toxics Rule, which establishes numeric water quality criteria for approximately 130 priority pollutant trace metals and organic compounds. The SWRCB subsequently adopted its State Implementation Policy of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries (SIP). The SIP outlines procedures for NPDES permitting for toxic-pollutant objectives that have been adopted in Basin Plans and in the California Toxics Rule.

Waste Discharge Requirements (WDRs). California’s regional boards also oversee permitting as authorized under the Porter-Cologne Water Quality Control Act. If a project does not require federal permitting, it may still require a state permit found in Division 7 of the California Water Code, the Porter-Cologne Act requires persons who discharge waste that could affect the quality of waters of the State to file a Report of Waste Discharge with the appropriate regional board.

Each RWQCB can adopt WDR General Orders or individual WDR orders to regulate such discharges, and a given discharger will be subject to WDRs either under a General Order or a project specific state permit. WDRs usually include discharge prohibitions and discharge specifications including flow volumes and water quality constituent limitations to which a discharger must adhere. WDRs usually impose water quality monitoring requirements and may require liner systems or other engineered features. The limitations imposed by WDRs vary from region to region and from project to project, depending upon proposed discharge characteristics, and sensitivities of affected resources. In this manner, WDRs protect waters of the State from significant water quality degradation. Alternatively, if no degradation of water quality is anticipated from a proposed discharge, the RWQCB may issue a conditional waiver of WDRs.

With regard to composting operations, on August 4, 2015, the SWRCB adopted General WDRs for Composting Operations (Order WQ 2015-0121-DWQ). This Order was revised on April 7, 2020 and re-issued as Order No. WQ 2020-012-DWQ. This Order includes site design, monitoring and maintenance requirements for commercial composting operations.

On September 25, 2020, the CCRWQCB adopted General WDRs for Active Class III Landfills in the Central Coast Region (Order No. R3-2020-0001). This Order applies to owners and operators of active Class III landfill facilities with waste management units approved for discharge and disposal of nonhazardous solid waste and MSW pursuant to the CCR Title 27, and pursuant to CFR Title 40, part 258. The Landfill, currently regulated by an individual order, is awaiting enrollment under the new Order and is anticipated to be completed in 2023.

Construction Storm Water NPDES Permit. The federal Clean Water Act requires discharges of construction stormwater to waters of the United States to be regulated by a NPDES permit. The State Water Resources Control Board adopted the existing statewide NPDES Construction Stormwater General Permit in 2009 to regulate stormwater discharges associated with construction activities disturbing one or more acres of land or less than one acre but are part of a larger common plan of development or sale that totals one or more acres of land disturbance. The statewide General Permit expired on September 2, 2014 and was replaced by Construction Stormwater General Permit Order 2022-0057-DWQ (adopted September 8, 2022). The new General Permit Order includes:

- New requirements to implement existing total maximum daily loads adopted by Regional Water Quality Control Boards into applicable basin plans.
- New requirements to address discharges from passive treatment technology uses and dewatering activities.
- New eligibility criteria for permit enrollment through a Notice of Non-Applicability.
- Updates to the existing Notice of Termination process.

- Requirements to implement the California Ocean Plan and amendments to the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries, including the statewide Trash Provisions.
- Updated requirements for demolition activities.
- Updated water quality sampling requirements per the federal Sufficiently Sensitive Test Methods Rule.
- Updated monitoring and reporting requirements.
- Antidegradation findings that comply with federal and state antidegradation policies.
- New programmatic permit enrollment options for linear utility construction projects.

Industrial Storm Water NPDES Permit. The federal CWA prohibits discharges of stormwater from industrial projects unless the discharge is in compliance with an NPDES permit. The SWRCB is the permitting authority in California and adopted a statewide General Permit for Storm Water Discharges Associated with Industrial Activities (Order No. 2014-0057-DWQ addressing numerous sources and categories of industrial facilities including recycling facilities. The General Industrial Permit requires the implementation of management measures that will achieve the performance standard of best available technology economically achievable and best conventional pollutant control technology.

The General Industrial Permit also requires the development of a SWPPP and a monitoring plan. Through the SWPPP, sources of pollutants are to be identified and the means to manage the sources to reduce stormwater pollution are described. The General Industrial Permit requires that an annual report be submitted each July 15.

County of Santa Barbara Water Quality Protection Policies

Policies regarding the protection of water quality in the unincorporated areas of Santa Barbara County are provided in the Comprehensive Plan Land Use Element, various Community Plans, and the Local Coastal Plan. The overarching policy which applies to both construction and post-construction is Land Use Element Hillside and Watershed Protection Policy 7 (Coastal Plan Policy 3-19), which states:

“Degradation of the water quality of groundwater basins, nearby streams, or wetlands shall not result from development of the site. Pollutants, such as chemicals, fuels, lubricants, raw sewage, and other harmful waste shall not be discharged into or alongside coastal streams or wetlands either during or after construction.”

Project approval requires a finding of consistency with this and all other applicable water quality policies in the Comprehensive and Community Plans.

4.10.2 Impact Analysis and Mitigation Measures

4.10.2.1 Thresholds of Significance

Significance criteria for water resources were determined based on the State CEQA Guidelines (Appendix G), the County's Guidelines Manual (Groundwater Thresholds and Surface and Storm Water Quality Significance Guidelines) and CCR Title 27.

State CEQA Guidelines - Water Quality

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces in a manner which would:
 - Result in substantial erosion or siltation on- or off-site.
 - Substantially increase the rate or amount of surface run-off in a manner which would result in flooding on- or off-site.
 - Create or contribute run-off water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted run-off.
 - Impede or redirect flood flows.

State CEQA Guidelines - Drainage and Flooding

- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
- Conflict with implementation of a water quality control plan or sustainable groundwater management plan.

Santa Barbara County Environmental Thresholds and Guidelines Manual (Groundwater Thresholds)

- New groundwater production that would result in overdraft of a bedrock aquifer.
- Adverse environmental effects associated with overdraft of an alluvial groundwater basin including water quality degradation, saltwater intrusion, land subsidence, loss of well yield, well interference, and reduction in surface water available to support biological resources.

Santa Barbara County Environmental Thresholds and Guidelines Manual (Surface and Storm Water Quality Significance Criteria)

A significant water quality impact is presumed to occur if the project:

- Is located within an urbanized area of the County and the project construction or redevelopment individually or as part of a larger common plan of development or sale would disturb 1 or more acres of land.
- Increases the amount of impervious surfaces on a site by 25 percent or more.
- Results in channelization or relocation of a natural drainage channel.
- Results in removal or reduction in riparian vegetation or other vegetation from the buffer zone of any streams, creeks or wetlands.
- New industrial facility regulated under NPDES Phase I Industrial Storm Water Regulations.
- Discharges pollutants that exceed water quality standards set forth in the applicable NPDES permit, Basin Plan, or otherwise impairs beneficial uses.
- Results in a discharge of pollutants into an impaired waterbody as designated under Section 303(d) of the CWA,
- Results in a discharge of pollutants of concern to a receiving waterbody, as identified by the RWQCB.

CCR Title 27

Impacts would be considered significant if they would result in one or more of the following effects:

- Contaminate a public water supply.
- Substantially deplete groundwater supplies.
- Allow wastes to come within 5 feet of the highest anticipated groundwater level.
- Interfere substantially with groundwater recharge.
- Exceed groundwater threshold criteria as set forth in water quality protection standards.
- Interfere with flood flows in a 100-year flood hazard area.
- Expose persons or structures to a significant risk of flooding.
- Substantially alter existing drainage patterns resulting in adverse effects to downstream properties.

- Substantially increase run-off, resulting in adverse effects to downstream properties.
- Violate surface water quality standards.
- Violate water discharge requirements.
- Substantially degrade surface water quality.

4.10.2.2 Approved Tajiguas Landfill Expansion Project

The following is a summary of the water resources impacts identified for the approved and permitted Tajiguas Landfill Expansion Project in 01-EIR-05.

1. Run-off volumes associated with the Front Canyon Configuration were calculated to be 28.6 acre-feet per year, which is less than pre-landfill conditions (46 acre-feet per year). Therefore, drainage and flooding impacts were identified as less than significant.
2. The long-term average annual soil loss (contributing to surface water turbidity and total suspended solids) associated with the approved and permitted expansion was estimated to be 382.3 tons per year at closure, which is less than pre-landfill conditions (718 tons per year). The water quality analysis assumed continuing implementation of best management practices to minimize erosion, divert stormwater, capture sediment and prevent stormwater contact with waste. Therefore, impacts to surface water quality due to sedimentation were identified as an adverse but less than significant impact.
3. Water quality impacts due to surface water coming in contact with waste were determined to be less than significant.
4. Based on extensive water quality sampling, surface water discharges from Pila Creek to the Pacific Ocean were determined not to be the source of high bacterial levels at Arroyo Quemado Beach.
5. With construction and operation of the composite liner and leachate collection and removal system, continued implementation of the existing Storm Water Pollution and Prevention Plan and ongoing groundwater monitoring, potential impacts to groundwater quality were considered less than significant.
6. 01-EIR-05 identified a water demand of approximately 50 acre-feet per year at the Landfill used primarily for dust control and soil compaction. The Landfill water sources identified include the in-channel sedimentation basins, the out-of-channel sedimentation basin, two groundwater wells, the leachate collection and removal system and groundwater collection north of the Landfill. The water use analysis identified an excess of available supply, therefore impacts to groundwater quantity were determined to be less than significant.

7. Impacts associated with post-closure Landfill conditions related to surface water, groundwater contamination and water use were determined to be less than significant.

4.10.2.3 Approved Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project

The following is a summary of the water resources impacts identified for the approved Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project in 08EIR-00000-00007.

1. The Subsequent EIR identified that Landfill drainage patterns would be modified by removing the in-channel basins, reconfiguring the waste footprint across the Pila Creek channel, realigning and channelizing Pila Creek, and installation of a skimmer to allow the north (out-of-channel) sedimentation basin to drain freely after storm events. Based on hydraulic modeling conducted by HDR Engineering (2008), drainage modifications associated with Landfill reconfiguration were determined to not exceed the capacity of drainage channels and culverts downstream of the Landfill.
2. The Subsequent EIR identified that removal of the two in-channel basins associated with Landfill reconfiguration could increase the amount of sediment that reaches Pila Creek. Post-closure sediment discharge rates for Landfill reconfiguration would be higher than for the Tajiguas Landfill Expansion Project but would be substantially less than pre-landfill conditions. Overall, sediment-related impacts to water quality were considered less than significant.
3. Sediment accumulated in the concrete-lined Pila Creek channel could impact downstream pipes and culverts if accumulated sediment is not removed and is allowed to wash downstream in a single large slug. Because sediment from the active Landfill area (which represents the majority of the sediment yield) would be directed to the out-of-channel basin, impacts were expected to be less than significant.
4. Landfill reconfiguration may increase the potential for degradation of groundwater quality through contact with buried waste and/or landfill gas. The leachate collection and recovery system and landfill gas collection system, together with the composite liner system would be extended into the reconfiguration area and would minimize the potential for groundwater quality impacts associated with the reconfigured waste footprint.

5. Water supply well No. 4, and monitoring wells MW-10 and MW-13 are located within or near the disturbance area and would be removed. Improper removal of wells can produce vertical conduits for water migration below ground and possible groundwater contamination and/or degradation. All wells would be properly destroyed in accordance with California Department of Water Resources requirements under permits obtained from the Santa Barbara County Environmental Health Services Division. Groundwater quality impacts associated with removal of the wells would be less than significant.
6. Filling of the Pila Creek channel would reduce potential surface water infiltration to groundwater, but this would be partially offset by additional direct recharge of precipitation to native soil due to the reduced disturbance footprint associated with soil stockpiled in the North Slope stockpile area. Overall, the impacts associated with the potential reduction in recharge along upper Pila Creek are considered less than significant.
7. As part of the Landfill reconfiguration, four sources of water supply would be lost, the north and south in-channel basins in Pila Creek, the out-of-channel basin, and Well No. 4. Comparison of projected water demand to projected water supplies for the Landfill Reconfiguration project shows a positive water balance of approximately 8 acre-feet/year. The Landfill Reconfiguration Project would be more reliant on groundwater supplies for Landfill operations and construction, but would be mostly offset by the decreased groundwater usage at Baron Ranch over the duration of the project. Consequently, the increased use of groundwater in the Pila Creek watershed was considered less than significant.
8. Restoration activities at Baron Ranch would require temporary irrigation which may affect groundwater supplies. However, substantially less groundwater would be used by the restoration project than the current agricultural operations in the restoration area. Consequently, it is expected that there will be a decrease in groundwater pumping as a result of the project and a net increase in available groundwater supplies. Therefore, Landfill reconfiguration (including restoration at Baron Ranch) is expected to have a beneficial impact on groundwater supplies in the Arroyo Quemado watershed area.
9. Restoration activities at Baron Ranch would increase the amount of surface water used by riparian plants and may affect groundwater recharge. Slower run-off and fog capture associated with restoration plantings would allow for more percolation or recharge of surface water into the subsurface soils producing overall increases in soil moisture. The increase in soil moisture should over the long-term produce a net increase of deeper recharge to the groundwater aquifers.

10. Groundwater pumping associated with restoration activities at Baron Ranch may impact base flow or spring flow in the vicinity of wells. The predicted overall decrease in groundwater pumping at Baron Ranch and increase in recharge, is expected to generate an increase in the average groundwater table elevation in the aquifers underlying the ranch and the creek corridor. Consequently, the proposed project may result in increased base flow in Arroyo Quemado, which would be a beneficial impact.

4.10.2.4 Approved Tajiguas Resource Recovery Project (ReSource Center)

The following is a summary of the water resources impacts identified for the approved ReSource Center Project in 12EIR-00000-00002 (see Section 1.6.3).

1. The proposed project would introduce impervious surfaces and modify drainage patterns, such that peak storm flows downstream of the Landfill from the 100-year event under future + project conditions would be slightly greater than future (no project) conditions. However, the Landfill access road culvert, U.S. Highway 101 culvert and Union Pacific Railroad culvert appear to have adequate capacity for the 100-year event under both existing + project and future + project conditions. Therefore, the proposed project would result in a less than significant impact to drainage facilities and would not result in flooding.
2. The estimated total Landfill (with project) water demand (42.5 acre-feet/year) would be less than the estimated total water supply (with proposed Well no. 6) (42.8 to 56.5 acre-feet/year). Groundwater pumping associated with the proposed project would not exceed the safe yield of Well nos. 5 and 6. Therefore, increases in groundwater production required to meet project demands would not significantly impact local groundwater supplies.
3. The amount of groundwater to be pumped to supply the proposed project would be relatively small, such that over pumping and substantial declines in groundwater levels are not expected. Consequently, the potential for increased project-generated groundwater pumping to impact groundwater quality is considered low and impacts would be less than significant.
4. Proposed increased pumping from Well nos. 5 and 6 would not substantially interfere with production of other wells (at Baron Ranch) because the amount of drawdown would be small, and these wells are located at least 2,500 feet away. Overall, the potential for well interference is low, and considered a less than significant impact.

5. Pumping from proposed Well no. 6 is not expected to substantially affect springs or stream base flow at Arroyo Quemado on Baron Ranch because there are no reported springs in the Sespe-Alegria Formation, the bedded nature of the Sespe-Alegria Formation would impede the vertical communication of groundwater and surface water, and low amount of drawdown predicted. Therefore, impact to springs/seeps and stream baseflow from groundwater pumpage would be less than significant.
6. The construction and operation of proposed Well no. 6 has the potential to enable landfill gas migration to the groundwater table, which may degrade groundwater quality of the aquifer. This impact is considered potentially significant and was mitigated with the implementation of TRRP MM WR-1 (Compliance with Well Construction Standards) which would reduce impacts to a less than significant level.
7. Storm run-off from proposed facility sites during the construction period may significantly degrade surface water quality. This impact is considered significant and was mitigated with the implementation of TRRP MM WR-2 (Construction Storm Water Quality BMPs) which would reduce impacts to a less than significant level.
8. Operation of the proposed project may significantly impact surface water quality through discharge of contaminated stormwater, inadvertent discharge of AD Facility percolate, wastewater disposal, and leaks or spills from fueling activities. This impact is considered significant and was mitigated with the implementation of TRRP MM WR-3 (Industrial Storm Water Permit Compliance and Spill Prevention) which would reduce impacts to a less than significant level.
9. Run-off from the composting area could significantly impact surface water quality. This impact is considered significant and was mitigated with the implementation of TRRP MM WR-4 (Water Quality Monitoring and Corrective Action Plan) which would reduce impacts to a less than significant level.

4.10.2.5 Proposed Tajiguas Landfill Capacity Increase Project

Impact WR-1: Construction of the proposed Phase IV waste fill area may increase peak storm flows in lower Pila Creek that could result in flooding or damage downstream drainage structures – Insignificant Impact.

The proposed project would increase the horizontal and vertical extent of the Landfill and add a new groundwater protection system (liner), resulting in changes in stormwater flow in the back canyon area of the Landfill. However, based on the hydrological analysis the expanded Landfill surface is not considered an impermeable surface and over the long-term the cover is designed as an evapotranspirative cover system. Interim and permanent drainage facilities would be constructed to convey storm water from the Capacity Increase Project area to the existing storm drain system.

Currently, the flow control structure in Pila Creek limits the maximum 100-year stormwater outflow from the Pila Creek Inundation Area to 187 cubic feet per second (cfs), including 178 cfs in the outlet pipe and 9 cfs flowing over the spillway. Construction of the proposed Phase IV waste fill area including the proposed toe berm would reduce the stormwater storage volume of the Pila Creek Inundation Area and increase 100-year storm flow rates downstream of the flow control structure. Increased peak flows could cause localized flooding or damage to downstream culverts in Pila Creek (Landfill access road, U.S. Highway 101 and Union Pacific Railroad).

However, the proposed project includes modifications to the flow control structure (see Section 3.8.2.5) to increase the spillway elevation by approximately 2.7 feet. These modifications would maintain the existing 100-year peak downstream stormwater flow rate of 187 cfs, including 177 cfs in the outlet pipe and 10 cfs over the spillway. The proposed modifications to the flow control structure would result in a decrease in the Pila Creek Inundation Area to approximately 3.6 acres with an increase in the depth of detained stormwater. Note that stormwater detention in the Pila Creek Inundation Area would be infrequent with a duration of a few hours. Overall, maintaining the existing 100-year peak stormwater discharge rate would not increase Landfill related flooding and impacts to downstream drainage structures.

Impact WR-2: Groundwater pumping to meet the water demands of the Landfill and ReSource Center may adversely affect local groundwater supplies - Insignificant Impact.

Table 4.10-1 presents a water balance assessment for the Landfill and ReSource Center including water supplies and water demands under existing conditions. Supplies are adequate to meet both potable and non-potable water demand. Based on conversations with RRWMD staff, future average annual water demand associated with the proposed project is expected to be the same as the recorded water use in 2022 through the closure of the Landfill in approximately 2038. In future years, some reduction in water demand is expected due to reduced number and/or acreage of anticipated Landfill construction projects, and implementation of closure and final cover activities which will demand less water for dust control.

Geosyntec Consultants (2023) identified the safe yield of affected wells, which is defined as the maximum amount of groundwater which can be progressively withdrawn from an aquifer on an average annual basis without inducing a long-term progressive drop in water level (Santa Barbara County, 2021). The safe yield estimates are based on recent well production data and well test data, and account for a reduction in infiltration area for the Sespe-Alegria Formation associated with the proposed new lined Phase IV waste fill area and modified North Sedimentation Basin. Table 4.10-3 provides a comparison of anticipated well production rates to safe yield estimates. Overall, groundwater production required to support Landfill and ReSource Center operations would not exceed the estimated safe yield of affected wells. Therefore, impacts to groundwater supplies are considered less than significant.

Table 4.10-3. Comparison of Proposed Well Production Rates to the Estimated Safe Yield (acre-feet/year)

Bedrock Formation	Watershed	Estimated Safe Yield	Combined Safe Yield	Proposed Well Production
Vaqueros	Tajiguas	4.1	17.7	10.6 (Well nos. 5 & 7)
Vaqueros	Arroyo Quemado	11.6		
Vaqueros	Canada de la Huerta	2.0		0.0 (Shell Well)
Sespe-Alegria	Tajiguas	13.0	13.0	8.6 (Well no. 6)

Impact WR-3: Project-related groundwater pumping may degrade groundwater quality – Insignificant Impact.

Groundwater pumping can potentially degrade groundwater quality if wells are over pumped or if safe yields are exceeded. Over pumping an aquifer can potentially produce groundwater level declines (head loss in the aquifer) that cause deeper saline waters to intrude into fresher portions of the aquifer and, in the case of the Gaviota coast, sea water intrusion.

Available water quality data for wells within the Sespe-Alegria and Vaqueros Formations indicate that the salinity or total dissolved solids concentrations did not increase substantially during initial pumping of these wells. Furthermore, sea water intrusion into the bedrock aquifers is highly unlikely because the Vaqueros and Sespe-Alegria Formations are not hydraulically connected to the ocean as the formations lie stratigraphically below the Rincon and Monterey Formations which are shale formations and act as hydraulic boundaries to ocean water intrusion.

Construction activities associated with the proposed project may require short-term increases in groundwater pumping for compaction and dust control purposes. As discussed under **Impact WR-2** above, groundwater pumping would not exceed safe yields such that substantial declines in groundwater levels are not expected. Consequently, the potential for increased project-generated groundwater pumping to impact groundwater quality is considered low and impacts would be less than significant.

Impact WR-4: Project-related groundwater pumping may interfere with groundwater production of off-site wells – Insignificant Impact.

Groundwater pumping in a well has the potential to drawdown groundwater levels in neighboring wells. If the drawdown is large then there is potential to significantly increase pumping costs (i.e., electrical consumption) or even dry up a well. Hydraulic connection between the bedrock aquifers beneath the project area is generally considered low because of the interlayered shale, mudstone, and claystone layers in the bedrock formations. These interbedded shale and claystone/mudstone layers act as hydraulic boundaries. Wells completed in one bedrock formation or bedrock aquifer should not significantly impact groundwater levels in other adjacent formations or aquifers. A geologic cross-section schematically showing the well locations is presented in Figure 4.10-1. The highest potential for well interference is for pumping in any one well to impact groundwater levels in a well completed in the same bedrock aquifer.

Two existing groundwater pumping wells are completed within the Vaqueros Formation at the Landfill property (Well nos. 5 and 7). Well no. 7 is located on the western side of the watershed and approximately 900 feet east of the existing Shell Well in the adjacent Cañada de la Huerta watershed (see Figure 4.10-1). The County's Guidelines Manual indicates that a reasonable radius of influence for a Vaqueros Formation well is 800 feet. Maximum production from Well no. 7 for ongoing operation of the ReSource Center is estimated at 4.1 acre-feet per year, assuming a long-term pumping rate of approximately 2.5 gallons per minute. Based on a 15-year pumping timeline the estimated drawdown of the Shell Well is approximately nine feet (Geosyntec Consultants, 2019). The estimated well interference drawdown is considered insignificant because the Shell Well has approximately 400-feet of water column and the estimated nine feet of drawdown represents less than 3 percent of the total water column. Therefore, impacts of project-related groundwater pumping from Well nos. 5 and 7 on well interference are considered insignificant.

Existing Well no. 6 and approved Well no. 8 have or may be completed in the Sespe-Alegria Formation. The nearest neighboring Sespe-Alegria Formation wells are located to the east of Well no. 6 in Arroyo Quemado (Wells A and C; approximately 3,500 feet away). The maximum proposed production from Well no. 6 and potential future Well no. 8 is estimated at 13.0 acre-feet per year combined, which equates to a long-term pumping rate of approximately 8.0 gallons per minute. After 15 years of pumping, well interference (groundwater level drawdown) would be approximately 4.0 feet at the Arroyo Quemado wells. These wells have approximately 400 to 500-feet of water-column such that the estimated 4.0 feet of drawdown in a 400 to 500-foot water column (about one percent of the total water column) would not significantly interfere with groundwater production of the Arroyo Quemado wells. Overall, project-related groundwater pumping would not significantly interfere with off-site wells.

In addition, mitigation measure 01-EIR-05 WR-4 would continue to be implemented and requires monitoring of water wells in the Vaqueros Formation and use of Well no. 3 if water levels are found to be dropping based on Landfill and ReSource Center monitoring of onsite water supply wells using the SCADA system to ensure safe yields are not being exceeded.

Impact WR-5: Project-related groundwater pumping may impact rising groundwater at springs, and stream baseflow – Insignificant Impact.

Natural springs/seeps were historically present in the Pila Creek watershed and are currently present in the Arroyo Quemado watershed. As a part of the Landfill reconfiguration project and modification of the Pila Creek channel, springs/seeps located within Pila Creek were covered with low permeability material and a subdrain was installed to collect the seepage water. Within Pila Creek, low permeability material was placed over the entire Vaqueros Formation and portions of the Sespe-Alegria Formation. No additional seeps or springs are known to exist in Pila Creek within the Vaqueros or Sespe-Alegria Formations.

Project-related short-term increases in pumping from existing wells and approved Well no. 8 (if constructed) is not expected to substantially affect springs or stream base flow at Arroyo Quemado on Baron Ranch because:

- Safe yields would not be exceeded at any well serving the Landfill or ReSource Center.
- There are no reported springs in the Vaqueros or Sespe-Alegria Formation at Baron Ranch.
- The bedded nature of the bedrock formations impedes the vertical communication of groundwater and surface water between the formations.

Therefore, impacts to springs/seeps and stream baseflow from groundwater pumping would be less than significant.

Impact WR-6: Stormwater run-off during construction of the proposed Phase IV waste fill area may degrade surface water quality – Insignificant Impact.

Construction of the proposed Phase IV waste fill area would require approximately 566,000 cubic yards of excavation. Stormwater run-off from this construction area could contain sediment and possibly other pollutants that may adversely affect surface water quality in Pila Creek. The North Sedimentation Basin would not be available during initial excavation and modification of this basin (see Figure 3-6). However, earthwork would occur during the dry season (May 1 to November 15¹⁴ as defined in the Landfill's HCP/ITP). In addition, the Landfill's SWPPP (updated March 2021) would continue to be implemented during the construction phase including BMPs listed in Table 4.10-2.

Implementation of BMPs would reduce the potential for stormwater run-off to contain pollutants that may degrade water quality in Pila Creek. Therefore, construction-related stormwater run-off is not anticipated to significantly impact surface water quality.

Impact WR-7: The Larger Area and Volume of Solid Waste in Place May Adversely Affect Groundwater Quality – Insignificant Impact.

Infiltration of rainfall, stormwater and surface water through buried waste may produce leachate which may degrade groundwater quality. As discussed in Section 4.10.1.4, groundwater monitoring at the Landfill property has detected constituents (arsenic, chloride, sulfate, total dissolved solids, iron, manganese) at concentrations above secondary drinking water standards. However, the monitoring data suggest these constituent concentrations are a natural condition and not attributable to a release from the Landfill. The proposed project would involve a larger area and volume of buried waste subject to infiltration and could result in groundwater quality degradation. However, the proposed project includes a liner system in the Phase IV waste fill area to capture leachate and extension of the leachate collection system. Therefore, the existing and proposed groundwater management system is anticipated to prevent any significant increase in the potential for groundwater quality degradation.

4.10.2.6 Extension of Landfill Life Impacts

As discussed in Section 3.7.1, the proposed Capacity Increase Project would result in extending the active life of the Landfill by approximately 12.75 years and delay full closure and revegetation of the Landfill. This scenario would also result in extending the time period during which existing water resources impacts associated with Landfill operations (see Sections 4.10.2.2 and 4.10.2.3) would continue to occur as discussed below.

¹⁴ The RWCQB typically defines the dry season as May 1 to September 30th and under the existing Landfill requirements wet weather preparedness report and measures would need to be implemented by October 1.

Impact WR-EXT-1: Project-related extension of life of the Tajiguas Landfill would extend Landfill drainage impacts further in time – Insignificant Impact.

Storm drain systems would be extended as needed as new disposal cells are constructed and connected to the existing storm drain system. The North Sedimentation Basin (as modified by the proposed project) and South Sedimentation Basin would be maintained over the life of the Landfill to minimize siltation of Pila Creek. Based on hydraulic modeling conducted for Landfill expansion and reconfiguration, as revised for the proposed project, drainage structures within and downstream of the Landfill are adequately sized for future Landfill + project conditions. No new impacts would occur as a result of the extension of the life of the Landfill; however, previously identified less than significant drainage impacts associated with Landfill operations (see Section 4.10.2.2) would be extended further in time.

Impact WR-EXT-2: Project-related extension of life of the Tajiguas Landfill would extend groundwater and water supply impacts further in time - Insignificant Impact.

With implementation of the project, groundwater extractions necessary to meet Landfill operations (construction, dust control, domestic use) would continue for approximately 12.75 additional years. The impacts discussed above consider yearly water usage and impacts over the extended operational period since safe yields and impacts from overdraft are based on long-term pumping. As discussed above, there will be adequate water available for the proposed project and the ReSource Center and well usage will be monitored so that extractions do not exceed safe yields. Following closure the Landfill water demand would decline. In addition, other non-potable Landfill water sources would continue to be available to meet Landfill operational demand (see Table 4.10-1).

As discussed above, water supply and groundwater protection impacts associated with operation of the Landfill would be less than significant and the extended duration of groundwater pumping due to the extension of the Landfill life would continue to be less than significant.

