

4.0 ENVIRONMENTAL EVALUATION

This Chapter of the Draft Environmental Impact Report (DEIR) presents an analysis of each resource topic that has been identified through preliminary environmental analysis and the public scoping process as likely to be impacted by the proposed project. Each topical section describes the regulatory framework for evaluating that specific environmental topic, summarizes the existing environmental setting, analyzes potential impacts that could result from implementation of the proposed project, and identifies mitigation measures that would avoid, reduce, or compensate for the significant impacts of the proposed project.

4.1 LEVELS OF SIGNIFICANCE

Under the California Environmental Quality Act, a variety of terms are used to describe the levels of significance of adverse impacts. The definitions of terms used in this DEIR are as follows:

- **Significant and Unavoidable Impact.** An impact that exceeds the defined standards of significance and cannot be avoided or reduced to a less than significant level through implementation of potentially feasible mitigation measures.
- **Significant Impact.** An impact that exceeds the defined standards of significance and that can be avoided or reduced to a less than significant level through implementation of feasible mitigation measures.
- **Potentially Significant Impact.** Potentially Significant Impacts are impacts where there is uncertainty whether or not they exceed the defined standard of significance; however, for the purpose of this DEIR, they are considered significant. Such impacts are equivalent to Significant Impacts and require the identification of feasible mitigation measures.
- **Less Than Significant Impact.** Impacts that may be adverse but that do not exceed the specified standards of significance.
- **No Impact.** The project would not create an adverse impact to any degree.

4.2 FORMAT OF RESOURCE TOPIC SECTIONS

Each environmental topic section considered in this Chapter of the DEIR is organized into the following subsections:

- **Regulatory Context.** The overview of regulatory considerations for each

environmental topic is organized by federal, state, and local regulations, including discussions of applicable laws, regulations, and policies.

- **Environmental Setting.** This subsection describes the existing conditions on and within the vicinity of the project site, as applicable. The environmental setting subsection for each environmental topic provides a description of the applicable physical setting of the project area and its surroundings such as existing land uses, existing soil conditions, existing traffic conditions, etc.
- **Thresholds of Significance.** This subsection includes the thresholds of significance contained in the most recent Appendix G Checklist of the CEQA Guidelines and are used to analyze the project's potential to result in significant environmental impacts.
- **Analysis, Impacts, and Mitigation Measures.** This subsection provides a detailed analysis of the project's potential environmental impacts. Impacts are numbered and shown in bold italic type, and mitigation measures are numbered to correspond to the impact. Impacts and mitigation measures are numbered consecutively within each topical section.
- **Appendices.** This subsection provides a list of appendices provided for the resource topic section of the DEIR.
- **References.** This subsection provides a list of references used in the impact analyses for each resource topic section of the DEIR.

4.3 EFFECTS NOT FOUND TO BE SIGNIFICANT

Consistent with Section 15128 (Effects Not Found to Be Significant) of the CEQA Guidelines, the Initial Study, included as Appendix 2-B to this DEIR provides reasons that possible significant effects of the project as it relates to the environmental resource topics of Aesthetics, Agriculture & Forestry, Air Quality, Cultural and Tribal Cultural, Geology & Soils, Hazards & Hazardous Materials (except as it relates to Wildfire discussed in the DEIR), Hydrology & Water Quality, Land Use & Planning (except as it relates to topics discussed in the DEIR), Mineral Resources, Noise, Population & Housing, Public Services, Recreation, and Utilities & Service Systems were determined not to be significant and are therefore not discussed in detail in the EIR. As described in the Initial Study, compliance with applicable regulations contained in the Calistoga Municipal Code as well as implementation of mitigation measures identified in the Initial Study, and included in Chapter 1.0 Executive Summary, Table 1-1 (Summary of Impacts and Mitigation Measures) support the conclusions that impacts related to the resource topics listed above will not be significant. In addition to the topics discussed in the Initial Study, due to project modifications, it has been determined that impacts associated with Greenhouse Gas (GHG) Emissions will not

be significant and are therefore not further discussed in detail in this DEIR. A brief discussion indicating the reasons that GHG Emissions will not be significant is included below. Related to the topic of Transportation, as described in 2.0 Introduction, 2.3 EIR Scope, Transportation was initially scoped out from the need for further review in the DEIR based on the analysis contained in the Initial Study. However, as a result of comments received by state agencies and members of the public, the City of Calistoga elected to fully analyze transportation-related impacts in the DEIR. This provides additional opportunities for agency and public review and comment on transportation-related issues or concerns.

