SANTA BARBARA COUNTY LAST-MILE BROADBAND PROGRAM

Program Environmental Impact Report

Prepared for
Santa Barbara County Association of Governments

November 2024

ESA

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TABLE OF CONTENTS

SANTA BARBARA COUNTY LAST-MILE BROADBAND PROGRAM: PROGRAM ENVIRONMENTAL IMPACT REPORT

Page

Page

Appendices

List of Figures

Page

Page

List of Tables

EXECUTIVE SUMMARY

ES.1 Introduction

This Draft Program Environmental Impact Report (Draft PEIR) has been prepared under the direction of the Santa Barbara County Association of Governments (SBCAG), as lead agency, in accordance with the requirements of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines (CCR Section 15132).

This Draft PEIR is being circulated to local, state, and federal agencies, and to interested organizations and individuals who may wish to receive and comment on the document. Publication of this Draft PEIR marks the beginning of a 45-day public review period. The public review period ends January 10, 2025, during which written comments may be directed to the County at address below. Comments on the Project should be directed to:

Mail to: Fred Luna
Santa Barbara County Association of Governments
260 North San Antonio Road, Suite B
Santa Barbara, CA 93101

Email: info@sbcag.org

ES.2 Environmental Procedures

CEQA requires the preparation of an EIR for any project that a lead agency determines may have a significant impact on the environment. CEQA also establishes mechanisms whereby the public and decision makers can be informed about the nature of the project being proposed and the extent and types of impacts that the project and its alternatives would have on the environment, if they were to be implemented.

The basic purposes of CEQA are as follows (14 CCR 15002):

1. Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities;

2. Identify the ways that impacts to the environment can be avoided or significantly reduced;

3. Prevent significant, avoidable impacts to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and

4. Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

An EIR is also one of various decision-making tools used by a lead agency to consider the merits and disadvantages of a project that is subject to its discretionary authority. Prior to approving a proposed project, the lead agency must consider the information contained in the EIR, determine whether the EIR was properly prepared in accordance with CEQA and the CEQA Guidelines, determine that it reflects the independent judgment of the lead agency, adopt findings concerning the project's significant environmental impacts and alternatives, and must adopt a Statement of Overriding Considerations if the proposed project would result in significant impacts that cannot be avoided.

ES.2.1 EIR Organization

This Draft PEIR is organized as follows:

The **Executive Summary** of the Draft PEIR is provided at the beginning of this document. This summary outlines the conclusions of the environmental analysis and provides a summary of the Project and the Project alternatives analyzed in this Draft PEIR. The Executive Summary also includes a table summarizing all environmental impacts identified in this Draft PEIR along with the associated mitigation measures proposed to reduce or avoid each impact.

Chapter 1, Introduction, serves as a forward to this Draft PEIR, introducing the Project, the applicable environmental procedures, and the organization of the Draft PEIR.

Chapter 2, Project Description, provides a thorough description of the Project elements, the purpose and need for the Project, Project objectives, and Project components.

Chapter 3, Environmental Setting, presents an overview of the Project's environmental setting, including on-site and surrounding land uses. This chapter also provides a list and the mapped locations of past, present, and probable future projects (i.e., cumulative projects) considered in the analysis of potential Project contributions to cumulative impacts.

Chapter 4, Environmental Impacts and Mitigation Measures, describes the potential environmental impacts of the Project, as well as mitigation measures to reduce or avoid any potentially significant impacts. The discussion in Chapter 4 is organized by 8 environmental issue areas.

The Draft PEIR assesses how the Project would impact each of these 8 resource areas. Each environmental issue addressed in this Draft PEIR is presented in terms of the following subsections:

- **Environmental Setting** and **Existing Environmental Conditions:** Provides information describing the existing setting on and/or surrounding the Plan Area that may be subject to change as a result of implementation of the Project. This setting discussion describes the conditions that existed when the Notice of Preparation (NOP) was sent to responsible agencies and the State Clearinghouse.
- **Regulatory Setting:** Provides a discussion of Federal, State, and regional regulations, plans, policies, and ordinances applicable to the Project.
- **Methodology:** Provides the methods and approach for determining the level of significance for Project impacts.

- **Significance Thresholds:** Provides criteria for determining the significance of Project impacts for each environmental issue.
- **Environmental Impacts:** Provides a discussion of the characteristics of the Project that may have an impact on the environment, analyzes the nature and extent to which the proposed Project is expected to change the existing environment, and indicates whether the proposed Project's impacts would meet or exceed the levels of significance thresholds.
- **Cumulative Impacts:** Provides a discussion of the characteristics of the Project that may have a cumulative impact on the environment.
- **Mitigation Measures:** Identifies mitigation measures to reduce significant adverse impacts to the extent feasible.
- **Level of Significance After Mitigation:** Provides a discussion of significant unavoidable environmental impacts that cannot be feasibly mitigated or avoided, potentially significant environmental impacts that can be feasibly mitigated or avoided, and impacts that are not significant.
- **References:** Lists the sources cited during preparation of the Draft PEIR.

Chapter 5, Alternatives, discusses alternatives to the Project, including a No Project Alternative. This chapter describes the rationale for selecting the range of alternatives discussed in the Draft PEIR and identifies the alternatives considered by the County that were rejected from further discussion as infeasible during the scoping process. Lastly, Chapter 5 includes a discussion of the environmental impacts of the alternatives that were carried forward for analysis and identifies the environmentally superior alternative.

Chapter 6, Other CEQA Considerations, includes a discussion of issues required by CEQA that are not covered in other chapters. This includes a discussion of significant unavoidable impacts, reasons why the Project is being proposed notwithstanding significant unavoidable impacts, significant irreversible environmental changes, growth-inducing impacts, potential secondary effects caused by the implementation of the mitigation measures for the Project, and effects found not to be significant.

Chapter 7, References, lists the references and sources used in the preparation of this Draft PEIR.

Chapter 8, List of Preparers and Persons Consulted, provides names and contact information of those responsible for writing this Draft PEIR.

Appendices include various supporting documentation for the Project and environmental analysis, as listed in the Table of Contents.

ES.2.2 Types and Purpose of Draft PEIR

This Draft PEIR has been prepared to satisfy the requirements for a Program EIR (or PEIR). Although the legally required contents of a Program EIR are the same as those of a Project EIR, Program EIRs are typically more conceptual and may contain a more general or qualitative discussion of impacts, alternatives, and mitigation measures than a Project EIR. As provided in Section 15168 of the State CEQA Guidelines, a Program EIR may be prepared on a series of actions that may be characterized as one large project. Use of a Program EIR provides the County (as lead agency) with the opportunity to consider broad policy alternatives and program wide mitigation measures and provides the County with

greater flexibility to address project-specific and cumulative environmental impacts on a comprehensive basis. According to Section 15168(a) of the State CEQA Program, a Program EIR may be prepared on a series of actions that can be characterized as one large project and are related either:

1) Geographically

2) A logical part in the chain of contemplated actions

3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or

4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

A Program EIR is appropriate for the Project because it satisfies Section 15168(a) of the State CEQA Guidelines. Specifically, the Project is within one geographic area; is within a logical part in a chain of contemplated actions; would be under the County's rules, regulations, plans, and other general criteria; is carried out under one regulatory authority, the County; and would have generally similar environmental effects, as they relate to increasing growth within the County, which can be mitigated in similar ways.

Once a Program EIR has been prepared, subsequent activities within the program must be evaluated to determine whether an additional CEQA document needs to be prepared. However, if the Program EIR addresses the program's effects as specifically and comprehensively as possible, many subsequent activities could be found to be within the Program EIR scope and additional environmental documents may not be required (14 CCR 15168[c]). When a Program EIR is relied on for a subsequent activity, the lead agency must incorporate feasible mitigation measures and alternatives developed in the Program EIR into the subsequent activities (14 CCR 15168[c][3]). If a subsequent activity would have effects that were not examined in the Program EIR, the lead agency must prepare a new Initial Study leading to a Negative Declaration, Mitigated Negative Declaration, or an EIR. In this case, the Program EIR still serves a valuable purpose as the first-tier environmental analysis. The State CEQA Guidelines encourages the use of Program EIRs, citing five advantages in Section 15168(b):

1) Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action;

2) Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis;

3) Avoid duplicative reconsideration of basic policy considerations;

4) Allow the Lead Agency to consider broad policy alternatives and program-wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts; and

5) Allow reduction in paperwork.

Furthermore, a California Appellate Court described the difference between a Project EIR and a Program EIR. A Project-level EIR generally focuses on the environmental changes caused by a development project; a Program EIR, on the other hand, generally looks at the broad policy of a planning document (i.e., a general plan, community plan, specific plan, area plan, etc.) and may not address potential site-

specific impacts of the individual projects that may fall within the planning document (*Citing Citizens for a Sustainable Treasure Island v. City and County of San Francisco* [2014] 227 Cal.App.4th 1036). The Project involves the implementation of a broad policy planning document. The project-level details of the implementation of the Project would not be known at the time of preparation of the EIR. The Program EIR approach would provide a sufficient level of analysis for the broad nature of the Project. The level of specificity required in an EIR is determined by the nature of the project and the rule of reason. (Citing *Al Larson Boat Shop, Inc. v. Board of Harbor Commissioners* [1993] 18 Cal.App.4th 729, 741-742.) Therefore, the Program EIR is an appropriate approach for the Santa Barbara County Last-Mile Broadband Program.

ES.6 Project Location

The area subject to future broadband facility installations under the proposed Broadband Program (i.e., the "Project Area") includes the entire County of Santa Barbara, however, the specific locations of future broadband facility installations are currently not known. This includes both incorporated cities and unincorporated areas. Such future installations would be proposed and implemented as part of the Broadband Program, where appropriate, in order to provide adequate high-speed broadband internet services to underserved and unserved communities as priority communities and funding sources are identified. A total of nine communities in the County have already been identified as "Priority Areas" under the Broadband Program. Four of these communities were initially identified in the Santa Barbara County Broadband Strategic Plan (BSP) and thus have already been the subject of high-level engineering design, while the design of the proposed networks to serve the remaining five communities is currently in progress. Refer to Chapter 2, *Project Description*, **Figure 2-1**, *Regional Location* and **Figure 2-2**, *Broadband Facility Locations*, which provides the regional location of the Project and a County-wide view of the Project Area, including the location of existing and/or approved middle-mile broadband facilities in the County, as well as the locations of all nine identified Priority Areas.

ES.3 Project Summary

The Santa Barbara County Association of Governments ("SBCAG"), in partnership with the County of Santa Barbara ("County") is proposing to facilitate the future expansion of the County's high-speed broadband internet network, referred to herein as the Santa Barbara County Last-Mile Broadband Program ("Broadband Program" or "Project"). The Project would facilitate implementation of future broadband infrastructure installations in various communities across Santa Barbara County that are currently underserved or unserved by high-speed broadband internet services. These broadband facility installations could include both underground and aerial fiberoptic cable as part of proposed "last-mile" broadband facilities, which are intended to reach end users in these affected communities. These last-mile facilities would provide connections to end users in communities across the County, and connect from the State of California's "middle-mile" broadband network ("Statewide Middle Mile Network") currently being implemented by the California Department of Technology.

ES.4 Summary of Project Alternatives

ES.4.1 Alternative 1: No Project Alternative

As required by CEQA, the No Project Alternative is evaluated in this Draft PEIR. Under the No Project Alternative, no activities would take place in order to expand the broadband availability and the service area would remain unchanged from current conditions. Although it is acknowledged that, with the No Project Alternative, there would be no discretionary action by SBCAG, and thus no impact, for purposes of comparison with the other action alternatives, conclusions for each technical area are characterized as "impacts" that are greater, similar, or less, to describe conditions that are worse than, similar to, or better than those of the proposed Project.

ES.4.2 Alternative 2: Reduced Area/Priority Areas Only Alternative

The Reduced Area/Priority Areas Only Alternative would focus on providing rural broadband infrastructure in the identified Priority Areas. It would include: the City of Guadalupe and unincorporated communities including portions of Cuyama/New Cuyama, Casmalia, Los Alamos, Los Olivos, Jonata Park, Refugio Canyon, Highway 246 Corridor (five neighborhoods between Lompoc and Buellton), and East of Santa Maria (including the Garey, Sisquoc, and Tepusquet Road communities). The Reduced Area/Priority Areas Only Alternative would not allow additional broadband installations beyond these identified communities. This alternative would reduce the total amount of construction that would occur under the Project and would avoid all effects related to the construction or operation of broadband infrastructure within the other yet-to-be identified unserved and underserved communities in the County. In all other respects, this alternative would be the same as the Project. It would include the same connections to existing facilities, new facilities, and construction methods as the Project (See Chapter 2, *Project Description*, of this Draft PEIR), except these activities would occur only in the identified Priority Areas. This alternative is intended to reduce the extent of the Project's less than significant impacts after mitigation.

ES.4.3 Alternative 3: Existing Infrastructure Alternative

The Existing Infrastructure Alternative would seek to minimize construction-related impacts by prioritizing the use of existing utility poles or underground conduit wherever it exists. New underground conduit would only be installed in areas where no existing aboveground or belowground infrastructure exists. In all other respects, this alternative would be the same as the Project. It would include the same types of connections to Middle-Mile facilities, construction of new buried facilities, and construction methods as Project (See Chapter 2, *Project Description*, of this Draft PEIR), except these activities would occur only when no existing infrastructure is present, thereby limiting the physical footprint of construction while achieving comparable levels of service to the affected communities. This alternative would result in less construction activity and new infrastructure than the Project. It would also result in more aboveground fiber optic line because much of the line would be attached to existing utility poles, rather than being placed in new underground conduit as would occur under the Project. The Existing Infrastructure Alternative is intended to reduce the extent of the Project's less than significant impacts after mitigation.

ES.4.4 Environmentally Superior Alternative: No Project Alternative

Because the No Project Alternative (described above) would avoid all of the Project's impacts resulting from construction and operation of the proposed program analyzed in Chapter 3, it is the environmentally superior alternative. However, the No Project Alternative would not meet the Project Objectives of the program as presented in Chapter 5, Section 5.2.1.

When the environmentally superior alternative is the No Project Alternative, the State CEQA Guidelines (Section 15126.6(e)) require selection of an environmentally superior alternative from among the other action alternatives evaluated. As illustrated in Chapter 5, Table 5-1, both Alternatives 2 and 3 would reduce the impacts of the environmental issues analyzed for the Project.

The Reduced Area/Priority Areas Only Alternative (Alternative 2) would result in less overall construction and operation of broadband infrastructure by avoiding all activities outside of the Priority Areas. This would result in incrementally reduced impacts to all resource areas. While this alternative is feasible and would achieve most of the basic Project Objectives, it would achieve the Project Objectives to a lesser degree than the Project because it would not improve broadband availability or reliability outside of the Priority Areas.

The Existing Infrastructure Alternative would result in less overall ground disturbing construction activities of broadband infrastructure than the Project, but greater ground disturbing activities than the Reduced Area/Priority Areas Only Alternative since it would not include constriction activities outside of the Priority Areas. This alternative would result in more fiber optic line installed aboveground on existing utility poles. While Existing Infrastructure Alternative would result in less construction-related environmental impacts, it would result in a less reliable broadband network due to the increased prevalence of aboveground fiber optic line that could be affected by human interference or natural disasters, such as wildfires. This potential for disruption would achieve Project Objectives Nos. 1 and 7 to a lesser degree than the Project.

Both the Reduced Area/Priority Areas Only Alternative and the Existing Infrastructure Alternative would offer different environmental benefits when compared to the Project. Both of these alternatives are potentially feasible and would achieve most of the basic Project Objectives, although Project Objectives would be achieved to a lesser degree than under the Project. Alternative 2, the Reduced Area/Priority Areas Only Alternative, is the environmentally superior alternative because it would reduce both construction and operational impacts compared to the Project given its smaller scale of construction activities within a smaller program area.

ES.5 Issues to Be Resolved

Section 15123(b)(3) of the State CEQA Guidelines requires that an EIR contain issues to be resolved including the choice among alternatives and whether or how to mitigate significant impacts. With regard to the Project, the major issues to be resolved include decisions by the lead agency as to the following:

1. Whether the benefits of the Project override those environmental impacts which cannot be feasibly avoided or mitigated to a level of insignificance.

2. Whether the proposed land use and zoning modifications are compatible with the character of the existing area.
3. Whether the identified goals, policies, or mitigation measures should be adopted or modified.
4. Whether there are other mitigation measures that should be applied to the Project besides the mitigation measures identified in this Draft PEIR.
5. Whether there are any alternatives to the Project that would substantially lessen any of the significant impacts of the Project and achieve most of the basic project objectives.

ES.7 Areas of Controversy

A NOP was distributed for the proposed program on May 30, 2024, to responsible agencies, trustee agencies, interested parties and organizations, and private organizations and individuals that could have interest in the program. The NOP and responses to the NOP are included in Appendix A of this Draft PEIR. Key concerns and issues that were expressed about the Project during the scoping process included the following:

- potential construction-related impacts to air quality,
- potential impacts on tribal cultural resources and consultation with Native American tribes, and
- potential for adverse health effects associated with wireless telecommunications facilities.

All of the substantive environmental issues raised in the NOP comment letters and at the scoping meeting have been addressed or otherwise considered during preparation of this Draft PEIR.

ES.8 Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation

Table ES-1, *Summary of Environmental Impacts, Mitigation Measures, and Level of Significance After Mitigation*, summarizes the potential environmental effects of the Project, the proposed mitigation measures, and the level of significance after mitigation.

TABLE ES-1
SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVEL OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
Air Quality			
Impact 1: Implementation of the Proposed Project could conflict with or interfere with the applicable air quality plan if it significantly increases ROC or NOX emissions to an extent that meeting the CAAQS would be in jeopardy.	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 2: Implementation of the Project could result in a cumulatively considerable net increase of ROC, NOX, or PM10 for which the SCCAB is in nonattainment for an applicable federal or state ambient air quality standard.	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 3: Implementation of the Project could expose sensitive receptors to substantial pollutant concentrations of DPM and CO.	Potentially Significant	**Mitigation Measure AQ-1: Valley Fever.** During heavy grading where the top 12 inches of soil would be disturbed, and in locations with potential Valley Fever fungal spores (i.e., disturbance of the top soil of undeveloped land to a depth of about 12 inches; dry, alkaline, sandy soils; virgin, undisturbed, non-urban areas; windy areas; and archaeological resources probable or known to exist in the area (Native American midden sites), construction contractors will comply with the following measures as feasible to reduce potential Valley Fever impacts: • Require crews to use respirators during project clearing, grading, and excavation operations in accordance with California Division of Occupational Safety and Health regulations. • Require that the cabs of grading and construction equipment be air-conditioned or enclosed with sufficient ventilation and particulate matter filtration systems. • Require crews to work upwind from excavation sites where possible. • Where acceptable to the fire department, control weed growth by mowing instead of disking, thereby leaving the ground undisturbed and with a mulch covering. • During rough grading and construction, ensure that the access way into the project site from	Less than Significant

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		adjoining paved roadways is paved or treated with environmentally safe dust control agents.	
Impact 4: Implementation of the Project could result in other emissions, such as odors, adversely affecting a substantial number of people.	Less than Significant	No mitigation measures are required.	Less than Significant
Biological Resources			
Impact 1: Implementation of the Project could have a substantial adverse effect, either directly or through habitat modifications, or any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	Potentially Significant	**Mitigation Measure BIO-01: Habitat Assessment**. A habitat assessment should be conducted prior to ground-disturbing activities within 500 feet of each project component footprint. If no suitable habitat occurs to support special-status plant species, special-status wildlife species, nesting bird species, or sensitive natural communities, then no further mitigation is necessary. If suitable habitat for any of these sensitive resources is determined to be present, then one or more of the following mitigation measures may be applicable. **Mitigation Measure BIO-02: Special-Status Plant Species.** If suitable habitat for special-status plant species is identified during the Habitat Assessment (conducted pursuant to Mitigation Measure BIO-01: Habitat Assessment), a special-status plant survey focusing on the special-status plant species with a moderate to high potential to occur shall be conducted by a qualified biologist prior to construction. The surveys should take place during the appropriate blooming period for each species. If any special-status plant species are observed during the focused surveys, these species should be avoided by the Project. If avoidance of the special-status plant species is not feasible and Project-related impacts to special-status plants may be significant, a mitigation strategy for special-status plant species that may be impacted shall be developed by a qualified biologist. The mitigation strategy may include partial avoidance, on-site or off-site restoration, translocation, and/or seed collection to create a similar population (e.g., based on number of individual plants, similar density over area, or both). If restoration and/or translocation is needed, a restoration/revegetation plan must be prepared and approved by CDFW. At a minimum, the plan should specify the following:	Less than Significant

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		• A summary of impacts; • The location of the mitigation site; • Methods for harvesting seeds or salvaging and transplanting individuals to be impacted; • Measures for propagating plants or transferring living plants from the salvage site to the mitigation site; • Site preparation procedures for the mitigation site; • A schedule and action plan to maintain and monitor the mitigation site; • Performance standards by which to measure the success of the mitigation; and • Contingency measures, such as replanting or weeding, if mitigation efforts are not successful. **Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program (WEAP).** If any sensitive biological resources (i.e., special-status species with a moderate to high potential to occur, sensitive natural communities, or aquatic resources) are determined to be present within or near construction areas during the Habitat Assessment, the Project Applicant shall retain a qualified biologist to conduct a pre-construction WEAP training for all personnel working at the construction site. The WEAP should inform workers in recognizing special-status species and regulated biological resources known to occur or potentially occur on the site and avoidance buffers and measures necessary to avoid and/or minimize potential impacts to biological resources. • All personnel associated with Project construction should attend the WEAP training prior to initiation of Project construction activities (including, but not limited to, site preparation, staging and mobilization, vegetation clearance/mowing/trimming, grading, and excavation). The training should include information about the special-status species potentially occurring within the Project Site, identification of special-status species and their habitats, a description of the regulatory status and general ecological characteristics of special-status species, and a review of the limits of construction	

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		and measures required to avoid and/or minimize impacts to biological resources within the work area. A fact sheet conveying this information should also be prepared for distribution to all contractors, their employees, and other personnel involved with construction of the Project. • All employees working at the Project Site shall be required to sign a form provided by the qualified biologist documenting they have attended the WEAP and understand the information presented to them. The signed form should be provided to the Project Applicant as documentation of training completion. The crew foreman should be responsible for ensuring crew members adhere to the guidelines and restrictions designed to avoid impacts to special status species and other regulated biological resources. If new personnel are brought onto the Project after completion of the initial WEAP training, the training should be conducted for all new personnel before they can participate in construction activities. **Mitigation Measure BIO-04: Qualified Biological Monitor.** If any sensitive biological resources (i.e., special-status species with a moderate to high potential to occur, sensitive natural communities, or aquatic resources) are determined to be present within or near construction areas during the Habitat Assessment, the Project Applicant shall retain a qualified biological monitor(s) with relevant experience with the biological resources and regulations in the County. The qualified biologist should be present during initial ground disturbance or vegetation removal activities and should have the authority to temporarily stop work if special-status species are observed that may be impacted by Project activities. The biologist should recommend measures for compliance with avoidance and minimization measures and applicable permit conditions related to the protection of biological resources. **Mitigation Measure BIO-05: Invasive Plant Species Control Measures.** If any sensitive biological resources (i.e., special-status species with a moderate to high potential to occur, sensitive natural	

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		communities, or aquatic resources) are determined to be present within or near construction areas during the Habitat Assessment, the Project Applicant shall require construction contractors to ensure that equipment is free of invasive plant seeds, propagules, and any material which may contain them (e.g., soil). For purposes of this mitigation measure, invasive plant species should include all species with a Cal-IPC rating of moderate or high. Prior to entering the construction site, equipment should be inspected to confirm it is free of mud, dirt, and debris. For larger sites that would be accessed via non-paved roads, tire track stations should be installed at the construction site entrances and exits, where appropriate. Staging areas and access routes should avoid weed infestations, and infestations within the work area(s) should be flagged and avoided to the maximum extent feasible. Only certified weed-free materials (e.g., fiber rolls, straw, and fill) should be used during construction of future broadband facilities. **Mitigation Measure BIO-06: General Construction Best Management Practices.** If any sensitive biological resources (i.e., special-status species with a moderate to high potential to occur, sensitive natural communities, or aquatic resources) are determined to be present within or near construction areas during the Habitat Assessment, the Project Applicant shall require construction contractors to adhere to the following general construction best management practices during construction of future broadband network facilities: • Construction vehicles shall limit speed to 10 miles per hour within the unpaved limits of construction. • All open trenches or excavations shall be fenced and/or sloped to prevent entrapment of wildlife species or have wildlife ramps available to allow for escape. • All food-related trash items such as wrappers, cans, bottles, and food scraps generated during construction activities shall be disposed of in closed containers only and removed daily from the construction site. • No deliberate feeding of wildlife shall occur.	