Impact WR-EXT-3: Project-related extension of life of the Tajiguas Landfill would extend surface water quality impacts further in time - Insignificant Impact.

Exposed areas of the Landfill would continue to be a source of sediment and water coming in contact with residual waste could also be source of other stormwater contaminants. Historically, discharged stormwater from the Landfill has exceeded NALs for iron and total suspended solids, and more recently nitrate/nitrite. However, the iron and nitrate/nitrite exceedances are believed to be due to background conditions based on evaluations conducted as a part of the Industrial Stormwater Permit sampling requirements.

Although not currently regulated, Per- and Polyfluorinated Substances (PFAS) is an emerging constituent of concern in many consumer products and consumer waste. The increased capacity would increase the potential of burying PFAS impacted waste. However, the liner protects any potential exposure to groundwater, and stormwater pollution prevention practices protect any potential exposure to surface water through the extension of the life of the Landfill and post-closure period. The Landfill would continue to be regulated by the RWQCB through the Industrial Stormwater Program and through the issuance of WDRs. This includes ongoing implementation of BMPs, monitoring, reporting and implementation of Exceedance Response Action Plans. Water quality protection standards would apply through the extension of life of Landfill operations and through a minimum 30-year post closure period. Therefore, stormwater run-off impacts to surface water quality associated with the extended Landfill operational life would continue to be less than significant with ongoing compliance with existing regulatory requirements. Water quality impacts associated with the extension of the Landfill life would continue to be less than significant.

Impact WR-EXT-4: Project-related extension of life of the Tajiguas Landfill would extend potential groundwater quality impacts further in time - Insignificant Impact.

As discussed in Section 4.10.1.2, systems are in place to collect leachate and landfill gas to avoid degradation of groundwater quality. As discussed in Section 4.10.1.4, groundwater quality at the Landfill property is extensively monitored to ensure contamination of aquifers is avoided. Continued operation of these systems, groundwater monitoring and compliance with WDR's is expected to avoid significant impacts to groundwater quality.

4.10.2.7 Cumulative Impacts of the Tajiguas Landfill Capacity Increase Project

The proposed project would incrementally contribute to cumulative water resources impacts when considered with other planned projects in the region (see Section 3.9).

Impact WR-CUM-1: The proposed project combined with other cumulative projects may increase stormwater runoff and result in drainage/flooding impacts – Insignificant Cumulative Impact; Project Contribution – Not Considerable.

The Landfill Gas to Renewable Natural Gas Project is the only cumulative project located within the same watershed or may affect the same water resources as the proposed project. This project would increase impervious surfaces on the Landfill property by 1.78 acres and increase stormwater run-off into Pila Creek. Hydrologic modeling conducted for this project indicates storm flows would increase by 1.1 cfs during a 100-year event. The Hydrology and Hydraulic Analysis conducted for the proposed project indicates existing and proposed storm flows would be 493 cfs at the Union Pacific Railroad culvert during a 100-year event. The 1.1 cfs increase is not anticipated to result in damage to downstream drainage culverts. Cumulative impacts related to drainage and flooding are considered less than significant. The incremental contribution of the proposed project (with flow control structure modifications) would not be considerable since the maximum 100-year event flow rate downstream of the flow control structure would not be increased.

Impact WR-CUM-2: Groundwater production required for the proposed project combined with groundwater demands associated with the cumulative projects may adversely affect regional groundwater supplies – Insignificant Cumulative Impact; Project Contribution – Not Considerable.

The Landfill Gas to Renewable Natural Gas Project is the only cumulative project located within the same groundwater basins as the proposed project. This project would require potable groundwater for construction-related dust control and compaction, and short-term irrigation of landscape screening. Therefore, the cumulative use of groundwater would be slightly greater than shown for the proposed project in Table 4.10-1. However, this increase would be temporary and well safe yields would not be exceeded. Cumulative impacts to groundwater supplies would not be significant and the proposed project's incremental contribution would not be cumulatively considerable.

Impact WR-CUM-3: Project-related construction activities combined with other cumulative projects may result in surface water quality impacts in the Pila Creek watershed – Insignificant Cumulative Impact; Project Contribution – Not Considerable.

The Landfill Gas to Renewable Natural Gas Project is the only cumulative project located within the same watershed or may affect the same water resources as the proposed project. Stormwater run-off from this project during construction may result in surface water quality impacts in Pila Creek. However, this project is located within the Landfill property and subject to the Landfill's existing SWPPP. With implementation of the SWPPP, cumulative construction-related surface water quality impacts are considered less than significant. The incremental contribution of the proposed project to cumulative surface water impacts would not be considerable.

Impact WR-CUM-4: Project-related construction activities combined with other cumulative projects may result in groundwater quality impacts in the Pila Creek watershed – Insignificant Cumulative Impact; Project Contribution – Not Considerable.

The Landfill Gas to Renewable Natural Gas Project is the only cumulative project located within the same watershed or may affect the same water resources as the proposed project. However, this project does not include any new wells, groundwater extraction or other features that may degrade groundwater quality. Some of the cumulative projects would require a long-term potable water supply resulting in additional groundwater pumping, which could result in seawater intrusion if affected wells were over-pumped. However, these wells are sufficiently distant from wells used for Landfill operations and construction that cumulative effects (if any) on groundwater quality from over-pumping would not be considerable.

4.11 NUISANCE

4.11.1 Setting

Nuisances are defined as vectors (insects, rodents, and scavenging birds capable of transmitting disease), odors, dust, litter and illegal dumping. Note that worker health and safety is regulated by State and Federal occupational safety organizations and is not an environmental issue addressed under CEQA.

4.11.1.1 Vector Management

Landfill

Landfill activities have the potential to disrupt ground-burrowing rodents and attract other vectors, such as insects and birds. The following vector control measures are implemented to prevent the propagation, harborage, or attraction of flies, rodents, and minimize bird problems:

- Proper housekeeping to reduce the attractiveness of Landfill operational areas for rodents.
- Sufficient cover material and/or approved alternative daily cover (such as tarps) is used on a daily basis to cover the working face and assure that waste is not exposed.
- Proper grading and drainage to avoid water from ponding and attracting flies and mosquitos.
- When needed, a professional falconer and raptors are utilized to control the gull population.

Gulls have been an ongoing challenge at the Landfill because of its proximity to the gull's marine habitat and the attractiveness of potential food sources. A Bird Management Plan was developed in 2003 and updated in 2014 to provide guidance on actions and responsibilities, implementation of actions, and establish a monitoring program to measure the Plan's success. Bird management actions emphasize non-lethal methods to deter gulls from the Landfill with the goal of altering gull and other bird species behavior in compliance with regulatory requirements. A falconer using falcons and hawks occasionally visits the Landfill. Use of the falcons alters the gull's behavior over time as the local gull population learns that raptors inhabit the Landfill and present a lethal threat. Since the introduction of a falconer and raptors at the Landfill, the numbers of gulls have decreased dramatically.

ReSource Center

MRF. The presence of vectors or conditions that could attract them are reduced through appropriate methods including:

- Minimizing accessibility of organic waste to nuisance species so that these species are not attracted to the facility.
- Minimizing features that will support breeding and foraging habitat for insects, rodents and other vectors.
- All tipping of waste is confined to the enclosed MRF building.
- Residual waste to be disposed of at the Landfill is loaded into trailers on a first- in, first-out basis to minimize holding time.
- All residual wastes loaded out or temporarily stored at the site outside of the MRF building are in covered transfer trailers.
- Properly constructed drainage facilities are provided within the building and around the site to reduce the potential for liquids and storm water to pond on the site, mitigating the potential for mosquito propagation.
- If vectors become a problem, a capture/control/eradication program is implemented.

A Vector Management Plan has been developed and implemented which focuses on removing all excess building materials, removing any excess feed from the structures or around bins, removing any standing water/ponding whenever possible, keeping all structures free of trash and debris, proper use and servicing of bait stations (as needed), proper and timely disposal of dead animals, keeping waste tire storage covered., pavement sweeping and vacuum clean-up to remove dust in parking lots, driveways and other areas that could harbor vectors.

ADF. Waste processing activities at the ADF could attract vectors such as gulls, common ravens and American crows, and nuisance mammals such as rats, opossums, raccoons, skunks, red foxes, and feral cats which are not typically found at the site and could become nuisances. A Vector Management Plan has been developed and implemented which focuses on good housekeeping, minimizing accessibility of organic waste to vectors, so that these species are not attracted to the facilities, and for insects and rodents, on minimizing features that will support breeding by and home for these species. Because completely eliminating access to food waste and refuge for nuisance species may not be feasible, the Plan also includes measures to capture and remove individual nuisance species and treat areas with nuisance insects. The Plan is designed to be adaptive and include monitoring of the presence and/or abundance of individual nuisance animals and increasingly more stringent measures to limit accessibility of wastes to these animals.

CMU. Composting operations at the CMU may attract vectors such as gulls, common ravens and American crows, and nuisance mammals such as rats, opossums, raccoons, skunks, red foxes, and feral cats which are not typically found at the site and could become nuisances. The site utilizes a first-in, first-out policy to help control vectors to reduce compost holding time. A Vector Management Plan has been developed and implemented which focuses on good housekeeping, minimizing accessibility of organic waste to vectors so that these species are not attracted to the facilities, and for insects and rodents, on minimizing features that will support breeding by and home for these species. Because completely eliminating access to food waste and refuge for nuisance species may not be feasible, the Plan includes measures to capture and remove individual nuisance species and treat areas with nuisance insects. The Plan is designed to be adaptive and include monitoring of the presence and/or abundance of individual nuisance animals and increasingly more stringent measures to limit accessibility of wastes to these animals.

4.11.1.2 Litter Management

Landfill

Litter associated with operation of the Landfill and related waste haul vehicles are considered primarily nuisance or aesthetic issues and, as such, can affect land uses and populations near or along routes to the site. Litter may be the result of the accidental or purposeful escape of material from vehicles or from debris blown from improperly covered loads, or waste blown from the working face of the Landfill. With the implementation of the ReSource Center, the majority of the waste delivered to the site is processed through the MRF which reduces the amount of waste and potential for litter to be blown from the working face of the Landfill.

Litter at the Landfill is typically from the working face and is likely to be paper, plastic and other light residuals that are easily blown away before they can be compacted and covered. Existing procedures used to control litter include:

- Continuous compaction of waste during operating hours at the working face.
- Cover material, comprised of a minimum thickness of six inches of soil or an approved alternative daily cover (such as tarps), is applied to finished areas during the day and at the end of the working day.
- Routes leading to the working face are inspected daily.
- Portable fencing is placed downwind of the working face and permanent fencing is placed in key areas to trap litter.
- A litter crew of three to six individuals is utilized up to six days a week to pick up litter captured by the portable and permanent fencing, litter that has blown away from the working face, and dispatched as needed.

- Closing the Landfill early on days when litter is observed to be leaving the site due to high wind conditions and waste can be safely stored in the MRF or transfer stations.
- Assessing untarped loads at an additional charge upon entering the Landfill.
- Equipping drainage system inlets with fencing and track racks to prevent litter from entering the drainage system or being discharged to Pila Creek, and clearing the fencing prior to and after storm events.

The Landfill Site Supervisor is responsible for assuring that litter does not accumulate at the Landfill. RRWMD is also responsible for taking appropriate action to collect and control illegal dumping that may occur in the vicinity, related to Landfill operations. Because the Landfill accepts waste primarily from private haulers and a few local residents, illegal dumping by those who use the Landfill has not been an issue.

ReSource Center

MRF. A Litter Management Plan has been developed and implemented for the MRF which includes measures to prevent fugitive litter from leaving the MRF site or escaping from delivery trucks arriving or departing from the MRF site. As is currently required for Landfill operations, all trucks delivering waste to the MRF are required to have their loads covered with tarps or the loads must be in enclosed trucks. The MRF building is operated under negative pressure, reducing the potential for litter to escape. In addition, the MRF tipping floor doors are closed at night and during high wind conditions to prevent debris and litter. A mechanical street sweeper patrols the MRF site daily, cleaning paved surfaces, driveways and along the frontage of the site.

ADF. The control of litter is an integral part of the daily operations of the facility through implementation of best management practices. A routine daily site walk through is conducted by facility personnel to identify and clean areas around the building which have accumulated litter. Tipping of source separated organic waste and organic material produced by MSW processing at the MRF occurs indoors within the ADF, which reduces the potential for wind-blown litter to be produced. Vehicles hauling materials to and from the facility are fully enclosed collection vehicles or tarped transfer trailers. Since the facility is not open to the public, the operator can tightly control the delivery and transfer drivers to enforce the tarping rules.

All waste delivery areas at the ADF are completely enclosed and access doors are shut at night and during high winds, which prevent litter being spread outside the waste delivery areas. All drainage system access points surrounding the ADF are screened to trap any litter that might escape from the building. A street sweeper is utilized to clean the access roads around the ADF. To prevent waste within the building from being carried outdoors, building floors and conveyors are primarily cleaned using dry methods, such as sweeping. Compressed air is also available for cleaning hard to reach areas. Waste is removed daily from corners, underneath equipment, and other out-of-the-way locations by site personnel to prevent material accumulation and interference with the safe operation of the facility.

CMU. The control of litter is an integral part of the daily operations of the facility. The goal of the facility operations is to implement best management practices and contain all blowing litter. A routine daily site walk through is conducted by facility personnel to identify and clean areas around the site that have accumulated litter. Tipping digestate from the ADF occurs within the fenced composting pad, which traps wind-blown litter. This fencing also traps wind-blown litter from the compost windrows. Vehicles hauling materials to and from the CMU will have their loads covered with tarps or in enclosed trucks. Since the facility is not open to the public, the operator can tightly control the delivery and transfer drivers to enforce the tarping rules.

In general, during windy conditions, plastics and paper do mobilize on the Landfill property from operation of the Landfill and ReSource Center facilities and hand collection of the litter is necessary. However, the overall requirement is to prevent litter from going off-site.

4.11.1.3 Odor Management

Landfill

Potential sources of odor at the Landfill include waste-haul trucks, waste at the working face, fugitive landfill gas emissions at the surface, and green waste. Waste-haul trucks (packer, roll-offs and transfer trucks) are enclosed or covered and historically, waste transport vehicles have not resulted in recorded complaints of odors or nuisance violations. Additionally, the working face is kept as small as possible for optimum operations, which minimizes the amount of waste that is exposed and the potential for associated odors. Odors associated with the landfilling operations is typically localized to the area of active disposal.

Particularly odiferous loads are buried and covered immediately to control odors. The daily application of cover material (a minimum thickness of six inches of compacted soil and/or approved alternative daily cover) minimizes the time during which odors may be emitted. On average, an area of waste is exposed for approximately four to six hours before being covered. Uncovered waste is exposed to the atmosphere only during hours when the Landfill is open and accepting waste (currently between 7:00 am and 3:30 pm).

Landfill gas emissions from the buried waste to the atmosphere are known to contain constituents that can cause nuisance odors. The Landfill operates a landfill gas collection and control system that reduces the Landfill's fugitive organic gas emissions by approximately 60 percent by mass, which reduces the potential for odors associated landfill gas emissions.

Of the gases produced in landfills, hydrogen sulfide is responsible for most of the odors produced. Hydrogen sulfide in landfills is primarily produced by the anaerobic decomposition of wallboard (also known as drywall or gypsum board) by bacteria. To control odors generated by the hydrogen sulfide within the landfill gas, a treatment system is used to extract and remove hydrogen sulfide from landfill gas before it is sent to the engines or flare for destruction via incineration.

Quarterly surface emissions monitoring is conducted for methane and nuisance odors and identify areas where landfill gas could escape through the surface of the Landfill. In addition, the surface of the Landfill is inspected and necessary maintenance and repairs to the surface to prevent landfill gas from escaping to the atmosphere via surface cracks.

To control odors at the Landfill, an Odor Impact Minimization Plan (OIMP, updated 2021) has been developed which includes the following features. Landfill staff evaluate on-site odors each workday and the potential release of objectionable odors from the Landfill. If objectionable on-site odors are detected, Landfill staff implement the following protocol:

- Investigate and determine the likely source of the odor.
- Determine if on-site management practices could remedy the problem and immediately take steps to remedy the situation.
- Determine whether or not the odor is traveling beyond the site by patrolling the site perimeter and noting existing wind patterns.
- Determine whether or not the odor is significant enough to warrant contacting the adjacent neighbors and/or the LEA.

Landfill staff also evaluate on-site odors from the MRF, ADF and CMU, if they determine that any of these facilities are a source of on-site odors, they will notify the operators of the facility of the odor problem and ask them to implement best management practices and good housekeeping measures to minimize the release of objectionable odors pursuant to the requirements set forth in their operating documents (i.e., Transfer Processing Report and In-Vessel Digestion Report).

Upon receipt of an odor complaint from the public, or from the LEA, Landfill staff:

- Coordinate with the MRF and ADF/CMU contractors and operator (if needed) and go to the location of the odor complaint to verify that the Landfill is responsible for the odor.
- If it is determined that the Landfill is the source of the odor, operational changes will be implemented to minimize the odor.
- If it is determined that the MRF, ADF or CMU is the source of the odor, Landfill staff will contact the contractor/operator of the MRF, ADF and/or CMU and direct them to incorporate operational changes to minimize the odor as required in their operational documents.
- If warranted, Landfill staff will meet with the LEA and complainant (if known and choosing to participate) within a reasonable time frame to discuss the nature of the source of the odor and operational changes proposed and/or implemented to minimize the odor.
- Document the complaint(s) in the Operations/Complaint Log, including the nature of the complaint and actions taken at the Landfill, if it is the source of the odor, or at the MRF and/or ADF/CMU, if the source of the odor, to minimize future odors.

ReSource Center

MRF. Odor control at the MRF is comprised of the following features:

- The handling of all material inside the completely enclosed, negative pressure building, this includes receiving, processing, storage and load-out.
- A misting system charged with non-hazardous flocculent and deodorizers.
- The transfer of waste on a “first in – first out” basis to reduce holding time.
- The removal of any putrescible residual wastes within 24 hours as standard operating practice and always within the State-mandated 48 hours.
- The immediate load-out and hauling to the Landfill for immediate disposal of any particular material which presents the potential for an odor nuisance.

Originally, the MRF building was designed with a high-volume, biofilter-based air filtration system to reduce particulate matter emissions and odors. The Alisal Fire of October 11 to 17, 2021 impacted the Landfill and the ReSource Center, igniting the MRF biofilter woodchip media, causing heavy damage to the biofilter structures, air ducting, baghouse filters, support systems, scrubbers, sulfuric acid tanks and ancillary systems.

On December 1, 2021, the SBCAPCD granted a Regular Variance authorizing the continued operation of the MRF without the use of the Tip Floor and MRF Recycling Area baghouses, scrubbers, and biofilters, subject to regular monitoring of ammonia, hydrogen sulfide and particulate matter concentrations within the MRF, MRF indoor exhaust fans operating at the maximum rating, and expeditious processing of the MSW and immediate transport of the organics recovered to the ADF. Monitoring data indicates ammonia and hydrogen sulfide concentrations within the MRF building have not exceeded the limits set in the variance (1 ppmv ammonia, 0.1 ppmv hydrogen sulfide).

The MRF operator has proposed to replace the biofilter/baghouse odor and particulate matter treatment system with two new vent stacks. The Regular Variance was valid until October 14, 2022 or such time that the biofilter system replacement is analyzed and the replacement system is permitted and installed, whichever first occurs. An extension of the Variance was granted pending the completion of CEQA analysis and Board of Supervisors approval of a contract amendment incorporating the new vent stacks.

The MRF operator implements the following odor monitoring and evaluation measures. Each day, the operator evaluates on-site odors and planned operations for the potential release of objectionable odors. A handheld analyzer is utilized to perform odor measurements along the downwind property-line in 3-minute intervals in accordance with SBCAPCD Authority to Construct Permit No. 14500 to demonstrate that no objectionable odors from the MRF are detectable beyond the site boundaries.

If objectionable on-site odors are detected, the operator will implement the following protocol:

- Investigate and determine the likely source of the odor.
- Assess the effectiveness of available on-site management practices to resolve the odor event and immediately take steps to reduce the odor-generating capacity of on-site material.
- Determine if the odor traveled off-site by noting existing wind patterns.
- If it is determined possible odor impacts occurred, appropriate LEA and/or neighbors contact is made.
- Record the event for further operational review.

If a complaint is received, the operator will implement the following protocol:

- Coordinate with the ADF/CMU and Landfill operators and MRF/ADF/CMU contractor (as needed) and go to the location of the complaint to verify that the MRF is responsible for the odor.
- Investigate the nature of the source of the odor complaint and implement operational changes to minimize odors.
- If warranted, meet with the LEA and complainant (if known and choosing to participate) within a reasonable time frame to discuss the nature of the source of the odor and operational changes proposed and/or implemented.
- Document the complaint(s) in the Special Occurrence Log, including the nature of the complaint and actions taken to minimize odors in the future.

ADF. Waste processing activities in the ADF have the potential to, and have generated odors. To limit off-site odors, source separated organic waste is tipped inside the enclosed negative pressure ADF. Air within the ADF is filtered through a high volume, bio-filter-based system to control odors. The organic waste is anaerobically digested in the enclosed air-tight digesters for approximately 42 to 56 days (i.e., two 21-28 day cycles). At the conclusion of the anaerobic digestion process, after the high-quality bio-gas has been extracted for beneficial use (energy production), a controlled purging process directs the residual gases in the digester to a flare. The flare functions as an odor control device to combust potentially odorous residual gases in the digesters prior to opening the digester doors and removing the digestate.

The ADF operator has developed and implemented an Odor Impact Minimization Plan which is virtually the same as described for the MRF. Current odor issues associated with the ADF are discussed further below in Section 4.11.1.5.

CMU. Composting activities at the CMU have the potential to, and have generated odors. Following the completion of anaerobic digestion and bio-gas extraction, digestate is transferred to the CMU. The digestate has less putrescible/odor generating material present compared to traditional aerobic windrow composting operations. Odors during final curing is minimized through proper management of an aerobic environment in the compost windrows, including blending digestate with 20-40 percent inert dry wood chips (when necessary), large compost pile size, watering compost piles for approximately 20 minutes after turning events (approximately 20 minutes) to minimize odors generated by exposure of the interior of the windrows, turning of the compost windrows is avoided when the predominant wind direction is from the north (towards populated areas), application of pseudo bio-filter (mulch/finished compost layers), and application of deodorants and proper moisture control

The CMU operator has developed and implemented an Odor Impact Minimization Plan which is virtually the same as described for the MRF.

In January 2022, a deodorizing misting system was installed and began operation along the southern CMU perimeter fence comprised of a reservoir with deodorant, a pump, a water distribution line and mister heads. Current odor issues associated with the ADF are discussed further below in Section 4.11.1.5. Additional information regarding operational changes to reduce odors is also provided in Section 4.11.1.5.

4.11.1.4 Fugitive Dust Control

Landfill

Dust is generated at the site as a result of soil excavation, hauling, and grading, and the movement of waste hauling vehicles. The implementation of the RC reduced the volume of waste buried at the working face will reduce the dust generated as part of Landfill operations. The following measures are used for dust control at the Landfill:

- During construction, water trucks spray all areas with vehicle access to minimize dust from leaving the site and in a manner that does not create runoff.
- Traffic speed is limited to 15 mph on dirt roads.
- Soil stockpiled for more than ten days is covered, moistened, or treated with soil binders to prevent dust generation.
- In non-active areas, exposed soil is moistened or revegetated by seeding and watering, or applying soil binders.
- All permanent access roads are paved and temporary access roads are moistened for dust control during operational hours.
- Paved roads are swept as needed.
- Wind speed is monitored and in case of excessive wind speeds over 50 mph, Landfill daily operations may be suspended.
- Inhalable particulate matter with a diameter size of 10 micrometers (PM10) is monitored at the Landfill boundary.

Water used for dust control is provided by four on-site wells, an offsite well, and LCRS #1 through LCRS #5 (see Section 4.10.1). Water from LCRS #1 through LCRS5 is only applied to the lined area of the Landfill and in accordance with the Revised Tajiguas Landfill Leachate and Groundwater Interceptor Trench Water Application Procedures, submitted to the CCRWQCB on October 12, 2021 as a part of the Tajiguas Landfill Sampling and Assessment Workplan for Per- and Polyfluoroalkyl Substances (Geosyntec, 2021).

ReSource Center

MRF. A street sweeper is used to clean the paved surfaces to minimize accumulation of dust and dirt, and therefore minimize the dust generated by vehicles and potentially migrating off-site. If a particularly dusty load is received, workers moisten it with water sprays from hand-held hoses. The MRF ventilation system maintains a constant negative pressure so that air is drawn in through the open doors and filtered through the biofilters before it is discharged. Additionally, a misting system charged with flocculent and deodorizers is provided within the MRF tipping floor area to reduce dust and odors.

ADF. The ADF generally generates relatively low levels of fugitive dust due to the moisture content of the feedstock (wet organics with generally >60 percent moisture content). A street sweeper is used once per day and as needed to clean the paved surfaces to minimize accumulation of dust and dirt, and therefore minimize the dust kicked up by vehicles, and the dust migrating off-site.

CMU. The moisture level in the digestate/compost at the CMU generally reduces fugitive dust. Prior to turning the compost windrows, the wind speed is measured and logged, and turning of compost windrow is postponed when the wind exceeds 15 mph. Water is sprayed onto the windrows simultaneously with or immediately following turning the windrows to control the creation of dust. In January 2022, a deodorizing misting system was installed and began operation along the southern CMU perimeter fence comprised of a reservoir with deodorant, a pump, a water distribution line and mister heads. This system has the potential to also reduce fugitive dust. A compost irrigation and dust control misting system was recently installed at the CMU to minimize dust. In addition, a covered aerated static pile cover system is under consideration at the CMU, which would substantially reduce dust emissions.

4.11.1.5 Pathogen Management

Pathogens may be present in incoming MSW and/or source separated organic waste. The majority of pathogens are expected to be in the organic fraction of the waste which is processed in the ADF digesters. The low oxygen levels and high temperatures in the digesters have the effect of reducing the amount of pathogens in the resulting digestate. Compost management at the CMU is conducted at relatively high temperatures (130-140°F), in compliance with CCR Title 14, Division 7, Chapter 3.1, Section 17868.3, which is intended to destroy pathogens in the resulting compost. In addition, implementation of the ADF/CMU Vector Management Plan minimizes the spread of pathogens by vectors. Compost windrow temperature monitoring is conducted to ensure a minimum temperature of 131 °F is maintained to control pathogens.

4.11.1.6 Local Enforcement Agency (LEA) Inspection Reports

The Santa Barbara County Environmental Health Services Division is the local enforcement agency for the Landfill and ReSource Center and conducts regular inspections and responds to complaints. Table 4.11-1 provides a summary of LEA inspection reports related to nuisance over the past five years (January 1, 2018 through September 18, 2023). Note that an Area of Concern (AOC) or Notice of Violation (NOV) related to nuisance was not identified prior to the initiation of operation of the ReSource Center in August 2021. The last recorded complaint for Landfill operations was prior to the Landfill Expansion project in 2002. In addition, an odor survey was conducted at the Landfill and the survey found very little odor detected at the Landfill working face (Biolargo, January 3, 2022). Therefore, Landfill operations have not typically been a source of nuisance concerns including litter, odors, vectors or pathogens.

Table 4.11-1. Summary of LEA Inspection Reports

Inspection Date	Facility	Issue	Status	Inspection Report Summary
5/17/22	CMU	Pathogens	NOV	Elevated fecal coliform reported in compost. The CMU operator began more frequent turning of compost windrows to achieve minimum temperature of 131 degrees F.
6/16/22	ADF and CMU	Litter	AOC	Substantial amounts of litter were observed on site, south of the ADF building, on hills facing the ocean. No litter observed off site. LEA required operator to collect and discard accumulation of months of litter from CMU windrows and screening on hill surrounding the CMU
7/20/22	CMU	Litter	AOC	LEA required operator to collect and discard all litter on hill surrounding the CMU and facing the green waste area by August or this will escalate to a violation
9/21/22	CMU	Litter	NOV	Plastic litter reported off-site that may end up at Arroyo Quemada and the Pacific Ocean. Required routine collection to prevent safety hazards, nuisances or similar problems and off-site migration to the greatest extent possible given existing weather conditions.
9/21/22	ADF and CMU	Odors	NOV	Failure to comply with the OIMP, including following complaint response protocol as noted by odor complaints on March 12, 13, 16, April 8 and 23, June 16 and 17, August 5-12 and 26 and September 14-16 and 20. LEA required operator to immediately take additional reasonable and feasible measures to minimize and control nuisance odor impacts offsite.