4.3.1 GREENHOUSE GAS EMISSIONS

Greenhouse Gas (GHG) emissions contribute to global climate change and are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Cumulative global GHG emissions that contribute to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative impact. As such, impacts related to GHG emissions are inherently considered cumulative impacts.

A number of regulations currently exist related to GHG emissions, predominantly AB 32, Executive Order S-3-05, and Senate Bill (SB) 32. AB 32 sets forth a statewide GHG emissions reduction target of 1990 levels by 2020. Executive Order S-3-05 sets forth a transitional reduction target of 2000 levels by 2010, the same target as AB 32 of 1990 levels by 2020, and further builds upon the AB 32 target by requiring a reduction to 80 percent below 1990 levels by 2050. SB 32 builds upon AB 32 and sets forth a transitional reduction target of 40 percent below 1990 levels by 2030. To implement statewide GHG emissions reduction targets, local jurisdictions are encouraged to prepare and adopt area-specific GHG reduction plans and/or thresholds of significance for GHG emissions.

Impact GHG-A: The project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (less than significant)

On April 20, 2022, the Bay Area Air Quality Management District (BAAQMD) Board of Directors adopted the proposed CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects. Consistent with CEQA Guidelines Section 15064 (Determining the Significance of the Environmental Effects Caused by a Project), the

thresholds are intended to assist public agencies in determining whether projects would result in a cumulatively considerable contribution to global climate change. The adopted thresholds are intended to evaluate projects based on their effect on efforts to meet the State's long-term climate goals. As determined by the *California Supreme Court in Center for Biological Diversity v. Department of Fish & Wildlife*, a project would be considered to have a less than significant air quality impact under CEQA so long as it contributes its fair share toward achieving long-term climate goals. As such, new land use development projects are required to either; (A) incorporate design elements including replacing natural gas with electric power, eliminating inefficient or wasteful energy usage, reducing project-generated vehicle miles traveled (VMT) to the recommended 15-percent reduction below existing averages, and providing sufficient electric vehicle (EV) charging infrastructure to support the shift to EVs, or; (B) comply with a qualified local GHG reduction strategy.

The City of Calistoga Climate Action Plan (CAP) was adopted by the City Council in April 2014 and identifies community-wide GHG emissions from 2010. The analysis includes an evaluation of four major sectors: transportation, built environment, solid waste, and water/wastewater. The total GHG emissions in 2010 were 33,579 metric tons of carbon dioxide equivalence (CO₂e). Transportation was the largest contributor of emissions (54.5%), followed by residential uses (22.6%), and commercial/industrial uses (19.7%). The City's CAP seeks to reduce GHG emission through various means and presents goals, objectives and measures targeting transportation, energy efficiency and renewable energy, carbon sequestration, and community engagement and advocacy. The City's CAP is not considered a qualified GHG Reduction Strategy pursuant to the BAAQMD Guidelines, and as such the thresholds set forth in the newly adopted guidelines are used to assess significance.

As discussed previously, following completion of the Initial Study, the project applicant revised the project to exclude the use of natural gas in new single-family residences, which are reasonably foreseeable changes in the environment that would result from approval of the Tentative Subdivision Map, Master Use Permit, and Preliminary Development Plan. Buildout of the project will contribute GHG emissions during construction of the proposed residences, site improvements, and off-site improvements as well as at operation, however, as detailed below construction and operational GHG emissions will not have a significant impact on the environment and impacts will be less than significant.