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		• No pets shall be allowed on construction sites. • No firearms shall be allowed on construction sites. • All vehicle and equipment maintenance shall be performed in designated staging areas. • Access to the construction area shall she limited to established work hours. • If construction activities must be performed at night (i.e., between dusk and dawn), all lighting shall be shielded and directed downwards to minimize light spillover and/or glare. • All construction equipment used on-site shall be properly maintained to avoid leaks of oil, fuel, or residues. • Provisions shall be in place to remediate accidental spills from construction equipment or other construction activities. All vehicle maintenance/fueling/staging shall occur a minimum of 100 feet away from any riparian habitat or water body. Suitable containment procedures shall be implemented to prevent spills. A minimum of one spill kit shall be available at each work location near riparian habitat or water bodies. • No equipment shall be permitted to enter wetted portions of any affected drainage channel. • If the construction of future broadband network installations have the potential to degrade water quality, water sampling shall be implemented to identify the pre-Project baseline, and to monitor during construction for comparison to the baseline. • Any worker who inadvertently injures or kills a special-status species or finds one dead, injured, or entrapped shall immediately report the incident to the construction foreman or biological monitor (recommended under Mitigation Measure BIO-01: Habitat Assessment). The construction foreman or biological monitor shall immediately notify the Project Applicant. **Mitigation Measure BIO-07: Revegetation Plan(s).** For temporary impacts to natural communities to be returned to pre-Project conditions, a Revegetation	

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		Plan(s) (one or more) shall be prepared by a qualified biologist prior to starting construction of the future broadband network facilities and shall be implemented by the Project Applicant following completion of construction. The Revegetation Plan shall guide and ensure successful restoration of self-sustaining habitats, and shall include, at a minimum, the following: • A native planting palette appropriate for each vegetation type being restored and appropriate to local conditions. • Qualitative and quantitative monitoring methods to ensure that performance standards are tracked and met for a minimum 3-year period or until pre-Project conditions are restored to equivalent or better condition. **Mitigation Measure BIO-08: Endangered/Threatened Wildlife Species.** If the results of the Habitat Assessment, completed as required by Mitigation Measure BIO-01: Habitat Assessment, determine that suitable habitat may be present for endangered or threatened special-status wildlife species (see Appendix C for special-status species listing status) then prior to construction within 500 feet of areas that could support endangered/threatened wildlife species, protocol surveys shall be conducted by a qualified biologist in accordance with the most recent applicable USFWS and/or CDFW protocol guidelines. If endangered/threatened wildlife species are observed during the protocol surveys, direct and indirect impacts to occupied habitat should be avoided. In addition to avoiding direct mortality of these endangered/threatened wildlife species and direct impacts to occupied habitats, additional avoidance and mitigation measures may be required, such as constructing Project facilities outside the breeding season, establishing a suitable avoidance buffer around known territories, and restricting activities around certain times of year. If the Project results in potential direct or indirect impacts to endangered/threatened wildlife species and/or occupied habitats, the Project Applicant shall consult with USFWS and CDFW to ensure compliance with the Federal Endangered Species Act and/or California	

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		Endangered Species Act, which may include obtaining a "take" permit (e.g., Biological Opinion from USFWS, CESA Section 2081 Incidental Take Permit or CESA Section 2080.1 Consistency Determination from CDFW) and mitigation for permanent impacts occupied habitat (e.g., at a minimum mitigation-to-impact ratio of 2:1 or greater). **Mitigation Measure BIO-09: Non-Listed Special-Status Wildlife Species.** Several State Species of Special Concern may be impacted by construction of future broadband network facilities. If the results of the Habitat Assessment, completed as required by Mitigation Measure BIO-01: Habitat Assessment, determine that suitable habitat may be present for non-listed special-status wildlife species (see Appendix C for special-status species listing status) and Project impacts may be potentially significant, then prior to construction within 500 feet of areas that could support non-listed special-status wildlife species, the following measures shall be applicable to the future broadband network facilities: • Pre-construction clearance surveys shall be conducted by a qualified biologist within 14 days prior to the start of construction (including staging and mobilization). The surveys shall cover the entire disturbance footprint plus a minimum 200-foot buffer, if feasible, and shall identify all special-status wildlife species that may occur on-site. Any non-listed special-status species observed shall be relocated from the site either through direct capture or through passive exclusion. • If any special-status animal species are present within or near construction areas, a WEAP training shall be implemented by the qualified biologist during construction activities to avoid and/or minimize potential impacts to these species (see Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program). • A qualified biologist shall be present during all initial ground disturbing activities, including vegetation removal.	

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		• Any special-status wildlife species observed by the qualified biologist or construction crew shall be allowed to move out of harm's way. All trenches, pipes, culverts or similar structures shall be inspected for animals prior to burying, capping, moving, or filling. At the end of each workday, excavations shall be secured with cover or a ramp provided to prevent wildlife entrapment. • Upon completion of construction of the future broadband network facilities, a qualified biologist shall prepare a Final Compliance report documenting compliance activities implemented during construction, including the pre-construction survey results. The report shall be submitted within 30 days of completion of construction. **Mitigation Measure BIO-10: Nesting Birds**. If the results of the Habitat Assessment, completed as required by Mitigation Measure BIO-01: Habitat Assessment, determine that suitable habitat for nesting birds is identified at future broadband facility sites and construction is scheduled to commence during the avian nesting season (February 1–August 31 for songbirds, and January 15 to August 31 for raptors), a qualified biologist shall conduct a nesting bird survey within 7 days of the anticipated start date to identify any active nests within 500 feet of the Project Site. If an active nest is detected, a suitable avoidance buffer shall be established by the qualified biologist in the field. Construction activities shall not occur within the buffer until a qualified biologist determines that the nest is no longer active (e.g., chicks have fledged). Appropriate buffer distances are generally 300 feet for passerine species and up to 500 feet for raptors; however, these may be reduced at the discretion of the qualified biologist depending on site-specific factors such as the location of the nest, species tolerance to human presence, and the types of construction-related noises, vibrations, and human activities that are expected occur. If construction temporarily ceases for a period greater than 7 days, and activities expect to recommence during the avian nesting season, the Project Site (including surrounding 500 feet) shall be resurveyed. If nesting birds are present within 500 feet of the Project Site, construction WEAP training shall be implemented by the qualified biologist during	

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		construction activities to avoid or minimize potential impacts to nesting birds (see Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program) and monitoring may be recommended for any work in the vicinity of nest avoidance buffers if determined necessary by the qualified biologist (per Mitigation Measure BIO-04: Qualified Biological Monitor). **Mitigation Measure BIO-11: Bats.** If the results of the Habitat Assessment, completed as required by Mitigation Measure BIO-01: Habitat Assessment, determine that suitable habitat may be present for special-status bat species, then, prior to construction within 500 feet of areas that could support bat species, the following measures shall be applicable to the future broadband network facilities: • A qualified biologist shall conduct presence/absence surveys for bats within 30 days prior to the start of construction. Surveys shall be conducted using acoustic detectors and by searching tree cavities, crevices, and other areas where bats may roost. • If active roosts are located, the roost shall be avoided and Project construction activities shall be conducted as recommended by the biologist to avoid the area, which may include temporary postponement of activities or provision of a suitable buffer (of no less than 100 feet) around the roost until roosting activities cease. Exclusion devices such as netting may be installed to discourage bats from occupying the site in consultation with the CDFW. If a roost is determined by a qualified biologist to be used by a large number of bats (large hibernaculum), bat boxes shall be installed near the Project Site. The number of bat boxes installed will depend on the size of the hibernaculum and shall be determined through consultations with the CDFW. If a maternity colony has become established, all construction activities shall be postponed within a 500-foot buffer around the maternity colony until it is determined by a qualified biologist that the young have dispersed. Once it has been	

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		determined that the roost is clear of bats, the roost shall be removed immediately. **Mitigation Measure BIO-12: Monarch Butterfly.** Prior to completion of the final design, a qualified biologist shall review the planned future broadband network facilities for potential to impact monarch butterflies. If known or potential winter roost sites may be impacted, the biologist shall make recommendations to avoid impacts including, but not limited to, relocation/redesign of project features to avoid roost sites, guidance regarding tree removal and trimming at roost sites, and recommendations regarding planting additional roost trees. Between October 1 and March 1, construction shall not occur within 100 feet of known or potential roost sites, if feasible. If construction must occur during this period, a qualified biologist shall survey known and potential roost sites to confirm occupancy by monarch butterflies prior to the start of any construction within 100 feet. Multiple surveys may be necessary, and the closest known roost sites shall be used as voucher sites to confirm the timing of butterfly arrival. If monarch butterflies are found at a roost site, construction shall not occur within 100 feet of the roost site until the biologist has determined that the butterflies have left the area. The biologist shall visit the voucher sites to confirm that butterflies have left the region. **Mitigation Measure BIO-13: Critical Habitat.** If critical habitat will potentially be impacted by the Project, but there is no "federal nexus" for the Project (e.g., impacts to a federally listed species, impacts to USACE waters or wetlands, federal funding), then no further mitigation is necessary. However, if critical habitat will potentially be impacted by the Project; there is a federal nexus for the Project; and the habitat to be impacted contains PCEs to support the federally-listed species (as defined in the Federal Register designating critical habitat for that species), then consultation with the USFWS shall be required and may include mitigation for permanent impacts critical habitat (e.g., at a minimum mitigation-to-impact ratio of 1:1 or greater, or as determined by the USFWS).	

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
Impact 2: Implementation of the Project could have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	Potentially Significant	Mitigation Measures BIO-01, BIO-03, BIO-05, BIO-06, and BIO-07 are required. **Mitigation Measure BIO-14: Sensitive Natural Communities.** Sensitive natural communities, as defined by CDFW, shall be mapped within the vicinity of future broadband facilities per Mitigation Measure BIO-01: Habitat Assessment. This map will be used during Project design to determine if sensitive natural communities can be avoided. Sensitive natural communities identified for avoidance should be demarcated (e.g., using brightly colored flagging) and avoided during Project construction. The marked boundaries should be maintained for the duration of Project construction activities in each work area and should be clearly visible to personnel on foot and by heavy equipment operators. If sensitive natural communities can be avoided, then no further mitigation is necessary. If future broadband facilities cannot be sited to avoid temporary impacts to sensitive natural communities, sensitive natural communities shall be returned to pre-Project conditions (i.e., pre-Project elevation contours and revegetation initiated) within six months after the construction is completed, and will be monitored for three years, or until a qualified biologist determines that affected natural communities have been restored to equivalent or better condition as compared to pre-Project conditions. A Revegetation Plan shall be prepared which would include implementation requirements for re-seeding/re-planting the area with locally indigenous native species, performance standards, success criteria, maintenance requirements, and monitoring requirements. If future broadband facilities cannot be sited to avoid permanent impacts to sensitive natural communities, impacts to sensitive natural communities shall be mitigated at a 1:1 impact-to-mitigation ratio. This may include, but is not limited to: • The purchase of credits from a mitigation bank or in-lieu fee program; • On- and/or off-site land acquisition and preservation; and/or	Less than Significant

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		• On- and/or off-site creation, restoration, and/or enhancement of sensitive natural communities. If compensatory mitigation is to occur on- or off-site (i.e., not a mitigation bank or in-lieu fee program), a Sensitive Natural Community Mitigation and Monitoring Plan shall be prepared by a qualified biologist/restoration ecologist. The plan shall include details related to implementation requirements (e.g., seeding, planting, and/or staking of sensitive natural community species; salvage/dispersal of duff and seed bank; and/or removal of invasive, non-native species), performance standards, maintenance requirements, and future monitoring requirements. **Mitigation Measure BIO-15: Aquatic Resources.** An aquatic resources delineation shall be conducted to determine the limits of potential jurisdictional aquatic resources within the vicinity of future broadband facilities. The results of the aquatic resources delineation will be used during project design to determine if aquatic resources can be avoided. Aquatic resources identified for avoidance should be demarcated (e.g., using brightly colored flagging) and avoided during Project construction. The marked boundaries should be maintained for the duration of Project construction activities in each work area and should be clearly visible to personnel on foot and by heavy equipment operators. If aquatic resources can be avoided, then no further mitigation is necessary. If aquatic resources will potentially be impacted by the Project, then the appropriate regulatory permits shall be obtained (e.g., CWA Section 404 Nationwide Permit from the USACE, CWA Section 401 Water Quality Certification or Porter-Cologne Act Waste Discharge Requirement permit from the RWQCB, and Streambed Alteration Agreement permit under Section 1602 of the California Fish and Wildlife Code from the CDFW). The following would be incorporated, as a minimum, into the permitting, subject to approval by the regulatory agencies: • On- and/or off-site creation, restoration and/or enhancement of USACE/RWQCB jurisdictional wetlands, waters of the U.S., and/or waters of the State at a ratio no less than 2:1 for permanent impacts, and for temporary impacts, restore	

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		impact area to pre-Project conditions (i.e., pre-Project contours and revegetate with native species, where appropriate). Off-site creation, restoration, and/or enhancement at a ratio no less than 2:1 may include the purchase of mitigation credits at an agency-approved off-site mitigation bank or in-lieu fee program. • On- and/or off-site creation, restoration, and/or enhancement of CDFW jurisdictional streambed and associated riparian habitat at a ratio no less than 2:1 for permanent impacts, and for temporary impacts, restore impact area to pre-Project conditions (i.e., pre-Project contours and revegetate with native species, where appropriate). Off-site creation, restoration, and/or enhancement at a ratio no less than 2:1 may include the purchase of mitigation credits at an agency-approved off-site mitigation bank or in-lieu fee program.	
Impact 3: Implementation of the Project could have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means.	Potentially Significant	Mitigation Measures BIO-01, BIO-03, BIO-06, and BIO-15 are required.	Less than Significant
Impact 4: Implementation of the Project could 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.	Potentially Significant	Mitigation Measures BIO-01, BIO-03, BIO-06, BIO-07, and BIO-10 are required.	Less than Significant
Impact 5: Implementation of the Project could conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	Potentially Significant	Mitigation Measures BIO-01 through BIO-12 and BIO-14 through BIO-15 are required. **Mitigation Measure BIO-16:** Tree Protection. If it is determined that construction may impact oak trees protected by the County's Deciduous Oak Tree Protection and Regeneration Ordinance included in Appendix IX of Chapter 35 of the Santa Barbara County Code, the Project Applicant shall procure an Oak Tree Removal Permit, if required by Section 35-909 of the County's Deciduous Oak Tree Protection and Regeneration Ordinance. Should an Oak Tree Removal Permit be required, the Project Applicant shall be required to implement the following, in addition to all other requirements as described within the	Less than Significant

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		County's Deciduous Oak Tree Protection Ordinance (Santa Barbara County 2003): • An Oak Tree Management Plan shall be developed by an oak tree specialist for the Project Site on which any oak tree removal will take place and any lot used for off-site replacement. The plan shall comply with the requirements included in Section 35-911 of the County Deciduous Oak Tree Protection and Regeneration Ordinance, as included in Article IX of Chapter 35 of the County Code. • Oak trees that are removed shall be compensated at a 15:1 ratio by replacement planting, or protection of naturally occurring oak trees between six inches and six feet tall on the Project Site. Replacement trees shall be nurtured for five years. At the end of the five years, ten trees for every protected tree removed shall be alive, in good health as defined by the oak tree specialist, and capable of surviving without nurturing and protection. • Valley oak tree removal over an area of five acres or greater shall require valley oak replanting of an area of comparable size in an area of existing or historic valley oak habitat.	
Impact 6: Implementation of the Project could conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.	No Impact	No mitigation measures are required	No Impact
Cultural Resources			
Impact 1: The Project would not cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5.	Potentially Signficant	**Mitigation Measure CR-1:** Historical Resources Impact Minimization. Prior to individual permit issuance, the implementing agency of the Last-Mile Broadband Project shall prepare a map defining a proposed fiber optic cable alignment involving ground and aerial disturbance for fiberoptic cable. This map will help to determine whether known historical resources and/or potential historic districts are located within the proposed fiber optic cable alignment. If a structure greater than 45 years in age is within the identified proposed fiber optic cable alignment, study	Less than Significant

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		recommendations shall be implemented, which may include, but would not be limited to, the following: • At the program level, realign or redesign projects to avoid impacts on known historic resources where possible. Project shall be designed in such a way that ground disturbance, and physical connections to the building will be minimally intrusive to historic resources. When possible, new fiberoptic cables should utilize existing mechanical housing to avoid visual intrusion at the property. New mechanical housing should be affixed to historic resources in such that will not damage or destroy historic fabric and will be minimally intrusive. • At the program level, if avoidance of a significant architectural/built environment resource is not feasible, additional mitigation options include, but are not limited to, specific design plans for historic districts, or plans for alteration or adaptive re-use of a historical resource that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitation, Restoring and Reconstructing Historic Buildings. • At the project level, if a structure and/or property greater than 45 years that has not yet been formally evaluated for historic significance is located within a proposed fiber optic cable alignment, a survey and historic resources evaluation of the structure and/or property would be conducted to determine eligibility for listing on State, federal, or local historic registers. The evaluation shall be prepared by a qualified architectural historian, or historical architect meeting the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation, Professional Qualification Standards. The evaluation shall comply with CEQA Guidelines section 15064.5(b). Structures and/or properties potentially eligible for significance as historic resources would follow the above guidance for program level avoidance and/or plan review to ensure that the proposed project is designed in such a way that it avoids potential impacts to historical resources.	

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		• Comply with existing local regulations and policies that exceed or reasonably replace any of the above measures that protect historic resources.	
Impact 2: Implementation of the Proposed Project could cause a substantial adverse change in the significance of an archaeological resource pursuant to§15064.5.	Potentially Significant	**Mitigation Measure CR-2:** Archaeological Resources Impact Minimization. The implementing agency shall retain a Qualified Archaeologist under the Secretary of the Interior Standards to carry out all mitigation related to archaeological resources as required for each project. Prior to the start of ground-disturbing activities, the Qualified Archaeologist or their designee shall conduct construction worker archaeological resources sensitivity training for all construction personnel. Construction personnel shall be informed on how to identify the types of precontact and historic archaeological resources that may be encountered, the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources, and safety precautions to be taken when working with archaeological monitors. The Implementing agency shall ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance. In addition, a cultural resource impact mitigation program (CRIMP) shall be filed with the County prior to site grading. The CRIMP shall specify the steps to be taken to mitigate impacts to cultural resources and shall include all of the program area projects and be amended if necessary at a project level. The CRIMP will also outline protocols to follow for unanticipated discoveries. Impacts to known archaeological resources that are within or directly adjacent to project CEQA significance evaluation and mitigation for avoidance or when avoidance is not possible, controlled archaeological data recovery. Within the planned projects there are 10 archaeological sites which have been determined to be within or directly adjacent to known archaeological sites and two districts. All 12 sites and districts have been determined to be eligible, potentially eligible, or have not been evaluated. As such they need to be mitigated under CEQA with evaluation and data recovery once the alignments and various components of the known projects are planned. Project planning should include design to avoid these sites whenever possible. When avoidance is not possible, testing and data recovery	Less than Significant

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		must be completed in advance of construction. The qualified Archaeologist shall coordinate with the implementing agency to develop a formal testing and data recovery plan which specifies all necessary notification and final reporting of the findings will be prepared and would serve to reduce impacts to the resources once the final design is available. To minimize disturbance to these sites, testing and data recovery should be planned within the planned alignment. For locations where directional boring will be conducted, data recovery should focus on entrance and exit pit locations. **Mitigation Measure CR-3:** The qualified Archaeologist shall oversee an archaeological monitor who shall be present during construction activities on the projects deemed by the qualified Archaeologist to have the potential for encountering archaeological resources, such as demolition, excavation of boring entrance and exist pits, clearing/grubbing, drilling/auguring, grading, trenching, excavation, or other ground disturbing activity associated with the project where the ground disturbance can be observed. The archaeological monitor shall have the authority to direct the pace of construction equipment activity in areas of higher sensitivity and to temporarily divert, redirect or halt ground disturbance activities to allow identification, evaluation, and potential recovery of archaeological resources in coordination with the qualified Archaeologist. Full-time monitoring may be reduced to part-time inspections, or ceased entirely, if determined appropriate by the qualified Archaeologist. In the event that historic-period (e.g., bottles, foundations, early infrastructure, refuse dumps/privies, railroads, etc.) or precontact (e.g., hearths, burials, stone tools, shell and faunal bone remains, etc.) archaeological resources are unearthed, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. A 50-foot buffer shall be established by the qualified Archaeologist around the find where construction activities shall not be allowed to continue. Work may continue outside of the buffer area. All archaeological resources unearthed by project construction activities shall be evaluated by the qualified Archaeologist. If a resource is determined by	

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		the qualified Archaeologist to constitute a "historical resource" pursuant to CEQA Guidelines Section 15064.5(a) or a "unique archaeological resource" pursuant to Public Resources Code Section 21083.2(g), the Qualified Archaeologist shall coordinate with the implementing agency to develop a formal treatment plan that would serve to reduce impacts to the resources. If any precontact archaeological sites are encountered within the Project area, consultation with consulting Native American tribes will be conducted to apprise them of any such findings and solicit any comments they may have regarding appropriate treatment and disposition of the resources. The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and Public Resources Code Sections 21083.2(b) for unique archaeological resources. Preservation in place (i.e., avoidance) is the preferred manner of treatment and shall be explored to see if project activities can avoid archaeological resources, such as: if the archaeological site can be deeded into a permanent conservation easement, if the resources can be capped with chemically stable soil or if the resource can be incorporated within open space. If, in coordination with the implementing agency, it is determined that preservation in place is not feasible, and in order to mitigate potential impacts to significant resources pursuant to Section 15064.5 of CEQA, data recovery is feasible. Appropriate treatment of the resource shall be developed by the qualified Archaeologist in coordination with the implementing agency and a data recovery plan shall be implemented. A data recovery plan will make provision for adequately recovering the scientifically consequential information from and about the historical resources. and may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing, analysis, reporting, and commemoration in the form of signage or other public education and awareness. This process will be in accordance with and further outlined in the CRIMP. Precontact or tribal cultural resources will be offered to consulting tribes after analysis is complete to be	

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		curated or reburied if the tribes wish to accept the material. Any archaeological material collected not returned to the tribes, shall be curated after analysis is complete, at a public, non-profit institution with a research interest in the materials, if such an institution agrees to accept the material. If no institution accepts the archaeological material, they shall be donated to a local school or historical society in the area for educational purposes. **Mitigation Measure CR-4:** At the conclusion of the archaeological monitoring, the qualified Archaeologist shall prepare a technical report that follows the format and content guidelines provided in California Office of Historic Preservation's Archaeological Resource Management Reports (ARMR). The technical report shall include a description of resources unearthed, if any, treatment of the resources, results of the artifact processing, analysis, and research, and evaluation of the resources with respect to the California Register of Historical Resources and CEQA. Appropriate California Department of Parks and Recreation Site Forms (Site Forms) shall also be prepared and provided in an appendix to the report. The technical report shall be prepared under the supervision of the qualified Archaeologist and submitted to the implementing agency within 150 days of completion of the monitoring. The final draft of the report shall be submitted to the CCIC. **Mitigation Measure CR-5:** Should any future projects be planned within the program area, or if any of the currently planned projects move location, the qualified archaeologist shall assess construction plans and geotechnical reports, as well as reviewing record search data (which should be updated every 2 to 3 years as applicable) and they or their designee shall survey the new project alignment as well as a buffer, for the Project to determine whether any archaeological sites could be impacted by the Project, and to make recommendations for testing and/or monitoring. The archaeologist will amend the CRIMP as appropriate and prepare a treatment plan as described in Mitigation Measure CR-2.	

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
Impact 3: Implementation of the Proposed Project could potentially disturb human remains; and cause a significant impact.	Potentially Significant	**Mitigation Measure CR-6:** Inadvertent Discovery of Human Remains. If human skeletal remains are uncovered during ground disturbance the implementing agency shall immediately halt work, contact the Santa Barbara County coroner to determine whether the remains are human, and follow the procedures and protocols outlined in the CRIMP (see CUL-MM-1 through 5) and those set forth in Section 15064.5 (e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, they shall contact the Native American Heritage Commission (NAHC), in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code Section (PRC) 5097.98 (as amended by AB 2641). The NAHC shall then identify the person(s) thought to be the Most Likely Descendant (MLD) of the deceased Native American, who will then help determine what course of action should be taken in dealing with the remains. Per PRC 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section (PRC 5097.98), with the MLD regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.	Less than Significant
Impact 4: Implementation of the Project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature causing a significant impact.	Potentially Significant	**Mitigation Measure PALEO-1:** The Implementing agency shall retain a paleontologist who meets the Society of Vertebrate Paleontology's (SVP 2010) definition for Qualified Professional Paleontologist (Qualified Paleontologist) to carry out all mitigation related to paleontological resources as required for each project. The Qualified Paleontologist will implement a paleontological monitoring program for construction excavations that would encounter the potentially fossiliferous Eocene-Pliocene marine units, the Pliocene-Pleistocene transitional units, and the older Pleistocene alluvium prior to the start of ground-disturbing activities, the Qualified Paleontologist or their designee shall conduct construction worker paleontological resources sensitivity training for all construction personnel. Construction personnel shall be informed on how to identify the types of	Less than Significant

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		paleontological resources that may be encountered, the proper procedures to be enacted in the event of an inadvertent discovery of paleontological resources, and safety precautions to be taken when working with paleontological monitors. The Implementing agency shall ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance. **Mitigation Measure PALEO-2:** Paleontological monitoring shall be conducted as specified in the monitoring program developed per Mitigation Measure PALEO-1. Monitoring shall be conducted by a qualified paleontological monitor (SVP 2010) working under the direct supervision of the Qualified Paleontologist. Monitoring shall consist of visually inspecting fresh exposures of rock for larger fossil remains and, where appropriate, collecting sediment samples to wet or dry screen to test promising horizons for smaller fossil remains. If the Qualified Paleontologist determines that full-time monitoring is no longer warranted, based on the specific geologic conditions at the surface or at depth, the Qualified Paleontologist may recommend that monitoring be reduced to periodic spot-checking or cease entirely. **Mitigation Measure PALEO-3:** If a potential fossil is found, the paleontological monitor shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation of the discovery. An appropriate buffer area shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. At the monitor's discretion, and to reduce any construction delay, the grading and excavation contractor shall assist in removing rock/sediment samples for initial processing and evaluation. If a fossil is determined to be significant, the Qualified Paleontologist shall implement a paleontological salvage program to remove the resources from their location, following the guidelines of the SVP (2010). Any fossils encountered and recovered shall be prepared to the point of identification, catalogued, and curated at an accredited repository.	