Inspection Date	Facility	Issue	Status	Inspection Report Summary
10/19/22	ADF and CMU	Odors	NOV	Based on an odor investigation completed by the LEA and continuing odor complaints by residents at Arroyo Quemada Lane that have been unresolved through design and operating considerations identified in the facility's OIMP, the operator is directed to prepare and implement an Odor Best Management Practice Feasibility report to identify Best Management Practices and develop new odor control methods by no later than November 4, 2022.
11/2/22	ADF and CMU	Odors	NOV	Additional complaints were received by the operator and/or LEA on October 3, 4, 8, 10, 12, 16-20, 23, 24, 25 and 29, additionally LEA received complaints directly from the complainant on November 2, 4-7 and 15, 2022.
11/16/22	ADF and CMU	Odors	NOV	Occurrence of odor impacts and failure to implement procedures established in operator's OIMP. Complaints received on November 15, 16 and 17 in addition to earlier complaints received on November 2, 4, 5, 6, 7, 8 and 9 by the LEA.
11/30/22	ADF and CMU	Odors	NOV	Operation of facility has been and is creating odor and nuisance conditions off-site. Complaints received by the LEA on November 18, 23, 26, 28, 2022 to describe a compost odor at their residence on Arroyo Quemada. These off-site odors are noticed during early morning and late evening.
12/8/22	ADF and CMU	Odors	NOV	Operation of facility has been and is creating odor and nuisance conditions off-site. Complaints received by the LEA on December 5, 6, 7, 2022 and on December 13, 2022 complainant described a compost odor at their residence on Arroyo Quemada. These off-site odors are noticed during early morning and late evening.
12/13/22	ADF and CMU	Odors	NOV	Operation of facility has been and is creating odor and nuisance conditions off-site. Complaints received by the LEA on December 13, 2022 to describe a compost odor at their residence on Arroyo Quemada and personally noted by the LEA the same morning of December 13, 2022 while conducting an odor survey. These off-site odors are noticed during early morning and late evening. In addition, a complaint was forwarded to the LEA from the SBCAPCD on December 16, 2022 as noted on Highway 101.
12/22/22	ADF and CMU	Odors	NOV	Operation of facility has been and is creating odor and nuisance conditions off-site. Complaints received by the LEA on December 21, 22, 23 and 24, 2022 to describe a compost odor at their residence on Arroyo Quemada and personally noted by LEA the same morning of December 22, 2022 while conducting an odor survey noted in report comments. These off-site odors are noticed during early morning and late evening.

Inspection Date	Facility	Issue	Status	Inspection Report Summary
12/28/22	ADF and CMU	Odors	NOV	Operation of facility, that has been and is creating odor and nuisance conditions off-site. Complaints received by the LEA on December 21, 22, 24 and 25, 2022.
1/3/23	ADF and CMU	Odors	NOV	Operation of facility has been and is creating odor and nuisance conditions off-site. Complaints received by the LEA on January 5, 2023.
1/13/23	ADF and CMU	Odors	NOV	Operation of facility has been and is creating odor and nuisance conditions off-site. Complaints received by the LEA on January 5, 2023.
1/18/23	ADF and CMU	Odors	NOV	Operation of facility has been and is creating odor and nuisance conditions off-site. Complaints received by the LEA on January 13, 14, 16, 17, 19 and 20, 2023.
1/25/23	ADF and CMU	Odors	NOV	Operation of facility has been and is creating odor and nuisance conditions off-site. Complaints received by the LEA on January 20, 22 and 25, 2023.
2/2/23	ADF and CMU	Odors	NOV	Operation of facility has been and is creating odor and nuisance conditions off-site. Complaints received by the LEA on January 27, 29 and 31, 2023.
2/7/23	ADF and CMU	Odors	NOV	Operation of facility has been and is creating odor and nuisance conditions off-site. Complaints received by the LEA on February 1, 3, 4, 5 and 6, 2023.
2/16/23	ADF and CMU	Odors	NOV	Operation of facility has been and is creating odor and nuisance conditions off-site. Complaints received by the LEA on February 9, 10, 11, 13, 14 and 16, 2023. Additionally, received 10 new complaints from residents on Refugio Road on February 15, another on February 16 and another on February 17, 2023.
2/23/23	ADF and CMU	Odors	NOV	Operation of facility has been and is currently creating odor and nuisance conditions off-site. Complaints received by the LEA on February 1, 3, 4, 5, 6, 8, 9, 10, 13 and 14, 2023. Furthermore, LEA received three complaints on February 10 and an additional four complaints on February 13, 2023 about compost odor at Refugio Road neighborhood.
3/2/23	ADF and CMU	Odors	NOV	Operation of facility has been and is currently creating odor and nuisance conditions off-site. Complaints received by the LEA on March 1, 2 and 4, 2023. No additional complaints received from Refugio Road neighborhood.
3/8/23	ADF and CMU	Odors	NOV	Operation of facility has been and is currently creating odor and nuisance conditions off-site. Complaints received by the LEA on March 7 and 8, 2023. No additional complaints received from Refugio Road neighborhood.

Inspection Date	Facility	Issue	Status	Inspection Report Summary
3/23/23	ADF and CMU	Odors	NOV	Operation of facility has been and is currently creating odor and nuisance conditions off-site. Complaints received by the LEA on March 4, 7, 8, 15, 17 and 18, 2023. No additional complaints about compost odor at Refugio Road neighborhood.
3/27/23	ADF and CMU	Odors	NOV	Operation of facility has been and is currently creating odor and nuisance conditions off-site. Complaints received by the LEA on March 24-27, 2023. No additional complaints about compost odor at Refugio Road neighborhood.
4/7/23	Green-waste processing	Odors	NOV	LEA noticed an offensive odor coming from the wet green waste pile that had accumulated for greater than 7 days because the grinder was out of operation due to parts availability. On 4/17/23, the grinder was put back into operation.
4/7/23	ADF and CMU	Odors	NOV	Operation of facility has been and is currently creating odor and nuisance conditions off-site. Complaints received by the LEA on March 31 and April 4, 5 and 6, 2023. No additional complaints about compost odor at Refugio Road neighborhood.
4/10/23	ADF and CMU	Odors	NOV	Operation of facility has been and is currently creating odor and nuisance conditions off-site. Complaints received by the LEA on April 12, 13, 14, 16 and 17, 2023. No additional complaints about compost odor at Refugio Road neighborhood.
4/19/23	ADF and CMU	Odors	NOV	Operation of facility has been and is currently creating odor and nuisance conditions off-site. Complaints received by the LEA on April 19, 21, 22 and 23, 2023. No additional complaints about compost odor at Refugio Road neighborhood.
4/27/23	ADF and CMU	Odors	NOV	Operation of facility has been and is currently creating odor and nuisance conditions off-site. Complaints received by the LEA on May 1, 2023. No additional complaints about compost odor at Refugio Road neighborhood.
5/4/23	ADF and CMU	Odors	NOV	Operation of facility has been and is currently creating odor and nuisance conditions off-site. Complaints received by the LEA on May 5, 6 and 8, 2023. No additional complaints about compost odor at Refugio Road neighborhood.
5/11/23	ADF and CMU	Odors	NOV	Operation of facility has been and is currently creating odor and nuisance conditions off-site. Complaints received by the LEA on May 11 and 12, 2023. No additional complaints about compost odor at Refugio Road neighborhood.

Inspection Date	Facility	Issue	Status	Inspection Report Summary
5/17/23	ADF and CMU	Odors	NOV	Operation of facility has been and is currently creating odor and nuisance conditions off-site. No complaints received from the Arroyo Quemada Lane community, but LEA received a complaint about compost odor at Refugio Road neighborhood on May 19, 2023.
5/25/23	ADF and CMU	Odors	NOV	Operation of facility that has been and is currently creating odor and nuisance conditions off-site. Received complaints on May 24, 25, 26 and 27, 2023 by email and/or text from the Arroyo Quemada Lane community and no additional complaints from Refugio Canyon residents.
5/30/23	ADF and CMU	Odors	NOV	Operation of facility that has been and is currently creating odor and nuisance conditions off-site. Received complaints on May 31 and June 1st and 2nd, 2023 by email and/or text from the Arroyo Quemada Lane community.
6/7/23	ADF and CMU	Odors	NOV	Operation of facility that has been and is currently creating odor and nuisance conditions off-site. Received complaints on June 3, 8 and 9, 2023 by email and/or text from the Arroyo Quemada Lane community.
6/14/23	ADF and CMU	Odors	NOV	Operation of facility that has been and is currently creating odor and nuisance conditions off-site. Last complaint prior to inspection received June 9th from the Arroyo Quemada Lane community.
6/21/23	ADF and CMU	Odors	NOV	Operation of facility that has been and is currently creating odor and nuisance conditions off-site. Several complaints received on June 19, 21, 22, 23, 25 and 26 from the Arroyo Quemada Lane community.
6/29/23	ADF and CMU	Odors	NOV	Operation of facility that has been and is currently creating odor and nuisance conditions off-site. Complaints received on June 27 and 28, 2023 from the Arroyo Quemada Lane community.
7/14/23	ADF and CMU	Odors	NOV	Operation of facility that has been and is currently creating odor and nuisance conditions off-site. Several complaints received on June 27 and 28 and July 10, 2023 from the Arroyo Quemada Lane community and also received an additional complaint on July 14, 2023 from Refugio Canyon resident.
7/20/23	ADF and CMU	Odors	NOV	Operation of facility that has been and is currently creating odor and nuisance conditions off-site. Last complaint received on July 10, 2023 from the Arroyo Quemada Lane community and also received last complaint on July 14, 2023 from Refugio Canyon resident.

Inspection Date	Facility	Issue	Status	Inspection Report Summary
7/27/23	ADF and CMU	Odors	NOV	Operation of facility that has been and is currently creating odor and nuisance conditions off-site. Complaints received on July 27, 28, 29, 30 and August 1, 2023 from the Arroyo Quemada Lane community. Compost windrow turner may have attributed to odor complaint received from Arroyo Quemada community.
8/1/23	ADF and CMU	Odors	NOV	Operation of facility that has been and is currently creating odor and nuisance conditions off-site. Complaints received on August 2, 3, 4 and 5, 2023 from the Arroyo Quemada Lane community.
8/11/23	ADF and CMU	Odors	NOV	Operation of facility that has been and is currently creating odor and nuisance conditions off-site. Last complaint received on August 4, 2023 from the Arroyo Quemada Lane community.
8/16/23	ADF and CMU	Odors	NOV	Operation of facility that has been and is currently creating odor and nuisance conditions off-site. Last complaint received on August 4, 2023 from the Arroyo Quemada Lane community.
8/25/23	ADF and CMU	Odors	NOV	Operation of facility that has been and is currently creating odor and nuisance conditions off-site. Last complaint received on August 20 and 22, 2023 from the Arroyo Quemada Lane community.

4.11.1.7 Operational Response to ReSource Center (ADF and CMU) Odor-related Notices of Violations

In general, the start-up and commissioning of the ReSource Center has been hampered by the variation in the organic waste stream, damage related to the Alisal Fire and extremely high rainfall over the 2022/2023 wet season (36.91 inches at the Gaviota Coast weather station).

The following operational measures have been implemented at the ADF by the operator to address odor issues:

- Updates to the controls communication system (SCADA).
- Terminated the use of bio-solids (source of odor) as an additive at the ADF bunkers.
- Installed a louvre system to prevent flame-outs of the bio-gas flare during high wind conditions.
- Installed an automatic closing door system at the main ADF truck entrance in an effort to reduce air escaping from the main ADF hall.
- Additional mulch is added to the digesters.

- An additional automatic closing door is installed to the secondary south door of ADF.
- When feasible given space constraints at the CMU, digestate is no longer left in the ADF mixing hall for longer than 24 hours.
- Bio-gas venting from digesters due to pressure releases associated with engine and flare uptime issues was resolved.
- The ADF emergency exhaust fan was found to result in escape of impacted air from the ADF loading hall directly into the atmosphere. This issue was resolved in April 2023.

The following operational measures have been implemented at the CMU by the operator to address odor issues:

- An odor reduction misting system installed on digester loadout belt and CMU fencing.
- From June to October 2022, mulch was used to cover the windrows.
- A new windrow turning protocol was implemented where all windrows are turned the same day.
- The short-term compost backlog (digestate entering the CMU faster than composting can be completed and shipped to market) caused by the compost screener fire (see Section 4.4.1.5) was resolved by shipping partially processed compost to the Santa Maria Regional Landfill and the Agromin composting facility.
- Covered aerated static pile pilot studies were conducted to identify methods to reduce odors from compost piles.
- Petrix BX odor reducing chemical is now added directly to the compost windrows.

In follow up to the covered aerated static pile pilot studies which showed a substantial (97.5 percent control) reduction in composting odors (SG/GORE Composting Systems Pilot Study Program at the Tajiguas Landfill, Goleta, CA, Environmental Management Consulting, April 25, 2023), full scale implementation of a covered aerated static pile system is being proposed for the CMU windrows to reduce odors.

4.11.2 Impact Analysis and Mitigation Measures

4.11.2.1 Thresholds of Significance

Public Health

The County's Guidelines Manual addresses public safety in the context of involuntary public exposure to acute risks associated with hazardous materials. The Guidelines Manual does not provide specific guidance on determining the significance of public health impacts. Therefore, violation of the following regulations pertaining to solid waste processing and composting facilities with regard to public health and nuisance have been adopted as thresholds of significance for this SEIR:

- The solid waste handling and disposal facility operator shall take adequate measures to minimize the creation, emission or accumulation of excessive dust and particulates (California Code of Regulations [CCR] Title 14, Division 7, Chapter 3, Section 17407.4).
- Litter shall be controlled and routinely collected to prevent safety hazards, nuisances and off-site migration (CCR Title 14, Division 7, Chapter 3, Section 17408.1).
- Each operation and facility shall be conducted and maintained to prevent the creation of a nuisance (CCR Title 14, Division 7, Chapter 3, Section 17408.5).
- The operator shall take adequate steps to control or prevent the propagation, harborage, and attraction of flies, rodents, or other vectors, and animals, and to minimize bird attraction (CCR Title 14, Division 7, Chapter 3, Section 17410.4).
- Handling of composting materials shall be conducted in a manner that minimizes vectors, odor impacts, litter, hazards, nuisances and noise impacts, and minimizes human contact with, inhalation, ingestion and transportation of dust, particulates and pathogenic organisms (CCR Title 14, Division 7, Chapter 3.1, Section 17867).

Odors/Nuisance

The County's Guidelines Manual (updated 2021) requires that environmental documents address odor impacts if a project has the potential to cause an odor or other long-term air quality nuisance problem impacting a considerable number of people. As previously discussed, SBCAPCD is the agency responsible for regulating stationary sources of air pollution in the County.

The following SBCAPCD rules that apply to the discharge of odors:

- Rule 303 (Nuisance, not applicable to composting facilities under Health and Safety Code Section 41705): this rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- Rule 310 (Odorous Organic Sulfides): this rule prohibits the discharge of excessive amount of hydrogen sulfide and organic sulfides into the atmosphere from any single source or any number of sources within one contiguous property. SBCAPCD provides quantitative thresholds as the ground level concentrations of hydrogen sulfide at or beyond the property line which are 0.06 ppm for an averaging time of 3 minutes and 0.03 ppm for an averaging time of 1 hour.

4.11.2.2 Approved Tajiguas Landfill Expansion Project

01-EIR-05 for the Tajiguas Landfill Expansion Project (see Section 1.6.2) identified the following nuisance impacts:

1. The potential for rodents to expose on-site personnel to disease was considered a significant but mitigable impact. Mitigation Measure NUI-1 (good housekeeping practices) was adopted to minimize the potential for rodent activity.
2. The potential for nuisance insects (e.g., flies, and mosquitoes to be attracted to ponded water was considered a significant but mitigable impact. Mitigation Measure NUI-1 was adopted to minimize the potential for rodent activity.
3. The potential for impacts (surface water quality degradation, displacement of other bird species, pathogen vector) from large numbers of birds (primarily gulls) attracted to the Landfill was considered significant but mitigable. Mitigation Measure NUI-2 (bird management plan) was adopted to reduce bird activity at the Landfill.
4. The potential for odors to be emitted along roadways during waste transportation was considered a significant but mitigable impact. Mitigation Measures NUI-3 (litter control) and NUI-4 (odor control) were adopted to reduce odors from haul trucks and at the Landfill.
5. The potential for odors from landfill gas emissions was considered a significant but mitigable impact. Mitigation Measure NUI-4 was adopted to reduce odors from the working face and buried waste at the Landfill.

6. The potential for litter impacts from uncovered waste loads was considered a significant but mitigable impact. Mitigation Measure NUI-3 was adopted and requires waste loads to be covered and other litter management activities to minimize off-site transport of litter.
7. The potential for litter impacts from illegal dumping was considered a significant but mitigable impact. Mitigation Measure NUI-3 was adopted and requires implementation of litter management activities.
8. The potential for litter impacts at the working face was considered a significant but mitigable impact. Mitigation Measure NUI-3 was adopted and requires implementation of litter management activities.
9. Dust generated by Landfill operations was considered a significant but mitigable nuisance impact. Mitigation Measure AQ-3 was adopted to reduce dust generation at the Landfill.
10. Rodent, odor, and nuisance dust impacts during the closure/post-closure period of the Landfill were considered significant but mitigable nuisance impacts. Mitigation Measures NUI-1, NUI-4 and dust control (AQ-3) measures were adopted to reduce these impacts.

4.11.2.3 Approved Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project

Nuisance impacts identified in 01-EIR-05 and summarized above for the approved Tajiguas Landfill Expansion Project were determined to be the same for the Landfill reconfiguration. No new or additional impacts were expected to occur. However, the reduced grading associated with the reconfigured waste footprint was expected to potentially reduce dust-related nuisance impacts, but the overall impact level was expected to remain significant but mitigable and mitigation measures included in 01-EIR-05 to address nuisance impacts would continue to be implemented.

4.11.2.4 Approved Tajiguas Resource Recovery Project (ReSource Center)

12EIR-00000-00002 prepared for the ReSource Center (see Section 1.6.3) identified the following nuisance impacts:

1. MRF and/or ADF operations may attract and harbor vectors that may result in an adverse but less than significant public health/nuisance impact.
2. MSW and/or source-separated organic waste may contain pathogens that may result in an adverse but less than significant impact to public health.
3. Tipping of MSW indoors at the MRF would reduce the potential for off-site transport of litter from the Landfill working face resulting in a beneficial impact.

Note: odors were analyzed as a part of the air quality analysis in 12EIR-00000-00002.

4.11.2.5 Proposed Tajiguas Landfill Capacity Increase Project

Existing measures in place to minimize public health and nuisance associated with Landfill operations would continue to be implemented including vector management (Section 4.11.1.1), litter management (Section 4.11.1.2) and odor management (Section 4.11.1.3) and as identified in 01-EIR-05, mitigation measures NUI-1, -2 and -3. The Landfill property experiences downslope wind events (Sundowner winds) exceeding 50 mph, primarily from March through May. Litter management is difficult under these conditions; however, litter fences have proved to be very effective in preventing off-site transport of litter with no Landfill-related complaints or LEA concerns since 2011 (associated with Sundowner winds).

The proposed Phase IV waste fill area would be provided with landfill gas collection pipes connected to the existing treatment system to reduce hydrogen sulfide concentrations and associated odors, and extracted landfill gas would be combusted in the ReSource Center engines or flare.

Bypass waste (such as non-recyclable construction & demolition materials, non-friable asbestos, large dead animals, treated wood waste, and grit/sludge from water treatment facilities) and residual waste resulting from MSW processing by the ReSource Center would continue to be buried in the Landfill. The proposed project would not affect the operation of the ReSource Center, other than providing a new disposal area for residual waste. Nuisance issues associated with start-up and commissioning of the ReSource Center facilities are anticipated to be resolved prior to construction of the proposed project.

The proposed project would increase the overall height of the Landfill with waste filling occurring above the maximum elevation of the prior “top deck” (now the CMU) during the later part of landfilling operations, such that the active face may be exposed to more wind. The top deck was the previous high spot and off-site litter complaints were not previously received when the landfilling was occurring in this area. Some litter may continue to be carried away from the Landfill working face onto other areas of the Landfill property (where it would be collected by the labor crew) but with the implementation of existing litter control measures discussed in Section 4.11.1.2, the proposed project is not expected to increase litter off-site.

4.11.2.6 Extension of Landfill Life Impacts

Impact NUI-EXT-1: Project-related extension of life of the Tajiguas Landfill would extend significant nuisance impacts (potential for illegal dumping and dust) further in time – Significant but Mitigable Impact.

As discussed in Section 3.7.1, the proposed Capacity Increase Project would result in extending the active life of the Landfill by approximately 12.75 years and delay full closure and revegetation of the Landfill. The proposed project would involve construction of the Phase IV waste fill area and continued disposal of bypass waste and residual waste resulting from MSW processing by the ReSource Center. Landfill operations would continue with the same nuisance controls in place, no additional introduction or generation of vectors, pathogens, litter, dust and odors would occur. Significant but mitigable nuisance impacts associated with Landfill operations such as the potential for illegal dumping, dust from Landfill grading and equipment operations (see Section 4.11.2.2) would continue further in time as compared to earlier closure of Landfill in the absence of the proposed project. Compliance with existing waste management regulations regarding litter control and continued implementation of 01-EIR-05, mitigation measures NUI-1, -2 and -3 would continue to reduce these impacts to a less than significant level.

4.11.2.7 Cumulative Impacts of the Tajiguas Landfill Capacity Increase Project

Impact NUI-CUM-1: Implementation of the proposed project combined with other cumulative projects in the region could generate adverse but less than significant cumulative nuisance litter impacts – Insignificant Cumulative Impact; Project Contribution – Not Considerable.

With the exception of the potential construction of individual septic systems, the cumulative projects (see Section 3.9) do not involve waste management or other activities that may generate odors, vectors or pathogens that could impact public health or be considered a nuisance. However, many of these projects may generate litter, at least during construction. Given the dispersed nature of the cumulative projects and the limited scope of most of the projects (single family dwellings or infrastructure projects), cumulative nuisance impacts would be less than significant for odors, vectors, pathogens and litter.

4.12 IMPACTS NOT CONSIDERED SIGNIFICANT

This section of the Subsequent EIR provides a discussion of the environmental impacts of the proposed Capacity Increase Project for issue areas not discussed in Sections 4.1 through 4.11. This discussion focuses on other issue areas and impacts discussed in previous EIRs (Expansion Project, Reconfiguration Project) where there would be no change or only minor changes to the impacts relative to the permitted Tajiguas Landfill Project.

4.12.1 Agricultural and Forestry Resources

The Tajiguas Landfill is zoned and designated for agricultural use (see Section 4.8), but has a waste disposal facility overlay recognizing its use as a landfill. There are no agricultural uses on the Landfill property and the Landfill, once closed would not be suitable for agricultural production. Agricultural activities adjacent to the Landfill property are limited to cattle grazing to the west. The Baron Ranch was purchased by the County specifically to provide a buffer between the Landfill and other agricultural and open space uses. The proposed project would be entirely located within the existing Landfill operational area, which is disturbed and used for Landfill operations and would be accessed from existing Landfill roads. The proposed project would not displace agricultural lands and is not expected to generate any conflicts with any adjacent agricultural activities. Continued implementation of the mitigation measures identified in the Tajiguas Landfill Environmental Documents and various compliance plans (storm water, odors, litter, vectors, etc.) for operation of the Landfill with regards to land use, air quality and nuisances would continue to minimize conflicts with the ongoing agricultural operations in the area. Agricultural impacts would remain less than significant.

California Public Resources Code Section 12220 defines forest land as lands that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. Based on this definition, the nearest forest land is located within the Los Padres National Forest, immediately north of the Landfill property. All proposed improvements would be located within the existing Landfill property, and would not result in any changes in forest land zoning or conversion of forest lands or timberlands.

4.12.2 Paleontological Resources

The Santa Barbara County Comprehensive Plan and Gaviota Coast Plan do not provide any information regarding the distribution of paleontological resources. Within the Gaviota Coast Region, continental terraces, Sisquoc, Monterey, Alegria, and Sespe formations (from the Pliocene and Miocene eras) are known to contain vertebrate fossils (National Park Service, 2004). In addition, a record search was conducted of the on-line collections data base of the University of California Museum of Paleontology. Four genera of marine gastropods (*Ocenebra*, *Conus*, *Mitra*, *Norrisia*) of the Quaternary Period have been reported from "Tajiguas Reef". Numerous foraminiferan (small marine invertebrates) collections originate from the project area (Refugio Canyon, Canada del Capitan).

Marine invertebrate fossils have been found at the Landfill property in the past and on the adjacent Baron Ranch. However, the geologic units at the Landfill property that contain fossils occur over a wide region and are commonly occurring and therefore not considered significant or unique paleontological resources. The construction of the proposed project would occur in areas previously disturbed by historic agricultural activities and initial Landfill earthwork where no paleontological resources occur. Therefore, the project would not impact significant or unique paleontological resources.

4.12.3 Energy

As discussed in the Subsequent EIR prepared for the ReSource Center, the Landfill is a net energy producer due to electricity generated by combustion of landfill gas at the ReSource Center. The proposed project would result in an increase in electricity usage of about two percent through 2038 as the amount of MSW received and processed increases over time. However, Landfill operations would remain a net energy producer.

4.12.4 Mineral Resources

Based on the Santa Barbara County Comprehensive Plan Conservation Element, mineral resources of the County includes oil and gas fields, mercury, diatomite, limestone, phosphate and sand/aggregate. The Gaviota coast supports oil and gas facilities; however, all of these facilities are closed or inactive; including the ExxonMobil Santa Ynez Unit (Platforms Hondo, Harmony and Heritage and Las Flores Canyon onshore processing facility) and the Plains All American Pipeline which have been shut-in since May 2015. There are no active oil or gas wells on the Gaviota coast. The proposed project would not conflict with oil and gas production or prevent access to petroleum resources in the project area.

Mercury, limestone and phosphate mining is not currently conducted on a commercial scale, and no such resources occur in the project area. The California Geologic Survey has identified 10 sand/aggregate production areas in Santa Barbara County, with two sites on the south coast east of the Landfill property. Based on the California Geologic Survey's Aggregate Sustainability in California map (updated 2012), the San Luis Obispo-Santa Barbara Production Area has 25 million tons of permitted sand/aggregate reserves with a 50 year demand of 240 million tons. The proposed project would not conflict with sand/aggregate production or restrict access to these resources in the project area.

4.12.5 Public Facilities

The proposed project would represent a beneficial impact to public facilities by providing a long-term solution for the region's solid waste disposal needs. The project would not require the construction or expansion of off-site facilities. The Landfill property is located in a remote area and is provided security services. The proposed project would not increase the demand for police protection services.

The proposed project is not anticipated to generate any additional long-term employment opportunities. Therefore, no increase in demand for health care and educational facilities would occur. Overall, the project would not result in impacts to public facilities.

5.0 ALTERNATIVES ANALYSIS

This section of the Subsequent EIR identifies alternatives to the proposed Tajiguas Landfill Capacity Increase Project and provides a comparative analysis of the impacts of alternatives pursuant to Section 15126.6 of the State CEQA Guidelines and Article VII.F of the County's Guidelines for Implementation of CEQA. According to the State CEQA Guidelines, the discussion of alternatives should focus on alternatives to a project or its location that would feasibly meet the basic objectives of the project while avoiding or substantially lessening the significant effects of the project. The State CEQA Guidelines indicate that the range of alternatives included in this discussion should be sufficient to allow decision-makers a reasoned choice between alternatives and a proposed project. The alternatives discussion should provide decision-makers with an understanding of the environmental merits and disadvantages of various project alternatives.

The range of alternatives in an EIR is governed by a "rule of reason" that requires the EIR to set forth a reasonable range of alternatives necessary to make a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project (State CEQA Guidelines Section 15126.6 [f]). Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project.

The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision-making. When addressing feasibility, the State CEQA Guidelines state that "among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent)." The State CEQA Guidelines also state that the alternatives discussion need not be presented in the same level of detail as the assessment of the proposed project.

Therefore, based on the CEQA Guidelines, several factors need to be considered in determining the range of alternatives to be analyzed in an EIR and the level of detail of analysis that should be provided. These factors include: (1) the nature of the significant impacts of the proposed project; (2) the ability of alternatives to avoid or substantially lessen impacts associated with the project; (3) the ability of the alternatives to meet most of the basic objectives of the project; and (4) the feasibility of the alternatives.

5.1 ALTERNATIVES SELECTION

The selection of alternatives analyzed in the Subsequent EIR include those alternatives that could feasibly meet most of the basic project objectives and could avoid or substantially lessen one or more of the significant effects of the proposed Project. Section 15126.6 of the State CEQA Guidelines specifies that the "discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede or to some degree the attainment of the project objectives or would be more costly".

The objectives for the project are to meet local and regional solid waste disposal and recycling needs, including the following specific objectives:

- Regain Landfill service life that was planned to be provided by enhanced recovery of recyclable materials and associated reduction in burial of solid waste provided by the ReSource Center.
- Avoid the ratepayer burden of paying for debt service for the ReSource Center simultaneously with cost for transportation and disposal of bypass waste and residual waste (post-ReSource Center processing) at an alternative landfill.
- Maximize disposal opportunities at the Landfill and avoid environmental impacts associated with off-site hauling and disposal when the Landfill reaches its current permitted capacity.
- Provide local facilities for an efficient, combined resource recovery and disposal operation to reduce or eliminate the need for solid waste to be delivered to multiple locations for residuals disposal.