Construction

As noted in the Construction Health Risk & Greenhouse Gas Assessment, prepared by

Illingworth & Rodkin, neither the City of Calistoga nor BAAQMD have developed a quantitative threshold of significance for construction-related GHG emissions. Rather, BAAQMD and the California Office of Planning and Research recommend disclosing GHG emissions that would occur during construction to quantify the amount, types, and sources of GHG emissions, and BAAQMD further recommends reducing GHG-emissions through incorporation of best management practices, as set forth in Table 6-1 of the 2022 CEQA Guidelines. As provided in the GHG Assessment prepared for the project, the California Emissions Estimator Model (CalEEMod) was used to quantify construction-related GHG emissions associated with future development of single-family residences. As provided therein, the project would generate 445 metric tons (MT) of carbon dioxide equivalent (CO₂e), with the majority of construction-related GHG emissions attributable to operation of construction equipment. As recommended by BAAQMD, implementation of the construction-related best management practices listed below and provided in Table 6-1 of the BAAQMD 2022 CEQA Guidelines will be required as a condition of project approval. As specified in BAAQMDs CEQA Guidelines, impacts resulting from construction-related GHG emissions will be reduced with implementation of these BMPs and as such impacts resulting from direct generation of greenhouse gas emissions during project construction will be less than significant.

Best Management Practices for Construction-Related GHG Emissions

1. Use zero-emission and hybrid-powered equipment to the greatest extent possible, particularly if emissions are occurring near sensitive receptors or located within a BAAQMD-designated Community Air Risk Evaluation (CARE) area or Assembly Bill 617 community.
2. Require all diesel-fueled off-road construction equipment be equipped with EPA Tier 4 Final compliant engines or better as a condition of contract.
3. Require all on-road heavy-duty trucks to be zero emissions or meet the most stringent emissions standard, such as model year (MY) 2024 to 2026, as a condition of contract.
4. Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than 2 minutes (A 5-minute limit is required by the state airborne toxics control measure [Title 13, Sections 2449(d)(3) and 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site and develop an enforceable mechanism to monitor idling time to ensure compliance with this measure.
5. Prohibit off-road diesel-powered equipment from being in the “on” position for more

than 10 hours per day.

6. Use California Air Resources Board–approved renewable diesel fuel in off-road construction equipment and onroad trucks.
7. Use U.S. Environmental Protection Agency SmartWay certified trucks for deliveries and equipment transport.
8. Require all construction equipment is maintained and properly tuned in accordance with manufacturer’s specifications. Equipment should be checked by a certified mechanic and determined to be running in proper condition prior to operation.
9. Where grid power is available, prohibit portable diesel engines and provide electrical hook ups for electric construction tools, such as saws, drills and compressors, and using electric tools whenever feasible.
10. Where grid power is not available, use alternative fuels, such as propane or solar electrical power, for generators at construction sites.
11. Encourage and provide carpools, shuttle vans, transit passes, and/or secure bicycle parking to construction workers and offer meal options onsite or shuttles to nearby meal destinations for construction employees.
12. Reduce electricity use in the construction office by using LED bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones.
13. Minimize energy used during site preparation by deconstructing existing structures to the greatest extent feasible.
14. Recycle or salvage nonhazardous construction and demolition debris, with a goal of recycling at least 15% more by weight than the diversion requirement in Title 24.
15. Use locally sourced or recycled materials for construction materials (goal of at least 20% based on costs for building materials and based on volume for roadway, parking lot, sidewalk and curb materials). Wood products used should be certified through a sustainable forestry program.
16. Use low-carbon concrete, minimize the amount of concrete used and produce concrete on-site if it is more efficient and lower emitting than transporting ready-mix.
17. Develop a plan to efficiently use water for adequate dust control since substantial amounts of energy can be consumed during the pumping of water.
18. Include all requirements in applicable bid documents, purchase orders, and contracts, with successful contractors demonstrating the ability to supply the compliant on- or off-road construction equipment for use prior to any ground-disturbing and construction

activities.

Operation

As discussed in the GHG Assessment prepared for the project by Illingworth & Rodkin, the project will not result in significant GHG impacts during project operation as it achieves the minimum project design elements recommended by BAAQMD as follows. As such, impacts resulting from direct generation of greenhouse gas emissions during project operation will be less than significant.