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		If construction personnel discover any potential fossils during construction while the paleontological monitor is not present, regardless of the depth of work or location, work at the discovery location shall cease in a 25-foot radius of the discovery until the Qualified Paleontologist has assessed the discovery and recommended and implemented appropriate treatment as described in this measure. **Mitigation Measure PALEO-4:** At the conclusion of paleontological monitoring, the Qualified Paleontologist shall prepare a report summarizing the results of the monitoring and any salvage efforts, the methodology used in these efforts, as well as a description of the fossils collected and their significance. The report shall be submitted by the Qualified Paleontologist to the Natural History Museum of Los Angeles County, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the proposed project and required mitigation measures. **Mitigation Measure PALEO-5:** If fossils are found on a project/formation that does not require monitoring, the qualified paleontologist will be contacted for evaluation and recommendations for salvage. The paleontologist shall prepare a report summarizing the results of the monitoring program including methods of fossil recovery and curation, and a description of the fossils collected and their significance. A copy of the report shall be provided to the Implementing agency. The fossils and a copy of the report shall be deposited in an accredited curation facility such as the Los Angeles Natural History Museum.	
Energy			
Impact 1: Implementation of the Project could result in a potentially significant environmental impact if energy (electricity, natural gas, or transportation) used during construction or operation results in the wasteful, inefficient, or unnecessary consumption of energy resources.	Less than Significant	No mitigation measures are required	Less than Significant

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
Impact 2: Implementation of the Proposed Project could conflict with or obstruct a state or local plan for renewable energy or energy efficiency if during construction or operation the Project doesn't comply with applicable rules or regulations, resulting in a significant impact.	Less than Significant	No mitigation measures are required	Less than Significant
Global Climate Change			
Impact 1: Implementation of the Broadband Program could generate GHG emissions, directly or indirectly, that exceed the County of Santa Barbara or SBCAPCD screening thresholds or significance thresholds resulting in a significant impact on the environment.	Less than Significant	No mitigation measures are required	Less than Significant
Impact 2: Implementation of the Priority Area projects and future broadband projects could contribute to cumulative GHG impacts if it would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.	Less than Significant	No mitigation measures are required	Less than Significant
Noise and Vibration			
Impact 1: Implementation of the Project, in combination with other development, would contribute to cumulative less than significant impacts in regards to construction and operational noise for past, present, and future development.	Potentially Significant	**Mitigation Measure 4.6-1:** The applicant, including all contractors and subcontractors, shall limit construction activity, including equipment maintenance and site preparation, to the hours between 8:00 a.m. and 5:00 p.m. Monday through Friday. No construction shall occur on weekends or State holidays.	Less than Significant
Impact 2: Implementation of the Proposed Project, in combination with other development, would contribute to cumulative less than significant impacts in regards to ground-vibration damage to structures and human annoyance from construction and operation of past, present, and future projects.	Less than Significant	No mitigation measures are required	Less than Significant
Impact 3: Implementation of the Proposed Project would not result in the Project being located within the vicinity of a private airstrip or airport land use plan. Therefore, the Airport operations would result in a less than significant impact.	Less than Significant	No mitigation measures are required	Less than Significant

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
Tribal Cultural Resources			
Impact 1: The Project would not cause a substantial adverse change in the significance of a tribal cultural resource pursuant to PRC Section 21074.	Potentially Significant	**Mitigation Measure TCR-1:** The implementing agency shall retain a Native American monitor from the Santa Ynez Band of Chumash Indians (Tribe) to carry out all mitigation related to tribal cultural resources as required for each project. Prior to the commencement of ground disturbing activities, a Tribal Cultural Resources Sensitivity Training session shall be held for those construction personnel who will be directly involved in the ground disturbing activities. The training session shall be carried out by the Native American Monitor and shall focus on how to identify tribal cultural resources that may be encountered during ground disturbing activities and the procedures to be followed in such an event. Within the planned projects there are 10 archaeological sites (which have been determined to be within or directly adjacent to known archaeological sites) and two districts. All 12 sites and districts have been determined to be eligible, potentially eligible, or have not been evaluated. Project planning should include design to avoid these sites whenever possible. When avoidance is not possible, testing and data recovery must be completed in advance of construction by a Qualified Archaeologist identified in Mitigation Measure CR-2. The Tribe shall provide a Native American monitor who shall be present during testing/data recovery, and construction activities on the projects deemed by the qualified Archaeologist and the consulting tribe to have the potential for encountering archaeological resources, that could be considered tribal cultural resources by the Tribe and under CEQA, such as demolition, excavation of boring entrance and exist pits, clearing/grubbing, drilling/auguring, grading, trenching, excavation, or other ground disturbing activity associated with the project where the ground disturbance can be observed. Full-time monitoring may be reduced to part-time inspections, or ceased entirely, if determined appropriate by the Qualified Archaeologist and the Tribe.	Less than Significant

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		Mitigation Measure TCR-2: The Native American Monitor shall complete daily monitoring logs that provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs shall identify and describe any discovered tribal cultural resources, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs shall be provided to the implementing agency upon written request to the Tribe. **Mitigation Measure TCR-3:** In the event of a discovery of potential tribal cultural resources, the Qualified Archaeologist identified in Mitigation Measure CR-2 [after consultation with the Native American Monitor] shall have the authority to temporarily divert, redirect, or halt ground-disturbance activities to allow identification, evaluation, and potential recovery of such potential resources. After consulting with the Native American Monitor and the implementing agency, the Qualified Archaeologist shall establish an appropriate buffer area in accordance with industry standards, reasonable assumptions regarding the potential for additional discoveries in the vicinity, and safety considerations for those making an evaluation and potential recovery of the discovery. This buffer area shall be established around the find where ground-disturbing activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area.	

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		Within three (3) business days of such discovery, a meeting shall take place between the Qualified Archaeologist, the Tribe, and the implementing agency to discuss the significance of the find and whether it qualifies as a tribal cultural resource pursuant to Public Resources Code Section 21074(a). If, as a result of the meeting and after consultation with the Tribe and the Qualified Archaeologist, the implementing agency determines, based on substantial evidence, that the resource is in fact a tribal cultural resource, the Qualified Archaeologist shall develop a reasonable and feasible treatment plan, with input from the Tribe as necessary, and with the concurrence of the implementing agency. The treatment measures in the treatment plan shall be in compliance with any applicable federal, State, or local laws, rules or regulations. The treatment plan shall also include measures regarding the curation of the recovered resources. The lead agency may recommence ground disturbance activities inside of the specified radius of the discovery site only after it has complied with all of the recommendations developed and approved pursuant to the process set forth in the above paragraphs. The recovered tribal cultural resources may be placed in the custody of the Tribe, who may choose to use them for their educational purposes or they may be curated at a public, non-profit institution with a research interest in the materials. If neither the Tribe nor an institution accepts the resources, they may be donated to a local school or historical society in the area for educational purposes. Notwithstanding the above paragraph, any information determined to be confidential in nature by the implementing agency, shall be excluded from submission to the CCIC or the general public under the applicable provisions of the California Public Records Act, Sections 7927.000 and 7929.005.	

Environmental Impact Summary	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
Utilities			
Impact 1: Implementation of the Proposed Project would not result in relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, or natural gas facilities. The Proposed Project would result in less than significant impacts to expanded electric power or telecommunication facilities.	Less than Significant	No mitigation measures are required	Less than Significant

CHAPTER 1
Introduction

This Draft Program Environmental Impact Report (PEIR) has been prepared pursuant to the California Environmental Quality Act (CEQA) and the State CEQA Guidelines in order to disclose the potential environmental consequences of implementing the Project. As required under CEQA, the PEIR evaluates and describes potentially significant environmental impacts, identifies mitigation measures to avoid or reduce the significance of potential impacts, and evaluates the comparative effects of potentially feasible alternatives to the proposed project.

As required under CEQA, the PEIR evaluates and describes potentially significant environmental impacts, identifies mitigation measures to avoid or reduce the magnitude of potential impacts, and evaluates the comparative effects of potentially feasible alternatives to the proposed projects.

1.1 Project Requiring Environmental Analysis

The Project would facilitate the future expansion of high-speed broadband internet network, referred to herein as the Santa Barbara County Last-Mile Broadband Program (Broadband Program or Project), throughout the County of Santa Barbara (County). The Project would facilitate implementation of future broadband infrastructure installations in various communities across the County that are currently underserved or unserved by high-speed broadband internet services. These broadband facility installations could include both underground and aerial fiberoptic cable as part of proposed "last-mile" broadband facilities, which are intended to reach end users in these affected communities. These last-mile facilities would provide connections to end users in communities across the County and connect from the State of California's "middle-mile" broadband network (Statewide Middle Mile Network) currently being implemented by the California Department of Technology (CDT).

The Project details are further described in Chapter 2, *Project Description*, of this Draft PEIR.

1.2 Purpose and Intended Uses of this PEIR

CEQA requires that before a decision can be made to approve a project that would pose potential adverse physical effects, a PEIR must be prepared that fully describes the environmental effects of the project. The PEIR is a public information document that identifies and evaluates potential environmental impacts of a project, recommends mitigation measures to lessen or eliminate significant adverse impacts, and examines feasible alternatives to the project. The information contained in the PEIR must be reviewed and considered by the lead agency (i.e., County, incorporated Cities, or other local agencies) and by any responsible agencies (as defined in CEQA) prior to a decision to approve, disapprove, or modify the proposed projects.

1.3 Scope of this Draft PEIR

This Draft PEIR includes an evaluation of the following eight environmental issues as well as other CEQA-mandated issues (e.g., cumulative impacts, growth-inducing impacts, significance unavoidable impacts, alternatives):

- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Greenhouse Gas Emissions/Global Climate Change
- Noise and Vibration
- Tribal Cultural Resources
- Utilities and Service Systems (Telecommunication Facilities)

Under the CEQA statutes and the State CEQA Guidelines, a lead agency may limit an EIR's discussion of environmental effects when such effects are not considered potentially significant (PRC Section 21002.1[e]; State CEQA Guidelines Sections 15128, 15143). An Initial Study was prepared for the Project in accordance with State CEQA Guidelines Section 15063 in order to assist in determining the scope of issues to be addressed in the Draft PEIR. Information used during the preparation of the Initial Study and Draft PEIR scoping process to determine which impacts would be potentially significant was derived from review of the Project; review of applicable planning documents and CEQA documentation; feedback from public and agency consultation; and comments received on the Notice of Preparation (NOP) (see Appendix A of this Draft PEIR).

The NOP and Initial Study were distributed on May 30, 2024, to responsible and trustee agencies and potentially interested members of the public. The purpose of the NOP was to provide notification that an EIR for the Project was being prepared and to solicit input on the scope and content of the environmental document. As a result of the review of existing information and the scoping process, it was determined that each of the issue areas listed above should be evaluated in this Draft PEIR. Further information on the NOP and scoping process is provided below in Section 1.4, "Public Review Process."

1.4 Public Review Process

As noted above, an NOP, which included an Initial Study, was distributed on May 30, 2024, to responsible agencies, trustee agencies, interested parties and organizations, and private organizations and individuals that could have interest in the Project. The Initial Study and NOP were available at the Santa Barbara County offices at 260 North San Antonio Road, Suite B, Santa Barbara, California 93110 and online at https://www.sbcag.org/wp-content/uploads/2024/05/Broadband-Program-EIR-Initial-Study.pdf.

The purpose of the NOP was to provide notification that a PEIR for the Santa Barbara County Last-Mile Broadband Program was being prepared and to solicit input on the scope and content of the document. The NOP and responses to the NOP are included in Appendix A of this Draft PEIR.

This Draft PEIR is being circulated for public review and comment for a minimum of 45 days. During this period, comments from the general public as well as organizations and agencies on environmental issues may be submitted to the Lead Agency. Written comments on the Draft PEIR should be mailed or emailed to:

Fred Luna, SBCAG
260 North San Antonio Road, Suite B
Santa Barbara, California 93111
Info@sbcag.org

Upon completion of the public review and comment period, a Final PEIR will be prepared that will include both written and oral comments on the Draft PEIR received during the public review period, responses to those comments, and any revisions to the Draft PEIR made in response to public comments. The Draft PEIR and responses to comments volume will comprise the Final PEIR for the project.

Before adopting the Santa Barbara County Last-Mile Broadband Program, the lead agency, is required to certify that the PEIR has been completed in compliance with CEQA, that the decision-making body reviewed.

1.5 PEIR Organization

This Draft PEIR document is organized as follows:

Executive Summary – This section summarizes the Project and the conclusions of the Draft PEIR. A summary table is included and organized to allow the reader to easily identify potentially significant effects, proposed mitigation measures, and any residual environmental impacts after implementation of mitigation measures. A summary of the alternatives to the Project and the environmentally superior alternatives are also provided. The Summary also describes areas of controversy regarding the Project that are known to SBCAG as of publication of this PEIR.

Chapter 1, Introduction – This chapter describes the purpose and organization of the PEIR.

Chapter 2, Project Description – This chapter describes the Project. The description includes, with text and graphics, the location and boundaries of the Project, statement of objectives, and a description of the Project's components and characteristics.

Chapter 3, Environmental Setting– This chapter discusses the environmental setting and approach to the environmental analysis.

Chapter 4, Environmental Impacts and Mitigation Measures – For each environmental issue, this chapter discusses the environmental and regulatory setting, the methodology used, the detailed analysis of potential impacts (including direct, indirect, and cumulative impacts), and, if necessary, a discussion of potentially feasible mitigation measures.

Chapter 5, Project Alternatives – This chapter describes potentially feasible alternatives to the Project that may avoid or substantially reduce one or more significant impacts while attaining most of the basic objectives of the Project and evaluates the comparative environmental effects of the alternatives.

Chapter 6, Other CEQA Considerations – This chapter discusses several issues required to be included in an EIR, including effects not found to be significant, significant and unavoidable impacts, significant irreversible environmental changes, and the potential for the Project to induce growth.

Chapter 7, References – This chapter lists all citations used throughout the Draft PEIR.

Chapter 8, List of Preparers and Persons Consulted – This chapter identifies the agency staff and consultants who prepared the PEIR, and agencies or individuals consulted during preparation of the PEIR.

Appendices – The appendices include environmental scoping information and technical reports and data used in the preparation of the Draft PEIR.

1.6 Standard Terminology Used in the PEIR

This PEIR uses the following standard terminology:

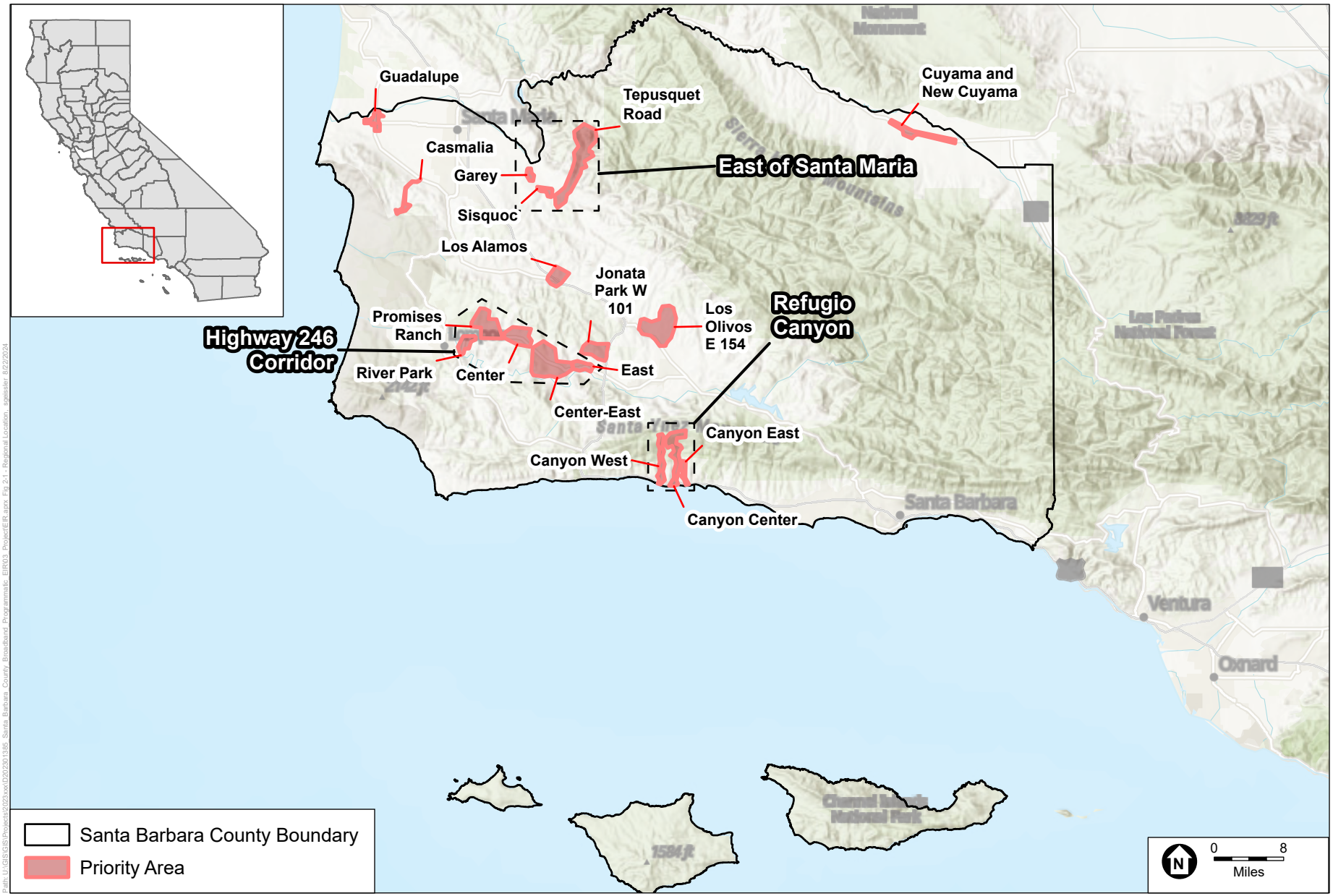
- "No impact" means no change from existing conditions (no mitigation is needed).
- "Less-than-significant impact" means no substantial adverse change in the physical environment (no mitigation is needed).
- "Potentially significant impact" means an impact that might cause a substantial adverse change in the environment (mitigation is recommended because potentially significant impacts are treated as significant).
- "Significant impact" means an impact that would cause a substantial adverse change in the physical environment (mitigation is recommended).
- "Significant and unavoidable impact" means an impact that would cause a substantial adverse change in the physical environment and that cannot be avoided, even with the implementation of all feasible mitigation.

CHAPTER 2
Project Description

The Santa Barbara County Association of Governments (SBCAG), in partnership with the County of Santa Barbara (County), and on behalf of member agencies of SBCAG, and other entities desiring to facilitate the future expansion of the County's high-speed broadband internet network, referred to herein as the Santa Barbara County Last-Mile Broadband Program (Broadband Program or Project). The Project would facilitate implementation of future broadband infrastructure installations in various communities across Santa Barbara County that are currently underserved or unserved by high-speed broadband internet services. These broadband facility installations could include both underground and aerial fiberoptic cable as part of proposed "last-mile" broadband facilities, which are intended to reach end users in these affected communities. These last-mile facilities would provide connections to end users in communities across the County, and connect from the State of California's "middle-mile" broadband network (Statewide Middle Mile Network) currently being implemented by the California Department of Technology (CDT).

2.1 Project Location

The area subject to future broadband facility installations under the proposed Broadband Program (i.e., the Project Area) includes the entire County of Santa Barbara, since, with a few exceptions discussed below, the specific locations of future broadband facility installations are currently not known (see **Figure 2-1**, *Regional Location*, below). Such future installations would be proposed and implemented as part of the Broadband Program, where appropriate, in order to provide adequate high-speed broadband internet services to underserved and unserved communities as priority communities and funding sources are identified. As discussed in greater detail below, a total of nine communities in the County have already been identified as "Priority Areas" under the Broadband Program. Four of these communities were initially identified in the Santa Barbara County Broadband Strategic Plan (BSP, see further discussion below) and thus have already been the subject of high-level engineering design, while the design of the proposed networks to serve the remaining five communities is currently in progress. **Figure 2-2**, *Broadband Facility Locations*, below, provides a County-wide view of the Project Area, including the location of existing and/or approved middle-mile broadband facilities in the County, as well as the locations of all nine identified Priority Areas.

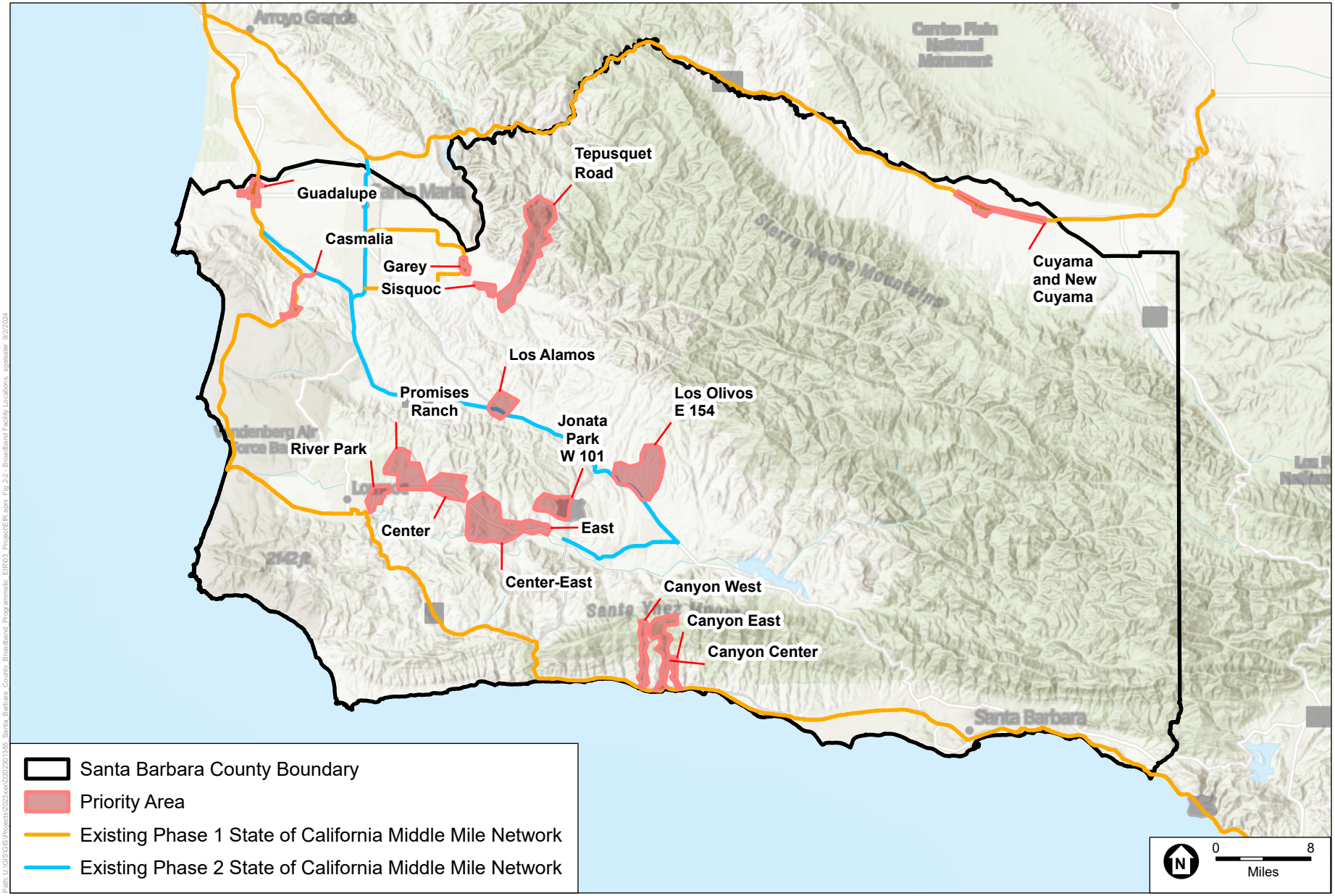


SOURCE: ESA, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 2-1
Regional Location

ESA



SOURCE: ESA, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 2-2
Broadband Facility Locations

ESA

2.2 Project Background and Need

The State of California has undertaken a significant initiative to build a critical fast-speed internet network and create an equitable, high-speed, open access system. Senate Bill (SB) 156, signed by Governor Gavin Newsom in July 2021, established government pathways and funding mechanisms to acquire, build, maintain, and operate accessible broadband networks. "Middle-mile" broadband network provides that necessary connection from large core internet pipelines (termed the "first-mile" broadband network) to homes and communities (termed the "last-mile" broadband infrastructure). The last mile work looks to provide connections to unserved and underserved communities. Last-mile infrastructure relies on the middle-mile facilities to provide service to broadband customers including residents, large and small businesses, schools, government offices, public safety agencies, and libraries, among others. Therefore, one result of SB 156 was the establishment of the Local Agency Technical Assistance (LATA) grants, which are available to local jurisdictions to build these last-mile network connections to serve end users within unserved and underserved communities.