Significant Impacts that have been identified as a part of this EIR analysis include:

- Impact AQ-5: GHG emissions generated by construction and extended Landfill operations (significant and unavoidable)
- Impact BIO-6: Impacts to Crotch's bumblebee (significant and unavoidable)
- Impact BIO-2: Removal of sensitive plant community (significant but mitigable)
- Impact BIO-4: Impacts to nesting birds (significant but mitigable)
- Impact BIO-5: Loss of rare plants (significant but mitigable)
- Impact BIO-7: Loss of mature oak trees (significant but mitigable)
- Impact BIO-9: Construction-related impacts to California red-legged frog (significant but mitigable)
- Impact HAZ-2: Construction-related release of hazardous materials (significant but mitigable)
- Impact CR-1: Impacts to unknown archaeological resources (significant but mitigable)
- Impact N-4: Impacts of blasting noise (significant but mitigable)
- Impact LU-1: Conflicts with residential uses (significant but mitigable)
- Impact LU-2: Conflicts with recreational uses (significant but mitigable)

Based on the project objectives listed above and potentially significant impacts of the project identified, two onsite capacity increase design alternatives were identified for analysis in the Subsequent EIR. In addition, as required under Section 15126.6(e) of the State CEQA Guidelines, the analysis includes the No Project Alternative and what would reasonably be expected to occur (i.e., off-site disposal) in the foreseeable future if the project were not approved.

5.2 ALTERNATIVES IDENTIFIED BUT NOT SUBJECT TO DETAILED ANALYSIS

On-site design alternatives involving adding waste disposal capacity to the undisturbed upper reaches of Pila Creek and the northern slopes of the Landfill property were not considered as these areas are steep, densely vegetated with native upland and riparian vegetation and would likely increase impacts as compared to the proposed project. An additional on-site reduced project design alternative that eliminates impacts to the Landfill maintenance and storage area was also considered but was not carried forward for detailed analysis because it does not reduce potential environmental impacts and is otherwise similar to the proposed project. Construction of a new off-site in-county landfill was also not considered, as impacts associated with constructing a new landfill are expected to be greater than impacts associated with the proposed project and it would not be feasible to complete CEQA review, permitting and construction in the time frame necessary to provide continued waste disposal for the communities served by the Landfill.

5.2.1 Improved Source Separation

Further diversion/separation of solid waste at the source was considered during the initial CEQA review process but was determined not to be feasible and is not studied in further detail in the Subsequent EIR.

As discussed in Section 1.3.1, source separation is conducted by residential and commercial waste generators as required by State law (Assembly Bills 1826, 876, 1383, 54), which reduces the amount of solid waste landfilled and improves the efficiency of recovery of recyclables by the ReSource Center. The efficiency of source separation is improving as facilities are provided by waste haulers (such as separate bins), and residents and commercial waste generators become accustomed to sorting their solid waste. However, as discussed below additional source separation would not significantly increase waste diversion above that provided by the County's ReSource Center.

In reviewing available data, curbside or "source-separated" organics collection programs are unable to achieve the same levels of diversion as the ReSource Center's MRF. As described below, source-separated organics programs have historically experienced low participation rates and capture a much lower percentage of organics when compared to a high-diversion organic waste processing facility like the ReSource Center.

Curbside organics collection programs involve residents either placing their food scraps into a separate curbside bin or adding it to their existing curbside green waste bin. The former option results in increased vehicle miles traveled and GHG emissions from adding another collection route, while the latter can present challenges for jurisdictions like the County of Santa Barbara that operate a yard waste mulch program. Mixed yard waste and food waste is not able to be mulched and must instead be composted.

A recent comprehensive study conducted in Seattle, Washington, showed that despite over a decade of outreach and expansion of existing organics curbside collection programs, over 43 percent of the contents in residential trash carts was still organic waste. In all cases within California, in the past few decades, curbside source separated organics collection programs that include food waste have been burdened with low diversion and participation, and high levels of contamination. In both Alameda County and Marin County, where curbside organics collection programs for commingled food and green waste have been available for over a decade, the typical diversion rate is between 11 and 14 pounds of food waste per capita per year. The most successful program in the City of Berkeley collects approximately 19.75 pounds of food waste per capita per year.

Assuming that the community had access to a facility that had the capacity to compost this material (which it currently does not), and assuming that County would be able to replicate the success of Berkeley, organics diversion would increase by approximately 2,074 tons per year, out of a total volume of roughly 60,000 tons per year of organics historically buried at the Tajiguas Landfill. This equates to capturing for recovery less than 3.5 percent of potential organics. This negligible amount of organics diversion would have an equally insignificant decrease in related GHG emissions for our region, compared to the roughly 56,000 tons of organics currently diverted per year by the ReSource Center.

The most recent study of the ReSource Center MRF showed organics diversion currently at 81.4 percent. The County's MRF has the potential to increase diversion to 89 percent with further improvements. There are no examples of any curbside program that can achieve this high level of diversion.

Current SB 1383 requirements for the MRF to qualify as a high diversion facility are 50 percent diversion of organics which must be achieved in 2023. The diversion requirement will increase to 75 percent in 2025. Both current and future standards are achieved by the MRF with 81.4 percent.

5.2.2 Expanding Curbside Organics Collection

The County's long-standing organics recycling programs and new ReSource Center are designed to achieve compliance with State law (SB 1383), which requires the diversion of organic waste from landfills. Commercial and residential waste that is thrown into a trash cart or bin in Buellton, Goleta, Santa Barbara, Solvang, and the unincorporated areas of the Cuyama Valley, Santa Ynez Valley, and South Coast is processed at the County's ReSource Center. Recyclable materials are recovered and sold, and organics (including food waste) are separated from trash and transformed into compost and energy. This means that residents who live or work in these areas are following the new law by continuing to throw their waste into the same bins.

In addition to the ReSource Center, the County offers other ways for the community to recover and recycle organics through yard waste collection, backyard composting, and commercial food scraps collection and processing. The Commercial Food Scraps Program requires regular education and has experienced challenges with contamination. The County currently has 46 commercial customers participating. This program is voluntary due to the ReSource Center. The material is currently used to enhance the quality of the material processed by the ADF at the ReSource Center.

For the past 18 months, the ADF at the ReSource Center has been undergoing commissioning and acceptance testing. Although this facility is behind in completing full commissioning and acceptance tests, the facility is still diverting roughly half of the organic material it is receiving which equates to an absolute diversion of more than 40 percent of all organics that were buried in the landfill prior to its construction. Once full operations are achieved, 90 percent of organics processed by the ADF will be converted into green energy and compost. As noted above, both current underperforming operations and full operations are diverting significantly more than the projected diversion of 3.5 percent that would be achieved through an improved curbside program and the establishment of a new composting facility.

5.2.3 Increased Sorting and Separation at the County Transfer Stations

Sorting and separation are also conducted when solid waste is unloaded at the South Coast Recycling and Transfer Station (SCRTS) and the Santa Ynez Valley Recycling and Transfer Station (SYVRTS) before being consolidated and transferred to the Landfill. Based on recent diversion data, approximately 32 percent of solid waste received (less green-waste and Source Separated Recyclables that are consolidated) at the SCRTS is recycled directly or transferred to the ReSource Center for further sorting and recovery of recyclables and organics. Based on recent diversion data, approximately 32 percent of solid waste received (less green-waste and Source Separated Recyclables that are consolidated) at the SYVRTS is recycled directly or transferred to the ReSource Center for further sorting and recovery of recyclables and organics. The Resource Recovery and Waste Management Division plans to reorganize the SYVRTS to improve sorting and recovery of recyclable materials, including changing the location where municipal solid waste (MSW)/recycling loads and green-waste loads are tipped, separated, processed and loaded for transport off-site.

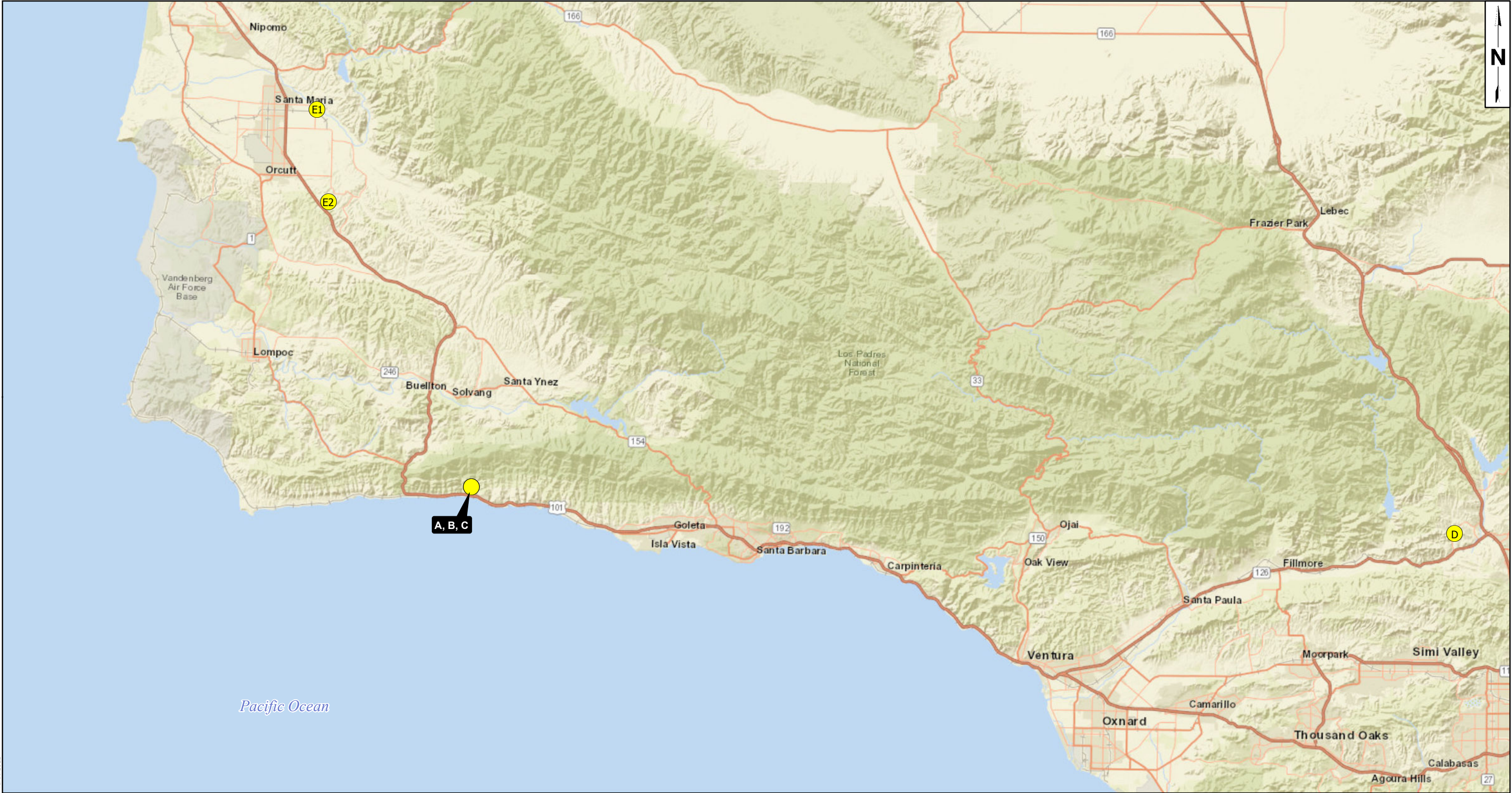
Over time, improved facilities and practices are anticipated to increase the amount of solid waste recycled and not disposed in the Landfill. However, the increased amount diverted from Landfill disposal would be a very small fraction of the anticipated disposal needs and would not have a meaningful effect on extending the Landfill life necessary to meet the project objectives. Therefore, further diversion/separation of solid waste at the source cannot be considered a feasible alternative to the proposed project.

5.3 ALTERNATIVES SUBJECT TO DETAILED ANALYSIS

The following five alternatives were subject to detailed analysis. The location of the alternative sites is provided in Figure 5-1. For purposes of the off-site disposal alternatives analysis the assumption is that the alternative landfill would need to accommodate disposal of 180,030 tons/year (~586 tons/operating day) beginning in approximately 2026 and up to 202,870 tons/year (~661 tons/operating day) in 2038 of residual and bypass waste. A summary of the characteristics of the on-site alternatives is provided as Table 5-1.

Table 5-1. Summary of the On-site Alternatives Studied

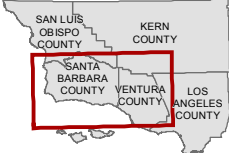
Parameter	No Project Alternative (A)	Reduced Project Alternative – Vertical Only (B)	Reduced Project Alternative – Horizontal Only (C)	Proposed Project
Maximum Landfill elevation (feet)	620	655	620	650
Disposal area (acres)	118	118	122.5	132.25
Proposed design capacity increase (million cubic yards)	0	2.15	2.71	6.1
Total Landfill capacity (million cubic yards)	23.3	25.5	26.0	29.4
Approximate Landfill life (years, as of April 2022)	3.9	9.6	10.8	16.7
Approximate Landfill life (years, from Landfill closure in March 2026)	0	5.7	7.9	12.75
Projected date capacity would be reached	March 2026	November 2031	March 2033	December 2038



LEGEND:

- | | |
|--|--|
| A No Project Alternative (Tajiguas Landfill) | D Chiquita Canyon Landfill (export) |
| B Alternative Capacity Increase Plan-Increased Height | E1 Santa Maria Regional Landfill (export) |
| C Alternative Capacity Increase Plan-Increased Lateral Footprint | E2 Santa Maria Integrated Waste Management Facility (export) |

MAP EXTENT:



Source: Esri Online Street Basemap
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.



PROJECT NAME: TAJIGUAS LANDFILL CAPACITY INCREASE PROJECT
SANTA BARBARA COUNTY, CA

PROJECT NUMBER: 2202-4091

DATE: December 2022

ALTERNATIVE SITE LOCATION MAP

FIGURE 5-1

- A. **No Project Alternative (Alternative A):** The No Project alternative includes continued disposal of MSW at the existing, permitted Landfill until the current permitted disposal capacity is reached in approximately March 2026 (see Table 5-1). As the County is required to provide waste disposal services for the communities currently served by the Landfill, after approximately March 2026 the County would need to provide other disposal options. State CEQA Guidelines Section 15126.e.3.C states: “After defining the no project alternative...the lead agency should proceed to analyze the impacts of the no project alternative by projecting what would reasonably be expected to occur in the foreseeable future if the project was not approved, based on current plans and consistent with available infrastructure and community services.” Consistent with this direction, absent implementation of the proposed project, the County would need to export waste to other landfills (see Alternatives D and E).
- B. **Reduced Project Alternative (Alternative B) – Vertical Only Capacity Increase:** This Alternative involves increasing the maximum elevation of the permitted waste disposal area to 655 feet above mean sea level to provide additional airspace for waste disposal, with no change in lateral footprint. This Alternative would provide approximately 2,153,920 cubic yards of additional airspace, a projected site life of approximately 9.6 years from April 2022 accounting for the existing remaining airspace, and capacity would be reached in approximately November 2031 (see Table 5-1).
- C. **Reduced Project Alternative (Alternative C) – Horizontal Only Capacity Increase:** This Alternative involves an approximately 4.5 acre horizontal increase in the disposal area to provide additional airspace for waste disposal, with no change in maximum disposal area elevation. The Alternative would provide approximately 2,664,000 cubic yards of additional airspace, a projected site life of approximately 10.8 years from April 2022 accounting for the existing remaining airspace, and capacity would be reached in approximately March 2033 (see Table 5-1).
- D. **No Project Alternative (Scenario 1) (Alternative D) - Waste Export to the Chiquita Canyon Landfill:** The County’s waste would continue to be disposed of at the Landfill until the currently permitted capacity is reached (~March 2026) and then all of the community’s solid waste requiring burial from the Landfill watershed would be exported to the Chiquita Canyon Landfill located in western Los Angeles County off Route 126. The Chiquita Canyon Landfill is a private landfill operated by Republic Services of California approximately 95 road miles east of the Tajiguas Landfill.

- E. No Project Alternative (Scenario 2) (Alternative E) - Waste Export to the Chiquita Canyon Landfill and Santa Maria Regional Landfill OR Integrated Waste Management Facility:** The County's waste would continue to be disposed of at the Landfill until the currently permitted capacity is reached (~March 2026) and then export of non-recyclable waste generated in the Santa Barbara area to the Chiquita Canyon Landfill and export of non-recyclable waste from the SYVRTS and bypass and residual waste from the ReSource Center to the Santa Maria Regional Landfill until the City of Santa Maria's planned Integrated Waste Management Facility (IWMF) is operational (anticipated to be 2027-2028, but currently undergoing revised environmental review and permitting). The Santa Maria Regional Landfill is approximately 52 road miles north of the Tajiguas Landfill via U.S. Highway 101, and the IWMF is approximately 39 road miles via U.S Highway 101.

Financial Considerations for Off-site Transport and Disposal

Alternatives D and E involve off-site transport and disposal once currently permitted capacity is reached in March 2026. In addition, Alternatives B and C would require off-site transport and disposal up to 7 and 5 years (respectively) before debt service on the ReSource Center is complete. One of the primary objectives of the proposed project is to "avoid the ratepayer burden of paying for debt service for the ReSource Center simultaneously with cost for transportation and disposal of bypass waste and residual waste (post-ReSource Center processing) at an alternative landfill".

The following analysis prepared by RRWMD (2023) provides information on the financial impact of off-site transportation and disposal to provide context on the alternative analysis and the project objective.

Cost of the Proposed Project. Based on current values, the cost of constructing the Proposed Capacity Increase Project is estimated to be approximately \$20,000,000 for an extended landfill service life of 12.75 years or an annual cost of approximately \$1,568,627 (compared to the cumulative cost of \$167,000,000-\$170,850,000 and annual cost of \$13,100,000-\$13,400,000 for Alternatives D and E described below). Construction is anticipated to take roughly two years, beginning in fiscal year 24/25 and ending in fiscal year 25/26. As part of the annual budget process, RRWMD is required to acknowledge the depreciation cost of its capital assets. As such, RRWMD maintains a capital reserve for maintenance and replacement of assets. It is estimated that RRWMD will have a capital replacement reserve of approximately \$25,600,000 by fiscal year 24/25 without having to adjust the tipping fee charged at its facilities beyond the regular cost of living adjustment.

Cost of the No Project (Alternatives D and E). As a required part of the EIR, a No Project Alternative is being analyzed. As noted in the discussion above the consequence of the No Project Alternative is off-site disposal. Fiscal impacts of off-site disposal would be significantly greater than the proposed project. This is because all waste products that cannot be recovered for recycling or composting would have to be consolidated at one of the four existing waste handling facilities servicing the Tajiguas Landfill wasteshed and transported to off-site permitted landfills for disposal. The current waste handling facilities servicing the Tajiguas Landfill wasteshed include SYVRTS, SCRTS, the MarBorg Construction & Demolition Recycling and Transfer Station, and the ReSource Center. Each of these facilities will continue to operate and produce residual (non-recyclable and non-organic) material approximating 180,030 tons per year as collected from the communities served by the Landfill.

For Alternative D (all residual material transported to and disposed at the Chiquita Landfill), the material will need to be transported between 136-210 miles (round trip), depending on the origin of the waste. The material will be deposited at the landfill at a rate of \$70 per ton, and the tractor trailer will return to its place of origin. The cost to transport this material on an annual basis is approximately \$4,500,000 per year. The cost to dispose of the material is approximately \$12,600,000 per year for a total transportation and disposal cost of \$17,100,000 per year at 2023 pricing.

For Alternative E (residual material from SYVRTS and the ReSource Center delivered to City of Santa Maria Landfill (or the IWMF when available) and residual material from SCRTS and MarBorg Transfer Station delivered to the Chiquita Landfill) total transportation costs are approximately \$3,300,000 and annual cost for disposal is approximately \$13,500,000 per year for a total cost of \$16,800,000 per year at 2023 pricing.

By no longer operating the Tajiguas Landfill for residual disposal, operational costs will be reduced by approximately \$3,700,000 per year with fewer operational supplies, labor and fuel. Accounting for these cost savings results in a net cost to the community of approximately \$13,100,000 - \$13,400,000 per year.

The proposed project is to extend the life of the existing landfill by approximately 12.75 years so the total cost for Alternative D and E is approximately \$167,000,000 to \$170,850,000 to the Tajiguas wasteshed at 2023 pricing. This is substantially greater than the one-time construction cost of \$20,000,000 for the proposed Project.

Impact to the Waste Management Tip Fee and Contracts with Participating Jurisdictions. In order to pay for increased costs of approximately \$13,400,000 per year, RRWMD would have to increase the tipping fee at its facilities from the projected \$192 per ton to \$280 per ton for fiscal year 25/26. This increased tip fee would have to be maintained through the end of the debt payment schedule for the ReSource Center (fiscal year 38/39). This projected increase to the per ton tip fee is so significant as debt financing obligations for the ReSource Center have to be met (\$10,680,000 in fiscal year 24/25 increasing to \$16,900,000 in fiscal year 38/39) as well as maintaining a debt service coverage ratio of 1.5 (operating revenue is required to exceed operating expenses by 1.5 excluding the cost of capital).

Section 4.3.D of the Waste Delivery Agreements executed between the County and the cities of Goleta, Santa Barbara, Solvang, and MarBorg (for the City of Buellton) contains a protocol to address the scenario that the County has to increase its tip fee at the ReSource Center greater than 7.5 percent in a single year or 15 percent in the past three consecutive years. Increasing the tip fee from \$192 to \$280 per ton is an approximate increase of 46 percent and would require the initiation of the protocol described below.

“If two-thirds of the Public Participants representing at least two-thirds of the annual amount of Acceptable Materials delivered during the previous year object to the rates proposed by the County, the Operating Committee shall be convened (within 30 days of receipt of Annual Budget) and shall be charged with establishing rates sufficient to generate (after taking into account revenues from the sale of Recyclable Materials, the proceeds of insurance and other receipts), Net Current Revenues during each Agreement Year equal to 100 percent of Debt Service for such Agreement Year, Net Revenues during each Agreement Year equal to fifty percent (50 percent) of the Debt Service for such Agreement Year plus, in each case, all other amounts required to be paid by the County to provide the services set forth in Section 3.1 and to meet the requirements of the Bond Documents.”

“If two-thirds of the Operating Committee representing at least two-thirds of the annual amount of Acceptable Materials delivered during the previous year vote to adopt the rates proposed by the Operating Committee, such rates shall be utilized. If two-thirds of the Operating Committee representing at least two-thirds of the annual amount of Acceptable Materials delivered during the previous year do not approve such alternate rates, or should the alternate rates not be approved by two-thirds of the Operating Committee within forty five (45) Days of convening the Operating Committee, then the initial rates proposed by the County shall be approved. The resolution of the Acceptable Materials Charge must be complete by April 1 of the preceding Agreement Year before its effective date.”

In the agreements, Operating Committee is defined as:

“a committee comprised of each Public Participant (including the County). Each Public Participant (including the County) will be allocated one representative on the Operating Committee. The Operating Committee can be called to order as necessary. The representative will be the City Manager or his/her designee who is authorized to vote on behalf of the represented Public Participant. Each representative will have a weighted vote proportionate to the amount of Acceptable Materials such Participant delivered during the Agreement Year as compared to the total amount of Acceptable Materials delivered by all Public Participants during the prior Agreement Year. A two-thirds vote is necessary to support a decision by the Operating Committee.”

Due to the need to convene the Operating Committee and the requirement of a two-thirds vote (representation based on the quantity of material delivered to the ReSource Center by each Public Participant) to approve a proposed tip fee, the County's ability to increase the tipping fee by 46 percent is uncertain and its ability to meet the bond financing obligations could be jeopardized. This uncertainty, coupled with the net cost to the community of \$167,000,000-\$170,850,000 over a 12-year period (compared to \$20,000,000 for the proposed Project), makes Alternatives D and E economically unreasonable and infeasible until the debt service for the ReSource Center is fully paid. It is important to note that once the debt has been paid in fiscal year 38/39, the savings of the annual debt cost of \$16,900,000 will be sufficient to pay for the cost to consolidate, transport and dispose of residual material at an alternative landfill without creating the need to increase the tip fee more than the regular cost of living adjustment.

Impact to the Ratepayer. Assuming the required tip fee increase was approved by all participating jurisdictions there would be significant financial impacts to franchise ratepayers. For example, in unincorporated Santa Barbara County, residential customers subscribing to 96-gallon cart service would experience an approximate rate increase from \$67.47 to \$78.13 per month (an approximate 16 percent increase on average or an added cost of \$128 per year). Commercial customers subscribing to a 3 cubic yard container serviced 3 times per week would experience an approximate rate increase from \$1,041.90 to \$1,303.88 per month (an approximate 25 percent increase or an added cost of \$3,144 per year). There would also be a comparable increase to the rates for non-franchise and/or self-haul customers at the Tajiguas Landfill and County-owned transfer stations.

This information is also included, as appropriate, in the analysis of the Alternatives below.

5.3.1 Alternative A - No Project

5.3.1.1 Description

This Alternative assumes that Landfill operations would continue under the currently permitted operational parameters and design. Operational parameters include a total permitted operational area of 357 acres, a permitted waste footprint of 118 acres, a design capacity of 23.3 million cubic yards of waste, a maximum elevation of 620 feet above msl, a maximum daily permitted tonnage of 1,500 tons per day and operation of the ReSource Center with an assumed diversion rate of approximately 31.35 percent. Based on current operating practices and waste disposal rates, the Landfill is estimated to reach full permitted capacity in about March 2026 (see Table 5-1 and Section 1.5).

Once capacity is reached the Landfill would be closed, a final cover installed, and revegetated. Closure and post closure maintenance would occur for a minimum of 30 years following the closure. The ReSource Center would continue to operate at minimum through the approved contract period (December 2038) and impacts associated with operation of the facility would continue as discussed in 12EIR-00000-00002 and 2017 Addendum).

Alternative A would not require construction of new slope or base liners, grading or excavation, new cut slopes, blasting, or relocation of the Landfill maintenance and storage deck.

Upon closure, in absence of the proposed project, the County would need to establish agreements for the disposal of bypass waste (including, non-friable asbestos, large dead animals, treated wood waste, and grit/sludge from water treatment facilities) and residual waste (non-recyclables) produced by operation of the ReSource Center at another Class III landfill. Impacts associated with export of residual and bypass waste from the Landfill wasteshed to two other suitable landfills are evaluated under Alternatives D (Section 5.3.4, No Project Alternative – Waste Export to the Chiquita Canyon Landfill) and E (Section 5.3.5, No Project Alternative – Waste Export to the Chiquita Canyon Landfill and Santa Maria Regional Landfill OR Integrated Waste Management Facility).

5.3.1.2 Comparison to Objectives

The No Project Alternative would not meet any of the project objectives as listed in Section 5.1. The Landfill service life would not be extended, because the outcome of the No Project Alternative is off-site disposal, the ratepayer financial burden would increase, impacts associated with transportation of solid waste to another landfill would occur and recyclables recovery efficiency associated with the co-located ReSource Center would be lost.

5.3.1.3 Feasibility

The No Project Alternative is not feasible because the County has an obligation to provide waste management/disposal services for the communities it serves so approval of some other form of on-site capacity increase or off-site disposal would be required.

5.3.1.4 Impact Assessment

Environmental impacts of the No Project Alternative through to closure of the Landfill in approximately March 2026 are discussed below as disclosed in the Environmental Documents prepared for the Tajiguas Landfill Project and as summarized in Section 3.0 of this document for each impact/issue area. Environmental Impacts of the No Project Alternative following closure of the Landfill are discussed in Sections 5.3.4 and 5.3.5.

Visual Resources/Aesthetics

The No Project Alternative would involve buildout of the Landfill under the existing solid waste facility permit. The final groundwater protection system (liner) is in the process of being constructed and waste filling will begin in the new lined area in summer 2023. The visual appearance of the Landfill will continue to change as waste filling operations proceed through to closure. Significant and unavoidable impacts due to site visibility and changes in the site visual characteristics and significant but mitigable visual resources/aesthetics impacts related to night-time security lighting as summarized in Section 4.1.2.2 have been identified in previous environmental documents for the Tajiguas Landfill Project, and mitigation measures have been and would continue to be implemented to minimize these impacts.

Air Quality and Greenhouse Gas Emissions

The No Project Alternative would maintain permitted operations at the Tajiguas Landfill and would not result in additional air quality impacts associated with construction of the Phase IV waste fill area. Operational impacts associated with heavy equipment and motor vehicle emissions would continue until the Landfill reaches capacity, and landfilling activities are terminated. Landfill gas fugitive emissions, and emissions associated with operation of the ReSource Center would continue, including air pollutant and GHG emissions.

Significant and unavoidable air quality impacts associated with criteria pollutant emissions (NO_x, NO₂, 24-hour PM₁₀) summarized in Sections 4.2.2.2 and 4.2.2.3, would continue to occur until closure. However, mitigation measures have been and will continue to be implemented to minimize these impacts. Less than significant health risk, odor and dust impacts would also continue until closure.

Closure and post-closure maintenance activities would also result in air pollutant emissions generated by heavy equipment and motor vehicles.

Biological Resources

The No Project Alternative would maintain permitted operations at the Landfill and would not result in additional impacts to biological resources associated with the Tajiguas Landfill Capacity Increase Project. Significant and unavoidable biological impacts to sensitive wildlife species, sensitive habitats, sensitive plants and mature oaks related to construction, operations and phased closure of the Landfill have been identified in prior Landfill environmental documents (see Sections 1.6.1 and 1.6.2) as summarized in Sections 4.3.2.2 and 4.3.2.3, and mitigation measures have been and would continue to be implemented to minimize these impacts. Biological impacts would be reduced after closure and installation of the final cover.