1. Avoids construction of new natural gas connections for the residential building.

The project applicant has committed to excluding the use of natural gas in new single-family dwellings. To ensure natural gas is not included in future development of single-family homes and associated residential accessory uses, the following shall be included as a note on the Final Map/Plan set:

“All residential and accessory buildings developed as part of the Kortum Ranch subdivision shall be developed without natural gas infrastructure. Individual residential lots shall not be pre-stubbed or otherwise prepared for natural gas service. Any proposal to introduce natural gas infrastructure to serve individual residences within this subdivision shall require a separate California Environmental Quality Act (CEQA) review process, independent of the analysis prepared for this final map (SCH# 2023090349). Any such analysis shall consider all potential environmental impacts associated with the introduction of natural gas and shall be prepared at the expense of the applicant/property owner.”

As proposed and conditioned, the project will not include natural gas and complies with this criterion.

2. Avoids wasteful or inefficient use of electricity.

Future development of single-family residences will be required to meet the CALGreen Building Standards Code in effect at the time. The CALGreen Building Standards Code is considered to be energy efficient and as such the project will not result in wasteful or inefficient use of electricity and complies with this criterion.

3. Includes electric vehicle (EV) charging infrastructure that meets current Building Code CALGreen Tier 2 compliance.

Section 15.44.010 (Green Building Standards) of the Calistoga Municipal Code, adopts by reference, the California Code of Regulations Title 24 Part 11, California Green Building

Standards Code, 2022 Edition, including Appendix Chapter A4 Tier 1 requirements. As provided in Appendix Chapter A4, new one- and two-family dwellings with attached private garages are required to install a dedicated 208/240-volt branch circuit, including an overcurrent protective device rated at 40 amperes minimum for each dwelling. For one- and two-family dwellings, the EV charging requirements at the Tier 1 and Tier 2 level are the same. As such, the project, through compliance with adopted building code standards complies with this criterion.

4. Reduces VMT per service population by 15 percent over regional average.

As detailed in Section 4.2 Transportation, Napa county's per capita VMT is 14.18, whereas the project's VMT is 10.87, representing a 24% reduction to the countywide average. As such, the project complies with this criterion.

Impact GHG-B: The project will not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing emissions of greenhouse gasses (less than significant impact).

Construction

Disclosure of construction-related GHG emissions and incorporation of BMPs during project construction is consistent with the general intent of objectives contained in the City of Calistoga General Plan and Calistoga Climate Action Plan, which seek to reduce impacts on the environment, including impacts resulting from generation of GHG emissions. As such, the project will not conflict with applicable plans, policies, or regulations adopted for the purpose of reducing emissions of greenhouse gasses and impacts of the project will be less than significant.

Operation

Operation of the proposed project will be consistent with the City of Calistoga General Plan and Climate Action Plan, and incorporates measures intended to reduce GHG emissions through compliance with applicable building code and other Municipal Code regulations. As such, the project will not conflict with local plans, policies, or regulations adopted for purposes of reducing GHG emissions and impacts of the project will be less than significant.

4.4 CUMULATIVE IMPACTS

As specified in Section 15355 of the CEQA Guidelines, "Cumulative impacts" refer to two or more individual impacts that, when considered together, are considerable, or that

compound or increase other environmental impacts. Cumulative impacts can result from individually minor but collectively significant impacts taking place over time. The analysis contained in this DEIR will determine whether the proposed project, taken together with other past, present, and reasonably foreseeable future projects, has the potential to result in a significant or adverse cumulative impact.

The goal of the cumulative impact analysis is to determine whether overall long-term impacts of all past, present, and reasonably foreseeable future projects would be cumulatively significant, and to determine whether the proposed project itself would cause a cumulatively considerable incremental contribution to any such cumulatively significant impacts. The cumulative impact analysis for each individual environmental resource topic is presented in each section of this Chapter immediately after the description of direct project impacts and mitigation measures.