The COVID-19 pandemic highlighted stark inequities in internet access across Santa Barbara County. Some rural schools returned to physical workbooks and printed pages for at-home instruction during school shutdowns, due to a lack of reliable, affordable internet access in their communities. Approximately 25 percent of households with incomes less than $20,000 per year do not have internet access, and on the whole, approximately nine percent of all households in the County do not have access. Therefore, SBCAG and the County, both being partners in the Broadband Alliance of Santa Barbara County (Alliance), collaborated with local agencies, tribal organizations, the Broadband Consortium of the Pacific Coast, and regional economic development organizations to develop the Santa Barbara County Broadband Strategic Plan (BSP) in 2022. Following the strategic planning effort, SBCAG partnered with the County on a LATA grant to facilitate extension of broadband service within the County, and in 2023 the California Public Utilities Commission (CPUC) awarded a LATA grant to the County of Santa Barbara for broadband planning and implementation. The grant funds the creation of a countywide Joint Powers Authority (JPA) to formalize the Alliance, preparation of the necessary California Environmental Quality Act (CEQA) documentation, and completion of high-level design engineering to facilitate and streamline implementation of local broadband projects. In these ways, the LATA grant funds are assisting the County in securing funding to build a last-mile "fiber-to-the-home" network to connect underserved and unserved locations within the County.

Since then, SBCAG initiated a contract with Golden State Connect Authority (GSCA) to implement high-level broadband design for the nine Priority Areas in the County that have been identified as being historically under-resourced and lacking consistent, reliable internet access. As shown in Figure 2, these nine Priority Areas include: the City of Guadalupe and unincorporated communities including portions of Cuyama/New Cuyama, Casmalia, Los Alamos, Los Olivos, Jonata Park, Refugio Canyon, Highway 246 Corridor (five neighborhoods between Lompoc and Buellton), and East of Santa Maria (including the Garey, Sisquoc, and Tepusquet Road communities). In addition, these unincorporated communities are some of the County's identified Environmental Justice Communities currently being considered in the Environmental Justice Element of the County's Comprehensive Plan.

2.3 Broadband Strategic Plan

The BSP, as mentioned above, was prepared by the Alliance, which was formed in 2022 and is comprised of SBCAG, the County of Santa Barbara, the cities of Buellton, Carpinteria, Goleta, Guadalupe, Lompoc, Santa Barbara, Santa Maria, Solvang, and the Santa Ynez Band of Chumash Indians, Broadband Consortium of the Pacific Coast (BCPC), and regional economic development organizations.

The BSP was intended to identify broadband internet infrastructure and affordability needs in the County. The Alliance intends to continue to leverage the BSP to seek funding opportunities for projects to improve County-wide affordable access to high-speed broadband in homes, schools, businesses, healthcare, and to connect community anchor institutions.

The BSP was created to respond to the regional need for high-speed internet access, which was intensified during the COVID-19 pandemic when schools, businesses, public services, and health care support moved online, and many individuals began working from home. Gaps in access to reliable, affordable high-speed internet disenfranchise households by limiting their access to education, the workforce, health care, and democratic processes. The digital divide defines the gap between those with the capacity to use technology and those left out of opportunities provided by digital access. While residents throughout the County have access to moderate levels of connectivity, all households, businesses, and public institutions would benefit from the faster and more reliable internet access that broadband connections deliver.

The purpose of the BSP is to address the planning needs of the region, encourage infrastructure investments in the County, and present models for investment opportunities made by internet service providers (ISPs), public sector investment, and a combination of public-private investment. The BSP utilized a regional context, aligning with the California State Broadband Action Plan (CBAP) and focused on identifying a middle-mile approach, last-mile priorities, policies and resources for broadband readiness, and future feasibility studies for the County and incorporated cities.

The BSP found, through a comprehensive needs assessment, that approximately 7.9 percent of the County's population does not have access to adequate (25 megabits per second [Mbps] download speed and 3 Mbps upload speed, indicated as "25/3 Mbps") internet services, which corresponds with the population within unserved and priority unserved areas. The analysis initially identified priority unserved areas in remote communities including the Priority Areas of Casmalia, Los Alamos, and Cuyama/New Cuyama, as noted above, but also found various other areas that would become important for last-mile infrastructure development including the remaining five unincorporated Priority Areas noted above (also see Figure 2).

After analysis of the existing infrastructure and needs, the BSP identified a path for moving forward including developing local strategies, attracting collaborative funding, and conducting community actions that support ongoing connectivity and adoption. Another step is conducting a last-mile pilot in order to develop processes for applying technical support at the neighborhood level to achieve access and adoption.

The BSP outlined the roles and responsibilities for the main activities associated with implementation of the BSP, including ensuring funding for the detailed network design, constructing the passive infrastructure, deployment of the active infrastructure, network operations and maintenance (O&M)

activities, field maintenance activities, subscriber installation, subscriber management, and customer support. The priorities for middle-mile deployment include ensuring funding for the high-level design of the network in conjunction with stakeholders, coordinating with the work performed by the Santa Ynez Band of Chumash Indians and Econ Alliance for the North County middle-mile analysis and design, and continue coordinating with the State of California as relates to the Statewide Middle-Mile Broadband Network. The last-mile deployment priorities include areas that lack access to 25/3 MBps service based on the data collected; and these areas include portions of the eight unincorporated Priority Area communities of Cuyama/New Cuyama, Casmalia, Los Alamos, Los Olivos, Jonata Park, and Refugio Canyon, Highway 246 Corridor, and East of Santa Maria (Garey, Sisquoc, and Tepusquet Road communities).

As the CDT continues to build out the Statewide Middle Mile Network in Santa Barbara County, SBCAG and the County have initiated last-mile design efforts. Those efforts include entering into an agreement with GSCA to prepare last-mile design for all priority areas identified to date, and perhaps other future areas as additional priorities are identified. GSCA has submitted applications to implement the first nine areas, which are included as components of the Project. As required, the implementation will involve the use of fiber optics and an open-access model, which will allow GSCA to provide residences and businesses with future-proof broadband technology, and the choice of providers and packages that an open-access system provides, thus offering access to competitive speed offerings and pricing. Internet service offerings are anticipated to include minimum speeds of 100 Mbps symmetrical and maximum speeds, which are only limited by the electronics on either end of the fiber connection, but initially will be offered at up to 10 gigabits per second (Gbps)[1] symmetrical for households and up to 100 Gbps symmetrical for businesses. GSCA's service offerings will not have data caps (i.e., no limits on how much data may be transferred by any given network end user).

2.4 Project Objectives

The objectives of the Broadband Program are to:

1. Provide reliable high-speed broadband internet service to residents and businesses located in the identified Priority Areas and any additional unserved and underserved communities in Santa Barbara County in order to improve communication capabilities throughout the County;
2. Provide upgradable and expandable high-speed broadband capacity in the service areas with minimum speeds of 25 megabits per second (Mbps) for downloads and 5 Mbps for uploads, consistent with the federal definition of "adequate service" for broadband and California's definition of broadband;
3. Enable an increase in telecommuting, telehealth services, and distance learning, with a commensurate decrease in vehicle miles traveled, barriers to medical provider access, and digital/educational inequities;
4. Provide broadband infrastructure to support the regional public safety network, including providing network redundancy and resiliency to improve disaster preparation and emergency response;

[1] One gigabit is equal to 1,000 megabits

5. Identify and facilitate funding opportunities for future broadband infrastructure installations under the Broadband Program;
6. Reduce the potential environmental effects of broadband installation projects by utilizing minimally impactful construction techniques and equipment and avoiding construction within or near sensitive environmental resources to the extent feasible;
7. Provide a reliable foundation of data and acceptable methodology to assess impacts for future broadband deployment projects, and streamline the environmental review process for individual broadband projects that are implemented in both incorporated and unincorporated areas of Santa Barbara County; and
8. To implement resources most efficiently within for the County, incorporated cities, and broadband project applicants. This will result in the overall reduction in the amount of County and member agency staff time required to review broadband projects and avoiding duplication of applicant costs.

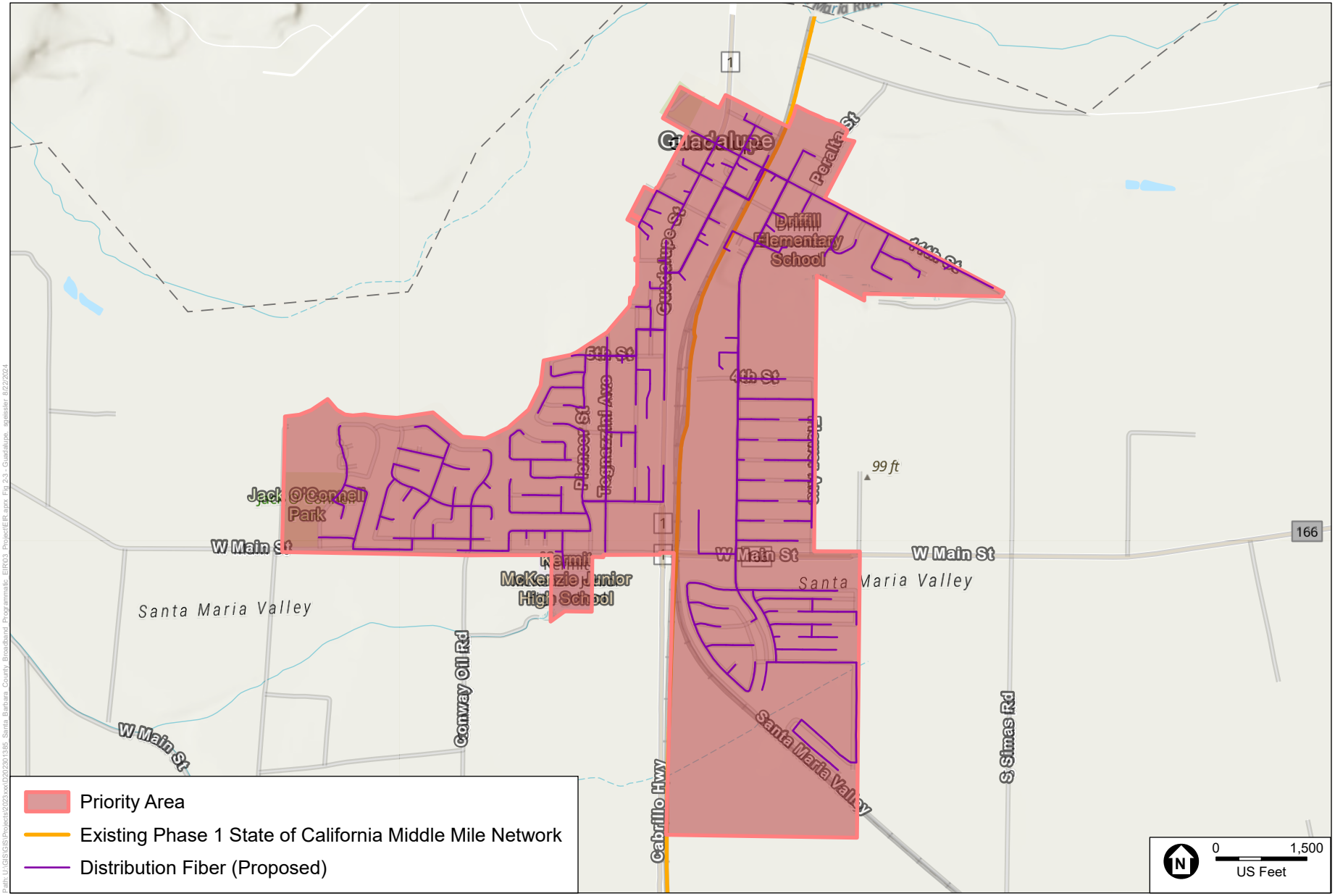
2.5 Proposed Project Components

The Project would include the installation of fiber optic cable in various locations throughout the County, including within the nine Priority Area communities. For the nine Priority Areas, GSCA has prepared high-level engineering designs that indicate the location of new broadband lines within each community. **Figure 2-3**, *Priority Area Site Plan – Guadalupe*, **Figure 2-4**, *Priority Area Site Plan – Casmalia*, **Figure 2-5**, *Priority Area Site Plan – Los Alamos*, **Figure 2-6**, *Priority Area Site Plan – Cuyama and New Cuyama*, **Figure 2-7**, *Priority Area Site Plan – East of Santa Maria*, **Figure 2-8**, *Highway 246 Corridor*, **Figure 2-9**, *Priority Area Site Plan – Jonata Park*, **Figure 2-10**, *Priority Area Site Plan – Los Olivos*, **Figure 2-11**, *Priority Area Site Plan – Refugio Canyon*, below, illustrate the proposed extent and locations for last-mile network installations within each of these communities. It should be noted that GSCA, as a full-service broadband infrastructure provider, would design, permit, construct, operate, and maintain all proposed broadband network facilities in perpetuity within the nine Priority Areas.

2.5.1 New Fiber Conduit

In general, the new fiber optic lines would be installed underground following public or private roadways up to 10 feet from the edge of the road, with the intention to minimize or avoid disturbance of roadway surfaces wherever feasible. However, it is possible some fiber optic lines could be installed directly under roadways in areas with limited shoulder space or where existing conduit under the road may be used, thus avoiding new surface disturbance.

The Project also includes installation and construction activities within those areas where lateral lines are installed between public or private roadways and individual businesses or residences. Individual residence or business connections typically would be installed within previously disturbed and/or developed areas (e.g., adjacent to driveways or in landscaped areas), and generally would avoid drainages and sensitive habitats. Lateral alignments would typically follow other utility installations.

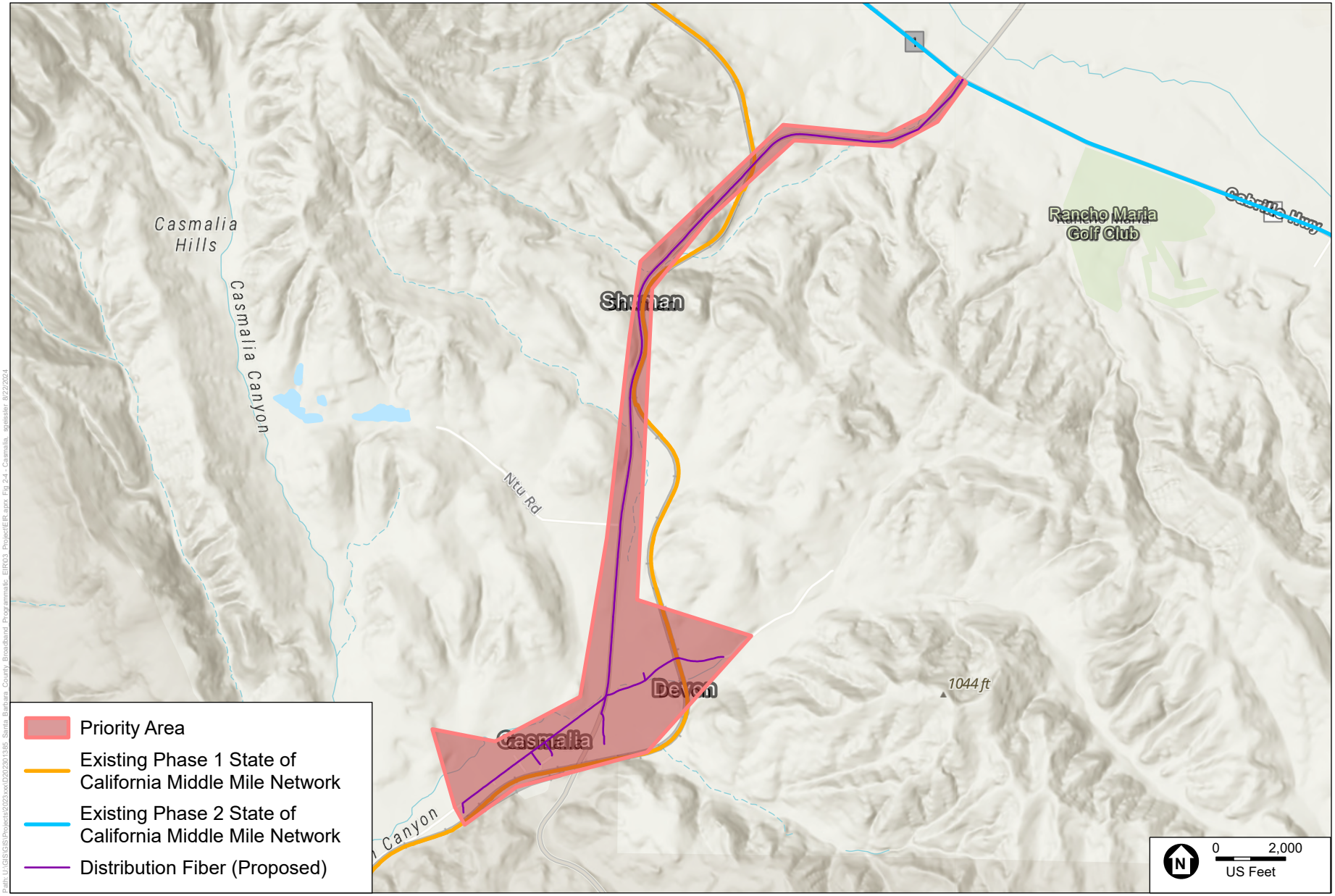


SOURCE: ESA, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 2-3
Priority Area – Guadalupe

ESA



SOURCE: ESA, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 2-4
Priority Area – Casmalia

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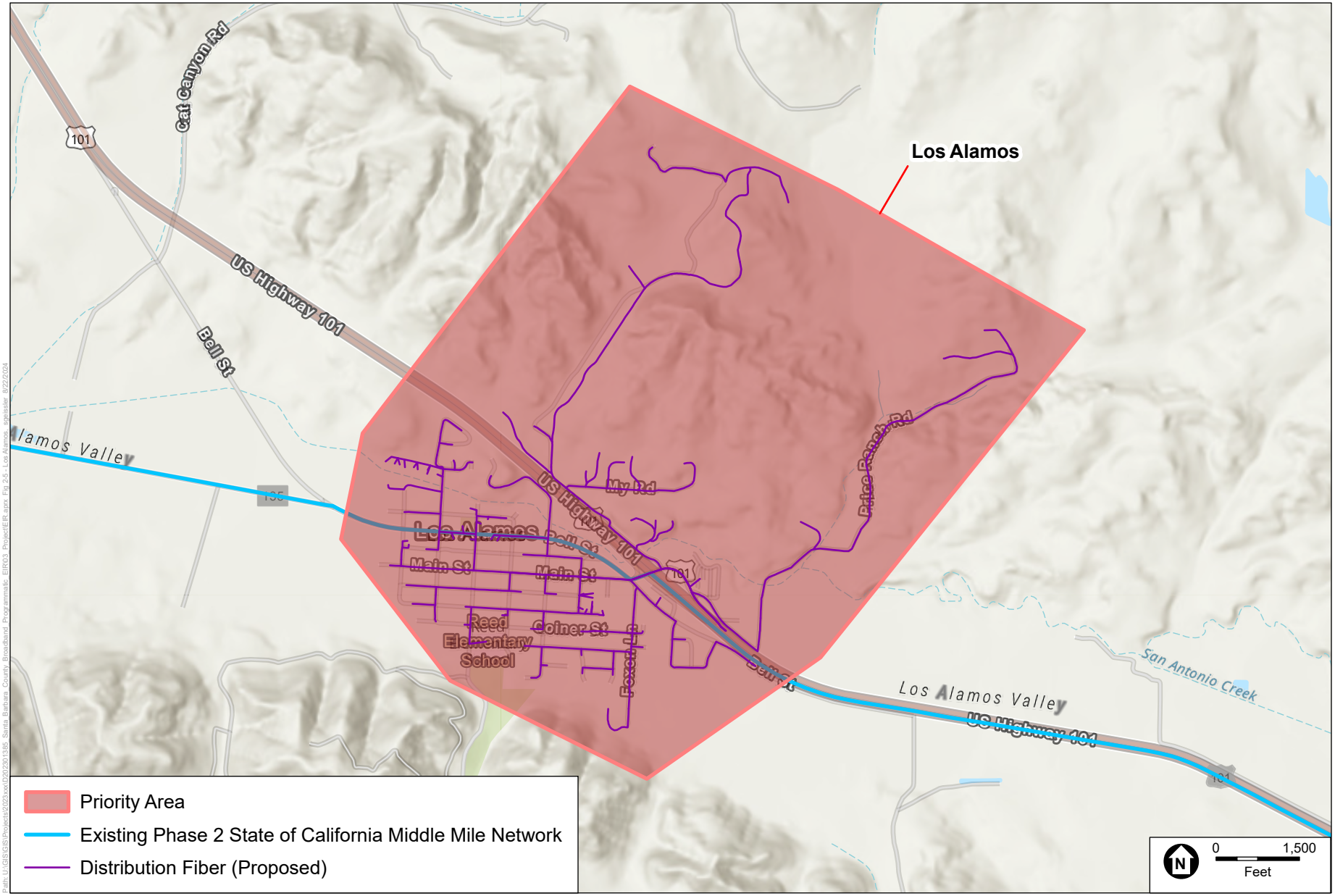

SOURCE: ESA, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 2-5
Priority Area – Los Alamos