Hazards and Hazardous Materials

The No Project Alternative would maintain current operations at the Landfill and would not result in additional impacts. No new impacts associated with the potential to encounter hazardous material during construction associated with the Capacity Increase Project would occur. Significant but mitigable hazards related to fire, landfill gas, and illegal dumping related to construction, operations and phased closure of the Landfill have been identified in prior Landfill environmental documents (see Sections 1.6.1 and 1.6.2) as summarized in Sections 4.4.2.2 and 4.4.2.3, and mitigation measures have been and would continue to be implemented to minimize these impacts.

Geologic Processes

The No Project Alternative would maintain current operations at the Landfill. The additional grading, placement of additional material in the North Borrow/Stockpile area, construction of new cut slopes and construction of the stability toe berm would not occur. Significant but mitigable slope stability and expansive soils impacts have been identified in prior Landfill environmental documents (see Sections 1.6.1 and 1.6.2) as summarized in Section 4.5.2.2, and mitigation measures have been and would continue to be implemented to minimize these impacts.

Cultural Resources

The No Project Alternative would maintain permitted operations at the Landfill and would not result in additional impacts to previously unrecorded cultural resources associated with the new excavation of previously undisturbed areas and impacts to previously record sites from extension of the Landfill operations and continue presence of Landfill staff. Significant but mitigable impacts to known cultural resources sites associated with the Landfill construction, operations and closure activities (as summarized in Section 4.6.2.2) have been identified in prior Landfill environmental documents (see Sections 1.6.1 and 1.6.2), and mitigation measures have been and would continue to be implemented to minimize these impacts.

Noise

The No Project Alternative would maintain permitted operations at the Landfill and would not result in additional noise generation associated with construction activities (including new blasting) to create the new Phase IV waste fill area, extension of life of Landfill operations or changes in vehicle related noise from changes in the scale house operating hours associated with the Capacity Increase Project. No significant noise impacts related to construction, operations and phased closure of the Landfill have been identified in prior Landfill environmental documents (see Sections 1.6.1 and 1.6.2), as summarized in Sections 4.7.2.2 and 4.7.2.3.

Land Use

The No Project Alternative would not result in any new land use compatibility impacts.

Transportation

The Landfill is anticipated to reach capacity in approximately the year 2026. Closing the Landfill under the No Project Alternative would reduce the less than significant safety impact associated with the at-grade U.S. Highway 101 intersection by removing approximately 30 vehicle trips per day in 2026 (586 tons at 20 tons per truck) associated with disposal of bypass waste. However, bypass and residual waste (following processing at the ReSource Center) would need to be transported to other landfills (see Alternatives D and E).

Other vehicle trips associated with transporting green-waste, commingled recyclables and other waste for processing at the ReSource Center would continue. In addition, some residual traffic associated with closure activities and with post-closure monitoring and maintenance would continue to occur.

Water Resources

Water Supply. Under the No Project Alternative, water demand associated with at Landfill operations would continue through Landfill closure (~2026) and post-closure activities. Following closure, the water demand for dust control, soil conditioning, and domestic uses would be reduced. Maintenance and monitoring of the Landfill would be required for a minimum of 30 years after closure so some water demand would continue for the post-closure maintenance activities and for Landfill employees. The loss of recharge area to the Sespe-Alegria groundwater formation associated with the proposed Capacity Increase Project liner would not occur. Water supply impacts associated with Landfill and ReSource Center operations are discussed in the prior Landfill environmental documents (see Sections 1.6.1 and 1.6.2) and ReSource Center Subsequent EIR as summarized in Sections 4.10.2.2, 4.10.2.3 and 4.10.2.4.

Drainage. Under the No Project Alternative, no increase in the waste disposal footprint above the currently permitted acreage would occur at the site and no disturbance would occur to the existing North Sedimentation Basin or the Pila Creek Inundation Area. Drainage impacts associated with the permitted Landfill and ReSource Center operations summarized in Sections 4.10.2.2, 4.10.2.3 and 4.10.2.4 would continue to occur. As the remaining waste cells are constructed, drainage facilities would be added and/or reconfigured to collect storm flows until final drainage facilities are installed at closure. As discussed in the prior Landfill environmental documents (see Sections 1.6.1 and 1.6.2) and ReSource Center Subsequent EIR, existing drainage culverts are adequate to convey existing and future storm flows without causing damage to downstream drainage structures.

Water Quality. Under the No Project Alternative, no new potential sources of stormwater or groundwater pollutants would be constructed, and no new water quality impacts would occur. Waste disposal would continue in existing lined areas in compliance with the Landfill's WDRs and Industrial Stormwater General Permit which would minimize potential water contamination associated with permitted waste disposal. Water quality impacts of the permitted Tajiguas Landfill Project and ReSource Center are summarized in Sections 4.10.2.2, 4.10.2.3 and 4.10.2.4.

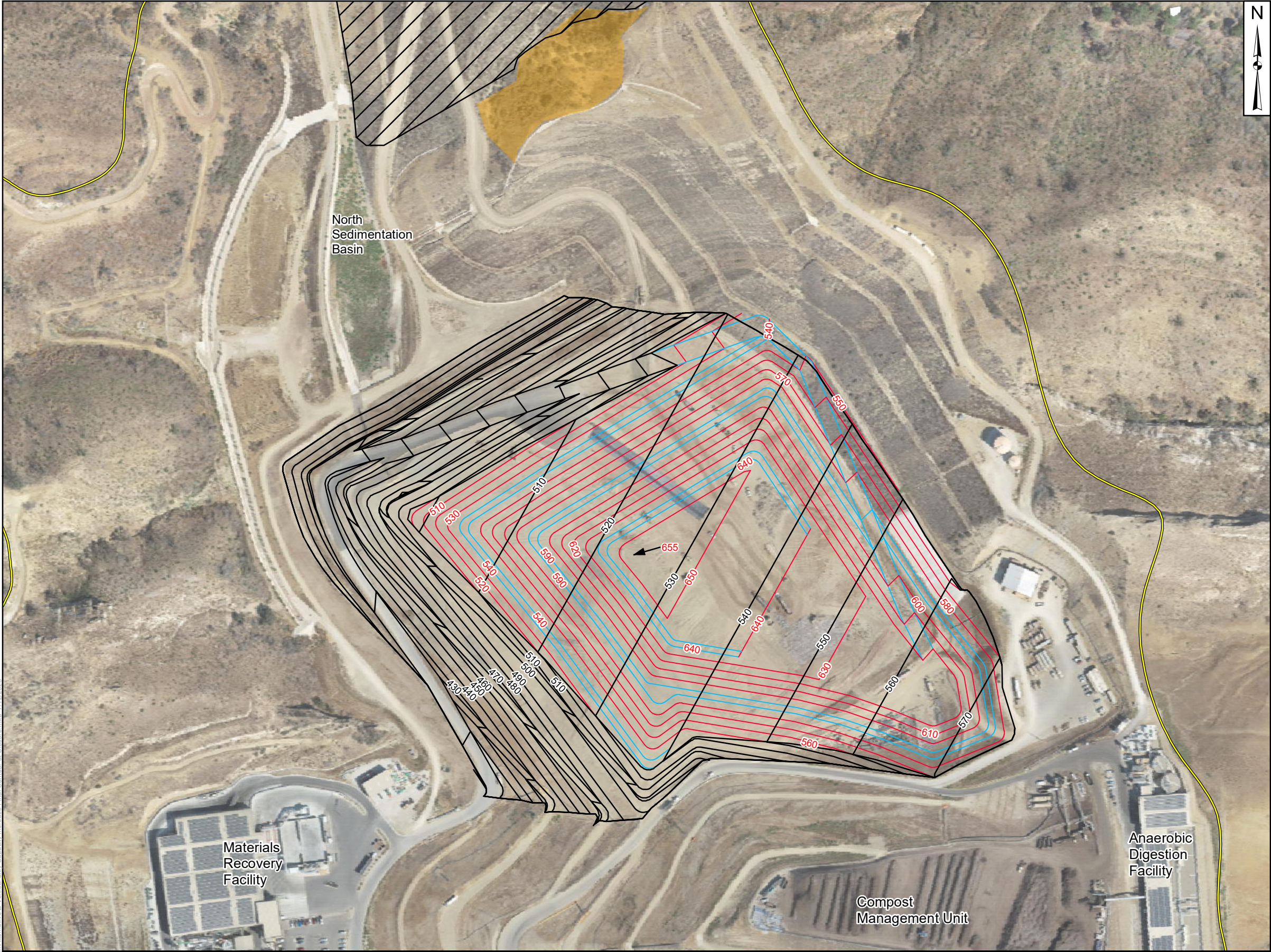
Nuisance

The No Project Alternative would maintain permitted operations at the Landfill and ReSource Center and would not result in additional introduction or generation of nuisances such as vectors, pathogens, litter and odors. Impacts related to construction, operations and phased closure of the Landfill and the ReSource Center have been identified in prior Landfill environmental documents (see Sections 1.6.1 and 1.6.2) and ReSource Center Subsequent EIR as summarized in Sections 4.11.2.2, 4.11.2.3 and 4.11.2.4, and mitigation measures have been and would continue to be implemented to address these impacts.

5.3.2 Alternative B: Reduced Project Alternative – Vertical Only Capacity Increase

5.3.2.1 Description

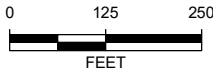
This Alternative would involve increasing the maximum elevation of the permitted waste disposal area identified in the SWFP from 620 feet above mean sea level to 655 feet above mean sea level to provide 3.8 million cubic yards of additional airspace for a total revised waste disposal capacity of 25.5 million cubic yards and extend the life of the Landfill from approximately March 2026 to approximately November 2031. The elevation of the Landfill in the current disposal area would increase from the peak design height of 570 feet amsl to a peak height of 655 feet amsl. The permitted waste disposal area of 118 acres would not increase laterally, and the existing permitted operational area of 357 acres would not change. Final Landfill contours associated with Alternative B are shown in Figure 5-2. At closure, the top deck would consist of a gradually sloping deck (4 percent gradient to the southeast), bordered by existing manufactured cut Landfill slopes constructed as part of the approved Landfill project that were subsequently hydroseeded.



LEGEND:

- Tajiguas Landfill Operational Area Boundary
- North Borrow/Stockpile
- Previously Undisturbed Area
- Permitted Final Contours at Closure
- Proposed Final Contours at Closure
- Proposed Final Bench at Closure

MAP EXTENT:



Source: Orthophoto 9/8/22
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.



PROJECT NAME: TAJIGUAS LANDFILL CAPACITY INCREASE PROJECT SANTA BARBARA COUNTY, CA		
PROJECT NUMBER: 2202-4091	DATE: July 2023	

ALTERNATIVE B: VERTICAL
ONLY CAPACITY INCREASE
FINAL CONTOURS AT CLOSURE

FIGURE
5-2

Since Alternative B would not include a lateral expansion, changes to Landfill operations/facilities associated with the proposed project would be avoided, including:

- Site water quality/drainage facilities (i.e., the North Sedimentation Basin and existing Pila Creek Inundation Area) would not be affected.
- Facilities associated with the Landfill maintenance and storage deck would not require relocation.
- ReSource Center utilities would not require relocation.
- Closure and post-closure maintenance (and plans) activities would be similar to the permitted Landfill Project but would be modified to include the changed waste disposal configuration and implementation would be postponed.
- Additional grading and excavation would not be required, blasting would not be required, and additional disturbance would not be required in the previously undisturbed area and the existing reseeded cut slopes.

Landfill operations (waste receipt, sorting, green-waste processing, disposal, cover, maintenance, closure) would continue as existing with no new base liners or slope liners required. Although the North Sedimentation Basin would not be affected, some additional drainage features (i.e., storm drain pipes, bench crossings, inlets, etc.) would be required to collect run-off from additional slope areas and direct stormwater flow to the North Sedimentation Basin. All earthwork would be conducted during the dry season.

Soil currently available from the North Borrow/Stockpile would provide the approximately 360,000 cubic yards of additional daily cover soil required for the capacity increase associated with implementation of Alternative B.

Some changes to the existing environmental protection/control system would be required for this Alternative, including a revised landfill gas collection network (vertical and horizontal wells) to service the increased disposal volume.

No changes to ReSource Center operations would occur, with residual materials continuing to be disposed at the Landfill until the increased disposal capacity for this alternative is reached in approximately 2031, at which time off-site disposal of residual waste would be required for continued operation of the ReSource Center.

Implementation of Alternative B would provide an additional 2.15 million cubic yards of net airspace, which would extend the life of the Landfill to approximately November 2031. After that time (approximately December 2031), bypass and residual waste would need to be transported to an alternative landfill for disposal. Alternatives D and E address impacts associated with off-site disposal.

5.3.2.2 Comparison to Objectives

The project's objectives are listed in Section 5.1. Alternative B would extend the Landfill's service life, reduce impacts associated with disposal of bypass and residual waste at other landfills and extend the efficient resource recovery and residuals disposal operation associated with the co-located ReSource Center. However, the smaller capacity increase associated with Alternative B would limit the extension of Landfill life to about 5.7 years as compared to about 12.75 years for the proposed project (see Table 5-1).

Alternative B would not fully meet the project objective of avoiding ratepayer financial burden because debt service for the ReSource Center would be ongoing when the Landfill's capacity is reached and export to another landfill would be required. In addition, Alternative B would not fully regain Landfill life that was planned to be provided by solid waste diversion associated with operation of the ReSource Center.

5.3.2.3 Feasibility

Technical

Preliminary engineering design work indicates Alternative B is technically feasible and could be accommodated within the existing Landfill operational boundary and permitted disposal area.

Financial

Alternative B would be financially feasible until the additional capacity provided is exhausted and offsite export of waste is required. As discussed in Section 5.3.4.3, additional costs of transportation and disposal fees at other landfills would require a substantial increase in the tipping fees charged to communities served by the Landfill. Due to the uncertainty of obtaining approvals for such fee increases, off-site export of waste is considered infeasible.

5.3.2.4 Impact Assessment

Visual Resources/Aesthetics Alternative B would be implemented within the existing Landfill waste footprint as shown in Figure 5-2. Therefore, the visual resources setting information provided for the proposed project (Section 4.1.1.2) also applies to this Alternative.

Alternative B involves an increase in the maximum elevation of the Landfill at closure from 620 to 655 feet amsl, or five feet higher than the proposed project. Similar to the proposed project, the higher Landfill elevation at closure associated with the Alternative B would not be visible from Viewpoint A (re-aligned Arroyo Quemado Trail), Viewpoint B (current Arroyo Quemado Trail), Viewpoint D (U.S. Highway 101 west of the Landfill access road) or Viewpoint E (U.S. Highway 101 at the Landfill access road entrance) due to intervening topography.

Similar to the proposed project (see proposed conditions in Figure 4.1-4), the increase in maximum elevation of the Landfill at closure associated with Alternative B would be clearly evident from Viewpoint C (Upper Outlaw Trail). Impacts to public views from the Upper Outlaw Trail would be reduced because of the reduced disturbance area and the reduced site life which would result in closure and the revegetation of the slope earlier than the proposed project. The taller (655 ft vs 650 ft msl) waste disposal area would be offset by a smaller footprint at closure. Alternative B would not block views of the ocean or foothills. The visual character of this public view would remain that of an active landfill and not significantly change. Therefore, the changes in visual quality is considered a less than significant impact.

The extension of Landfill life associated with implementation of Alternative B would also extend previously identified significant and unavoidable aesthetics impacts further in time, but these impacts would be slightly less than the proposed project since the time extension would be shorter and closure and revegetation would occur sooner.

In summary, neither the proposed project nor Alternative B would result in significant aesthetic impacts and overall Alternative B would result in reduced visual impacts as compared to the proposed project.

Air Quality and Greenhouse Gas Emissions

Under Alternative B, the Reduced Project Alternative, Vertical Only Capacity Increase, the maximum elevation of the permitted waste disposal area would be increased to 655 feet above mean sea level to provide additional airspace for waste disposal, with no change in lateral footprint. This Alternative would provide approximately 2.15 million cubic yards of additional airspace, a projected site life of approximately 5.7 years, and an approximate closure date of approximately November 2031.

Related to construction activities, air pollutant and GHG emissions associated with Alternative B would be less than the proposed project as Alternative B would not require excavation of a lateral disposal area or the need for blasting activities.

Related to operations, the smaller capacity increase associated with Alternative B would limit the extension of Landfill life to about 5.7 years as compared to about 12.75 years for the proposed project. Therefore, while in the short-term emissions and health risk associated with Alternative B would be comparable to the proposed project, in the long-term, after the Landfill reaches capacity, the non-processable and residual waste would still need to be disposed in alternative locations, as identified under Alternatives D and E. However, under Alternative B, this would simply occur in 2031 as compared to 2026. Therefore, mobile-source emissions under Alternative B would be similar to Alternatives D and E beginning in 2031.

Under Alternative B, less waste would be disposed of at Landfill; thus, fugitive GHG and ROC emissions at the Tajiguas Landfill would be lower than the proposed project after Landfill closure in 2031. However, combined GHG emissions from construction, landfill gas fugitives and landfill gas combustion would exceed the threshold, and is considered a significant and unavoidable impact.

Following Landfill closure, these emissions would occur at one of the other alternative disposal locations. Therefore, under Alternative B, the total GHG and ROC emissions from landfill gas is likely to be similar regardless of which landfill it is placed, as the total mass of waste and the decomposition would be similar at the Tajiguas Landfill or another nearby landfill.

Biological Resources

Alternative B would be implemented within the existing Landfill waste footprint as shown in Figure 5-2. Therefore, the biological resources setting information provided for the proposed project also applies to this Alternative.

Similar to the proposed project, Alternative B would include some construction activity associated with construction of a stability berm that would increase heavy equipment and vehicle traffic on Landfill access roads which could result in mortality of California red-legged frog (CRLF) present during overland migration. However, implementation of **MM BIO-5** provided for the proposed project (avoidance and minimization measures of the HCP/ITP) and compensatory mitigation through the establishment of an approximate 110-acre conservation easement on the Baron Ranch would reduce the potential for incidental take of CRLF and provide coverage if incidental take did occur.

Alternative B involves capacity expansion on top of the existing waste footprint with no additional vegetation removal in areas where CRLF dispersal might occur during wet weather. However, dispersal across the Landfill working face could also still occur. Virtually all construction activities would be conducted during the dry season (with HCP avoidance measures implemented for any activities conducted outside the dry season) when the North Sedimentation Basin would be empty (less attractive to CRLF) and CRLF migration through the Landfill property would be less likely to be occurring. Impacts to CRLF are considered significant, but less than the proposed project since Alternative B would involve a smaller construction area and duration.

Because the footprint would not be expanded laterally, vegetation removal and impacts to individual oaks, sensitive plants (Santa Barbara honeysuckle), vulnerable plant communities (California brittle-bush scrub), special-status bird species (northern harrier, white-tailed kite, loggerhead shrike, Allen's hummingbird) and special-status insect species (Crotch's bumblebee) would not occur.

As discussed in Section 5.3.2.1, implementation of Alternative B would result in extending the active life of the Landfill by approximately 5.7 years and delay full closure and revegetation of the Landfill. Therefore indirect biological impacts associated with ongoing Landfill operations (noise, dust, equipment operations and human activity) including impacts to habitat from introduction of invasive plants (significant unavoidable impacts), abandonment or avoidance of foraging and breeding habitat by sensitive birds and mammals due to Landfill operations and human activity (significant unavoidable impacts), increased attraction of nuisance birds (significant but mitigable) and impacts to mountain lion and ringtail due to increased human presence (significant but mitigable) (see Section 4.3.2.2, Impacts 2, 5, 6, 8) would be extended but impacts would be reduced as compared to the proposed project due to the earlier closure and the further distance from existing undisturbed areas in the northern portion of the Landfill property.

In addition, disturbance and mortality to common wildlife species (less than significant, see Section 4.3.2.3, Impact 5) would continue further in time as compared to closure of the Landfill in approximately 2026 in the absence of Alternative B. These indirect impacts would continue to be minimized through implementation of mitigation measures (erosion control, nighttime lighting control, litter control, creek setback) as discussed in Sections 4.3.2.2 and 4.3.2.3. Because the footprint would not extend into areas of existing undisturbed and previously disturbed but reseeded habitats, impacts would be reduced as compared to the proposed project.

In summary, implementation of Alternative B would avoid loss of rare plants, mature oak trees wildlife habitat, and impacts to nesting birds, special-status bird species, and foraging and possibly nesting habitat for the Crotch's bumblebee. The extension of Landfill life associated with implementation of Alternative B would also extend previously identified significant and unavoidable biological resources impacts further in time, but these impacts would be reduced as compared to the proposed project since the time extension would be shorter and the waste footprint would not increase.

Hazards and Hazardous Materials

Alternative B would be implemented within the existing Landfill waste footprint as shown in Figure 5-2. Therefore, the hazards and hazardous materials setting information provided for the proposed project also applies to this Alternative.

During construction activities and during ongoing operation of the vertical expansion, small quantities of hazardous materials (i.e., fuel, engine oil, lubricants, hydraulic fluid, engine coolant) would be used at the Landfill property and transported to and from the site. Similar to the proposed project, small quantities of these substances could be accidentally released and result in soil contamination. However, hazardous materials handling procedures and worker safety procedures would be implemented as required by applicable regulations. Due to the small amounts of hazardous materials used during construction activities and the implementation of applicable regulations, potential impacts associated with use of hazardous materials for construction purposes would be less than significant and similar to the proposed project. The potential for hazardous materials (associated with fueling and maintenance activities) to be encountered during construction of waste disposal areas over the existing maintenance and storage area would not occur since this area would not be disturbed.

As discussed in Section 5.3.2.1, implementation of Alternative B would result in extending the active life of the Landfill by approximately 5.7 years and delay full closure and revegetation of the Landfill. Small quantities of hazardous waste may continue to enter the Landfill property as a part of the MSW. Screening processes that currently occur at the scale house and MSW sorting and processing at the MRF would continue and reduce the potential for hazardous materials to be discharged or buried. The current use of hazardous materials and infrequent generation of hazardous waste (oil waste, oily debris, batteries, etc.) at the Landfill would continue at rates equal or less than current operations. These activities have not resulted in significant hazards in the past and are not expected to increase due to the extension of Landfill life.

Similar to the proposed project, Alternative B would be exposed to wildfires and could be a source of fire from hot loads (see Section 4.4.1.5). The impact would be reduced as compared to the proposed project due to the reduced operating period.

The Landfill would continue to receive bypass and residual waste (although with a reduced organic component due to operation of the ReSource Center) and the generation of the landfill gas would continue, as the waste currently disposed of in the Landfill continues to decompose. Under the proposed project and Alternative B, landfill gas generation would continue beyond closure of the Landfill, but Alternative B would reduce the duration during which landfill gas would be generated due to the reduced amount of waste. Federal and State landfill gas regulations would continue to apply to Landfill operations under the proposed project and Alternative B and the landfill gas collection system would continue to operate (collect and treat landfill gas).

However, hazards associated with operation of the Landfill (see Section 4.4.2.2) would continue further in time as compared to earlier closure of Landfill in the absence of the proposed project. Compliance with Federal and State hazardous materials regulations, CCR Title 27 regulations and mitigation measures identified in prior Landfill environmental documents (see Sections 1.6.1 and 1.6.2) including fire prevention and suppression, improved site security, landfill gas monitoring, on-site traffic control would continue to be implemented to avoid or offset significant impacts associated with hazards and hazardous materials.

Geologic Processes

Alternative B would be implemented within the existing Landfill waste footprint as shown in Figure 5-2. Therefore, the geologic processes setting information provided for the proposed project also applies to this Alternative.

The Alternative B vertical expansion would require construction of new waste fill slopes to accommodate a larger and taller waste mass. A project-specific slope stability analysis has not been conducted for Alternative B. Although Alternative B would have reduced airspace compared to the proposed project, it would have a slightly increased height (655 feet amsl at the highpoint versus 650 feet amsl). Therefore, due to the increased height it is expected that a toe berm would also be required along the western margin and possibly the northern margin of the waste fill area to address slope stability concerns (Geosyntec Consultants, 2023). Because of the additional height, the possible need for an additional slope stability berm along the northern margin of the waste prism, slope stability impacts maybe greater than the proposed project and to mitigate potential impacts a seismic slope stability analysis would need to be completed for Alternative B. Therefore, slope stability impacts for Alternative B would be greater than for the proposed project (significant but mitigable as compared to insignificant). In addition, similar to the proposed project, the berm may be briefly subject to partial inundation.

As discussed in Section 5.3.2.1, implementation of Alternative B would result in extending the active life of the Landfill by approximately 5.7 years and delay full closure and revegetation of the Landfill. Because closure and placement of a final cover system over the entire Landfill area would be delayed, there may be some extension of less than significant Landfill-related erosion and sedimentation impacts.

These impacts would continue to be minimized by the Landfill storm water management systems, interim erosion control measures during construction and operations, and closure of the Landfill where waste placement has been completed. Because the amount of grading and surface disturbance associated with Alternative B would be reduced as compared to the proposed project, erosion and sedimentation impacts would be reduced.

Cultural and Tribal Resources

Alternative B would be implemented within the existing Landfill waste footprint as shown in Figure 5-2. Therefore, the cultural resources setting information provided for the proposed project also applies to this Alternative.

Implementation of Alternative B would not require disturbance of areas at the Landfill property that have not been previously excavated. Therefore, discovery of unreported cultural resources and associated impacts to such resources is not anticipated and potential cultural resource impacts would be less than the proposed project (insignificant as compared to significant but mitigable).

As discussed in Section 5.3.2.1, implementation of Alternative B would result in extending the active life of the Landfill by approximately 5.7 years and delay full closure and revegetation of the Landfill. Therefore, CA-SBa-1990 and SBA-iso-645 may continue to be indirectly impacted through Landfill operation (continued presence of Landfill staff) and Landfill closure activities.

These impacts were considered significant, but mitigable with the implementation of cultural resource training program for Landfill staff, additional archeological investigation if these sites are impacted by closure or post-closure activities, and stopping or redirecting work if resource are discovered. These existing mitigation measures would continue to be applicable to the Landfill over its extended life and no new Landfill associated impacts to cultural resources would occur. Impacts would be reduced as compared to the proposed project. Few Landfill employees would be at the project site after 2031.

Noise

Alternative B would be implemented within the existing Landfill waste footprint as shown in Figure 5-2. Therefore, the noise and vibration setting information provided for the proposed project also applies to this Alternative.

The Alternative B vertical expansion would require construction of waste fill slopes to accommodate a larger and taller waste mass. The estimated 65 dBA CNEL existing noise contour shown in Figure 4.7-1 is based on several pieces of heavy equipment operating along the perimeter of the disturbance limits of the Landfill. Since additional construction activities associated with Alternative B would be located within existing waste disposal areas, changes in the existing noise contour are not anticipated and the County's 65 dBA CNEL noise standard would not be exceeded at any noise-sensitive land uses. Because construction activities would be reduced and blasting would not be required, noise impacts would be less than the proposed project.

Construction-related heavy equipment operation associated with Alternative B would generate additional vibration. However, construction activities would not generate vibration levels detectable at other land uses. Because construction activities would be reduced and blasting would not be required, vibration impacts would be less than the proposed project.

As discussed in Section 5.3.2.1, implementation of Alternative B would result in extending the active life of the Landfill by approximately 5.7 years and delay full closure of the Landfill. Environmental documents prepared for the Landfill determined that noise impacts associated with Landfill operations would be less than significant (see Sections 4.7.2.2 and 4.7.2.3). With implementation of Alternative B, less than significant noise impacts associated with Landfill operations would continue further in time but would be less than the proposed project.

Land Use

Alternative B would be implemented within the existing Landfill waste footprint as shown in Figure 5-2. Therefore, the land use setting information provided for the proposed project also applies to this Alternative.

Since Alternative B would be located in essentially the same location, the policy consistency analysis prepared for the proposed project (see Section 4.8.2.6) is applicable to Alternative B and like the proposed project, Alternative B would be consistent with applicable policies.

As compared to the proposed project, Alternative B would not directly impact sensitive native vegetation, wildlife habitat, sensitive wildlife within the Landfill property, not result in the loss of open space or significantly impact CRLF.

Impacts of Alternative B related to hazards and hazardous materials would be less than significant and less than the proposed project.

Similar to the proposed project, implementation of Alternative B would not affect traffic safety at the Landfill entrance or increase VMT associated with Landfill operations staff.

Alternative B would not result in any increase in existing /nuisance effects (e.g. vectors, pathogens, litter) associated with Landfill operations.

Therefore, considering the historic and existing public facility use of the Landfill property, its remote location, the nature of the surrounding land uses (agricultural, open space, former oil and gas), and with implementation of identified mitigation measures, potential land use conflicts with adjacent and nearby residential uses associated with implementation of Alternative B would be less than significant similar but less than the proposed project due to reduced operational life.

Alternative B would not result in any direct impacts to recreational land uses or increase the demand for recreational facilities that would create physical impacts. Changes to the Landfill associated with Alternative B (including the higher final Landfill elevation) would be visible from the Upper Outlaw Trail at the Arroyo Hondo Preserve, similar to the proposed project as shown in Figure 4.1-4. However, this visual impact was considered less than significant as described in Section 4.1.2.5 for the proposed project and would be less than significant for this Alternative. A slight increase in the impact might result due to the increased height (maximum of five feet) as compared to the proposed project but ocean and foothill views would not be blocked and the impact would be offset by the reduction in the lateral footprint and associated grading and vegetation removal.