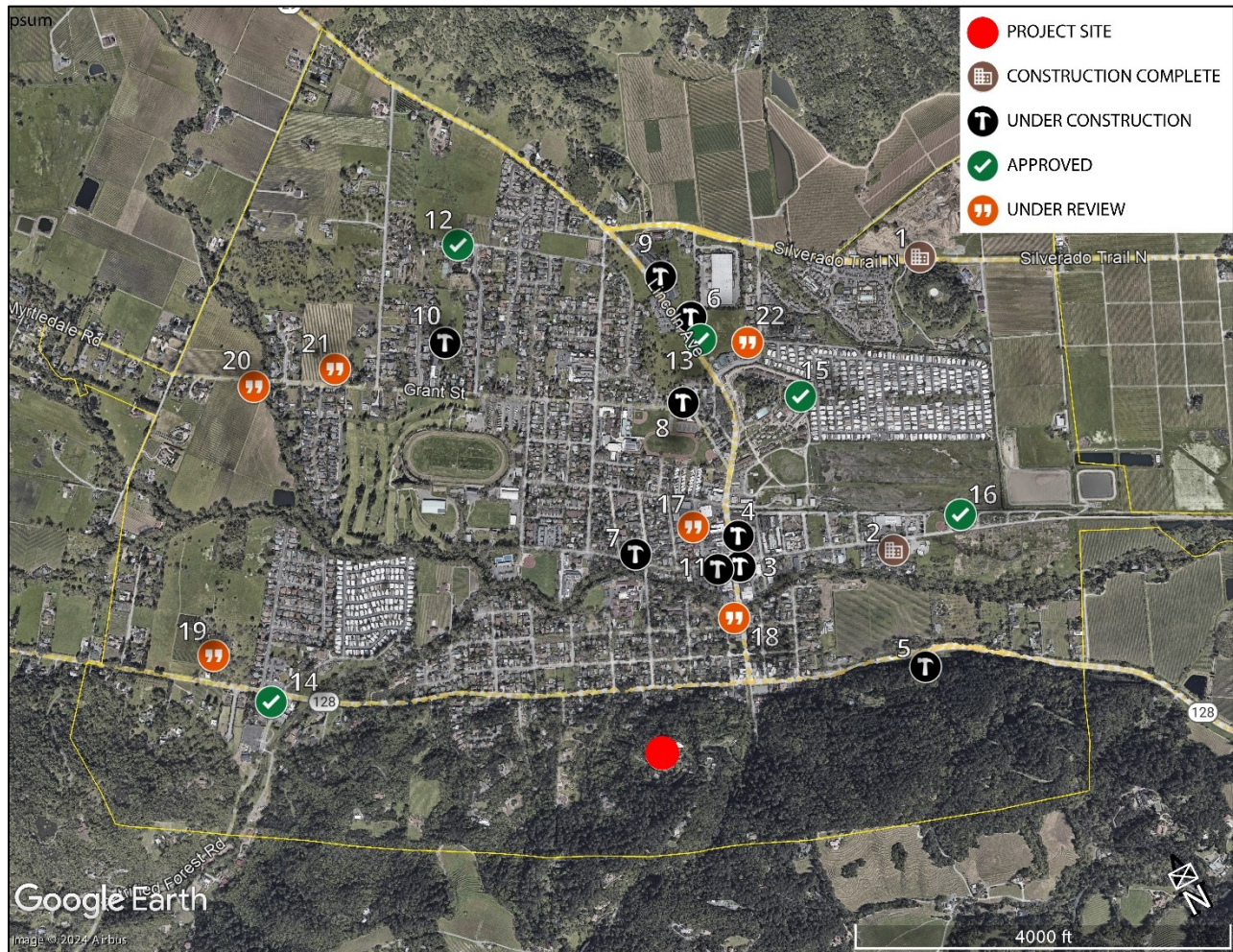
CEQA requires cumulative impact analysis in EIRs to consider either a list of past, planned, and pending projects that may contribute to cumulative effects or a forecast of future development potential. Past projects include land uses that have been previously developed and comprise the existing environment, including recently constructed projects, noted in the status column in table below as “Construction Complete”, pending projects include projects that are under construction and recently approved projects, noted in the status column in the table below as “Under Construction” and “Approved”, and planned projects include those with an application on file and in process with the City, noted as “Under Review”. Past, planned, and pending projects listed in Table 4-1 and shown in Figure 4-1 are considered in the cumulative analyses in Sections 4.1 through 4.3 of this DEIR.