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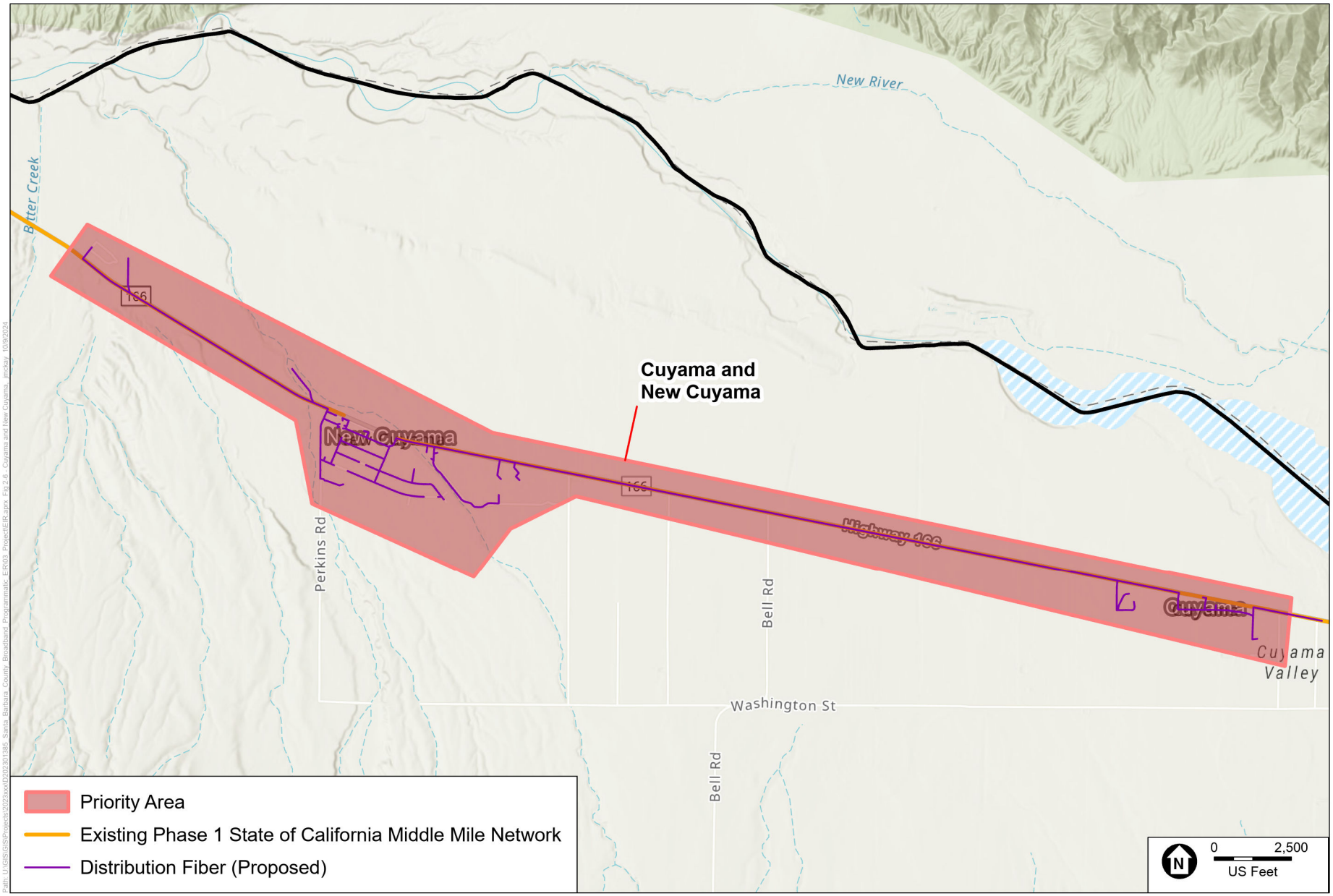
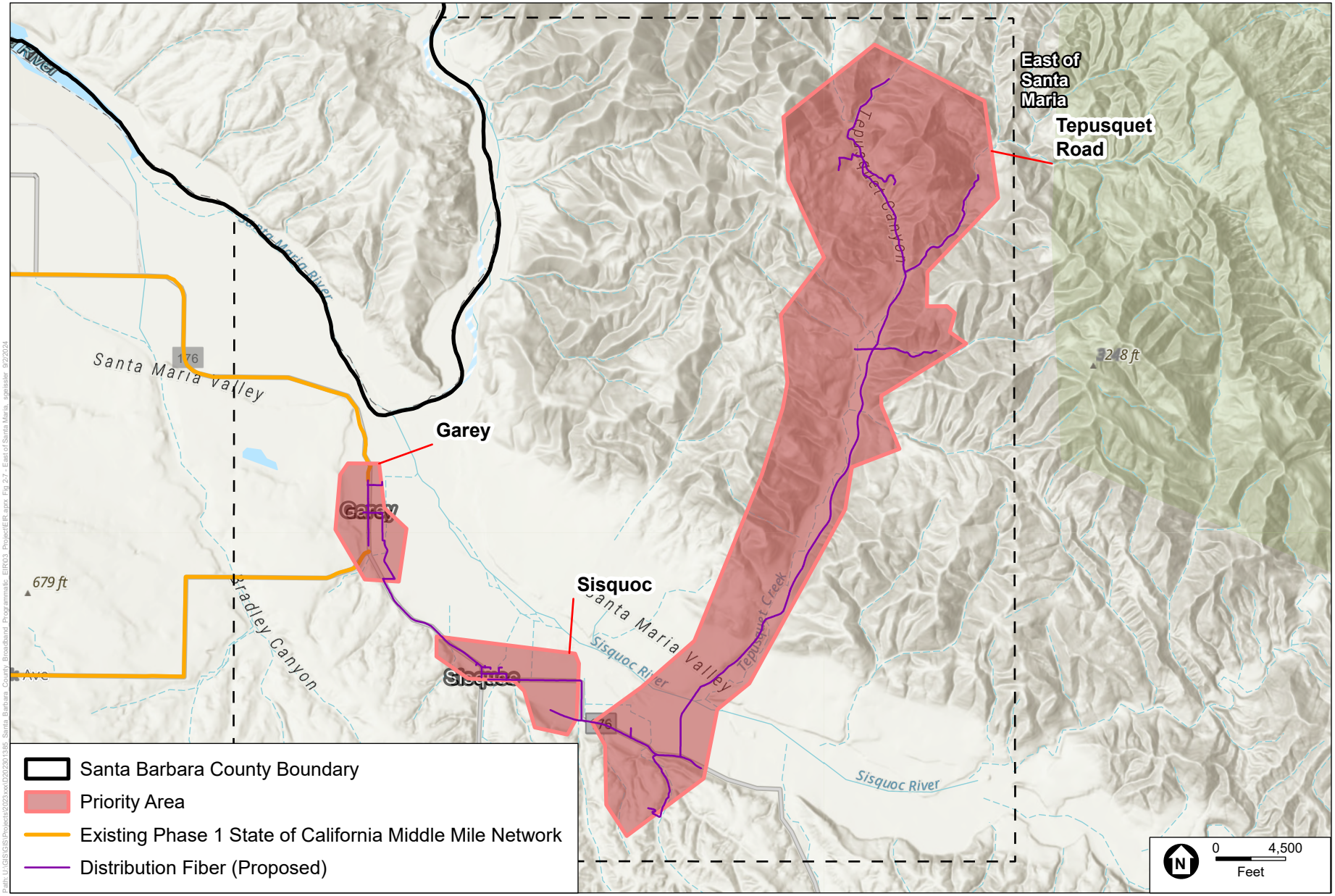


SOURCE: ESA, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 2-6
Priority Area – Cuyama and New Cuyama

ESA

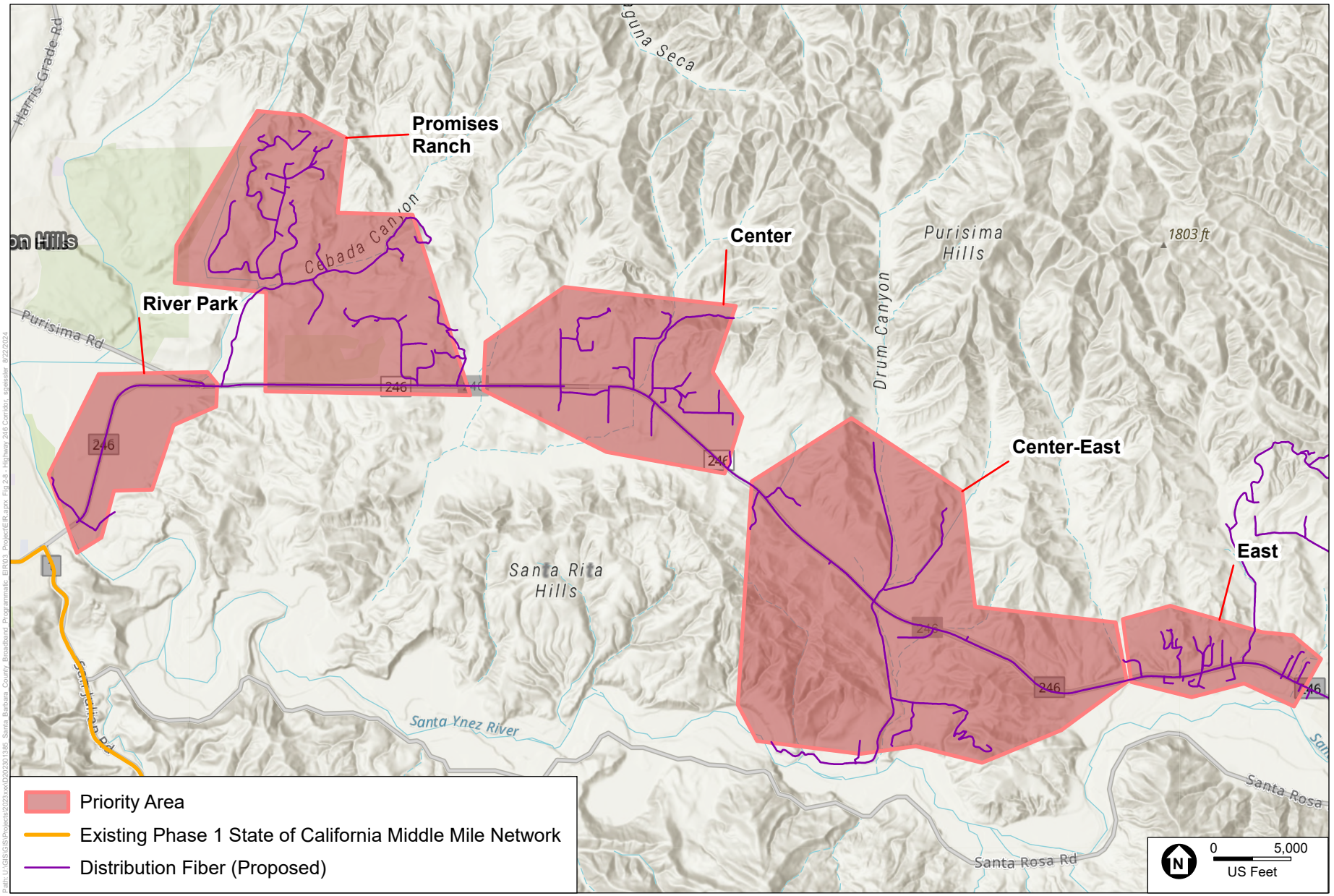


SOURCE: ESA, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 2-7
Priority Area – East of Santa Maria

ESA

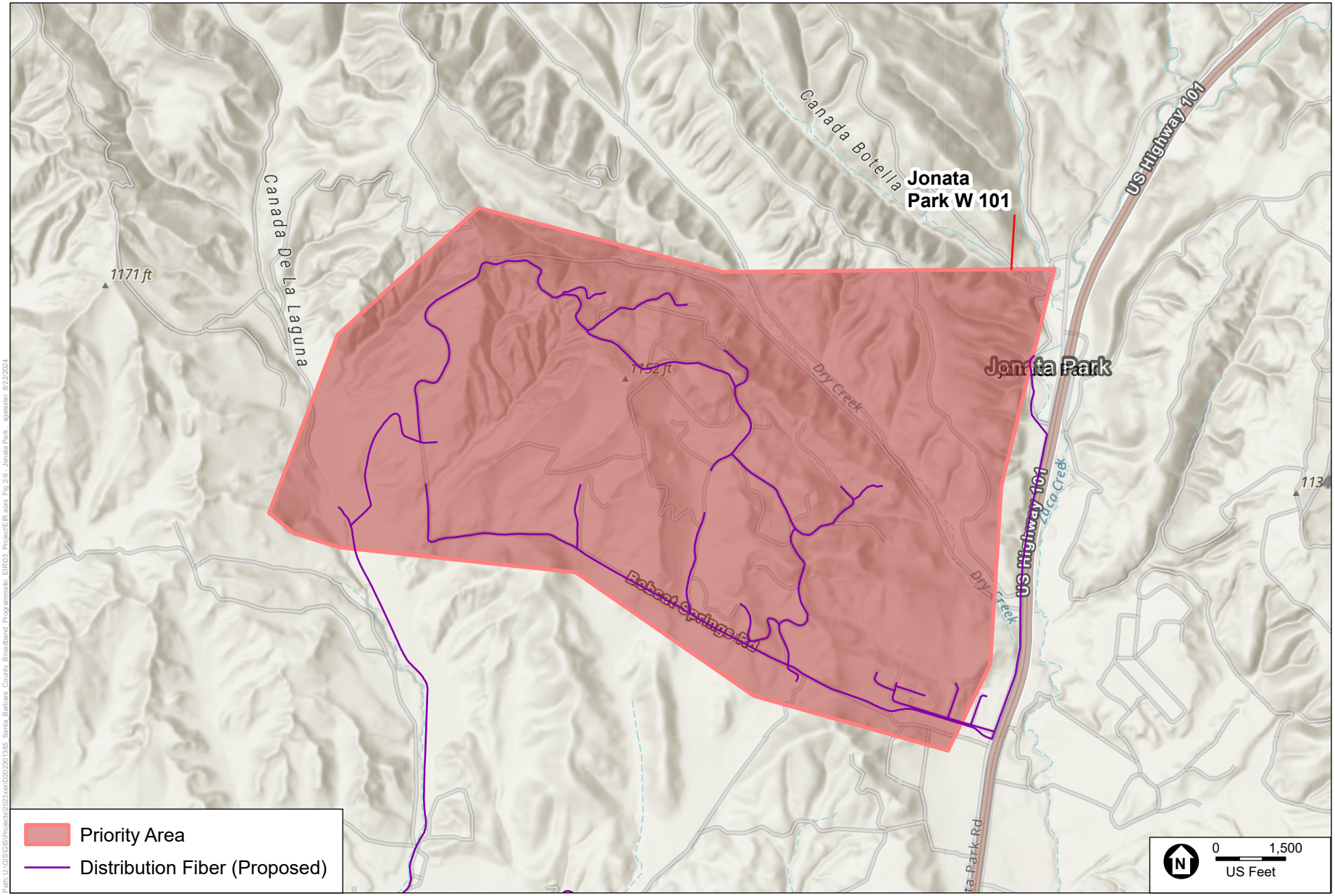


SOURCE: ESA, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 2-8
Priority Area – Highway 246 Corridor

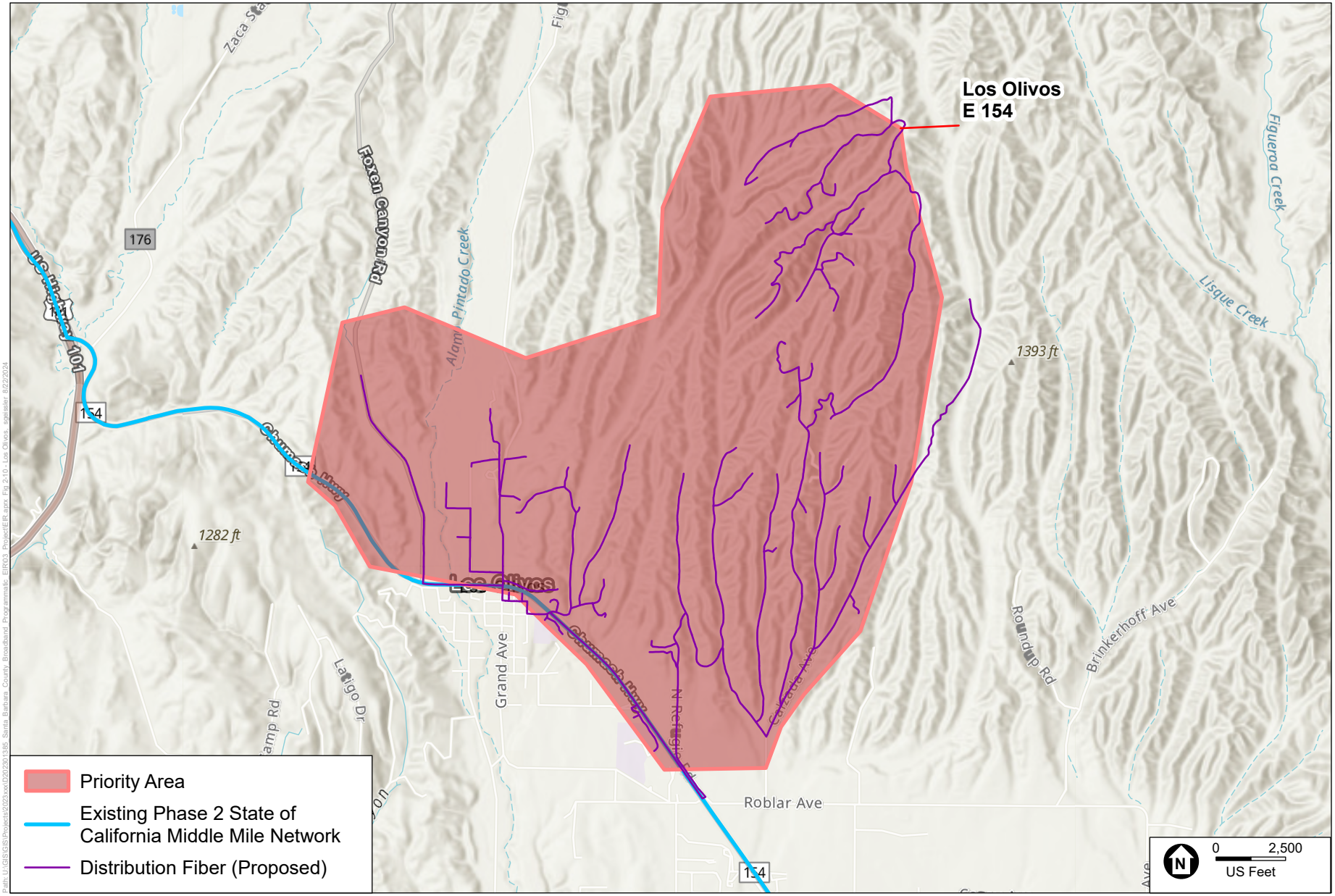
ESA



SOURCE: ESA, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 2-9
Priority Area – Jonata Park

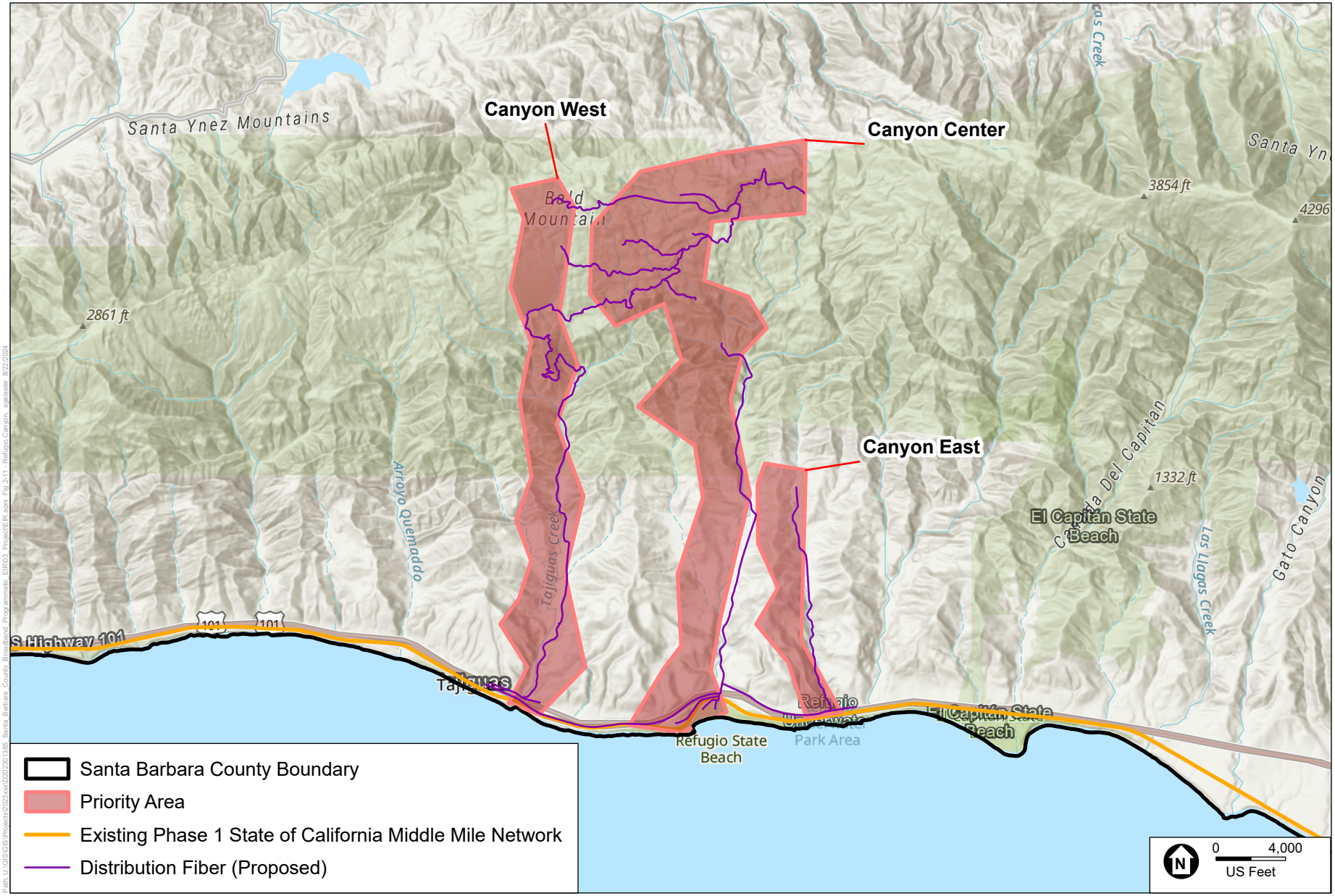


SOURCE: ESA, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 2-10
Priority Area – Los Olivos

ESA



SOURCE: ESA, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 2-11
Priority Area – Refugio Canyon

ESA

2.5.2 Aboveground Poles

Although not anticipated, where subsurface installation of fiber optic cable is infeasible, aerial installation along existing utility poles would be undertaken. GSCA and other future implementation entities are anticipated to follow General Order 95 pole safety and loading requirements.

2.5.3 Priority Area Components

Components to be installed/constructed within the nine Priority Areas according to the high-level design plans include the following: broadband conduit (i.e., rigid casing to protect fiber optic cables from physical damage and the elements) with diameters between ¾-inch and 2 inches to be installed within road rights-of-way (ROWs) approximately 48 inches below ground surface (bgs); aboveground, prefabricated walk-in hut/shelters made of aggregate wall materials and measuring 12 feet long by 10 feet wide with a height of up to 10 feet above grade (placed on a poured concrete pad); aboveground steel distribution cabinets/enclosures ranging in size between 28 by 39 inches and 47 by 128 inches; distribution fiber, splice points, and drops; drop hubs; and small underground structures such as hand holes measuring between less than 12 inches by 12 inches (less than one foot depth below grade) and 45 inches by 32 inches (27-inch depth below grade). Additional Project components that may be necessary to connect end-users to the middle-mile broadband network may include: utility poles with aerial fiber and connection points; underground fiber markers; and signage.

2.6 Construction Schedule and Assumptions

2.6.1 Construction Schedule

While the specific size and location of all potential future broadband projects under the Broadband Program have not yet been identified, it is assumed that the nature and intensity of such future installation projects would be similar in scope and scale to those identified for the nine Priority Area projects. As such, similar to the Priority Area projects, future installations would be expected to predominantly entail the installation of small-diameter fiber optic conduit and cabling along existing street rights-of-way with very limited ground disturbance, that would include small-scale above- and below-ground features such as access vaults (also known as handholes, pull boxes, and splice boxes), and potentially incidental small sheds housing network equipment. Accordingly, for the purposes of analysis in this CEQA document, construction activities and methods employed for the initial nine Priority Area projects would be comparable to those necessary for the installation of future broadband facilities in other portions of the County.

The nine Priority Area projects would be constructed in nine phases (i.e., each Priority Area project representing a single phase) over a period of approximately 24 months, which includes any necessary permitting and construction of the new facilities. It is anticipated that future broadband projects of similar size and scale located in other areas of the County would require a comparable construction effort in terms of overall intensity, would employ a similar mix of construction methods and equipment, and would result in similar construction durations as those assumed for the nine Priority Area projects.

While the specific timing of construction of individual fiber projects under the Broadband Program is currently unknown, it is anticipated that one or more projects in the Priority Areas would begin as early as

late 2025. In general, for one mile of underground fiber optic conduit, boring activities would take an estimated average of 10 days and trenching would take an estimated average of 18-20 days. Implementation of future individual fiber projects under the program would occur over many years. It is possible that multiple, individual fiber projects could have overlapping construction timeframes. Additionally, any individual segment could involve multiple construction crews working simultaneously, with plowing, trenching, and directional drilling occurring at the same time in different locations of the segment. For the purposes of analysis, it is assumed that up to five individual fiber projects could be implemented at one time. Construction activities would typically occur between 7:00 a.m. and 6:00 p.m. on weekdays (or within the most restrictive hours for noise control purposes that may vary by jurisdiction). Some construction activities could occur on Saturdays. No construction activities would occur at night. The average daily crew size required to complete an individual aboveground fiber project would be three crewmembers and the crew size required for an underground fiber project would be five crewmembers.

2.6.2 Construction Methods

The initial nine Priority Area installations would involve installing a total of approximately 52.57 miles of underground conduit/fiber. Construction methods would primarily include horizontal point-to-point underground boring, and if necessary, could include micro-trenching and/or aerial stringing from utility poles. The construction method used for a given project would be determined based on the location, site conditions, and constraints that may be present at an individual project site (e.g., size of road shoulder, water crossing, sensitive habitat, cultural resources, locations of existing buried utilities). The estimated maximum width of ground disturbance would be 10 feet. The width of disturbance for microtrenching would be approximately 1-4 inches. In the Project area, trees and other vegetation may be growing in road shoulders or otherwise along individual fiber alignments that could interfere with construction and would require removal. Typical hazardous materials (e.g., gasoline, oils, solvents) would be used during construction activities. If any existing wood utility poles are removed to accommodate installation, the poles would be properly disposed of as treated wood waste. For construction activities involving excavation, the excavated material would be re-used as fill material. In some cases, new fill material could be needed, and the specific amount would depend on the type and location of the construction activities.

The following describes the construction methods that would be used to install fiber optic lines.