Odors associated with operation of the ReSource Center affecting Baron Ranch (including the Arroyo Quemado Trail) would not be increased and would remain less than significant.

Alternative B would not result in any increase in existing nuisance effects (e.g. vectors, pathogens, litter) to adjacent recreational uses associated with Landfill operations.

Therefore, considering the historic and existing public facility use of the Landfill property, its remote location, the nature of the surrounding land uses (agricultural, open space, former oil and gas facilities), and with implementation of identified mitigation measures, potential land use conflicts with adjacent and nearby recreational uses associated with implementation of Alternative B would be less than significant and similar to the proposed project.

Transportation

Alternative B would be implemented within the existing Landfill waste footprint as shown in Figure 5-2. Therefore, the transportation setting information provided for the proposed project also applies to this Alternative. Alternative B would result in the same potential increase in Landfill-related vehicle trips and VMT as the proposed project. As discussed in Section 4.9.2.1, transportation impact analysis (vehicle miles travelled) under State CEQA Guidelines Section 15064.3 does not apply to commercial vehicles, including vehicles used to transport solid waste and recyclables to and from the Landfill.

Similar to the proposed project, a small increase in waste disposal traffic volumes would occur over the extended life of the Landfill. However, the subject intersection does not have any substantial safety concerns, and any reduction in traffic safety associated with Alternative B would be less than significant.

As discussed in Section 5.3.2.1, implementation of Alternative B would result in extending the active life of the Landfill by approximately 5.7 years and delay full closure of the Landfill. Impacts associated with extension of life do not represent new impacts, but represent impacts that would be extended further in time. Therefore, the proposed project would extend the duration of time over which insignificant transportation impacts would occur. Because Alternative B would have a shorter operational life, the duration would be reduced as compared to the proposed project.

Water Resources

Alternative B would be implemented within the existing Landfill waste footprint as shown in Figure 5-2. Therefore, the water resources setting information provided for the proposed project also applies to this Alternative. This Alternative would avoid modifications to the North Sedimentation Basin and encroachment into the Pila Creek Inundation Area.

Existing supplies are adequate to meet both the potable and non-potable water demand of the Landfill and ReSource Center. Construction and operational water demand is expected to be similar to existing operations and the proposed project. Under this alternative there would be no impacts to current groundwater recharge thereby resulting in no reduction in the safe yield for the Sespe-Alegria Formation within the Tajiguas Landfill. Thus, no additional water supply impacts and associated groundwater impacts at the Tajiguas Landfill are expected under Alternative B.

Pumping can potentially degrade groundwater quality if wells are over pumped or if safe yields are exceeded. The operational water demand and groundwater extractions for Alternative B would be the same as the proposed project. Similar to the proposed project, because of the nature of the groundwater formations supplying the Landfill and that safe yields will not be exceeded, degradation in groundwater quality due to pumping would be less than significant.

The discussion of off-site well interference associated with groundwater pumping at the Landfill property for the proposed project provided in Section 4.10.2.5 is applicable to Alternative B. Overall, groundwater pumping required for implementation of proposed project and Alternative B would not significantly interfere with off-site wells. Water level declines in the off-site wells may be less under Alternative B because of the shorter operational period.

The discussion of the effects of groundwater pumping on rising groundwater and stream baseflow for the proposed project provided in Section 4.10.2.5 is applicable to Alternative B. Similar to the proposed project, pumping from existing wells and approved Well no. 8 for the proposed project or for Alternative B is not expected to substantially affect springs or stream baseflow.

Implementation of Alternative B would involve waste filling of new disposal cells above the existing lined waste fill area. Stormwater run-off from this disposal area would contain sediment and possibly pollutants that may adversely affect surface water quality in Pila Creek. However, stormwater run-off from the Alternative B waste disposal area would be directed to the existing North Sedimentation Basin (which would not be modified under Alternative B) where sediment would be detained, and skimmers would discharge clarified stormwater to Pila Creek. In addition, the Landfill's SWPPP (updated March 2021) would continue to be implemented including BMPs listed in Table 4.10-2. Implementation of BMPs would reduce the potential for stormwater run-off to contain pollutants that may degrade water quality in Pila Creek. Therefore, construction-related stormwater run-off is not anticipated to significantly impact surface water quality and would be similar to the proposed project.

Infiltration of rainfall, stormwater and surface water through buried waste may produce leachate which may degrade groundwater quality. As compared to the proposed project, Alternative B would involve placement of waste over an existing lined area and would involve a smaller volume of buried waste. However, the proposed project includes installation of an additional base and slope liner system to capture leachate. Therefore, the existing groundwater management system as described in Section 4.10.1.2 is anticipated to prevent any significant increase in the potential for groundwater quality degradation and potential groundwater quality impacts would remain insignificant but would be less than the proposed project because the volume of waste would be reduced and the final closure and the installation of a final engineering cover system would occur sooner.

Alternative B would not result in the modification to the North Sedimentation Basin or encroach into the Pila Creek Inundation Area and would not result in any new drainage impacts. However, any encroachment of a toe berm required for slope stability mitigation into the Pila Creek Inundation Area would need to be identified and modifications to the flow control structure implemented to prevent increases in peak downstream stormwater flows. Impacts would be similar to the proposed project.

Less than significant groundwater pumping-related impacts and construction stormwater runoff impacts would be reduced as compared to the proposed project. Surface water quality impacts associated with operations would be less than significant, similar to the proposed project, with compliance with WDRs and the industrial stormwater regulations.

Groundwater impacts associated with Alternative B would be similar to the proposed project as both require waste to be placed over groundwater protection system (liner). Alternative B would not require construction of new base or slope liners, but would place waste over existing lined areas.

The extension of Landfill life associated with implementation of Alternative B would also extend previously identified less than significant water resources impacts further in time, but would be less than the proposed project since the time extension would be shorter.

Nuisance

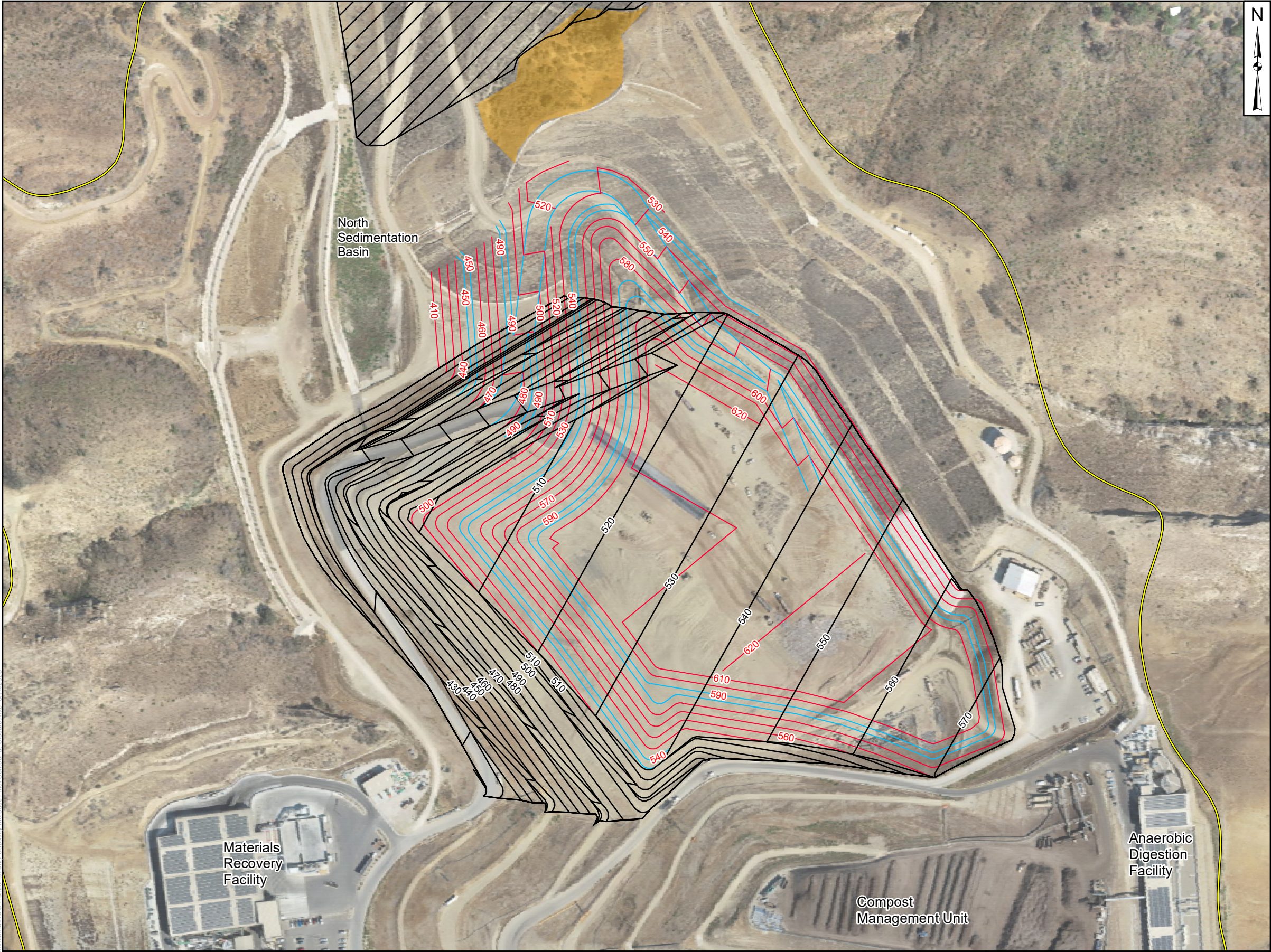
Alternative B would be implemented within the existing Landfill waste footprint as shown in Figure 5-2. Therefore, the nuisance setting information provided for the proposed project also applies to this Alternative. As with the proposed project, existing measures would continue to be implemented to reduce nuisances associated with Landfill operations. Therefore, Alternative B would have the same impact as the proposed project.

As discussed in Section 5.3.2.1, implementation of Alternative B would result in extending the active life of the Landfill by approximately 5.7 years and delay full closure of the Landfill. Phased closure of areas of the Landfill that have reached final waste fill elevations would continue during its extended life. Alternative B would involve continued disposal of bypass waste and residual waste resulting from MSW processing by the ReSource Center. The peak Landfill elevation under Alternative B would be 5 feet higher compared to the proposed project but Landfill operations would continue with the same nuisance controls in place, therefore impacts would be similar to the proposed project. Significant but mitigable nuisance impacts associated with Landfill operations such as the potential for illegal dumping, dust from Landfill grading and equipment operations (see Section 4.11.2.2) would continue further in time but would be reduced as compared to the proposed project since the time extension would be shorter.

5.3.3 Alternative C: Reduced Project Alternative – Horizontal Only Capacity Increase

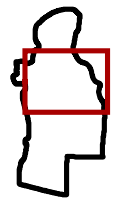
5.3.3.1 Description

This Alternative would involve extending the footprint of the permitted waste disposal area laterally by approximately 4.5 acres to the north and east to provide to provide 4.4 million cubic yards of additional airspace for a total revised waste disposal capacity of 26.0 million cubic yards and extend the life of the Landfill from approximately March 2026 to approximately March 2033. The maximum permitted elevation of the waste disposal area (620 feet amsl) would not change but the design height of the Landfill over the existing waste footprint would increase from the existing peak height of 574 amsl to 620 amsl. Final Landfill contours associated with Alternative C are shown in Figure 5-3. At closure, a deck with a small ridge (at 620 amsl elevation) would be provided as the top deck, with deck slopes draining at a four percent gradient to the northwest and southeast.



- LEGEND:**
- Tajiguas Landfill Operational Area Boundary
 - North Borrow/Stockpile
 - Previously Undisturbed Area
 - Permitted Final Contours at Closure
 - Proposed Final Contours at Closure
 - Proposed Final Bench at Closure

MAP EXTENT:



Due to the smaller lateral expansion associated with Alternative C, changes to Landfill operations associated with the proposed project would be avoided, including:

- Site water quality/drainage facilities (i.e., the North Sedimentation Basin and Pila Creek Inundation Area) would not be affected.
- Facilities associated with the Landfill maintenance and storage deck would not require relocation.
- ReSource Center utilities would not require relocation.

In addition, waste disposal under Alternative C would utilize the existing cut slopes, with only minor excavation (no blasting) required. Additional earthwork would not be conducted in the previously undisturbed area.

Some excavation would be required to construct the lateral extension of the waste disposal area. However, the excavation would be for construction of the stability toe berm and would not involve below grade excavation for waste placement. Some grubbing and grading of the existing cut slopes would be required for installation of 0.5 acres of base liner and 4.0 acres of slope liner, but no new cut slopes would be constructed.

The North Borrow/Stockpile would provide adequate cover soil needed for the capacity increase associated with implementation of Alternative C. The existing groundwater protection system and landfill gas collection system would be extended into the new waste disposal area and expanded landfill gas collection network (vertical and horizontal wells) to service the increased disposal volume.

The Closure and Post-closure Maintenance Plan would be amended to include the 4.5-acre lateral expansion area.

Landfill operations (waste receipt, disposal, cover, maintenance, closure) would continue. Although the North Sedimentation Basin would not be affected, some additional temporary and permanent drainage features (i.e., storm drain pipes, bench crossings, inlets, etc.) would be required to collect run-off from additional slope areas and direct stormwater flow to the North Sedimentation Basin. All earthwork would be conducted during the dry season.

Soil currently available from the North Stockpile/Borrow Area would provide additional material required for protective cover of the horizontal increase area (approximately 20,000 cubic yards), additional daily cover material (approximately 460,000 cubic yards) and 35,000 cubic yards of additional final cover material required with this Alternative.

No changes to the ReSource Center operations would occur, with residual materials continuing to be disposed at the Landfill.

Implementation of Alternative C would provide an additional 2.71 million cubic yards of net airspace, which would extend the life of the Landfill to approximately March 2033. After that time (approximately April 2033), bypass and residual waste would need to be transported to an alternative landfill for disposal. Alternatives D and E address impacts associated with off-site disposal.

5.3.3.2 Comparison to Objectives

The project's objectives are listed in Section 5.1. Alternative C would extend the Landfill's service life, reduce impacts associated with disposal of bypass and residual waste at other landfills and extend the efficient resource recovery and residuals disposal operation associated with the co-located ReSource Center. However, the smaller capacity increase associated with Alternative C would limit the extension of Landfill life to about 7.9 years as compared to about 12.75 years for the proposed project (see Table 5-1). Alternative C would not fully meet the project objective of avoiding ratepayer financial burden because debt service for the ReSource Center would be ongoing when the Landfill's capacity is reached and export to another landfill would be required. In addition, Alternative C would not fully regain Landfill life that was planned to be provided by solid waste diversion associated with operation of the ReSource Center.

5.3.3.3 Feasibility

Technical

Preliminary engineering design work indicates Alternative C is technically feasible and could be accommodated within the existing Landfill operational boundary.

Financial

Alternative C would be financially feasible until the additional capacity provided is exhausted and offsite export of waste is required. As discussed in Section 5.3.4.3, additional costs of transportation and disposal fees at other landfills would require a substantial increase in the tipping fees charged to communities served by the Landfill. Due to the uncertainty of obtaining approvals for such fee increases, off-site export of waste is considered infeasible.

5.3.3.4 Impact Assessment

Visual Resources/Aesthetics

Alternative C would be implemented within the proposed project footprint; therefore, the visual resources setting information provided for the proposed project also applies to this Alternative.

Alternative C would not involve an increase in the permitted maximum elevation of the Landfill at closure. However, the maximum elevation of 620 feet amsl (which currently occurs at the CMU deck) would be extended further to the north under Alternative C increasing the height over the existing waste disposal area from an existing design elevation of 550 feet amsl to a proposed design elevation of 620 feet amsl. In addition, this Alternative includes a 4.5-acre lateral capacity increase area to the north. Similar to the proposed project, this lateral capacity increase area would not be visible from Viewpoint A (re-aligned Arroyo Quemado Trail), Viewpoint B (current Arroyo Quemado Trail), Viewpoint D (U.S. Highway 101 west of the Landfill access road) or Viewpoint E (U.S. Highway 101 at the Landfill access road entrance) due to intervening topography.

Similar to the proposed project (see proposed conditions in Figure 4.1-4), the increase in maximum elevation of the Landfill at closure associated with Alternative C and the increased lateral footprint would be clearly evident from Viewpoint C (Upper Outlaw Trail). Impacts to public views from the Upper Outlaw Trail would be reduced because of the reduced disturbance area, and the reduced site life which would result in closure and the revegetation of the slopes earlier than the proposed project. Neither the proposed project or Alternative C would block views of the ocean or foothills. The visual character of this public view would remain that of an active landfill and not significantly change. Therefore, the changes in visual quality is considered a less than significant impact but reduced as compared to the proposed project.

The extension of Landfill life associated with implementation of Alternative C would also extend previously identified significant and unavoidable aesthetics impacts further in time, but these impacts would be reduced as compared to the proposed project since the time extension would be shorter and closure and revegetation would occur sooner.

In summary, neither the proposed project nor Alternative C would result in significant aesthetic impacts. Impacts to public views from the Upper Outlaw Trail would be reduced as compared to the proposed project because of the reduced disturbance area and the reduced site life which would result in closure and the revegetation of the fill slopes earlier than the proposed project. The extension of Landfill life associated with implementation of Alternative C would also extend previously identified significant and unavoidable aesthetics impacts further in time, but these impacts would be slightly less than the proposed project since the time extension would be shorter.

Air Quality and Greenhouse Gas Emissions

Under Alternative C, the Reduced Project Alternative, Horizontal Only Capacity Increase, there would be an approximate 4.5-acre horizontal increase in the disposal area to provide additional airspace for waste disposal, with no change in maximum disposal area elevation. This Alternative would provide approximately 2.71 million cubic yards of additional airspace, a projected site life of approximately 7.9 years, and an approximate closure date of March 2033.

Related to construction activities, air pollutant and GHG emissions associated with Alternative C would be lower than under the proposed project as Alternative C would require less earthwork because the excavation area would be smaller and there would also not be a need for blasting activities.

Related to operations, the smaller capacity increase associated with Alternative C would limit the extension of Landfill life to about 7.9 years as compared to about 12.75 years for the proposed project. Therefore, while in the short-term emissions and health risk associated with Alternative C would be comparable to the proposed project, in the long-term, after the Tajiguas Landfill reaches capacity, the non-processable and residual waste would still need to be disposed in alternative locations, as identified under Alternatives D and E.

Under Alternative C, less waste would be disposed of at Landfill; thus, fugitive GHG and ROC emissions at the Tajiguas Landfill would be lower than the proposed project after Landfill closure in 2033. However, combined GHG emissions from construction, landfill gas fugitives and landfill gas combustion would exceed the threshold, and is considered a significant and unavoidable impact.

Following Landfill closure, these emissions would occur at one of the other alternative disposal locations. Therefore, under Alternative C, the total GHG and ROC emissions from landfill gas is likely to be similar regardless of which landfill it is placed, as the total mass of waste and the decomposition would be similar at the Tajiguas Landfill or another nearby landfill.

Biological Resources

Alternative C would be implemented within the proposed project footprint; therefore, the biological resources setting information provided for the proposed project also applies to this Alternative.

Implementation of Alternative C would result in the permanent loss of about 3.3 acres of habitat for common wildlife species during clearing and grubbing of the lateral capacity increase area. Common wildlife species (especially small mammals and reptiles with low mobility) may be inadvertently killed or injured during construction activities, though birds and larger mammals that have higher mobility are unlikely to be killed or injured during project construction.

Proposed construction activities (increased access road traffic, excavation, blasting, liner installation, environmental protection/control system installation) would result in indirect temporary impacts to adjacent wildlife habitat and common wildlife species, such as increased fugitive dust, elevated noise levels, and increased human activity.

Habitat loss and indirect construction-related impacts to common wildlife species are considered an adverse but less than significant impact and less than the proposed project because Alternative C would affect only a small amount of wildlife habitat, the low quality of affected habitat associated with the fragmented nature of the habitat and disturbance (noise, dust, equipment activity) and isolation caused by surrounding Landfill activities, and availability of other undeveloped areas of the Landfill property and neighboring properties are available for use by common wildlife species. Therefore, Alternative C is not expected to reduce these wildlife populations below self-sustaining levels.

Construction activities during the nesting season may cause direct removal of bird nests or cause abandonment or failure of nests (through noise, dust, equipment and motor vehicle activity), which would be inconsistent with the MBTA and Section 3503.5 of the California Fish and Game Code. These impacts are considered significant but mitigable for both the proposed project and Alternative C, but reduced since Alternative C would affect a smaller habitat area. Mitigation measures (**MM BIO-2**) provided for the proposed project would reduce impacts of Alternative C to a less than significant level.

Northern harrier, white-tailed kite, loggerhead shrike and Allen's hummingbird have been observed at the Landfill property and may forage within coastal scrub and chaparral vegetation in the Alternative C capacity increase area. Loss of approximately 3.3 acres of this habitat is not anticipated to substantially affect the local populations of these species because the area of habitat removal is small as compared to these species typical foraging area, the low quality of affected foraging habitat associated with the fragmented nature of the habitat and disturbance (noise, dust, equipment activity) and isolation caused by surrounding Landfill activities, and low habitat complexity of recently planted vegetation, and the lack of suitable nesting habitat. These impacts are considered less than significant, and less than the proposed project since Alternative C would affect a smaller habitat area.

Similar to the proposed project, Alternative C includes additional Landfill construction activities that would remove vegetation (cover for migrating CRLF), expose bare soil and increase heavy equipment and vehicle traffic on Landfill access roads which could result in mortality of CRLF present during overland migration. However, implementation of **MM BIO-5** provided for the proposed project (avoidance and minimization measures of the HCP/ITP and compensatory mitigation (conservation easement area) as required by the Incidental Take Permit would reduce the potential for incidental take of CRLF and minimize adverse effects. Virtually all construction activities would be conducted during the dry season (with HCP avoidance measures implemented for any activities conducted outside the dry season) when the North Sedimentation Basin would be empty (not attractive to CRLF) and CRLF migration through the Landfill property would not be occurring. Impacts to CRLF would be significant, but less than the proposed project since Alternative C would involve a smaller construction area and duration.

Alternative C would not directly impact the area where Crotch's bumblebees were observed on the Landfill property in summer 2023. However, it is possible that this species forages and/or nests in other vegetated areas of the lateral expansion area associated with Alternative C. Loss of potentially occupied habitat and possible loss of individuals and nests is considered a significant impact, but less than the proposed project since Alternative C would affect a smaller habitat area. Mitigation measures (**MM BIO-4**) provided for the proposed project would reduce impacts of Alternative C. However, take of Crotch's bumblebee may occur such that impacts are considered significant and unavoidable, but less than the proposed project.

As discussed in Section 5.3.3.1, implementation of Alternative C would result in extending the active life of the Landfill by approximately 6.9 years and delay full closure and revegetation of the Landfill. Although phased closure activities including restoration of areas to native habitat have occurred in areas where the Landfill have reached its design capacity/elevation. Landfill operational activities would continue to occur in areas analyzed in the prior Landfill environmental documents (see Sections 1.6.1 and 1.6.2). The extension of life would be reduced by approximately 5.9 years as compared to the proposed project.

Indirect biological impacts associated with ongoing Landfill operations (noise, dust, equipment operations and human activity) including impacts to habitat from introduction of invasive plants (significant unavoidable impacts), abandonment or avoidance of foraging and breeding habitat by sensitive birds and mammals due to Landfill operations and human activity (significant unavoidable impacts), increased attraction of nuisance birds (significant but mitigable) and impacts to mountain lion and ringtail due to increased human presence (significant but mitigable) (see Section 4.3.2.2, Impacts 2, 5, 6, 8) would be extended but reduced as compared to the proposed project since closure and cover restoration would occur sooner.

In addition, disturbance and mortality to common wildlife species (less than significant, see Section 4.3.2.3, Impact 5) would continue further in time as compared to closure of the Landfill in approximately 2026 in the absence of the proposed project but impacts would be reduced as compared to the proposed project. These insignificant indirect impacts would continue to be minimized through implementation of mitigation measures (erosion control, nighttime lighting control, litter control, creek setback) as discussed in Sections 4.3.2.2 and 4.3.2.3.

In summary, Alternative C involves a smaller expansion into a new waste disposal area and avoids loss of rare plants and mature oak trees associated with the proposed project. In addition, implementation of Alternative C would have lesser impacts to wildlife habitat, nesting birds, special-status bird species, CRLF and Crotch's bumblebee than the proposed project. The extension of Landfill life associated with implementation of Alternative C would also extend previously identified significant and unavoidable biological resources impacts further in time, but these impacts would be reduced as compared to the proposed project since the time extension would be shorter.

Hazards and Hazardous Materials

Alternative C would be implemented within the proposed project footprint; therefore, the hazards and hazardous materials setting information provided for the proposed project also applies to this Alternative.

During construction activities and during ongoing operation of required for the vertical expansion, small quantities of hazardous materials (i.e., fuel, engine oil, lubricants, hydraulic fluid, engine coolant) would be used at the Landfill property and transported to and from the site. Similar to the proposed project, small quantities of these substances could be accidentally released and result in soil contamination. However, hazardous materials handling procedures and worker safety procedures would be implemented as required by applicable regulations.

Due to the small amounts of hazardous materials used during construction activities and the implementation of applicable regulations, potential impacts associated with use of hazardous materials for construction purposes would be less than significant and similar to the proposed project. The potential for hazardous materials (associated with fueling and maintenance activities) to be encountered during construction of waste disposal areas over the existing maintenance and storage area would not occur since this area would not be disturbed.

As discussed in Section 5.3.3.1, implementation of Alternative C would result in extending the active life of the Landfill by approximately 6.9 years and delay full closure and revegetation of the Landfill. Small quantities of hazardous waste may continue to enter the Landfill property as a part of the MSW. Screening processes that currently occur at the scale house and MSW sorting and processing at the MRF would continue and reduce the potential for hazardous materials to be discharged or buried. The current use of hazardous materials and infrequent generation of hazardous waste (oil waste, oily debris, batteries, etc.) at the Landfill would continue at rates equal or less than current operations. These activities have not resulted in significant hazards in the past and are not expected to increase due to the extension of Landfill life either under the proposed project or this alternative.

Similar to the proposed project, Alternative C would be exposed to wildfires and could be a source of fire from hot loads (see Section 4.4.1.5). The impact would be reduced as compared to the proposed project due to the reduced operating period.

The Landfill would continue to receive bypass and residual waste (although with a reduced organic component due to operation of the ReSource Center) and the generation of the landfill gas would continue, as the waste currently disposed of in the Landfill continues to decompose. Under the proposed project and Alternative C, landfill gas generation would continue beyond closure of the Landfill. Federal and State landfill gas regulations would continue to apply to Landfill operations and the landfill gas collection system would continue to operate (collect and treat landfill gas). Since the Landfill capacity under Alternative C is less than the proposed project, landfill gas generation is expected to be less than the proposed project.

However, hazards associated with operation of the Landfill (see Section 4.4.2.2) would continue further in time as compared to earlier closure of Landfill in the absence of the proposed project. Compliance with Federal and State hazardous materials regulations, CCR Title 27 regulations and mitigation measures identified in prior Landfill environmental documents (see Sections 1.6.1 and 1.6.2) including fire prevention and suppression, improved site security, landfill gas monitoring, on-site traffic control would continue to be implemented to avoid or offset significant impacts associated with hazards and hazardous materials.

Geologic Processes

Alternative C would be implemented within the proposed project footprint; therefore, the geologic processes setting information provided for the proposed project also applies to this Alternative.

The Alternative C vertical and horizontal expansion would require construction of new waste fill slopes to accommodate a larger and taller waste mass, although the lateral footprint would be reduced compared to the proposed project. A project-specific slope stability analysis has not been conducted for Alternative C. Therefore, it is expected that a toe berm would also be required along the western margin and possibly the northern margin of the waste fill area to address slope stability concerns (Geosyntec Consultants, 2023). Because of the additional height, the possible need for an additional slope stability berm along the northern margin of the waste prism, slope stability impacts maybe greater than the proposed project and to mitigate potential impacts a seismic slope stability analysis would need to be completed for Alternative B. Therefore, slope stability impacts for Alternative C would be greater than for the proposed project (significant but mitigable as compared to insignificant). In addition, similar to the proposed project, the berm may be briefly subject to partial inundation.

In addition, any encroachment of a toe berm required for slope stability mitigation into the Pila Creek Inundation Area would need to be identified and modifications to the flow control structure implemented to prevent increases in peak downstream stormwater flows. Impacts would be similar to the proposed project.

As discussed in Section 5.3.3.1, implementation of Alternative C would result in extending the active life of the Landfill by approximately 6.9 years and delay full closure and revegetation of the Landfill. Because closure and placement of a final cover system over the entire Landfill area would be delayed, there may be some extension of less than significant Landfill-related erosion and sedimentation impacts.

These impacts would continue to be minimized by the Landfill storm water management systems, interim erosion control measures during construction and operations, and phased closure of areas of the Landfill where waste placement has been completed. Because the amount of grading and surface disturbance associated with Alternative C would be reduced as compared to the proposed project, erosion and sedimentation impacts would be reduced.