TABLE 4-1: CUMULATIVE PROJECTS

Map #	Project Name	Address	Description	Status
1	Silver Rose	400 Silverado Trail N.	Resort hotel, spa, restaurant, winery, and single-family residences	Construction Complete
2	Crystal Geyser Phase I	501 Washington St.	8,900 sf building expansion with outdoor tanks, landscaping, and 16-foot-tall redwood and metal fence.	Construction Complete
3	Lawer Estates Restaurant	1374 Lincoln Ave	Tenant improvements and minor exterior	Under Construction

Map #	Project Name	Address	Description	Status
			alterations for tasting room, restaurant, retail.	
4	Old D' Amici Building	1440 Lincoln Ave	Tenant Improvements	Construction Complete
5	Calistoga Hills	515 Foothill Blvd	110 hotel units, 20 residence club units, 13 custom residences, public restaurant and bar, event facilities, spa and swimming pools, and parking and accessory support facilities on 88 acres.	Under Construction
6	Lincoln Avenue Apartments	1866 Lincoln Ave	78-unit apartment project	Under Construction
7	Brannan Center (Green Church)	1407 3 rd St	Community Center & Performing Arts Center	Under Construction
8	Silverado Terrace	1506 Grant St	50-unit condominium project	Under Construction
9	Motor Lodge Phase III	1880 Lincoln	39-guest unit expansion	Under Construction
10	2008 Grant St	2008 Grant St	Residential Subdivision; 15 lots with single family dwellings and 6 parcels.	Under Construction
11	1219 Washington	1219 Washington	Ground floor residential unit and retail space.	Under Construction
NA	Housing Element Adoption	City wide	Adoption of the Final Draft of the 6 th Cycle Housing Element	Approved
12	1857 Money Ln	1857 Money Ln	6-Lot Rural Residential Subdivision	Approved
13	Sager Auto	1856 Lincoln Ave	Use Permit for auto sales, storage, and service	Approved
14	Gateway Plaza	2449 Foothill Blvd.	Commercial Development (2 buildings)	Approved
15	The Veranda at Indian Springs	1712 Lincoln Ave	96-unit lodging expansion	Approved
16	Energy Vault	204 Washington	Energy storage project	Under

Map #	Project Name	Address	Description	Status
		St.	including battery storage systems and hydrogen fuel cells	Construction
17	1465 First Street – Inn	1465 First St.	Inn proposal for current residential property in CC zoning district.	Approved
18	Lincoln Tasting Room	1255 Lincoln Ave.	Façade alterations	Under Review
19	Yellow Rose Ranch	2650 Foothill Blvd.	46 single-family home subdivision	Under Review
20	2565 Grant Subdivision	2565 Grant St.	35 single-family lot and common open space subdivision	Project Terminated
21	2400 Grant St.	2400 Grant St.	19 single-family home subdivision	Under Review
22	Brannan St Rowhomes	33 Brannan St	9 parcel subdivision- 8 parcels for townhomes and 1 for common area	Approved

FIGURE 4-1: CUMULATIVE PROJECTS MAP¹

4.5 APPENDICES

- Appendix 4-A: Kortum Ranch Subdivision Construction Health Risk & Greenhouse Gas Assessment, Illingworth & Rodkin, May 19, 2023, revised January 31, 2024.

4.6 REFERENCES

1. BAAQMD Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans, April 2022.
2. City of Calistoga Climate Action Plan, adopted by the Calistoga City Council April 1, 2014.
3. City of Calistoga Municipal Code. <https://www.codepublishing.com/CA/Calistoga/>.

¹ City of Calistoga Planning & Building Department, Status of Entitlement Applications & City Projects, February 7, 2024; Google Earth.

4. City of Calistoga Planning & Building Department, Status of Entitlement Applications & City Projects, February 7, 2024.
5. Google Earth 7.3.6.9796, February 22, 2024, map of cumulative project locations, created April 2024.