Horizontal Directional Drilling

Horizontal directional drilling (boring) allows new conduit to be installed to the desired depth with minimal surface disturbance along the alignment. Bore entry and exit pits measuring approximately 2 feet by 6 feet and 3 to 5 feet deep would be excavated by a backhoe. A horizontal directional bore machine would drill an approximately 4-inch-wide horizontal pilot hole along the designed alignment and at a depth of 3 to 5 feet bgs.

Typical boring depths would be up to 12 feet, depending on subsurface conditions and the need to avoid conflicts with existing utilities beneath street intersections. Under some circumstances or to accommodate a local jurisdiction’s preference, the conduit may be installed by cutting pavement, excavating a narrow trench, and backfilling and repaving the cut pavement.

Typically, the bore rig would drill towards the preceding buried access vaults, then the bore rig would be turned in the opposite direction and drilled to the succeeding access point (i.e., drilled from opposite directions to meet in the middle). Once the pilot bore string reaches its receiving pit, the conduit would be attached to the end. The pilot pipe would then be pulled back to the bore machine thereby installing the conduit. The conduits would be spliced together, or an access vault would be installed. The typical bore lengths would be approximately 700 feet.

A temporary work area of approximately 20 by 40 feet would be needed at the bore entry and exit pit locations to accommodate the bore rig, to allow for connection of the conduits and for the installation of access vaults. These temporary work areas would generally be sited within previously disturbed areas and would not require site preparation/grading. The excavation area would be 2 feet by 6 feet, as described above, but some temporary surface disturbance beyond that could occur from vehicle maneuvering and workers. Water trucks are generally not required for dust suppression because horizontal directional drilling, the only activity that would involve appreciable soil excavation and stockpiles, would use directional bore rigs that have water on board that would be used for dust control, if necessary.

The bore rig would use a mixture of water and fine clay (usually bentonite) to help lubricate the pilot pipe and keep the hole drilled open. The water and clay would be mixed on-site in a mixer attached to or as part of the bore rig. Earth cuttings from the bore hole and the water/clay mixture returns to the bore entry pit where it would be pumped into a receiving tank. The mixture would be filtered for reuse if possible or stored in a tank until it could be discarded in a local landfill approved to receive the material. Drilling fluid is classified as non-toxic and can be disposed of accordingly. In areas of hard rock, the boring machine may use air and/or foam instead of drilling fluid.

Excavated or disturbed soil would be kept within a controlled area surrounded by a perimeter barrier that may entail silt fence, hay bales, straw wattles, or a similarly effective erosion control technique that prevents the transport of sediment from a given stockpile. All stockpiled material would be covered or contained in such a way that eliminates off-site sediment runoff from occurring. Upon completion of construction activities, excavated soil would be replaced.

Directional Drilling at Streams or Rivers

Directional drilling beneath streams or rivers may also be used to avoid sensitive resources. Directional drilling operations would typically range from 25 to 1,500 feet in length. Trenching, boring, or plowing would not go through any streams, rivers, or other waters of the US or State.

The depth of a bore would be at least 15 feet below the sensitive resource being avoided, including streambed alluvium; the depth may be greater than 15 feet based on site-specific conditions and recommendations from regulatory agencies. Stream crossing origination and completion points would be a minimum of 100 feet from the edge of a waterway; the points could be sited closer with an approved Management Plan prepared pursuant to [applicable code sections to be included by ESA], which includes specifications for compliance with applicable requirements of the US Fish and Wildlife Service, US Army Corps of Engineers, and California Department of Fish and Wildlife. Equipment used for directional drilling would vary based on the particular needs of the site and the contractor's preferences, but generally would include a drilling rig with fluid management systems and a drill pipe. In most cases

fiber optic line would cross streams and rivers by directional drilling beneath the stream if aerial stringing of conduit on a bridge was not an option.

Directional Drilling at Railroads and State Highways

The Project area intersects with several highways (State Route [SR] 101, SR 154, SR 246, etc.); thus, railroads or state highways could be crossed by fiber optic line. In instances where a railroad alignment or state highway would be crossed, directional drilling would occur below the railroad tracks or highway, at a minimum of 18 feet below the base of the centerline of the tracks or highway. Directional drilling would originate and terminate in the Project area, outside of the railroad ROW or state highway ROW. Fiber optic line would not be placed within any railroad or state highway ROW as part of the proposed Project.

Trenching

In areas where conditions are unsuitable for plowing (for example, if the soil matrix is characterized by a high density of rocks greater than 6 inches in diameter, or where existing underground infrastructure prohibits plowing) trenching would be needed to install the conduits. To create the conduit trench, a backhoe or other equipment is used to open a trench generally ranging from 9 to 18 inches wide and 48 inches deep. The conduit would be placed at the bottom of the trench, and the trench would be backfilled and compacted using trenching spoils, imported fill material or sand slurry as required. The trench is typically refilled the same day that it is created, and if a trench is left open at the end of the workday it is covered in accordance with standard best management practices.

In areas where the right-of-way or shoulder is very narrow or where sensitive biological or cultural resources must be avoided, trenches can be cut into paved areas and the conduits installed below the pavement. In such circumstances, the trench would be backfilled with slurry to ensure proper compaction and pavement integrity.

Microtrenching

Future broadband projects could be installed using microtrenching for installation of subsurface pipe or conduit. Microtrenching could be used in paved areas or sidewalks. Micro-trenching is a narrow open excavation trench that would place conduit generally between 12 and 26 inches bgs, with 18 inches being the average depth. Microtrenching excavation widths would typically be limited to between 0.5-inch and 2 inches depending on conduit diameter, which would result in a very limited construction footprint along the proposed cable alignments. Access to the new conduits for maintenance purposes would be provided by installing access boxes (vaults) at intervals of not more than 3,000 feet along a route for an individual fiber project. Vaults are sized to accommodate pulling fiber through conduits. The general dimensions for each access vault would be 17 inches by 30 inches, 36 inches by 60 inches, or 24 inches by 36 inches, and would extend to 48 inches bgs. A tractor with a microtrenching cutting blade or trencher would cut into pavement or a sidewalk. As trenching occurs, excavated material is collected by a vacuum excavator connected to the tractor or trencher. The microtrench would be backfilled with either a slurry or cement and a grout, epoxy, or other sealer.

Installation of Fiber Optic Line into Conduit

Once the conduit system is installed, the fiber optic line or microducts would be pulled or blown into the conduits in new or existing conduit. The installation would be accomplished using compressed air or a

series of hydraulic pullers consisting of a main-line puller and sufficient intermediate assist pullers to ensure smooth pulling within specified tension restrictions. First, the pull line would be attached to a plug that is pushed through the conduit by air pressure. When the plug emerges at the end of the conduit section or access point, the pull line would be attached to the line through a swivel to prevent the line from twisting during the pulling operation. Then the pull line would be pulled back though the conduit section, threading the line through the conduit. The main-line puller would be equipped with a tension limiter and a tension monitor to provide an accurate record of actual pulling tensions encountered.

These methods would be used to pull the line from one handhole to the next. If there is damage to the conduit, it may be necessary to excavate temporary assist points to facilitate fiber installation. These could be required for a small number of vaults. In such cases, an excavation approximately 2 feet wide, 3 feet long, and 3 feet deep would be dug to provide access to the conduit and would be backfilled once the line is installed.

Installation of fiber into existing conduits using these methods would not require any new ground disturbance—only access to existing buried vaults—and would require two vehicles and an air compressor.

Installation of Access Vaults

To allow for fiber optic line-placing assist locations, fiber optic line splice locations, and future access to the buried conduits and line, access vaults (also known as handholes, pull boxes, and splice boxes) would be placed along the alignment. Once installation is complete, the vaults would be accessed only rarely for maintenance or line replacement. Each vault would typically house 80 to 100 feet of line slack.

Each access vault would be equipped with a traffic-bearing cover, even if it would be out of the path of traffic. The cover may be visible at the surface or may be buried just below the surface. Generally, road shoulders or other easily accessible areas are the preferred locations for vaults. A vault would be necessary at the beginning and end points, with intermediate vaults being placed within the alignment at typical intervals of approximately 1,000 to 1,500 feet for the laterals and 700 feet for the rest of the alignment; intervals would be spaced at no more than 3,000 feet along a route for an individual fiber project. These vaults would be installed as the final step in the horizontal directional drill process and installed in the same excavations that would be created as drill entry and exit points. No additional ground disturbance would be required for the vaults.

Access vaults would typically be installed at midblock locations under the shoulder or under existing sidewalks.

Splicing of Fiber Optic Line Ends at Access Vaults

The reels of fiber optic line would be spliced where necessary at access vaults. Appropriate lengths of excess (slack loop) fiber optic line—generally at least 30 feet—would be left at all splice locations to allow for line expansion and contraction due to temperature and for any splicing required in the future. The line would be spliced in splice cases (i.e., protective encasements) in a line, with sufficient slack allowed. The splices would be made with a profile alignment fusion splicing machine and protected by heat-shrink tubing.

Aerial Stringing/Utility Poles

In areas where trenching would be difficult for placing fiber optic line underground (e.g., rocky areas) and areas characterized by extreme topography (e.g., steep slopes, water crossings), fiber optic installation would occur using existing utility poles and/or new poles could be installed for aerial stringing of fiber optic line. New poles would be approximately 50 to 100 feet tall and spaced approximately 300 feet apart. The diameter of the poles would generally range from 15 to 19 inches at the base for aboveground poles. Poles would generally be buried 7 to 10 feet deep, depending on height. Guy wires may be connected to the poles in areas that need additional stability.

Self-supporting poles may be used where use of guy wires is infeasible (e.g., where there are existing structures next to the site) or where conditions prohibit adequate burial of the pole base. Self-supporting poles would be mounted on concrete foundations, each of which would typically be 3 to 6 feet in diameter. These foundations typically extend above the ground surface to a height of 6 to 12 inches, but there could be site-specific circumstances where up to 2 feet of height would be required. The diameter of the foundation for self-supporting poles could be as much as 4.5 feet if they are attached to concrete foundations.

Bridges

Broadband conduit installations that cross grade-separated features (road underpasses, stream or drainage crossings, railroad crossings, etc.) would be attached to existing bridges in order to minimize physical impacts to the feature being crossed and/or the surrounding ground surface. Given the limited size and weight of the proposed conduits being installed throughout the County, the attachment of proposed fiber optic lines to existing bridges would not present a structural risk to affected bridges and would be attached in a manner that minimizes visibility from the surrounding area. The aerial stringing may be accomplished with conduit attachment to bridges using a 4- to 6-inch galvanized iron pipe attached beneath or to the side of the bridge, depending on the age and condition of the bridge and the preferences of the agency with jurisdiction. Permits would need to be obtained from each respective bridge owner/jurisdiction to allow for this activity, and any permit conditions implemented to ensure that no adverse effects on the existing form or function of the bridge occurs as a result of the broadband installations.

2.6.3 Surface Restoration

Site cleanup and surface restoration under the Broadband Program would be performed promptly following conduit and line installation. Cleanup would include removing debris and restoring original surfacing and contours. Any disturbed areas would be returned to their original or better condition by replacing all asphalt, landscaping, or any earthen areas.

2.6.4 Construction Staging Areas and Equipment

Construction Staging Areas

Construction worker parking, material stockpiling, and equipment staging and storage would occur within appropriate locations for each future broadband installation project, subject to review and approval by the respective local jurisdiction(s) and/or CEQA Lead Agency. It is anticipated that such temporary

construction parking, stockpiling, and staging areas would be selected in consideration of a number of factors including the size and configuration of the property, proximity to active or planned construction areas, sensitivity of resources on or near the site, safety or security concerns, and accessibility by construction workers and equipment, among others.

Staging areas would be established along public and private roadways or other existing disturbed areas along construction routes in the Project area and would generally not exceed areas greater than approximately 200 feet by 200 feet. If it is not possible to locate staging areas along roadways due to narrow roads or other constraints, the contractor would locate staging areas and equipment lay-down areas and storage areas in paved or graveled yards or other existing disturbed areas as close to the construction areas as possible. The exact locations of construction staging areas and equipment lay-down areas have not been determined and would be identified as part of the final construction plans for each individual fiber project implemented under the Broadband Program. Locations would be selected by construction companies that would be awarded contracts for construction of individual segments. Crews would be mobilized from staging areas with no refueling occurring in the field. Any construction work, including use of staging areas, within county or incorporated city or town ROWs would be required to obtain an encroachment permit from the applicable jurisdiction.

All construction activity conducted along roadways would employ standard traffic control measures documented in a Traffic Control Plan submitted for review and approval by the Santa Barbara County Department of Public Works or the appropriate City department for work within the limits of an incorporated jurisdiction.

Construction Vehicles and Equipment

The types of construction vehicles and equipment that would be used during construction of individual fiber projects would vary depending on the type of installation occurring at any given location. In general, there would be five different construction activity types that could be conducted along each segment: trenching, directional drilling, fiber blowing, aerial fiber installation, and fiber splicing. The types of equipment that would be used include pickup/utility trucks, plows, trenchers, jackhammers, cutting blades, excavators with a rock saw or rock breaker, dump trucks, backhoes, boring rigs, and bucket trucks (for aerial installation). It is assumed that all locations of fiber installation are accessible by trucks and other construction equipment and that helicopter use would not be required. The types of equipment needed for a given project would vary depending on construction methods and site conditions. The following identifies the potential types of construction equipment that could be used for each construction activity type:

- Directional Drilling
  - Pick-up/utility trucks
  - Boring rig
  - Backhoes
- Plowing
  - Vibratory cable plow
  - Bulldozer
  - Spider plow
- Trenching
  - Pick-up/utility trucks
  - Cable plows
  - Trenchers
  - Excavators/rock saw/crushers
  - Dump trucks

  - Backhoes
  - Jackhammer
  - Cutting blades
- Microtrenching
  - Tractor
  - Cutting blades
  - Trencher
  - Vacuum excavator
- Fiber blowing
  - Pick-up/utility trucks
  - Air compressor
  - Backhoes
- Fiber splicing
  - Pick-up/utility truck
- Aerial Stringing
  - Pick-up/utility and bucket trucks
  - Line truck with an auger and tamper
  - Tracked equipment with an auger and tamper
  - Mini excavator
  - Backhoe

2.6.5 Project Operations

Operational activities for any individual fiber project implemented under the Project would be limited to routine maintenance to check the vaults that access the fiber optic line. Once constructed, the fiber optic facilities would generally operate passively unless additional service connections are installed or if incidental repairs are required due to damage (e.g., fiber cables are damaged by nearby construction, severe weather, natural disaster, etc.).

2.7 Potential Permits and Approvals Required

The following actions may be required for implementation of the Broadband Program:

- Regional Water Quality Control Board – National Pollutant Discharge Elimination Construction General Permit (General Permit) and Section 401 Water Quality Certification (Section 401 Permit)
- California Department of Fish and Wildlife – Section 1602 Lake and Streambed Alteration Agreement (1602 Permit)
- United States Army Corps of Engineers – Section 404 Permit
- California Coastal Commission – Coastal Development Permit
- California Department of Transportation – Encroachment Permit
- Local Agency Approvals – Conditional Use Permits (CUPs), Grading Permits, Building Permits

CHAPTER 3
Environmental Setting

3.1 Approach to the Environmental Analysis

3.1.1 Overview

This chapter discusses the possible environmental effects of the Project for the specific issue areas that were identified through the scoping process as having the potential to experience significant effects. A "significant effect" as defined by State CEQA Guidelines Section 15382:

> *a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment but may be considered in determining whether the physical change is significant.*

The assessment of each issue area begins with a discussion of the environmental setting related to the issue, which is followed by the impact analysis. In the impact analysis, the first subsection identifies the methodologies used and the "significance thresholds," which are those criteria adopted by Santa Barbara County Association of Governments (SBCAG) and other agencies, universally recognized, or developed specifically for this analysis to determine whether potential effects are significant. For example, the County of Santa Barbara utilizes the Santa Barbara County *Environmental Thresholds and Guidelines Manual* (2021) for evaluating environmental impacts in the County. The next subsection describes each impact of the Project, mitigation measures for significant impacts, and the level of significance after mitigation. Each effect under consideration for an issue area is separately listed in bold text with the discussion of the effect and its significance. Each bolded impact statement also contains a statement of the significance determination for the environmental impact as follows:

- **Significant and Unavoidable**. An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per Section 15093 of the State CEQA Guidelines.
- **Less than Significant with Mitigation Incorporated**. An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings under Section 15091 of the CEQA Guidelines.
- **Less than Significant**. An impact that may be adverse but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.
- **No Impact.** The proposed project would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

Following each environmental impact discussion is a list of mitigation measures and the residual effects or level of significance remaining after implementation of the measure(s). In cases where the mitigation measure for an impact could have a significant environmental impact in another issue area, this impact is discussed and evaluated as a secondary impact. While SBCAG cannot mandate that sponsoring agencies implement the mitigation measures, ongoing interagency consultation during project specific environmental review process would ensure that mitigation contained herein is considered and implemented where applicable. Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions. Many sections conclude with a screening-level discussion of specific Project transportation projects that may result in identified impacts. The impact analysis concludes with a discussion of cumulative effects, which are defined and discussed in detail below in Subsection 3.1.2, Cumulative Impact Analysis.

Regarding Mandatory Findings of Significance under CEQA, Section 4.2, *Biological Resources*, describes the potential project-level, programmatic and cumulative effects of the project on plant and animal species populations, habitats, communities, and migratory patterns. Section 4.3, *Cultural Resources*, describes potential project-level, programmatic and cumulative effects from the Project on important historical and prehistorical cultural resources, and Section 4.7, *Tribal Cultural Resources*, describes potential project-level, programmatic and cumulative effects from the Project on tribal cultural resources in the SBCAG region. Potential adverse environmental effects to human beings are discussed in Section 4.1, *Air Quality*, Section 4.5, *Greenhouse Gas Emissions and Global Climate Change*, and Section 4.6, *Noise*.

The Executive Summary chapter of this Draft PEIR summarizes all impacts and mitigation measures that apply to the Project.

3.1.2 Cumulative Impact Analysis

Cumulative impacts are discussed in each resource section (Sections 4.1 through 4.8 of this Draft PEIR), following discussions of the program-specific impacts.

Cumulative Impact Approach

Section 15130(a) of the State CEQA Guidelines requires a discussion of the cumulative impacts of a project when the project's incremental effect is cumulatively considerable. Where a project's incremental effect is not cumulatively considerable, the effect need not be considered significant, but the basis for the conclusion must be briefly described. Cumulatively considerable, as defined in State CEQA Guidelines Section 15065(a)(3), means that the "incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."

State CEQA Guidelines Section 15355 defines a cumulative impact as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. State CEQA Guidelines Section 15130 identifies two basic methods for establishing the cumulative environment in which a project is considered: the use of a list of past, present, and probable future projects; or the use of adopted projections from a general plan, other regional

planning document, or a certified EIR for such a planning document. The cumulative analyses in this PEIR primarily uses the list approach, with some use of the plan approach to describe the cumulative setting for some resource areas (e.g., air quality, greenhouse gas emissions, and transportation). The list approach identifies reasonably foreseeable projects that may contribute to a cumulative effect rather than projections contained in an adopted local, regional or statewide plan, or related planning document. The effects of past and present projects on the environment are reflected by the existing conditions in the program area. Probable future projects are those in the vicinity that have the possibility of interacting with the proposed program to generate a cumulative impact (based on proximity and construction schedule) and either:

- are partially occupied or under construction,
- have received final discretionary approvals,
- have applications accepted as complete by local agencies and are currently undergoing environmental review, or
- are projects that have been discussed publicly by an applicant or that otherwise become known to a local agency and have provided sufficient information about the project to allow at least a general analysis of environmental impacts.

The cumulative list below considers related, reasonably foreseeable projects likely to be constructed simultaneously with construction of individual broadband projects under the proposed program, which would be expected to occur over many years. This time period was selected because it coincides with the timing of the introduction of program impacts (program impacts would generally be associated with construction activities).

3.1.3 Cumulative Setting

Geographic Scope

The geographic area that could be affected by the Project varies depending on the environmental resource topic. When the effects of the Project are considered in combination with those of other past, present, and reasonably foreseeable future projects to identify cumulative impacts, the specific projects considered may also vary depending on the type of environmental effects being assessed. **Table 3-1**, *Geographic Scope of Cumulative Impacts*, presents the general geographic areas associated with the different resource topics addressed in this analysis.

TABLE 3-1
GEOGRAPHIC SCOPE OF CUMULATIVE IMPACTS

Resource Topic	Geographic Area
Air Quality	Local and regional
Biological Resources	Santa Barbara County and beyond
Cultural Resources	Program area
Energy	Local and regional
Global Climate Change/Greenhouse Gas	Local and regional
Noise and Vibration	Project area and vicinity
Tribal Cultural Resources	Program area
Utilities and Service Systems-Telecommunication Facilities	Program area

Project List

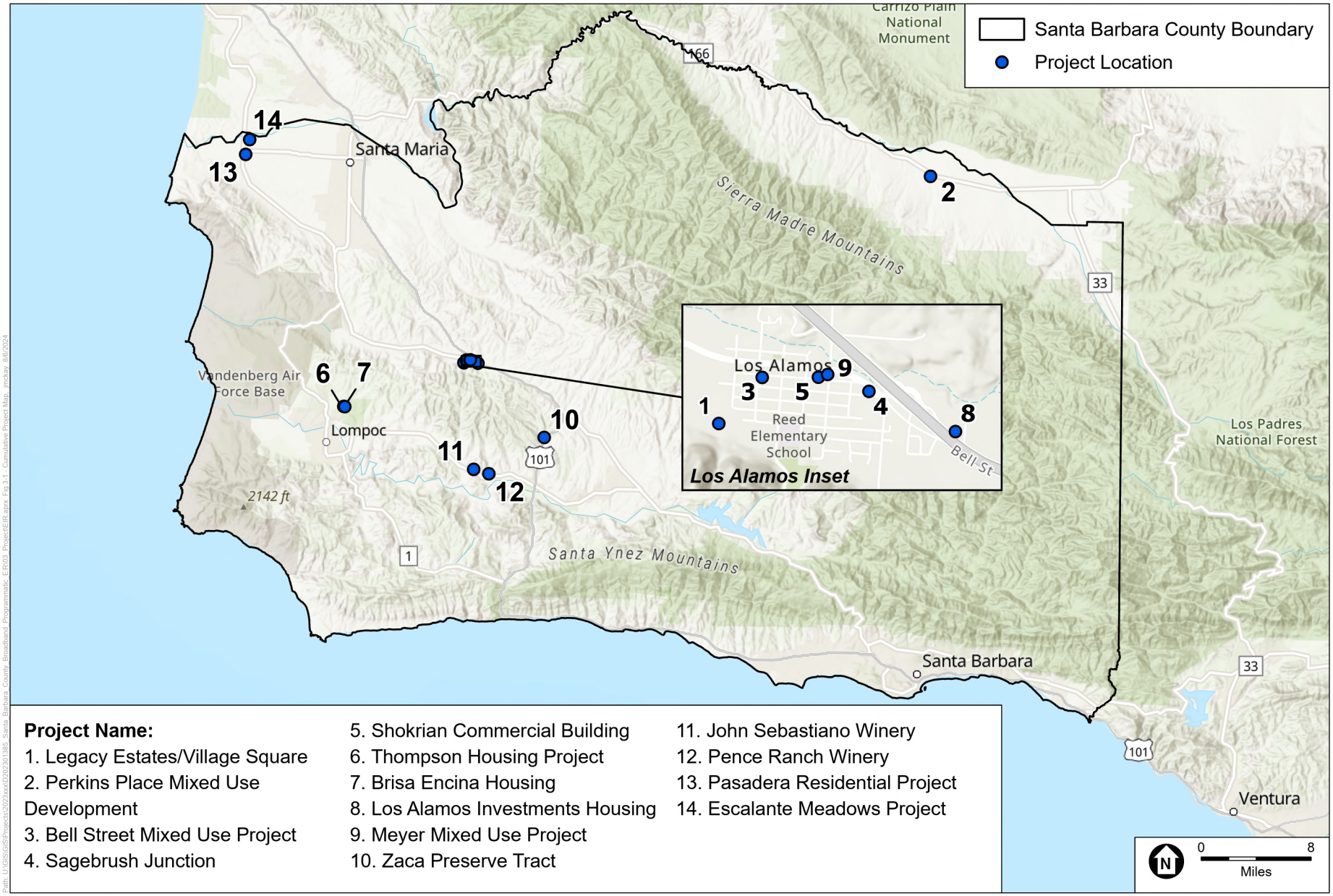
Probable future projects considered in the cumulative analysis meet the criteria described above: they are in the Project vicinity and have the possibility of interacting with the Project to generate a cumulative impact (See **Table 3-2**, *Cumulative Project List*, and **Figure 3-1**, *Cumulative Project Map*). This list of projects was considered in the development and analysis of the cumulative settings and impacts for most resource topics within the geographic scope of each resource topic (as listed in Table 3-1). Past and present projects in the vicinity were also considered as part of the cumulative setting, as they contribute to the existing conditions upon which the environmental effects of the Project and reasonably foreseeable future projects are compared.