Cultural and Tribal Resources

Alternative C would be implemented within the proposed project footprint; therefore, the cultural resources setting information provided for the proposed project also applies to this Alternative.

Implementation of Alternative C would not require disturbance of areas at the Landfill property that have not been previously excavated. Therefore, discovery of unreported cultural resources and associated impacts to such resources is not anticipated and potential cultural resource impacts would be less than the proposed project (insignificant as compared to significant but mitigable).

As discussed in Section 5.3.3.1, implementation of Alternative C would result in extending the active life of the Landfill by approximately 6.9 years and delay full closure and revegetation of the Landfill. Therefore, CA-SBa-1990 and SBA-iso-645 may continue to be indirectly impacted through Landfill operation (continued presence of Landfill staff) and Landfill closure activities. These impacts were considered significant, but mitigable with the implementation of cultural resource training program for Landfill staff, additional archeological investigation if these sites are impacted by closure or post-closure activities, and stopping or redirecting work if resource are discovered. These existing mitigation measures would continue to be applicable to the Landfill over its extended life and no new Landfill associated impacts to cultural resources would occur. Impacts would be reduced as compared to the proposed project as fewer Landfill employees would be at the project site after 2033.

Noise

Alternative C would be implemented within the proposed project footprint; therefore, the noise setting information provided for the proposed project also applies to this Alternative.

The Alternative C lateral expansion would require new excavation and construction of new waste fill slopes. The estimated 65 dBA CNEL existing noise contour shown in Figure 4.7-1 is based on several pieces of heavy equipment operating along the perimeter of the disturbance limits of the Landfill. Since additional construction activities associated with Alternative C would be located within existing heavy equipment activity areas, changes in the existing noise contour are not anticipated and the County's 65 dBA CNEL noise standard would not be exceeded at any noise-sensitive land uses. Because construction activities would be reduced and blasting would not be required, noise impacts would be less than the proposed project.

Construction-related heavy equipment operation associated with Alternative C would generate additional vibration. However, construction activities would be located north of the existing waste fill area (farther from residences) and would not generate vibration levels detectable at other land uses. Because construction activities would be reduced and blasting would not be required, vibration impacts would be less than the proposed project.

As discussed in Section 5.3.3.1, implementation of Alternative C would result in extending the active life of the Landfill by approximately 6.9 years and delay full closure of the Landfill. Environmental documents prepared for the Landfill determined that noise impacts associated with Landfill operations would be less than significant (see Sections 4.7.2.2 and 4.7.2.3). With implementation of Alternative C, less than significant noise impacts associated with Landfill operations would continue further in time but would be less than the proposed project due to a shorter time extension.

Land Use

Alternative C would be implemented within the proposed project footprint; therefore, the land use setting information provided for the proposed project also applies to this Alternative.

Since Alternative C would be located in essentially the same location (with the lateral portion of the increase), the policy consistency analysis prepared for the proposed project (see Section 4.8.2.6) is applicable to Alternative C and like the proposed project, Alternative C would be consistent with the applicable policies.

As compared to the proposed project, Alternative C would have reduced impacts to wildlife habitat, nesting birds, special-status bird species, Crotch's bumblebee and CRLF. Alternative C would not result in the loss of open space and with implementation of mitigation, all potential biological impacts (excluding potential Crotch's bumblebee impacts and extension of Landfill life) would be reduced to a level of less than significant.

Impacts of Alternative C related to hazards and hazardous materials would be less than significant and less than the proposed project.

Similar to the proposed project, implementation of Alternative C would not affect traffic safety at the Landfill entrance or increase VMT associated with Landfill operations staff.

Alternative C would not result in any increase in existing /nuisance effects (e.g. vectors, pathogens, litter) associated with Landfill operations.

Therefore, considering the historic and existing public facility use of the Landfill property, it's remote location, the nature of the surrounding land uses (agricultural, open space, former oil and gas), and with implementation of identified mitigation measures, potential land use conflicts with adjacent and nearby residential uses associated with implementation of Alternative C would be less than significant and similar but less than the proposed project due to the reduced operational life.

Alternative C would not result in any direct impacts to recreational land uses or increase the demand for recreational facilities that would create physical impacts. Changes to the Landfill associated with Alternative C (including the lateral expansion area) would be visible from the Upper Outlaw Trail at the Arroyo Hondo Preserve, similar to the proposed project as shown in Figure 4.1-4. However, this visual impact was considered less than significant as described in Section 4.1.2.5 for the proposed project and would be less than significant for this Alternative.

Odors associated with operation of the ReSource Center affecting Baron Ranch (including the Arroyo Quemado Trail) would not be increased and would remain less than significant.

Alternative C would not result in any increase in existing nuisance effects (e.g. vectors, pathogens, litter) to adjacent recreational uses associated with Landfill operations.

Therefore, considering the historic and existing public facility use of the Landfill property, its remote location, the nature of the surrounding land uses (agricultural, open space, former oil and gas facilities), and with implementation of identified mitigation measures, potential land use conflicts with adjacent and nearby recreational uses associated with implementation of Alternative C would be less than significant and similar to the proposed project, but with a reduced operational life.

Transportation

Alternative C would be implemented within a similar footprint as the proposed project footprint; therefore, the transportation setting information provided for the proposed project also applies to this Alternative. Alternative C would result in the same potential increase in Landfill-related vehicle trips or VMT as the proposed project. As discussed in Section 4.9.2.1, transportation impact analysis (vehicle miles travelled) under State CEQA Guidelines Section 15064.3 does not apply to commercial vehicles, including vehicles used to transport solid waste and recyclables to and from the Landfill.

Similar to the proposed project, a small increase in waste disposal traffic volumes would occur over the extended life of the Landfill. However, the subject intersection does not have any substantial safety concerns, and any reduction in traffic safety associated with Alternative C would be less than significant.

As discussed in Section 5.3.3.1, implementation of Alternative C would result in extending the active life of the Landfill by approximately 6.9 years and delay full closure of the Landfill. Impacts associated with extension of life do not represent new impacts but represent impacts that would be extended further in time. Therefore, the proposed project would extend the duration of time over which insignificant transportation impacts would occur. Because Alternative C would have a shorter operational life, the duration would be reduced as compared to the proposed project.

Water Resources

Alternative C would be implemented within the proposed project footprint; therefore, the water resources setting information provided for the proposed project also applies to this Alternative. This Alternative would avoid modifications to the North Sedimentation Basin and encroachment into the Pila Creek Inundation Area.

Existing supplies are adequate to meet both the potable and non-potable water demand of the Landfill and ReSource Center. Under Alternative C, the Landfill would be expanded horizontally with placement of additional north slope liner and vertically to a maximum elevation of 620 feet amsl, with overall Landfill capacity reached in approximately the year 2033. The additional north slope liner for this alternative would be placed on already excavated slopes and no significant earthwork would be necessary requiring additional water demand. Therefore, the construction and operational water demand would be similar to existing Landfill operations and the water balance of the Landfill would remain roughly the same as the proposed project. Additionally, the loss of recharge area from installation of the liner (4.5 acres of new lined area as compared to 14.25 acres under the proposed project) would be reduced from that of the proposed Project, thereby resulting in less impact on the safe yield for the Sespe-Alegria Formation within the Tajiguas Landfill. Similar to the proposed project Alternative C would not significantly affect the Landfill water supply or groundwater conditions.

Pumping can potentially degrade groundwater quality if wells are over pumped or if safe yields are exceeded. The operational water demand and groundwater extractions for Alternative C would be the same as the proposed project. Similar to the proposed project, because of the nature of the groundwater formations supplying the Landfill and that safe yields will not be exceeded, degradation in groundwater quality due to pumping would be less than significant.

The discussion of off-site well interference associated with groundwater pumping at the Landfill property for the proposed project provided in Section 4.10.2.5 is applicable to Alternative C. Overall, groundwater pumping required for implementation of proposed project and Alternative C would not significantly interfere with off-site wells. Water level declines in the off-site wells may be less under Alternative C because of the shorter operational period.

The discussion of the effects of groundwater pumping on rising groundwater and stream baseflow for the proposed project provided in Section 4.10.2.5 is applicable to Alternative C. Similar to the proposed project, pumping from existing wells and approved Well no. 8 for the proposed project or for Alternative C is not expected to substantially affect springs or stream baseflow.

Implementation of Alternative C would involve construction of a lateral expansion area and new disposal cells. Stormwater run-off from this construction area would contain sediment and possibly pollutants that may adversely affect surface water quality in Pila Creek. However, stormwater run-off from the Alternative C waste disposal area would be directed to the existing North Sedimentation Basin (which would not be modified under Alternative C) where sediment would be detained, and skimmers would discharge clarified stormwater to Pila Creek. In addition, the Landfill's SWPPP (updated March 2021) would continue to be implemented including BMPs listed in Table 4.10-2. Implementation of BMPs would reduce the potential for stormwater run-off to contain pollutants that may degrade water quality in Pila Creek. Therefore, construction-related stormwater run-off is not anticipated to significantly impact surface water quality and would be similar to the proposed project.

Infiltration of rainfall, stormwater and surface water through buried waste may produce leachate which may degrade groundwater quality. As compared to the No Project Alternative, Alternative C would involve a larger volume of buried waste subject to infiltration and could result in groundwater quality degradation. However, a liner system to capture leachate would be installed. Therefore, the existing groundwater management system as described in Section 4.10.1.2 is anticipated to prevent any significant increase in the potential for groundwater quality degradation. Impacts associated with Alternative C would be less than the proposed project because the increase in the overall waste disposal area and waste volume would be smaller and the final closure and the installation of a final engineering cover system would occur sooner.

Alternative C would not result in the modification to the North Sedimentation Basin or encroach into the Pila Creek Inundation Area and would not result in any new drainage impacts. However, any encroachment of a toe berm required for slope stability mitigation into the Pila Creek Inundation Area would need to be identified and modifications to the flow control structure implemented to prevent increases in peak downstream stormwater flows. Impacts would be similar to the proposed project.

Less than significant groundwater pumping-related impacts and construction stormwater runoff impacts would be reduced as compared to the proposed project. Surface water quality impacts associated with operations would be less than significant, similar to the proposed project, with compliance with WDRs and the industrial stormwater regulations.

Groundwater impacts associated with Alternative C would be similar to the proposed project as both require waste to be placed over groundwater protection system (liner). Alternative C would require construction of new base and slope liners similar to the proposed project.

The extension of Landfill life associated with implementation of Alternative C would also extend previously identified less than significant water resources impacts further in time, but would be less than the proposed project since the time extension would be shorter.

Nuisance

Alternative C would be implemented within the proposed project footprint; therefore, the public health/nuisance setting information provided for the proposed project also applies to this Alternative. As with the proposed project, existing measures would continue to be implemented to reduce nuisances associated with Landfill operations. Therefore, Alternative C would have the same impact as the proposed project.

As discussed in Section 5.3.3.1, implementation of Alternative C would result in extending the active life of the Landfill by approximately 6.9 years and delay full closure of the Landfill. Phased closure of areas of the Landfill that have reached final waste fill elevations would continue during its extended life. Alternative C would involve continued disposal of bypass waste and residual waste resulting from MSW processing by the ReSource Center. Significant but mitigable nuisance impacts associated with Landfill operations such as the potential for illegal dumping, dust from Landfill grading and equipment operations (see Section 4.11.2.2) would continue further in time but would be reduced as compared to the proposed project since the time extension would be shorter.

5.3.4 Alternative D: No Project Alternative (Scenario 1) - Waste Export to the Chiquita Canyon Landfill

The Chiquita Canyon Landfill Master Plan Revision Final EIR (CH2M Hill, 2017) was certified by the Los Angeles County Board of Supervisors on June 27, 2017. A full disclosure of the impacts of constructing and operating the Landfill are included in the Final EIR. Approved modifications include increasing the disposal area by 143 acres to a total area of 400 acres and increasing the maximum amount of waste allowed to be received to 12,000 tons per day, 233,333 tons per month and 2.8 million tons per year. As required by the Conditional Use Permit issued by Los Angeles County, the maximum amount of waste allowed to be received must be reduced by 2025 to 150,000 tons per month and 1.8 million tons per year. In 2022, approximately 1.5 million tons of MSW was disposed at the Chiquita Canyon Landfill.

5.3.4.1 Description

This Alternative would involve continued waste disposal at the Landfill under the currently permitted capacity and parameters (see Section 1.4) through to approximately 2026 and then transportation of community's bypass and residual waste to the Chiquita Canyon Landfill, when the Tajiguas Landfill reaches its permitted capacity. Table 5-2 provides an estimate of the amount of solid waste to be exported to the Chiquita Canyon Landfill and includes an estimate of average daily truck trips.

The Chiquita Canyon Landfill is located at 29201 Henry Mayo Drive (State Route 126) near Castaic in Los Angeles County, approximately 58 air miles east of the City of Santa Barbara (see Figure 5-1).

The basis of this Alternative is to provide solid waste disposal capacity to the year 2038, equivalent to the proposed project, when the Landfill reaches its permitted capacity in approximately 2026.

Table 5-2. Alternative D: Estimated Annual and Average Daily Export Tonnage and Truck Trips to the Chiquita Canyon Landfill

Year	Annual Waste Requiring Burial (tons/year)	Average Daily Waste Requiring Burial (tons/day)	Average Daily Truck Round Trips (20 tons per trip)
2026	180,030	586	30
2027	181,830	592	30
2028	183,650	598	30
2029	185,490	604	31
2030	187,340	610	31
2031	189,220	616	31
2032	191,110	623	32
2033	193,020	629	32
2034	194,950	635	32
2035	196,900	641	33
2036	198,870	648	33
2037	200,860	654	33
2038	202,870	661	34

Values based on 1% annual increase in waste burial, 307 operational days per year

This Alternative includes the following assumptions regarding solid waste management in the wasteshed following closure of the Landfill:

- MSW would be disposed of within the parameters of the project analyzed in the Chiquita Canyon Landfill Final EIR and associated permits.

- Franchise MSW would continue to be delivered in packer trucks or would be consolidated at the MarBorg Construction & Demolition Recycling and Transfer Facility in Santa Barbara and transported to the ReSource Center (existing conditions).
- Comingled source separated recyclables would continue to be consolidated at the SCRTS and shipped to the ReSource Center for processing (existing conditions).
- Source separated organic waste would continue to be transported to the ReSource Center in packer trucks for processing (existing conditions)
- Source-separated green-waste would be transported from SYVRTS, SCRTS and the Marborg Construction & Demolition Recycling and Transfer Facility consolidated into larger capacity trucks or directly in packer trucks to the Landfill property for processing (existing conditions).
- Non-recyclable municipal solid waste (bypass waste) received at the SCRTS and SYVRTS, and at the Marborg Construction & Demolition Recycling and Transfer Facility would be consolidated into larger capacity trucks and transported to the Chiquita Canyon Landfill.
- Residual waste from the ReSource Center and green waste processing operations at the Tajiguas Landfill would be consolidated into larger capacity trucks and transported to the Chiquita Canyon Landfill for disposal.

Landfill Description. A revised Solid Waste Facility Permit (SWFP) was issued by CalRecycle on October 19, 2018 (19-AA-0052). The permitted operating parameters of the Chiquita Canyon Landfill include:

- Maximum permitted tonnage: 12,000 tons per day, not to exceed 60,000 tons per week
- Permitted traffic volume: 1,162 vehicles per day
- Permitted area: 639 acres
- Permitted disposal area: 400 acres
- Design capacity: 110.4 million cubic yards of airspace
- Remaining capacity (as of 2021): 58.2 million cubic yards of airspace
- Estimated closure year: 2047

Available Capacity. The estimated life of the Chiquita Canyon Landfill is anticipated to extend to approximately the year 2047. The Chiquita Canyon Landfill may become the destination of solid waste from the Toland Road Landfill wasteshed (Carpinteria, western Ventura County, Santa Clara River valley) when the Toland Road Landfill reaches its capacity in April 2033 (includes implementation of the Toland Optimization Plan). However, expansion or other improvements may be proposed that may extend the service life of the Toland Road Landfill.

Based on the 12,000 tons per day SWFP limit and current average daily disposal rate of 6,616 tons per day, the Chiquita Canyon Landfill could accommodate solid waste from the Tajiguas Landfill wasteshed (661 tons per day and 202,870 tons per year in 2038, see Table 5-2) and solid waste from the Toland Road Landfill wasteshed (currently 2,864 tons per day).

Implementation of Alternative D would result in up to 34 additional daily truck trips (year 2038, 661 tons per day, 20 tons per truck), which would not result in an exceedance of the Chiquita Landfill permitted daily traffic volume.

It is anticipated that bypass waste and residual waste generated from the Landfill wasteshed over the 2026-2038 time period (approximately 0.2 million tons per year totaling about 2.5 million tons) could be accommodated at the Chiquita Canyon Landfill. However, this would shorten the life of the Chiquita Canyon Landfill by approximately 1.2 years (based on 2021 disposal rates at the Chiquita Canyon Landfill).

5.3.4.2 Comparison to Objectives

Project objectives are listed in Section 5.1. Alternative D would not meet any of the project objectives as it involves solid waste transportation and disposal off-site. It would not regain Landfill service life, would impose a significant burden on the rate payer, would result in environmental impacts associated with transportation and disposal at another landfill and eliminate the efficiency of the currently co-located Landfill and ReSource Center.

While this Alternative does not meet the project objectives, it is a potential outcome of the No Project Alternative, and the impacts of this Alternative are presented to provide full public disclosure.

5.3.4.3 Feasibility

Technical

Alternative D would be technically feasible as the Chiquita Canyon Landfill is fully permitted and operational and has available capacity.

Financial

Under Alternative D, all residual and bypass waste would be transported to the Chiquita Canyon Landfill, a round trip distance between 136 and 210 miles, depending on the origin of the waste. Based on a tipping fee of \$70 per ton, the cost to transport this material on an annual basis is approximately \$4.5 million per year. The cost to dispose of the waste would be approximately \$12.6 million per year for a total transportation and disposal cost of \$17.1 million per year at 2023 pricing. By no longer operating the Tajiguas Landfill for waste disposal, operational costs would be reduced by approximately \$3.7 million per year due to reduced operational supplies, labor and fuel. Accounting for these cost savings results in a net cost to the community of approximately \$13.4 million per year.

In contrast, the cost of constructing the proposed project is estimated to be approximately \$20.0 million for an extended landfill service life of 12.75 years or an annual cost of approximately \$1.6 million per year.

The County would have to increase the tipping fee at its facilities from the projected \$192 per ton to \$280 per ton for fiscal year 2025/2026 to offset increased costs of approximately \$13.4 million per year. This increased tipping fee would have to be maintained through the end of the debt payment schedule for the ReSource Center (fiscal year 2038/2039). This projected increase to the per ton tipping fee is so significant as debt financing obligations for the ReSource Center have to be met (\$10.68 million in fiscal year 2025/2026 increasing to \$16.9 million in fiscal year 2038/2039) as well as maintaining a debt service coverage ratio of 1.5 (operating revenue is required to exceed operating expenses by 1.5 excluding the cost of capital).

The County maintains waste delivery agreements with the communities (public participants) it serves. Section 4.3.D of the waste delivery agreements executed between the County and the cities of Goleta, Santa Barbara, Solvang, and MarBorg (for the City of Buellton) contains a protocol to address the scenario that the County has to increase its tipping fee at the ReSource Center greater than 7.5 percent in a single year or 15 percent in the past three consecutive years. Increasing the tipping fee from \$192 to \$280 per ton is an approximate increase of 46 percent and would require an operating committee to be convened and a two-thirds vote (representation based on the quantity of material delivered to the ReSource Center by each public participant) to approve a proposed tipping fee. Therefore, the County's ability to increase the tipping fee by 46 percent is uncertain and its ability to meet the bond financing obligations could be jeopardized. In summary, Alternative D is considered financially infeasible as the annual cost would be over eight times (\$13.4 million/\$1.6 million) that of the proposed project and increases in tipping fees to offset this cost are unlikely to be approved.

5.3.4.4 Impact Assessment

The Chiquita Canyon Landfill Master Plan Revision Final EIR (CH2M Hill, 2017) was used in the following impact analysis and is hereby incorporated by reference.

Bypass waste from the SCRTS, SYVRTS and the Marborg Construction & Demolition Recycling and Transfer Facility and residual waste from the ReSource Center exported to the Chiquita Canyon Landfill would be part of the permitted tonnage and vehicle trips assessed in the Final EIR prepared for the Chiquita Canyon Landfill. The maximum 661 tons per day (in 2038, see Table 5-2) exported to the Chiquita Canyon Landfill associated with Alternative D when combined with MSW generated by the existing wasteshed (currently approximately 6,616 tons per day) would not exceed the 12,000 tons per day limit of the facility's SWFP and analyzed in the Final EIR.

The number of additional waste disposal vehicle trips required for Alternative D (34 per day in 2038) when combined with existing vehicles serving the Chiquita Canyon Landfill (about 568 per day [from the Final EIR based on disposal of 6,622 tons per day]) would not approach the limit of the facility's SWFP (1,162 vehicles per day) and analyzed in the Final EIR.

Transportation to and disposal of additional waste at the Chiquita Canyon Landfill under Alternative D may increase impacts including:

- Increased air pollutant and GHG emissions from heavy equipment and vehicles at the Chiquita Canyon Landfill associated with additional disposal activities.
- Increased air pollutant and GHG emissions from vehicles on roadways between the ReSource Center, SCRTS, SYVRTS and the Marborg Construction & Demolition Recycling and Transfer Facility and the Chiquita Canyon Landfill (see Table 5-3).
- Increased fugitive dust associated with additional disposal activities at the Chiquita Canyon Landfill.
- Increased vehicle miles travelled associated with solid waste export to the Chiquita Canyon Landfill (approximately 1.4 million miles in 2026).
- Potential for increased noise from heavy equipment and vehicle activity associated with additional disposal at the Chiquita Canyon Landfill.
- Potential for increased water use for dust control at the Chiquita Canyon Landfill.

Table 5-3. Alternative D: Comparison of Waste Transportation Emissions in 2038

Project	Maximum Daily Air Pollutant Emissions (pounds)					Annual Emissions (MTCO ₂ E)
	ROC	NO _x	CO	PM ₁₀	PM _{2.5}	GHG
Proposed Project	0.06	5.75	0.26	1.01	0.31	555
Alternative D	0.37	35.45	1.57	6.25	1.89	3,424

Although Senate Bill 743 and CEQA Guidelines Section 15064.3 address automobile VMT and are not directly applicable to truck traffic, the increased vehicle miles associated with Alternative D are inconsistent with the goal to reduce air pollutant and GHG emissions and other impacts associated with transportation.

As noted above, the Chiquita Canyon Landfill would have the capacity to accept waste from the Tajiguas Landfill if the proposed project is not implemented. Operation of the Chiquita Landfill is permitted and has been analyzed in Chiquita Canyon Landfill Master Plan Revision Final EIR. Disposal of waste generated from the communities served by the Tajiguas Landfill would contribute to the following impacts at the Chiquita Canyon Landfill and disclosed in the Chiquita Canyon Landfill Master Plan Revision Final EIR.

Implementation of Alternative D would contribute to the following impacts identified in the Chiquita Canyon Landfill Master Plan Revision Final EIR:

- Debris or mud flows during heavy rains (less than significant with mitigation).
- Impacts of expansive soil to structures (less than significant with mitigation).
- Impacts to plant communities, including oaks and oak woodlands (less than significant with mitigation).
- Impacts to CDFW and Corps of Engineers jurisdictional areas (less than significant with mitigation).
- Introduction of nuisance wildlife (less than significant with mitigation).
- Impacts to special-status plant species (less than significant with mitigation).
- Impacts to special-status wildlife species including burrowing owl, reptiles, mammals, western spadefoot, bird nests and bat roosts (less than significant with mitigation).
- Impacts to California gnatcatcher (less than significant with mitigation).
- Impacts to wildlife movement corridors (less than significant with mitigation).

- Impacts to an archeological site (Bowers Cave) (less than significant with mitigation).
- Potential impacts to unreported cultural or archaeological resources (less than significant with mitigation).
- Air quality impacts associated with air pollutant emissions (significant and unavoidable).
- Potential objectionable odors affecting a substantial number of people (less than significant with mitigation).
- Climate change impacts associated with GHG emissions (significant and unavoidable).

5.3.5 Alternative E: No Project Alternative (Scenario 2) - Waste Export to Chiquita Canyon Landfill and the Santa Maria Regional Landfill OR the Santa Maria Integrated Waste Management Facility

5.3.5.1 Description

This Alternative would involve continued waste disposal at the Landfill under the currently permitted capacity and parameters (see Section 1.4) through to approximately 2026 and then transportation of bypass waste and residual waste (see Table 5-4 for estimated daily tonnage and truck trips) to the Chiquita Canyon Landfill and the Santa Maria Regional Landfill (or Santa Maria Integrated Waste Management Facility [IWMF]) based on the origin of the waste. Non-recyclable solid waste generated in the Santa Barbara area collected by MarBorg Industries at its Construction & Demolition Recycling and Transfer Station in downtown Santa Barbara and from SCRTS that currently bypass the ReSource Center for disposal at the Tajiguas Landfill would be consolidated and exported to the Chiquita Canyon Landfill. See Section 5.3.4.1 for a description of the Chiquita Canyon Landfill.

Based on data collected in 2022, solid waste to be exported to the Chiquita Canyon Landfill represents approximately 44 percent of the total solid waste requiring burial from the Landfill watershed. A discussion of the Chiquita Canyon Landfill operational parameters is provided above in Section 5.3.4.1. Implementation of Alternative E would result in up to 15 additional daily truck trips (291 tons per day in the year 2038, 20 tons per truck) to the Chiquita Canyon Landfill, which would not result in an exceedance of the permitted traffic volume.

Non-recyclable solid waste from the SYVRTS and bypass and residual waste from the ReSource Center would be exported to the Santa Maria Regional Landfill. Based on data collected in 2022, solid waste to be exported to the Santa Maria Regional Landfill represents approximately 56 percent of the total solid waste requiring burial. Implementation of Alternative E would result in up to 19 additional daily truck trips (370 tons per day in the year 2038, 20 tons per truck) to the Santa Maria Regional Landfill, which would not result in an exceedance of the permitted traffic volume. In about 2034 when the Santa Maria Regional Landfill closes, solid waste from the SYVRTS and bypass waste and residual waste from the Landfill watershed would be transported to the proposed Santa Maria IWMF.

The basis of this Alternative is to provide additional solid waste disposal capacity (to the year 2038, equivalent to the proposed project), when the Landfill reaches its permitted capacity in approximately 2026.

Table 5-4. Alternative E: Estimated Average Daily Export Tonnage and Truck Trips to the Chiquita Canyon Landfill and Santa Maria Landfills

Year	Average Daily Waste Exported to Chiquita Canyon Landfill (tons/day)	Average Daily Truck Trips to Chiquita Canyon Landfill (20 tons/truck)	Average Daily Waste Exported to Santa Maria Landfills (tons/day)	Average Daily Truck Round Trips to Santa Maria Landfills (20 tons/truck)
2026	258	13	328	17
2027	261	14	332	17
2028	263	14	335	17
2029	266	14	338	17
2030	269	14	342	18
2031	271	14	345	18
2032	274	14	349	18
2033	277	14	352	18
2034	279	14	356	18
2035	282	14	359	19
2036	285	15	363	19
2037	288	15	366	19
2038	291	15	370	19

Values based on 1% annual increase in waste burial, 44% exported to the Chiquita Canyon Landfill and 56% exported to Santa Maria landfills

This Alternative includes the following assumptions regarding solid waste management in the watershed following closure of the Tajiguas Landfill:

- MSW would be disposed of within the parameters of the project analyzed in the Chiquita Canyon Landfill and the Santa Maria landfills CEQA documents and associated permits.
- Franchise MSW would continue to be delivered in packer trucks or would be consolidated at the Marborg Construction & Demolition Recycling and Transfer Facility in Santa Barbara and transported to the ReSource Center (existing conditions).
- Comingled source separated recyclables would continue to be consolidated at the SCRTS and shipped to the ReSource Center for processing (existing conditions).
- Source separated organic waste would continue to be transported to ReSource Center in packer trucks for processing (existing conditions).
- Source-separated green-waste would be transported from SYVRTS, SCRTS and Marborg Construction & Demolition Recycling and Transfer Facility consolidated into larger capacity trucks or in packer trucks directly to the Tajiguas Landfill for processing (existing conditions).
- Non-recyclable MSW (bypass waste) received at the SYVRTS would be consolidated into larger capacity trucks and transported to the Santa Maria Regional Landfill (until the Santa Maria IWMF is operational) at which time the MSW (bypass waste) would be transported to the IWMF for disposal.
- Non-recyclable MSW (bypass waste) received at the SCRTS and the Marborg Construction & Demolition Recycling and Transfer Facility would be consolidated into larger capacity trucks and transported to the Chiquita Canyon Landfill.
- Residual waste from the ReSource Center and green waste operations would be consolidated into larger capacity trucks and transported to the Santa Maria Regional Landfill (until the Santa Maria IWMF is operational, at which time the MSW [bypass waste] would be transported to the IWMF for disposal).

Santa Maria Regional Landfill Description. The Santa Maria Regional Landfill has been in operation since the 1950s and is owned and operated by the City of Santa Maria (City) and classified as a Class III disposal facility, permitted to accept non-hazardous solid wastes. The location of the Regional Landfill is provided in Figure 5-1 approximately 52 road miles north of the Tajiguas Landfill.