TABLE 3-2
CUMULATIVE PROJECT LIST

Project Name	Location	Description	Project Status
Unincorporated Santa Barbara County			
Legacy Estates/Village Square	SW corner of Los Alamos APNs 101-201-001,101-202-001, 101-231-001, 101-232-001, 101-233-001, 101-234-001, and 101-242-001	59 lot subdivision and subsequent development of those lots with single-family dwellings	Project approved overall, Building permits under review, Zoning permits approved and under review for individual dwellings
Perkins Place Mixed Use Development	60 Perkins Rd, New Cuyama APN 149-051-001, -002	16 very low income dwellings, 16 low income dwellings (15,996 sq. f.t of residential) and nonresidential of 1,110 sq. ft.	Zoning permits under review
Bell Street Mixed Use Project	230 St Joseph St, Los Alamos APN 101-181-001	One commercial building (5,203 sq. ft.) and four residential units (12,143 sq. ft.)	Zoning permits approved, Building permits not submitted
Sagebrush Junction	742 Bell St, Los Alamos APNs 101-260-006, -007	Three, two-story apartment buildings containing a total of eight two-story apartments for a total of 10,320 sq. ft. and two single story commercial buildings of 4,400 and 1,200 sq. ft.	Zoning permits approved, Building permits not submitted
Shokrian Commercial Building	565 Waite St, Los Alamos APNs 101-191-009, -017	Two-story, 4,580 sq. ft. commercial building	Zoning permits under review
Thompson Housing Project	1426 Burton Mesa Blvd, Lompoc APN 097-111-006	Residential consisting of 46 studios, one 2-bedroom, and common areas.	Zoning permits under review
Brisa Encina Housing	Burton Mesa Blvd & Rucker Rd, Lompoc APN 097-111-007	Residential consisting of 49 units (12 1-bedrooms, 12 2-bedrooms, 25 studios) across two buildings of 11,956 sq. ft. and 12,135 sq. ft.	Zoning permits approved, building permits submitted
Los Alamos Investments Housing	477 Price Canyon Rd, Los Alamos APNs 101-130-016, -019	Residential development consisting of 67 dwellings (44 2-bedrooms, 14 3-bedrooms, 9 4-bedrooms), 38 will be single-family dwellings and 29 duplexes	Zoning permits under review

Project Name	Location	Description	Project Status
Meyer Mixed Use Project	580 Bell St, Los Alamos APN 101-191-010	Two-story mixed use building (retail, residential, 4,496 sq. ft. footprint), three short-term rentals (1,576 sq. ft., 1,576 sq. ft., and 55 sq. ft.), and a 400 sq. ft. retail building	Zoning permits under review
Zaca Preserve Tract	Jonata Park Rd, Buellton APNs 099-400-017, 099-600-041	Tract map creating seven parcels of 20 acres each, no development beyond basic infrastructure at this time	Map recordation in works, zoning and building permits for infrastructure under review
John Sebastiano Winery	7631 E Hwy 246, Lompoc APN 099-220-021	Winery of 35,385 sq. ft. with tasting rooms, offices, and winery operations	Zoning permits under review
Pence Ranch Winery	1909 Hwy 246, Buellton APN 099-220-013	Winery of 19,979 sq. ft. with tasting rooms, offices, and winery operations	Zoning and building permits issued, unknown if it will be constructed
City of Guadalupe			
Pasadera South Housing Project	Located at the southeast corner of Highways 1 and 166 (numerous APNs)	Residential development consisting of the addition of approximately 98 homes to the overall Pasadera Homes development, which intends to bring more than 800 homes to Guadalupe	Under construction
Escalante Meadow Project	1035 - 1096 Escalante Street Guadalupe (located on the south side of 11th Street) APNs 115-230-003, -004	Replacement of existing 26 dwelling unit structure with 52 single story residential units, along with community center and associated amenities	Under construction, expected to be operational November 2024

SOURCES:
County of Santa Barbara, 2024
City of Guadalupe, 2024



Project Name:

1. Legacy Estates/Village Square
2. Perkins Place Mixed Use Development
3. Bell Street Mixed Use Project
4. Sagebrush Junction
5. Shokrian Commercial Building
6. Thompson Housing Project
7. Brisa Encina Housing
8. Los Alamos Investments Housing
9. Meyer Mixed Use Project
10. Zaca Preserve Tract
11. John Sebastiano Winery
12. Pence Ranch Winery
13. Pasadera Residential Project
14. Escalante Meadows Project

SOURCE: ESA, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 3-1
Cumulative Project Map

ESA

CHAPTER 4
Environmental Impacts and Mitigation Measures

4.1 Air Quality

This section analyzes the impacts of the Santa Barbara County Last-Mile Broadband Program ("Broadband Program" or "Project") on local and regional air quality. Both temporary impacts relating to construction activities and long-term impacts associated with population and employment growth and associated growth in vehicle traffic and energy consumption are discussed. Greenhouse gas emissions are analyzed in Section 4.5, G*reenhouse Gas Emissions/Climate Change.* This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

4.1.1 Environmental Setting

Existing Conditions

Climate and Meteorology

The Project Site encompasses Santa Barbara County, both incorporated and unincorporated, which is located within the South Central Coast Air Basin (SCCAB). The SCCAB includes all of San Luis Obispo, Santa Barbara, and Ventura counties. The Santa Barbara County ("County") portion of the SCCAB is under the jurisdiction of the Santa Barbara County Air Pollution Control District (SBCAPCD). Climate of the SCCAB is strongly influenced by its proximity to the Pacific Ocean and the location of the high-pressure cell in the northeastern Pacific. With a Mediterranean-type climate, the Project Site is characterized by warm, dry summers and cool winters with occasional rainy periods.

Cool, humid marine air causes frequent fog and low clouds along the coast, generally during the night and morning hours in the late spring and early summer months. The County is subject to a diurnal cycle in which daily onshore winds from the west and northwest are replaced by mild offshore breezes flowing from warm inland valleys during night and early morning hours. This alternating cycle can create a situation where suspended pollutants are swept offshore at night, and then carried back onshore the following day. Dispersion of pollutants is further degraded when the wind velocity for both day and nighttime breezes is low. The region is also subject to seasonal "Santa Ana" winds. These are typically hot, dry northerly winds which blow offshore at 15 to 20 miles per hour (mph), but can reach speeds in excess of 60 mph.

Two types of temperature inversions (warmer air on top of cooler air) are created in the area: subsidence and radiational. The subsidence inversion is a regional effect created by the Pacific high in which air is heated as it is compressed when it flows from the high-pressure area to the low pressure areas inland. This type of inversion generally forms at about 1,000 to 2,000 feet and can occur throughout the year, but it is

most evident during the summer months. Radiational, or surface, inversions are formed by the more rapid cooling of air near the ground during the night, especially during winter. This type of inversion is typically lower (0 to 500 feet at Vandenberg Space Force Base, for example) and is generally accompanied by stable air. Both types of inversions limit the dispersal of air pollutants within the regional airshed, the more stable the air (low wind speeds, uniform temperatures), the lower the amount of pollutant dispersion. **Table 4.1-1**, *Santa Barbara County Climate Conditions*, shows the average climate within the Santa Barbara County Association of Governments (SBCAG) region.

TABLE 4.1-1
SANTA BARBARA COUNTY CLIMATE CONDITIONS

Temperature Condition	Amount
Average annual rainfall	18 inches
Average annual maximum temperature	71°F
Average annual minimum temperature	50°F
Warmest month	August
Coolest month	January
Average annual mean temperature	61°F
Average wind speed	7 miles per hour
Predominant wind direction	North

°F = degrees Fahrenheit

Note: Averages are based on the period of record from January 1893 to June 2016 with the exception of average annual mean temperature. Wind Speed and direction data averages are based on the period on record from January 1980 to December 2016.

Source: Santa Barbara County Association of Governments (SBCAG), Connected 2050: Regional Transportation Plan & Sustainable Communities Strategy (RTP/SCS)

Current Air Quality

Monitoring of ambient air pollutant concentrations is conducted by the California Air Resources Board (CARB), SBCAPCD, and industry. Monitors operated by CARB and SBCAPCD are part of the State and Local Air Monitoring System (SLAMS). The SLAMS stations are located to provide local and regional air quality information. Monitors operated by industry, at the direction of the SBCAPCD, are called Prevention of Significant Deterioration (PSD) stations. PSD stations are required by the SBCAPCD to ensure that new and modified sources under SBCAPCD permit do not interfere with the County's ability to attain or maintain air quality standards. **Figure 4.1-1**, *Santa Barbara County Air Quality Monitoring Stations (2022)*, shows the locations of all monitoring stations in Santa Barbara County that were in operation in 2022.

The SBCAPCD is required to monitor air pollutant levels to assure that the air quality standards are met and, if they are not, to develop strategies to meet these standards. Depending on whether the standards are met or exceeded, the local air basin is classified as being in "attainment" or "nonattainment." Countywide historical data on the number of State 8-hour and State 1-hour ozone exceedances between 2001 and 2022 is provided in **Figure 4.1-2**, *Historical Santa Barbara County Ozone Exceedances (2001-2022)*, which shows fewer exceedances occurring over time. Countywide historical data on the number of State and Federal Particulate Matter (PM) exceedances between 2006 and 2022 is provided in **Figure 4.1-3**, *Historical Santa Barbara County Particulate Matter (PM) Exceedances (2022)*, which shows that PM

levels vary year-to-year, and the number of days that the County exceed the air quality standards is influenced by natural events such as wildfires and droughts.

Santa Barbara County's air quality improved dramatically over the years as evidenced by the declining number of state 1-hour and 8-hour ozone exceedances. An exceedance is a measured concentration at a monitoring station that surpasses the standard. As displayed in Figure 4.1-2, 1-hour ozone exceedances have decreased from a high of 7 days in 2003 to zero days in 2018 and 2022. The number of 8-hour ozone exceedance days ranged from a high of 42 days in 2003 to zero days in 2018 and 2022. This represents a significant milestone as 2018 was the first year in which the County did not exceed the 8-hour ozone standard. These improvements in air quality have occurred despite an approximately 11-percent increase in countywide population since 2001. As displayed in Figure 4.1-3, the PM data was higher in the years that wildfires and droughts occurred.

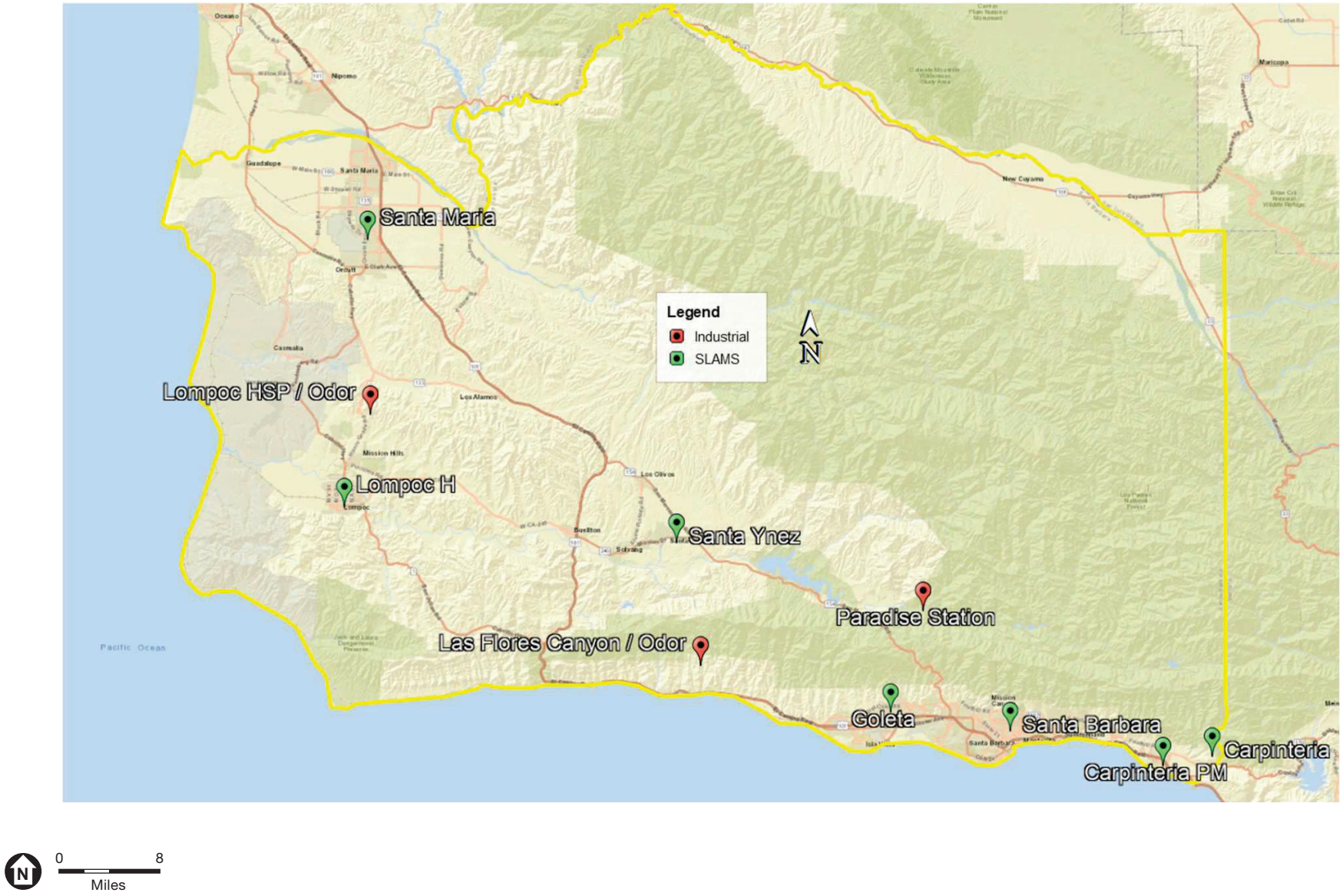
Air Quality Attainment Plan

The Federal Clean Air Act (FCAA) Amendments of 1990 set a schedule for the attainment of the National Ambient Air Quality Standards (NAAQS). States are required to prepare a State Implementation Plan (SIP) to develop strategies to bring about attainment of the standards. In addition, the California Clean Air Act (CCAA) of 1988 requires areas that exceed the California Ambient Air Quality Standards (CAAQS) to plan for the eventual attainment of the State standards. Under both the 1990 Amendments to the FCAA and the 1988 CCAA, the level of Santa Barbara County's ozone originally resulted in the county being classified as a "moderate" non-attainment area. As discussed below, the County has had air quality attainment plans to reduce ozone since 1991. The County recently enacted a plan for exceptional events for PM10. In summary, the County is currently classified as nonattainment-transitional[1] for the 1-hour and 8-hour ozone CAAQS and nonattainment for the PM10 CAAQS (SBCAPCD 2024a). The County is in attainment for the other CAAQS and all NAAQS (SBCAPCD 2024a).

2022 Ozone Plan

The 2022 Ozone Plan (2022 Plan) is the tenth triennial update to the initial state Air Quality Attainment Plan adopted by the Santa Barbara County Air Pollution Control District Board of Directors in 1991 (other updates were done in 1994, 1998, 2001, 2004, 2007, 2010, 2013, 2019, and 2019). Each of the plan updates have implemented an "every feasible measure" strategy to ensure continued progress toward attainment of the state ozone standards. Since 1992, Santa Barbara County has adopted or amended more than 30 control measures aimed at reducing emissions from stationary sources of air pollution (SBCAPCD 2022a). These measures have substantially reduced ozone precursor pollutants, which includes nitrogen oxides (NOx) and reactive organic compounds (ROCs). In the past, the SBCAPCD has prepared air quality attainment plans that have addressed both the state and federal ozone standards. The 2022 Plan only addresses the state ozone standards because Santa Barbara County is designated attainment for the 8-hour ozone NAAQS of 0.070 parts per million (ppm), which was promulgated by the U.S. Environmental Protection Agency (USEPA) in December 2015. The federal attainment designation for Santa Barbara County was finalized in April 2018.

[1] The nonattainment transitional category is a subcategory of nonattainment. For ozone, the nonattainment-transitional requirements are specified in Health and Safety Code section 40925.5, which states that a nonattainment district (or entire portion of a district within an air basin) is designated as nonattainment-transitional for ozone if air quality data show three or fewer exceedances of the State standard at each site in the area during the most recent calendar year.



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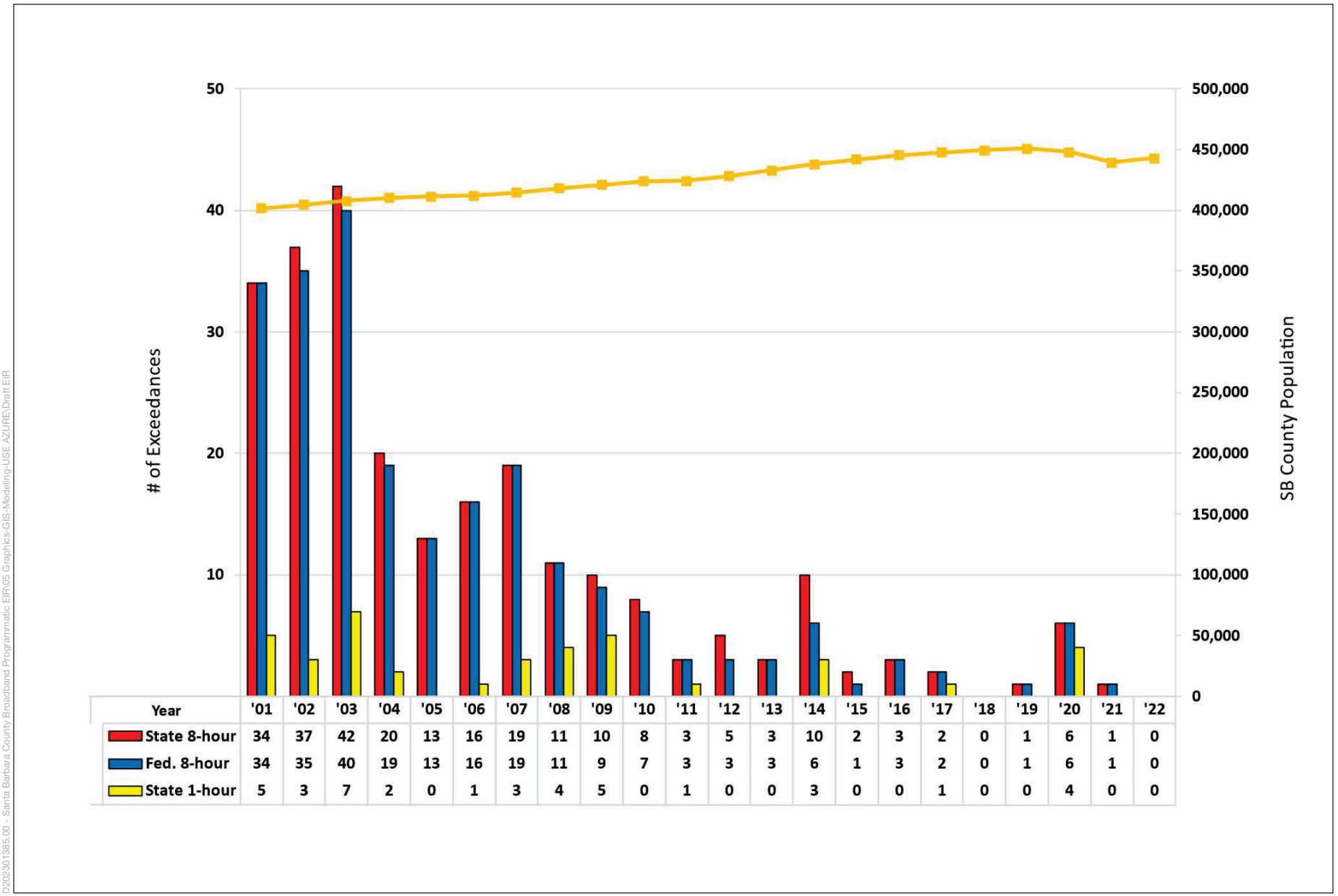
SOURCE: Santa Barbara County Air Pollution Control District, 2022

Santa Barbara County Last-Mile Broadband Program

Figure 4.1-1
Santa Barbara County Air Quality Monitoring Stations (2022)

ESA

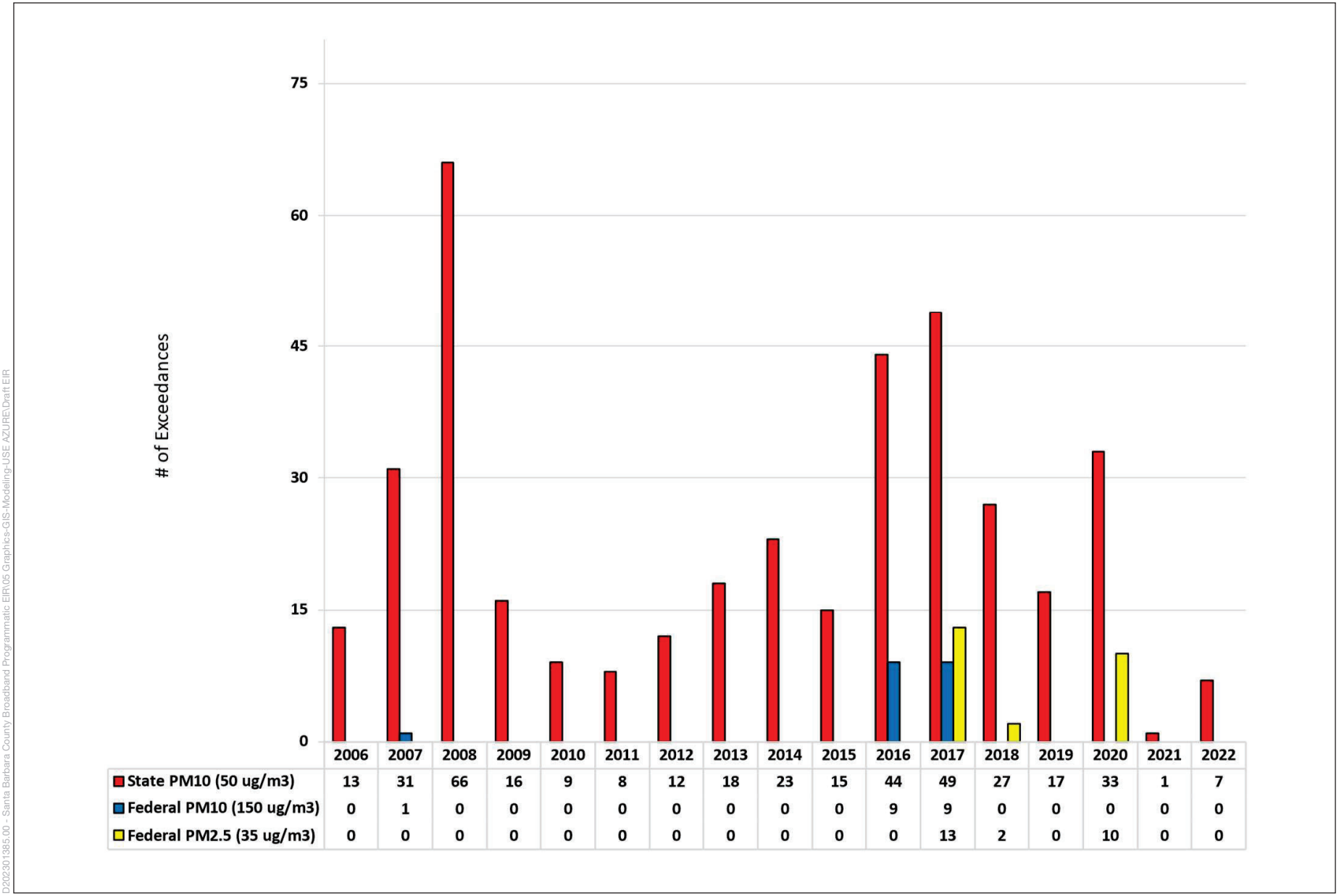


Year	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19	'20	'21	'22
State 8-hour	34	37	42	20	13	16	19	11	10	8	3	5	3	10	2	3	2	0	1	6	1	0
Fed. 8-hour	34	35	40	19	13	16	19	11	9	7	3	3	3	6	1	3	2	0	1	6	1	0
State 1-hour	5	3	7	2	0	1	3	4	5	0	1	0	0	3	0	0	1	0	0	4	0	0

SOURCE: Santa Barbara County Air Pollution Control District, 2022

Santa Barbara County Last-Mile Broadband Program

Figure 4.1-2
Historical Santa Barbara County Ozone Exceedances (2001-2021)



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
State PM10 (50 ug/m3)	13	31	66	16	9	8	12	18	23	15	44	49	27	17	33	1	7
Federal PM10 (150 ug/m3)	0	1	0	0	0	0	0	0	0	0	9	9	0	0	0	0	0
Federal PM2.5 (35 ug/m3)	0	0	0	0	0	0	0	0	0	0	0	13	2	0	10	0	0

SOURCE: Santa Barbara County Air Pollution Control District, 2022

Santa Barbara County Last-Mile Broadband Program

Figure 4.1-3
Historical Santa Barbara County Particular Matter (PM) Exceedances (2006-2021)

ESA

After decades of hard work 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 emission 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-transitional for the ozone CAAQS (SBCAPCD 2024a).