The City completed a Final EIR addressing the Santa Maria Regional Landfill operations in 1993, and subsequently prepared a Supplemental EIR in 1995, an Addendum to the Final EIR in 2001, a Second Supplemental EIR in 2004, and an Addendum to the Second Supplemental EIR in 2018. Another Addendum to the Second Supplemental EIR was prepared in 2021 for the Cell 1 Extension Project, which has been implemented. The current estimate of service life is approximately 2028.

The City plans a second expansion project (Cell 1, Phase 2) to be implemented in 2024, which would provide additional air space and extend the service life to about 2034. The proposed Cell 1, Phase 2 expansion project will require additional CEQA review and has not yet been approved.

SWFP (42-AA-0016) issued by CalRecycle was last updated on March 8, 2022 and includes the following operating parameters:

- Maximum permitted disposal tonnage: 6,006 tons per week (based on a 7-day rolling average of 858 tons per day)
- Permitted traffic volume: 810 vehicles per day
- Permitted area: 290.88 acres
- Permitted disposal area: 247.16 acres
- Design capacity: 14.0 million cubic yards of airspace
- Remaining capacity (as of 2021): 1.4 million cubic yards of airspace
- Estimated closure year: 2028

Based on the 858 tons per day rolling average SWFP limit and existing MSW disposal rate (about 450 tons per day), the Regional Landfill could not accommodate all of waste currently buried at the Tajiguas Landfill but could accommodate solid waste from the SYVRTS and bypass waste and residual waste from the Tajiguas Landfill (up to 356 tons per day in 2034 when the Santa Maria Regional Landfill closes, based on implementation of the second expansion project, see Table 5-4). However, this would substantially shorten the life of the Santa Maria Regional Landfill.

Implementation of Alternative E would result in up to 18 additional daily truck trips (356 tons per day in the year 2034, 20 tons per truck) to the Santa Maria Regional Landfill, which would not result in an exceedance of the permitted traffic volume.

Santa Maria IWMF Description. The City of Santa Maria plans to construct a new Class III municipal solid waste landfill (Santa Maria IWMF) to replace the existing Santa Maria Regional Landfill. The location of the Santa Maria IWMF is provided in Figure 5-1 and is approximately 39 road miles road north of the Tajiguas Landfill.

A Final EIR (SCH#2006091069, Santa Maria Integrated Waste Management Facility Project Final EIR, Rincon Consultants, 2010) was completed and the project was approved by Santa Maria City Council. SWFP (42-AA-0076) was issued by CalRecycle on May 30, 2012. An application to renew the SWFP was filed with the Santa Barbara County Public Health Department on January 5, 2022. The Public Health Department responded on June 10, 2022 with a request for clarifications, including the Santa Maria IWMF Landfill permitted boundary, site life discrepancies and updated financial assurances.

The permitted operating parameters of the Santa Maria IWMF include:

- Maximum permitted disposal tonnage: 1,600 tons per day
- Permitted traffic volume: 277 vehicles per day
- Permitted area: 617 acres
- Permitted disposal area: 286 acres
- Design capacity: 130,850,000 cubic yards
- Estimated closure year: 2105

The Santa Maria IWMF was previously reviewed and permitted for the eastern portion of the Los Flores Ranch property, which contains 31 plugged and abandoned oil production wells. Due to concerns regarding the inability to monitor these abandoned wells when under the waste footprint, the City is now pursuing relocation of the waste footprint to the western portion of the Ranch property (personal communication, Herb Cantu, City of Santa Maria, December 19, 2022). Design work is ongoing and preparation of a new CEQA document (likely a Supplemental EIR) will be initiated in 2023. The City anticipates the Santa Maria IWMF will become operational sometime between 2027 and 2028.

When approved and permitted, the Santa Maria IWMF would provide about 90 years of MSW disposal capacity (130,850,000 cubic yards, assuming the re-designed Santa Maria IWMF will have equivalent capacity) for the Santa Maria regional watershed, which includes northern Santa Barbara County (including the communities of Santa Maria, Guadalupe, Los Alamos, Casmalia, Sisquoc, Garey, Orcutt) and southern San Luis Obispo County (Nipomo). The Final EIR prepared for the Santa Maria IWMF assumed the facility would receive approximately 500 tons per day of MSW from the Tajiguas Landfill watershed (southern Santa Barbara County and Santa Ynez Valley) upon closure of the Tajiguas Landfill.

Based on the large disposal capacity and 1,600 ton per day permit limit, the Santa Maria IWMF could accommodate solid waste from the SYVRTS and bypass waste and residual waste from the Tajiguas Landfill watershed (up to 369 tons per day in 2038, see Table 5-4).

Implementation of Alternative E would result in up to 19 additional daily truck trips (370 tons per day in the year 2038, 20 tons per truck) to the Santa Maria IWMF, which would not result in an exceedance of the permitted traffic volume.

5.3.5.2 Comparison to Objectives

Project objectives are listed in Section 5.1. Alternative E would not meet any of the project objectives as it involves solid waste transportation and disposal off-site. It would not regain Landfill service life, would impose a significant burden on the rate payer, would result in environmental impacts associated with transportation and disposal at another landfill and eliminate the efficiency of the currently co-located Landfill and ReSource Center.

While this Alternative does not meet the project objectives, it is a potential outcome of the No Project Alternative, and the impacts of this Alternative are presented to provide full public disclosure.

5.3.5.3 Feasibility

Technical

Alternative E would be technically feasible as the Chiquita Canyon Landfill has sufficient capacity, and Santa Maria Regional Landfill has sufficient capacity until the Santa Maria IWMF becomes operational. Although CEQA review and permitting of the reconfigured IWMF has not been completed, based on the prior approval of the IMWF it is expected that the reconfigured facility would also be approved. If it is not, then all waste would be sent to the Chiquita Canyon Landfill after closure of the Santa Maria Regional Landfill.

Financial

Under Alternative E, all residual and bypass waste would be transported to the Chiquita Canyon Landfill and Santa Maria area landfills, a round trip distance between 64 and 148 miles, depending on the origin of the waste. Based on a tipping fee of \$70 per ton at Chiquita Canyon Landfill and \$79 per ton at Santa Maria Regional Landfill, the cost to transport this material on an annual basis is approximately \$3.3 million per year. The cost to dispose of the waste would be approximately \$13.5 million per year for a total transportation and disposal cost of \$16.8 million per year at 2023 pricing. By no longer operating the Tajiguas Landfill for waste disposal, operational costs would be reduced by approximately \$3.7 million per year due to reduced operational supplies, labor and fuel. Accounting for these cost savings results in a net cost to the community of approximately \$13.1 million per year.

In contrast, the cost of constructing the proposed project is estimated to be approximately \$20.0 million for an extended landfill service life of 12.75 years or an annual cost of approximately \$1.6 million per year.

As discussed in Section 5.3.4.3, the tipping fee would need to be increased by about 46 percent to offset the additional costs of exporting waste. Due to the stipulations of the waste delivery agreements with communities served by the Landfill, the County's ability to increase the tipping fee by 46 percent is uncertain and its ability to meet the ReSource Center bond financing obligations could be jeopardized.

In summary, Alternative E is considered financially infeasible as the annual cost would be over eight times that of the proposed project and increases in tipping fees to offset this cost are unlikely to be approved.

5.3.5.4 Impact Assessment

Chiquita Canyon Landfill

The Final EIR prepared for the Chiquita Canyon Landfill certified in 2017 was used in the following impact analysis and is hereby incorporated by reference.

Bypass waste from the SCRTS and the Marborg Construction & Demolition Recycling and Transfer Facility exported to the Chiquita Canyon Landfill would be part of the permitted tonnage and vehicle trips assessed in the Final EIR prepared for the Chiquita Canyon Landfill. The maximum 291 tons per day (in 2038, see Table 5-4) exported to the Chiquita Canyon Landfill associated with Alternative E when combined with MSW generated by the existing watershed (currently approximately 6,616 tons per day) would not exceed the 12,000 tons per day limit of the facility's SWFP and analyzed in the Final EIR.

The number of additional waste disposal vehicle trips required for Alternative E (15 per day in 2038, see Table 5-4) when combined with existing vehicles serving the Chiquita Canyon Landfill (about 568 per day [from the Final EIR based on disposal of 6,622 tons per day]) would not approach the limit of the facility's SWFP (1,162 vehicles per day) and analyzed in the Final EIR.

Transportation to and disposal of additional waste at the Chiquita Canyon Landfill under Alternative E may increase impacts including:

- Increased air pollutant and GHG emissions from heavy equipment and vehicles at the Chiquita Canyon Landfill associated with additional disposal activities.
- Increased air pollutant and GHG emissions from vehicles on roadways between the SCRTS and the Marborg Construction & Demolition Recycling and Transfer Facility and the Chiquita Canyon Landfill (see Table 5-5).
- Increased fugitive dust associated with additional disposal activities at the Chiquita Canyon Landfill.
- Increased vehicle miles travelled associated with solid waste export to the Chiquita Canyon Landfill (approximately 0.4 million miles in 2026).

- Potential for increased noise from heavy equipment and vehicle activity associated with additional disposal at the Chiquita Canyon Landfill.
- Potential for increased water use for dust control at the Chiquita Canyon Landfill.

Table 5-5. Alternative E: Comparison of Waste Transportation Emissions in 2038

Project	Maximum Daily Air Pollutant Emissions (pounds)					Annual Emissions (MTCO ₂ E)
	ROC	NOx	CO	PM ₁₀	PM _{2.5}	GHG
Proposed Project	0.06	5.75	0.26	1.01	0.31	555
Alternative E	0.25	24.59	1.09	4.34	1.31	2,375

Although Senate Bill 743 and CEQA Guidelines Section 15064.3 address automobile VMT and are not directly applicable to truck traffic, the increased vehicle miles associated with Alternative E are inconsistent with the goal to reduce air pollutant and GHG emissions and other impacts associated with transportation.

As noted, above the Chiquita Canyon Landfill would have the capacity to accept waste from the Tajiguas Landfill if the proposed project is not implemented. Operation of the Chiquita Landfill is permitted and has been analyzed in Final EIR. Disposal of waste generated from the communities served by the Tajiguas Landfill would contribute to the following impacts at the Chiquita Canyon Landfill and disclosed in the Final EIR.

Implementation of Alternative E would contribute to following impacts identified in the Chiquita Canyon Landfill Master Plan Revision Final EIR:

- Debris or mud flows during heavy rains (less than significant with mitigation)
- Impacts of expansive soil to structures (less than significant with mitigation)
- Impacts to plant communities, including oaks and oak woodlands (less than significant with mitigation)
- Impacts to CDFW and Corps of Engineers jurisdictional areas (less than significant with mitigation)
- Introduction of nuisance wildlife (less than significant with mitigation)
- Impacts to special-status plant species (less than significant with mitigation)
- Impacts to special-status wildlife species including burrowing owl, reptiles, mammals, western spadefoot, bird nests and bat roosts (less than significant with mitigation)

- Impacts to California gnatcatcher (less than significant with mitigation)
- Impacts to wildlife movement corridors (less than significant with mitigation)
- Impacts to an archeological site (Bowers Cave) (less than significant with mitigation)
- Potential impacts to unreported cultural or archaeological resources (less than significant with mitigation)
- Air quality impacts associated with air pollutant emissions (significant and unavoidable)
- Potential objectionable odors affecting a substantial number of people (less than significant with mitigation)
- Climate change impacts associated with GHG emissions (significant and unavoidable)

Santa Maria Regional Landfill

Bypass waste from the SYVRTS, residual waste from the ReSource Center and residual green-waste exported to the Santa Maria Regional Landfill would be part of the permitted tonnage and vehicle trips assessed in prior CEQA documents prepared for the Santa Maria Regional Landfill. The maximum 356 tons per day (in 2034 at landfill closure, see Table 5-4) exported to the Regional Landfill associated with Alternative E when combined with MSW generated by the City of Santa Maria and surrounding communities (currently about 450 tons per day) would not exceed the 858 ton rolling day average limit of the facility's SWFP and analyzed in prior CEQA documents.

The number of additional waste disposal vehicle trips required for Alternative E (18 per day in 2034, see Table 5-4) when combined with existing vehicles serving the Regional Landfill (about 35 per day based on 450 tons per day and 13 tons per truck [mixture of packer trucks and larger trucks with consolidated loads]) would not approach the limit of the facility's SWFP (810 vehicles per day) and analyzed in prior CEQA documents.

Transportation to and disposal of additional waste at the Regional Landfill under Alternative E may increase impacts including:

- Increased air pollutant and GHG emissions from heavy equipment and vehicles at the Regional Landfill associated with additional disposal activities.
- Increased air pollutant and GHG emissions from vehicles on roadways between the ReSource Center/Tajiguas Landfill and SYVRTS and the Regional Landfill.
- Increased fugitive dust associated with additional disposal activities at the Regional Landfill.

- Increased vehicle miles travelled associated with solid waste export to the Regional Landfill (approximately 0.5 million miles in 2026).
- Potential for increased noise from heavy equipment and vehicle activity associated with additional disposal at the Regional Landfill.
- Potential for increased water use for dust control at the Regional Landfill.

Excluding transportation-related impacts outside the existing wasteshed, impacts related to disposal of solid waste exported to the Regional Landfill associated with implementation of Alternative E have been analyzed in prior CEQA documents and mitigation measures implemented to reduce impacts to the extent feasible. Therefore, Alternative E would not result in any new significant impacts or a substantial change in the significance of previously identified impacts for the Regional Landfill.

Santa Maria IWMF

Bypass waste from the SYVRTS, residual waste from the ReSource Center and residual green-waste exported to the Santa Maria IWMF would be part of the permitted tonnage and vehicle trips assessed in the Final EIR prepared for the Santa Maria IWMF. The maximum 370 tons per day (in 2038, see Table 5-4) exported to the Santa Maria IWMF associated with Alternative E when combined with MSW generated by the City of Santa Maria and surrounding communities (currently about 450 tons per day) would not exceed the 1,600 tons per day limit of the facility's SWFP and analyzed in the Final EIR.

The number of additional waste disposal vehicles required for Alternative E (19 per day in 2038, see Table 5-4) when combined with vehicles anticipated to serve the Santa Maria IWMF when in operation (about 35 per day based on 450 tons per day and 13 tons per truck [mixture of packer trucks and larger trucks with consolidated loads]) would not exceed the limit of the facility's SWFP (277 vehicles per day) and analyzed in the Final EIR. Note that the Final EIR prepared for the Santa Maria IWMF included 500 tons per day from the Tajiguas Landfill wasteshed in the cumulative traffic impact analysis (year 2032).

Transportation to and disposal of additional waste at the Santa Maria IWMF under Alternative E would increase impacts including:

- Increased air pollutant and GHG emissions from heavy equipment and vehicles at the Santa Maria IWMF associated with additional disposal activities.
- Increased air pollutant and GHG emissions from vehicles on roadways between the ReSource Center/Tajiguas Landfill and SYVRTS and the Santa Maria IWMF (see Table 5-5).
- Increased fugitive dust associated with additional disposal activities at the Santa Maria IWMF.

- Increased vehicle miles travelled associated with solid waste export to the Santa Maria IWMF (approximately 0.5 million miles in 2034).
- Potential for increased noise from heavy equipment and vehicle activity associated with additional disposal at the Santa Maria IWMF.
- Potential for increased water use for dust control at the Santa Maria IWMF.

Excluding transportation-related impacts outside the existing wasteshed, impacts related to disposal of solid waste exported to the Santa Maria IWMF associated with implementation of Alternative E have been analyzed in the Final EIR and mitigation measures implemented to reduce impacts to the extent feasible. Implementation of Alternative E would contribute to significant unavoidable impacts (operation-related air pollutant and GHG emissions) identified in the Santa Maria IWMF Final EIR.

The effect of the proposed reconfiguration of the Santa Maria IWMF on impacts identified in the Final EIR is unknown as the Subsequent EIR for this project has not been completed. However, it is anticipated that mitigation would be required by the City to minimize environmental impacts of the reconfigured Santa Maria IWMF.

5.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The following five alternatives were analyzed in detail and were considered in the identification of the environmentally superior alternative.

- A. No Project Alternative
- B. Reduced Project Alternative – Vertical Only Capacity Increase
- C. Reduced Project Alternative – Horizontal Only Capacity Increase
- D. No Project Alternative (Scenario 1) - Waste Export to the Chiquita Canyon Landfill
- E. No Project Alternative (Scenario 2) - Waste Export to the Chiquita Canyon Landfill and Santa Maria Regional Landfill OR Integrated Waste Management Facility

As noted in Section 5.3, although some of these alternatives may not meet all of the project objectives, and may have economic, legal or other issues that may affect their overall feasibility, these alternatives are considered to be technically feasible, and none were eliminated from consideration in this EIR when determining the environmentally superior alternative.

Section 15126.6(e)(1) of the State CEQA Guidelines requires identification and evaluation of the No Project Alternative and Section 15126.6(e)(2) states that “if the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” (emphasis added). Under the No Project Alternative, continued disposal at the Tajiguas Landfill through to approximately 2026 would not result in any new impacts. However, solid waste disposal would be required following Landfill closure, which would require export to another landfill and is addressed under Alternatives D and E.

After capacity is reached in approximately 2026, continued landfilling of waste under the No Project Alternative through waste exportation (Alternatives D and E) would contribute to significant and unavoidable impacts at the other landfill sites. Waste export would also increase haul distances, VMT and associated air pollutant and GHG emissions. Further, Alternatives D and E are considered financially infeasible (see Sections 5.3.4.3 and 5.3.5.3), do not meet most of the project objectives, and are not considered environmentally superior.

Therefore, of the remaining alternatives studied (B and C), Alternative B (Reduced Project Objective – Vertical Only Capacity Increase) is considered to be the Environmentally Superior Alternative. As analyzed above and summarized in Table 5-6, the proposed project and Alternative C would have greater impacts than Alternative B because it avoids lateral expansion and reduces on-site environmental impacts. Implementation of Alternative B would avoid most biological impacts associated with the proposed project (loss of sensitive plant community, loss of habitat for common wildlife species, construction impacts to breeding birds, loss of rare plants, impacts to Crotch's bumblebee, loss of mature oak trees and impacts to special-status bird species), including significant and unavoidable impacts to Crotch's bumblebee. However, due to the reduced landfill service life from approximately December 2038 to approximately November 2031, implementation of Alternative B would ultimately require export of solid waste and associated off-site impacts.

Both reduced capacity alternatives (B and C) would not fully meet the project objectives. In particular, the project objective of avoiding ratepayer financial burden would not be met because there would be about 5.5 to seven years of debt service for the ReSource Center remaining after the Alternative B and C service lives are reached associated with the fees for transportation and tipping at an off-site landfill/s. In addition, neither Alternative B or C would regain Tajiguas Landfill life that was planned to be provided by solid waste diversion associated with operation of the ReSource Center. These two project objectives are critical to the implementation of any capacity increase project.

In conclusion, Alternative B is identified as the environmentally superior alternative when compared to the other alternatives. However, Alternative B does not meet two critical project objectives and would provide only approximately 5.7 years of additional Landfill life, at which point off-site export of waste would be required and transportation-related impacts and contributions to off-site landfill disposal impacts would occur. In addition, off-site export is considered financially infeasible and prohibitive since the annual cost of waste management would be greater than eight times that of the proposed project. The proposed project with the mitigation identified in this EIR reduces impacts to the maximum extent feasible and meets operational, engineering and financial objectives associated with continued management and disposal of the community's waste.

Table 5-6. Comparison of the Impacts of the Alternatives

Resource/Issue Area	Impact Level					
	Proposed Project	Alternative A: No Project	Alternative B: Vertical Only Capacity Increase	Alternative C: Horizontal Only Capacity Increase	Alternative D: Waste Export to the Chiquita Canyon Landfill ¹	Alternative E: Waste Export to the Chiquita Canyon Landfill and Santa Maria Landfills ¹
Visual Resources/Aesthetics						
Degrade views from adjacent public viewpoints	3	N	3/-	3/-	3	2
Degrade public views from a scenic highway	N	N	N	N	N	2
Extension of the Tajiguas Landfill life and visual impacts	1	N	1/-	1/-	N	N
Air Quality and Greenhouse Gases						
Construction criteria pollutant emissions	3	N	3/-	3/-	1	1
Landfill operations criteria pollutant emissions	3	N	3/=	3/=	1/+	1/+
Exceedance of ambient air quality standards	3	N	3/=	3/=	1	1
Increased health risk	3	N	3/=	3/=	3	3
Greenhouse gas emissions (construction and extended operation) ²	1	N	1/=	1/=	1/+	1/+
Increased odors	3	N	3/=	3/=	3	3
Extension of the Tajiguas Landfill life and air quality impacts	1	N	1/-	1/-	N	N
Biological Resources						
Loss of a sensitive plant community	3	N	N	N	2	2

Resource/Issue Area	Impact Level					
	Proposed Project	Alternative A: No Project	Alternative B: Vertical Only Capacity Increase	Alternative C: Horizontal Only Capacity Increase	Alternative D: Waste Export to the Chiquita Canyon Landfill ¹	Alternative E: Waste Export to the Chiquita Canyon Landfill and Santa Maria Landfills ¹
Loss of habitat for common wildlife species	3	N	N	3/-	2	2
Construction impacts to nesting birds	2	N	N	2/-	2	2
Loss of rare plants	2	N	N	N	ND	2
Impacts to Crotch's bumblebee	1	N	N	1/-	ND	ND
Loss of mature coast live oak trees	2	N	N	N	2	1
Impacts to special-status bird species	3	N	N	3/-	2	2
Impacts to California red-legged frog	2	N	2/-	2/-	N	N
Extension of the Tajiguas Landfill life and biological resources impacts	1-3	N	1-3/-	1-3/-	N	N
Hazards and Hazardous Materials						
Construction-related inadvertent discharge of hazardous materials	3	N	3/-	3/-	ND	ND
Discovery of contaminated soils during construction	2	N	N	N	ND	ND
Extension of the Tajiguas Landfill life and hazards and hazardous materials impacts	2	N	2/-	2/-	N	N
Geologic Processes						
Potentially unstable waste fill slopes	3	N	2	2	2	2
Toe berm inundation effects on slope stability	3	N	3/= (with toe berm mitigation)	3/= (with toe berm mitigation)	N	N
Extension of the Tajiguas Landfill life and geologic processes impacts	3	N	3/-	3/-	N	N

Resource/Issue Area	Impact Level					
	Proposed Project	Alternative A: No Project	Alternative B: Vertical Only Capacity Increase	Alternative C: Horizontal Only Capacity Increase	Alternative D: Waste Export to the Chiquita Canyon Landfill ¹	Alternative E: Waste Export to the Chiquita Canyon Landfill and Santa Maria Landfills ¹
Cultural Resources						
Construction-related disturbance of archeological resources	2	N	N	N	2	2
Extension of the Tajiguas Landfill life and cultural resources impacts	2	N	2/-	2/-	N	N
Noise and Vibration						
Construction-related noise impacts to noise-sensitive land uses	3	N	3/-	3/-	3	3
Earlier waste receipt effects on traffic noise at noise-sensitive land uses	3	N	N	N	N	N
Construction heavy equipment vibration impacts to residential land uses	3	N	3/-	3/-	ND	ND
Blasting-related noise and vibration impacts on nearby residents	2	N	N	N	N	N
Extension of the Tajiguas Landfill life and noise and vibration impacts	3	N	3/-	3/-	N	N
Land Use/Recreation						
Land use conflicts with nearby residential land uses	2	N	2/-	2/-	N	N
Land use conflicts with nearby recreational uses	2	N	2/=	2/=	N	N
Extension of the Tajiguas Landfill life and land use impacts	3	N	3/-	3/-	N	N

Resource/Issue Area	Impact Level					
	Proposed Project	Alternative A: No Project	Alternative B: Vertical Only Capacity Increase	Alternative C: Horizontal Only Capacity Increase	Alternative D: Waste Export to the Chiquita Canyon Landfill ¹	Alternative E: Waste Export to the Chiquita Canyon Landfill and Santa Maria Landfills ¹
Transportation						
Traffic safety at the U.S. Highway 101/Landfill access road intersection	3	N	3/=	3/=	N	N
Earlier waste receipt effects on traffic safety	3	N	N	N	N	N
Extension of the Tajiguas Landfill life and transportation impacts	3	N	3/-	3/-	N	N
Water Resources						
Increase in peak storm flows may cause flooding or damage to downstream drainage structures	3	N	N	N	N	N
Groundwater pumping effects on local groundwater supplies	3	N	3/=	3/=	3	3
Groundwater pumping may degrade groundwater quality	3	N	3/=	3/=	ND	ND
Groundwater pumping may interfere with groundwater production of off-site wells	3	N	3/=	3/=	ND	ND
Groundwater pumping may impact rising groundwater at springs and stream baseflow	3	N	3/=	3/=	ND	ND
Stormwater run-off from construction sites may degrade surface water quality	3	N	3/=	3/=	3	3
Increased leachate production may affect groundwater quality	3	N	3/-	3/-	3	3

Resource/Issue Area	Impact Level					
	Proposed Project	Alternative A: No Project	Alternative B: Vertical Only Capacity Increase	Alternative C: Horizontal Only Capacity Increase	Alternative D: Waste Export to the Chiquita Canyon Landfill ¹	Alternative E: Waste Export to the Chiquita Canyon Landfill and Santa Maria Landfills ¹
Extension of the Tajiguas Landfill life and water resources impacts	3	N	3/-	3/-	N	N
Nuisance						
Extension of the Tajiguas Landfill life and nuisance impacts	2	N	2/-	2/-	N	N

Key: Impact Level:

- 1: Unavoidable significant impact
- 2: Less than significant impact with mitigation
- 3: Adverse, but less than significant
- N: No impact

Impact Level Relative to the Proposed Project

+: Impact greater than

=: Impact the same as

-: Impact less than

ND: Data not provided in applicable landfill CEQA documents (Alternatives D and E)

¹ Impact levels identified for Alternatives D and E are based on the respective landfills as a whole, as waste from the Tajiguas watershed would contribute to those impacts.

² Includes GHG emissions at the Tajiguas Landfill and other landfills (post-closure)

6.0 GROWTH INDUCEMENT

6.1 INTRODUCTION

This section discusses whether the proposed project would foster economic growth or population growth in the surrounding area. A project may foster economic or population growth in a geographic area if it would meet any of the following criteria:

- The project would result in the urbanization of land in a remote location, creating an intervening area of open space which then experiences pressure to be developed.
- The project removes an impediment to growth through the establishment of an essential public service or the provision of new access to an area.
- Economic expansion, population growth, or the construction of additional housing occurs in the surrounding environment in response to economic characteristics of the project.
- The project establishes a precedent setting action, such as a change in zoning or general plan amendment approval that makes it easier for future projects to gain approval.

Should the project meet any one of these criteria, it is to be considered growth-inducing. An increase in population may require construction of new facilities which could cause significant environmental impacts. Section 15126.2 of the State CEQA Guidelines states that growth in an area is not necessarily beneficial, detrimental, or of little significance to the environment.

6.2 URBANIZATION OF LAND IN ISOLATED LOCALITIES

The proposed project would be implemented at the existing Tajiguas Landfill, located in the unincorporated Gaviota Coast Rural Region. The Landfill has been in continuous operation at the site since 1967. The proposed capacity increase within the existing Landfill operational boundary would not be considered urbanization. The County Land Use Element identifies that public facilities may be necessary and appropriately sited within the County's rural areas. The project would not provide additional employment opportunities; therefore, would not result in any increase in population or housing needs. Therefore, the project would not be growth inducing under this criterion.

6.3 REMOVAL OF AN IMPEDIMENT TO GROWTH

Landfill capacity may be limited in some communities, but generally is not an impediment to growth. Waste disposal is not restricted by the availability of local landfills in the same way that sewage disposal and water supply needs must be accommodated by the local systems. The proposed project would result in an increase in the solid waste disposal capacity of the Landfill and extend the life of the Landfill by about 12.75 years to serve the needs of the existing community and to account for natural population growth. In addition, under CalRecycle requirements, the County is required to ensure a combined 15 years of waste disposal capacity.

Although the proposed project includes a change in the permitted maximum waste receipt from a daily to weekly limit (based on the existing daily limit over a six-day work week), the maximum amount of MSW permitted could be accepted at the Landfill scale house over the 6-day period would not exceed 9,000 tons which is equivalent to receiving 1,500 tons per days. Therefore, the project could not support population growth that would substantially increase the daily amount of MSW produced by the communities it serves. Overall, the project would not be considered growth inducing under this criterion.

6.4 ECONOMIC GROWTH

The project would not directly result in the construction of any homes or facilities that would attract people to the area. The proposed project would not result in any increase in long-term employment opportunities. Therefore, it would not facilitate economic expansion, population growth, or the construction of additional housing.

6.5 PRECEDENT SETTING ACTION

The proposed project would not result in a precedent-setting action such as a General Plan Amendment or change in zoning. The proposed project would be entirely located within the existing boundary of the Tajiguas Landfill property provided waste disposal services to the community since 1967 and has waste disposal overlay designation under the General Plan. Therefore, the project would not be growth inducing under this criterion.

6.6 CONCLUSIONS

As indicated in the above discussions, the proposed project is not growth inducing under any of the criteria listed in the State CEQA Guidelines.

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