Exceptional Events Mitigation Plan

The Exceptional Events Mitigation Plan (SBCAPCD 2024b) was developed for mitigation of PM impacts from exceptional events such as wildfires, high wind dust events, prescribed fires, stratospheric ozone intrusions, and firework demonstrations. Exceptional events are unusual or naturally occurring events that can affect air quality but are not reasonably controllable using techniques that state or local air agencies may implement in order to attain and maintain the NAAQS. Since these events cannot be reasonably controlled, the USEPA has adopted requirements and procedures to exclude air quality monitoring data affected by an exceptional event from regulatory determinations. However, to further verify that the public is being protected from exceptional events, the 2016 revisions to the federal Exceptional Events Rule requires states to develop mitigation plans for areas with historically documented or known recurring exceptional events. In April 2022, the USEPA identified additional areas subject to the mitigation plan requirements, specifically, a mitigation plan requirement is triggered if an initial notification is submitted for three or more exceptional events of the same type and pollutant within a three-year period. Based on this revision, Santa Barbara County was included as a designated area due to PM10 (particulate matter that is 10 microns or less in diameter) exceedances from wildfires.

This Exceptional Events Mitigation Plan was prepared to demonstrate SBCAPCD's practices to minimize public exposure to the impacts of PM10 during wildfires and other exceptional events. This Plan outlines the procedures the SBCAPCD will take to protect public health in cases where exceptional events increase PM10 concentrations in the region to a level where they exceed or are expected to exceed the 24-hour PM10 ambient air quality standard. The Plan includes public notification and education programs, steps to identify, study and implement mitigation measures, and provisions for periodic review and evaluation (SBCAPCD 2024b).

Source of Air Pollution

Air pollutant emissions in the SCCAB are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories:

- Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat.
- Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products.

Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and can also be divided into two major subcategories:

- On-road sources may be legally operated on roadways and highways.
- Off-road sources include aircraft, ships, trains, and self-propelled construction equipment.

Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles or wildfires.

Air Pollutants of Primary Concern

The FCAA and CCAA mandate the control and reduction of certain air pollutants. Under these laws, the USEPA and CARB have established the NAAQS and the CAAQS for "criteria pollutants" and other pollutants. Some pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory, etc.) into the atmosphere, including carbon monoxide (CO), volatile organic compounds (VOC)/reactive organic gases (ROC),[2] nitrogen oxides (NO_X), particulate matter with diameters of up to ten microns (PM10) and up to 2.5 microns (PM2.5), sulfur dioxide, and lead. Other pollutants are created indirectly through chemical reactions in the atmosphere, such as ozone, which is created by atmospheric chemical and photochemical reactions primarily between ROC and NO_X. Secondary pollutants include oxidants, ozone, and sulfate and nitrate particulates (smog). The characteristics, sources and effects of criteria pollutants are discussed in the following subsections. The following subsections describe the characteristics, sources, and health and atmospheric effects of air pollutants of primary concern.

Ozone

Ozone is produced by a photochemical reaction (triggered by sunlight) between NO_X and ROC. ROC are composed of non-methane hydrocarbons (with some specific exclusions), and NO_X is composed of different chemical combinations of nitrogen and oxygen, mainly nitric oxide and nitrogen dioxide. NO_X are formed during the combustion of fuels, while ROC are formed during combustion and evaporation of organic solvents. As a highly reactive molecule, ozone readily combines with many different components of the atmosphere. Consequently, high levels of ozone tend to exist only while high ROC and NO_X levels are present to sustain the ozone formation process. Once the precursors have been depleted, ozone levels rapidly decline. Because these reactions occur on a regional rather than local scale, ozone is considered a regional pollutant. In addition, because ozone requires sunlight to form, it mostly occurs in concentrations considered serious between the months of April and October. Ozone is a pungent, colorless, toxic gas with direct health effects on humans, including changes in breathing patterns, reduction of breathing capacity, increased susceptibility to infections, inflammation of lung tissue, and some immunological changes (USEPA 2024a). Groups most sensitive to ozone include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors.

Carbon Monoxide

Carbon monoxide is a localized pollutant that is found in high concentrations only near its source. The major source of CO, a colorless, odorless, poisonous gas, is the incomplete combustion of petroleum fuels by automobile traffic. Therefore, elevated concentrations are usually only found near areas of high traffic volumes. Other sources of CO include the incomplete combustion of petroleum fuels at power plants and fuel combustion from wood stoves and fireplaces during the winter. The health effects of CO are related to its affinity for hemoglobin in the blood. Carbon monoxide causes a number of health problems, including aggravation of some heart diseases (e.g., angina), reduced tolerance for exercise, impaired mental function, and impaired fetal development (USEPA 2023a). At high levels of exposure, CO tends

[2] CARB defines VOC and ROC similarly as, "any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate," with the exception that VOC are compounds that participate in atmospheric photochemical reactions. For the purposes of this analysis, ROC and VOC are considered comparable in terms of mass emissions, and the term ROC is used in this EIR.

to dissipate rapidly into the atmosphere; consequently, violations of the NAAQS and/or CAAQS for CO are generally associated with localized CO "hotspots" that can occur at major roadway intersections during heavy peak-hour traffic conditions.

Nitrogen Dioxide

Nitrogen dioxide is a by-product of fuel combustion; the primary sources are motor vehicles and industrial boilers and furnaces. The principal form of NOX produced by combustion is nitric oxide, but nitric oxide reacts rapidly to form nitrogen dioxide, creating the mixture of nitric oxide and nitrogen dioxide commonly called NO_X. Nitrogen dioxide is an acute irritant that can aggravate respiratory illnesses and symptoms, particularly in sensitive groups (USEPA 2023b). A relationship between nitrogen dioxide and chronic pulmonary fibrosis may exist, and an increase in bronchitis in young children at concentrations below 0.3 parts per million (ppm) may occur. Nitrogen dioxide absorbs blue light, gives a reddish-brown cast to the atmosphere, and reduces visibility (CARB 2024a). It can also contribute to the formation of PM10 and acid rain.

Sulfur Dioxide

Sulfur dioxide is included in a group of highly reactive gases known as "oxides of sulfur." The largest sources of sulfur dioxide emissions are from fossil fuel combustion at power plants and other industrial facilities. Smaller sources of sulfur dioxide emissions include industrial processes such as extracting metal from ore and the burning of fuels with a high sulfur content by locomotives, large ships, and off-road equipment. Sulfur dioxide is linked to a number of adverse effects on the respiratory system, including aggravation of respiratory diseases, such as asthma and emphysema, and reduced lung function (USEPA 2024b).

Particulate Matter

Suspended atmospheric PM10 and PM2.5 is comprised of finely divided solids and liquids such as dust, soot, aerosols, fumes, and mist. Both PM10 and PM2.5 are directly emitted into the atmosphere as by-products of fuel combustion and wind erosion of soil and unpaved roads. Particulate matter is also created in the atmosphere through chemical reactions. The characteristics, sources, and potential health effects associated with PM10 and PM2.5 can be very different. PM10 is generally associated with dust mobilized by wind and vehicles while PM2.5 is generally associated with combustion processes as well as formation in the atmosphere as a secondary pollutant through chemical reactions. PM2.5 is more likely to penetrate deeply into the lungs and poses a health threat to all groups, but particularly to the elderly, children, and those with respiratory and heart problems (CARB 2024b). More than half of PM2.5 that is inhaled into the lungs remains there. These materials can damage health by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers of an absorbed toxic substance. Suspended particulates can also reduce lung function, aggravate respiratory and cardiovascular diseases, increase mortality rates, and reduce lung function growth in children (CARB 2024b).

Lead

Lead is a metal found naturally in the environment, as well as in manufacturing products. The major sources of lead emissions historically have been mobile and industrial sources. However, as a result of the USEPA's regulatory efforts to remove lead from gasoline, atmospheric lead concentrations have declined substantially over the past several decades. The most dramatic reductions in lead emissions occurred prior

to 1990 due to the removal of lead from gasoline sold for most highway vehicles. Lead emissions were further reduced substantially between 1990 and 2008, with reductions occurring in the metals industries at least in part as a result of national emissions standards for hazardous air pollutants (USEPA 2014). As a result of phasing out leaded gasoline, metal processing currently is the primary source of lead emissions. The highest level of lead in the air is generally found near lead smelters. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers. The health impacts of lead include behavioral and hearing disabilities in children and nervous system impairment (USEPA 2024c).

Toxic Air Contaminants

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or serious illness, or that may pose a present or potential hazard to human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. One of the main sources of TACs in California is diesel engine exhaust that contains solid material known as diesel particulate matter (DPM). More than 90 percent of DPM is less than one micron in diameter (about 1/70th the diameter of a human hair) and thus is a subset of PM2.5. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs (CARB 2024c).

TACs are different than criteria pollutants because ambient air quality standards have not been established for TACs. TACs occurring at extremely low levels may still cause health effects and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic risk and by chronic (i.e., long duration) and acute (i.e., severe but of short duration) adverse effects on human health. CARB's Air Quality and Land Use Handbook*: A Community Health Perspective* recommends that local agencies avoid siting new, sensitive land uses within specific distances of potential sources of TACs, such as freeways and high-traffic roads, distribution centers, railroads and ports (CARB 2005).

4.1.2 Regulatory Setting

Federal and State Regulations

Federal and California Clean Air Acts

The FCAA governs air quality in the United States and is administered by the USEPA at the federal level. Air quality in California is also governed by regulations under the CCAA, which is administered by CARB at the state level. At the regional and local levels, local air districts such as the SCCAB typically administer the federal and California CAA. As part of implementing the federal and California CAA, the USEPA and CARB have established ambient air quality standards (AAQS) for major pollutants at thresholds intended to protect public health. **Table 4.2-2**, *Current Federal and State Ambient Air Quality Standards*, summarizes the CAAQS and the NAAQS. The CAAQS are more restrictive than the NAAQS for several pollutants, including the one-hour standard for carbon monoxide, the 24-hour standard for sulfur dioxide, and the 24-hour standard for PM10.

California is divided geographically into 15 air basins for managing the air resources of the state on a regional basis. Areas within each air basin are considered to share the same air masses and, therefore, are expected to have similar ambient air quality. Depending on whether the standards are met or exceeded,

the local air basin is classified as in "attainment" or "nonattainment." Once a nonattainment area has achieved the air quality standards for a particular pollutant, it may be redesignated to an attainment area for that pollutant. To be redesignated, the area must meet air quality standards and have a 10-year plan for continuing to meet and maintain air quality standards, as well as satisfy other requirements of the FCAA. Areas that have been redesignated to attainment are called maintenance areas. Some areas are unclassified, which means insufficient monitoring data are available; unclassified areas are considered to be in attainment. The Santa Barbara County portion of the SCCAB is classified as a nonattainment-transitional area for the State 1-hour and 8-hour ozone standards and a nonattainment area for the State PM10 standards. The other counties in the SCCAB are San Luis Obispo and Ventura. San Luis Obispo County is also classified as nonattainment for the 1-hour and 8-hour ozone CAAQS for Eastern San Luis Obispo County and the PM10 CAAQS (SLOCAPCD, 2019). Ventura County is also classified as nonattainment for the CAAQS for 1-hour and 8-hour ozone and PM10. Additionally, Ventura County is nonattainment for the NAAQS for 8-hour ozone (VCAPCD 2024). The SCCAB is classified as in attainment (or unclassifiable/attainment) for all other CAAQS and NAAQS.

TABLE 4.1-2
CURRENT FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	Federal Primary Standards	California Standards
Ozone	1-Hour	-	0.09 ppm
	8-Hour	0.070 ppm	0.070 ppm
Carbon Monoxide	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	35.0 ppm	20.0 ppm
Nitrogen Dioxide	Annual	0.053 ppm	0.30 ppm
	1-Hour	0.100 ppm	0.18 ppm
Sulfur Dioxide	Annual	0.30 ppm	-
	24-Hour	0.14 ppm	0.04 ppm
	1-Hour	0.075 ppm	0.25 ppm
PM_{10}	Annual	-	20 ug/m^3
	24-Hour	150 ug/m^3	50 ug/m^3
$PM_{2.5}$	Annual	9 ug/m^3	12 ug/m^3
	24-Hour	35 ug/m^3	-
Lead	30-Day Average	-	1.5 ug/m^3
	3-Month Average	0.15 ug/m^3	-
Visibility Reducing Particles	8-Hour	-	-
Sulfates	24-Hour	-	25 ug/m^3
Hydrogen Sulfide	1-Hour	-	0.03 ppm
Vinyl Chloride	24-Hour	-	0.01 ppm

Ppm= parts per million, ug/m^3= micrograms per cubic meter

SOURCE: CARB, 2024. California Ambient Air Quality Standards. https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards. Accessed June 2024.

California Air Resources Board On-Road and Off-Road Vehicle Rules

In 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to DPM and other TACs (Title 13 California Code of

Regulations [CCR], Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at any given time. These actions are also supplemented by the AB 2588 Air Toxics "Hot Spots" program and SB 1731, which require facilities to report their air toxics emissions, assess health risks, notify nearby residents and workers of significant risks if present, and reduce their risk through implementation of a risk management plan.

In 2008, CARB also approved the Truck and Bus regulation to reduce PM and NO_X emissions from existing diesel vehicles operating in California (13 CCR, Section 2025). The requirements were amended to apply to nearly all diesel-fueled trucks and buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds. For the largest trucks and buses in the fleet, those with a GVWR greater than 26,000 pounds, all must be equipped with diesel particulate filters (DPFs) from 2014 and onward, and must have 2010 model year engines by January 1, 2023. For trucks and buses with a GVWR of 14,001 to 26,000 pounds, those with engine model years 14 to 20 years or older must be replaced with 2010 model year engines in accordance with the schedule specified in the regulation.

In 2020, CARB approved the Advanced Clean Trucks (ACT) regulation (13 CCR, Sections 1963–1963.5 and 2012–2012.3) to accelerate a large-scale transition to zero- and near-zero-emissions medium- and heavy-duty vehicles. The regulation requires manufacturers of medium- and heavy-duty vehicles to sell an increasing percentage of zero-emissions models from 2024 to 2035 with up to 55 percent of Classes 2b–3 trucks, 75 percent of Classes 4–8 trucks, and 40 percent of truck tractor sales. The regulation also includes reporting requirements to provide information that would be used to identify future strategies. The ACT is part of the statewide goal to considerably reduce NOx and PM emissions in accordance with the NAAQS, reduce GHG emissions by 40 percent, and reduce petroleum use by 50 percent by 2030. By transitioning to zero-emissions trucks, the state would move away from petroleum dependency and emit less air pollutants from heavy-duty mobile sources.

CARB's Heavy-Duty Engine and Vehicle Omnibus Regulation (Omnibus Regulation) was adopted on September 9, 2021, and became effective on December 22, 2021, to drastically cut smog-forming NOx from conventional heavy-duty engines. The Omnibus Regulation will significantly increase the stringency of NOx emissions standards and will also lengthen the useful life and emissions warranty of heavy-duty diesel engines for use in vehicles with a GVWR greater than 10,000 pounds. The more stringent NOx emission standards begin with the 2024 model year engines and become more stringent with 2027 and subsequent model year engines (CARB 2024d).

In addition to limiting exhaust from idling trucks, CARB also promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower (hp) such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation adopted by CARB on July 26, 2007, aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models (13 CCR, Section 2449). Implementation is staggered based on fleet size (which is the total of all off-road horsepower under common ownership or control), with large fleets beginning compliance in 2014, medium fleets in 2017, and small fleets in 2019. Each fleet must demonstrate compliance through one of two methods. The first option is to calculate and maintain fleet average

emissions targets, which encourages the retirement or repowering of older equipment and rewards the introduction of newer cleaner units into the fleet. The second option is to meet the Best Available Control Technology (BACT) requirements by turning over or installing Verified Diesel Emission Control Strategies (VDECS) on a certain percentage of its total fleet horsepower. The compliance schedule requires that BACT turn overs or retrofits (VDECS installation) be fully implemented by 2023 in all equipment for large and medium fleets and by 2028 for small fleets.

California Air Resources Board Air Quality and Land Use Handbook

CARB published the Air Quality and Land Use Handbook in 2005 to serve as a general guide for considering impacts to sensitive receptors from facilities that emit TAC emissions. The recommendations provided therein are voluntary and do not constitute a requirement or mandate for either land use agencies or local air districts. The goal of the guidance document is to protect sensitive receptors, such as children, the elderly, acutely ill, and chronically ill persons, from exposure to TAC emissions. Some examples of CARB's siting recommendations include the following: (1) avoid siting sensitive receptors within 500 feet of a freeway, urban road with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day; (2) avoid siting sensitive receptors within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units per day, or where transport refrigeration unit operations exceed 300 hours per week); (3) avoid siting sensitive receptors within 300 feet of any dry cleaning operation using perchloroethylene and within 500 feet of operations with two or more machines, and (4) avoid siting sensitive receptors within 300 feet of a large gasoline dispensing facility (3.6 million gallons per year or more) or 50 feet of a typical gasoline dispensing facility (less than 3.6 million gallons per year) (CARB 2005).

In April 2017, CARB published a Technical Advisory supplement to the Air Quality and Land Use Handbook recognizing that infill developments as promoted by the State can place sensitive individuals in close proximity to high-volume roadways. The Technical Advisory provides planners and other stakeholders involved in land use planning and decision-making with information on scientifically based strategies to reduce exposure to traffic emissions near high-volume roadways. The strategies include those that reduce traffic emissions, such as vehicle speed reduction mechanisms, including roundabouts, traffic signal management, and speed limit reductions on high-speed roadways. Strategies also include those that increase the dispersion of traffic emissions, such as implementing designs that promote air flow and pollutant dispersion along street corridors (e.g., wider sidewalks, bicycle lanes, streets characterized by buildings of varying heights), solid barriers such as sound walls, and vegetation for pollutant dispersion. Other strategies include those that remove pollution from the air such as indoor high efficiency filtration. This Technical Advisory is not intended as guidance for any specific project, nor does it create any presumption regarding the feasibility of mitigation measures for purposes of compliance with CEQA (CARB 2005).

Local Regulations

Santa Barbara County Air Pollution Control District

The SBCAPCD has jurisdiction over air quality planning for all of Santa Barbara County within the SCCAB. While air quality in the Air Basin has improved, the Air Basin requires continued diligence to meet the air quality standards. To meet these standards, the SBCAPCD has implemented air quality plans, discussed above under Air Quality Attainment Plans. Additionally, the SBCAPCD has adopted rules to

implement portions of the Air Quality Attainment Plans which may apply to the Project. Rules and Regulations

Environmental Guidance Document

The SBCAPCD acts as lead agency, responsible agency, or a concerned agency with jurisdiction by law over the air resources of the County under the California Environmental Quality Act (CEQA). In this capacity, the SBCAPCD reviews environmental documents for the air quality impacts of land use projects. This SBCAPCD has developed a guidance document titled *Scope and Content of Air Quality Sections in Environmental Documents* (2022b) which provides guidance for assessing and mitigating air quality and greenhouse gas impacts of development projects. This document discusses the required elements of the different CEQA documents and provides significance thresholds, see Section 4.1.3, below. Additionally, it discusses measures to reduce PM10 emissions that are required of all construction projects involving earthmoving activities. These measures are:

- 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% 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 or builder 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 Air Pollution Control District prior to grading/building permit issuance and/or map clearance.

Rules and Regulations

Rules and regulations that are most relevant to future projects that could occur under the Broadband Program include the following:

Regulation III – Prohibitions: This regulation sets forth restrictions for visible emissions, odor nuisance, fugitive dust, various air emissions, fuel contaminants, start-up/shutdown exemptions and breakdown events. The following is a list of rules that apply to the Project:

- **Rule 302 - Visible Emissions:** The rule states that a person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart or of such opacity as to obscure an observer's view.
- **Rule 303 – Nuisance:** This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material in violation of Section 41700 of the Health and Safety Code 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 319 – Asphalt Air Blowing Southern Zone:** A person shall not operate or use any article, machine, equipment or other contrivance for the air blowing of asphalt unless all gases, vapors and gas-entrained effluents from such an article, machine, equipment or other contrivance are:
  A. Incinerated at temperatures of not less than 1400°F for a period of not less than 0.3 seconds; or
  B. Processed in a manner determined by the Control Officer to be equally, or more, effective for the purpose of air pollution control than A. above, and considered Best Available Control Technology.
- **Rule 323 – Architectural Coatings:** This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.
- **Rule 329** – **Cutback and Emulsified Asphalt Paving Materials:** This rule applies to manufacturers, distributors, and end users of cutback and emulsified asphalt materials for paving, construction and maintenance of streets, highways, parking lots, and driveways. It limits the amount of ROC and requires recordkeeping, testing, and compliance.
- **Rule 333 – Control of Emissions from Reciprocating Internal Combustion Engines:** This rule applies to any engine with a rated brake horsepower of 50 or greater except for those engines exempted in the rule. This rule sets emissions limits for NO_X, ROC, and CO for owners and operators and requires that engines be inspected and maintained.
- **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). This rule requires projects to prevent, reduce or mitigate fugitive dust emissions from a site. Rule 345 restricts visible fugitive dust to the project property line and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the one or more of the dust prevention techniques (identified within the rule). Visible roadway dust shall be minimized by utilizing the measures in the rule. Furthermore, the rule also states the work practice standards that shall be followed during structure demolition to prevent visible emissions.

County of Santa Barbara Comprehensive Plan

The County of Santa Barbara Comprehensive Plan was first adopted in 1981 but has been updated and republished several times in recent years (County of Santa Barbara, 2009). The Comprehensive Plan is a long-range planning document that is applicable to the unincorporated communities within the County that the where the Project would be implemented. The Comprehensive Plan includes a Land Use Element with an Air Quality Supplement, which contains the following goals and policies that address air quality:

Goal: Significant increases in the use of bicycles, walking, and transit. Reduced use of the automobile.

Policy A: Direct new urban development to areas within existing urbanized areas without endangering environmentally sensitive areas or open space resources.

Policy B: Promote the conservation and rehabilitation of existing urban development.

Policy E: Improve the integration of long-range planning and project approval procedures with air quality planning requirements.

Los Alamos Community Plan

The Los Alamos Community Plan, adopted February 15, 2011, includes an Air Quality Element which contains the following goals and policies related to air quality:

Goal AQ-LA-1: Maintain Healthful Air Quality in the Los Alamos Valley.

Policy AQ-LA-1.1: The County shall impose appropriate restrictions and control measures upon construction activities associated with each future development project, in order to avoid significant deterioration of air quality.

Development Standard AQ-LA-1.1.1: Future project construction in Los Alamos shall follow all requirements of the Santa Barbara Air Pollution Control District (APCD) and shall institute Best Available Control Technology (BACT) where necessary to reduce emissions below APCD thresholds. To reduce NOx and diesel particulate emissions from construction equipment during project grading and construction, the following shall be adhered to:

- All portable construction equipment shall be registered with the state's portable equipment registration program OR permitted by the District by September 18, 2008.
- Diesel construction equipment meeting the California Air Resources Board's Tier 1-emission standards for off-road heavy-duty diesel engines shall be used. Equipment meeting Tier 2 or higher emission standards should be used to the maximum extent feasible.
- 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 equipment shall be maintained in tune per the manufacturer's specifications.
- Construction equipment operating onsite shall be equipped with two to four degree engine timing retard or precombustion chamber engines.
- Catalytic converters shall be installed on gasoline-powered equipment, if feasible.

- Diesel catalytic converters, diesel oxidation catalysts and diesel particulate filters as certified and/or verified by EPA or California shall be installed on equipment operating onsite.
- Diesel powered equipment should be replaced by electric equipment whenever feasible.
- Idling of heavy-duty diesel trucks during loading and unloading shall be limited to five minutes; auxiliary power units should be used whenever possible.
- Construction worker trips should be minimized by requiring carpooling and by providing for lunch onsite

Policy AQ-LA-1.2: The County shall strive for consistency of all land use planning with the Clean Air Plan.

Policy AQ-LA-1.3: The County shall implement those land use patterns and transportation programs which will serve to reduce vehicle trips and total vehicle miles traveled.

Policy AQ-LA-1.4: The County, when reviewing discretionary projects, shall require the use of techniques designed to conserve energy and minimize pollution.

Santa Ynez Valley Community Plan

The Santa Ynez Valley Community Plan, adopted October 6, 2009, covers Los Olivos, and contains a Land Use Element which has the following air quality policies:

Policy LUG-SYV-8: The public shall be protected from air emissions and odors that could jeopardize health and welfare.

City of Guadelupe General Plan

The City of Guadelupe 2042 General Plan (City of Guadalupe 2022), adopted November 22, 2022, includes an Air Quality Element which contains the following goals and policies that address air quality:

Goal S-1: To achieve and maintain clean, healthy air for the residents of Guadalup and to reduce greenhouse gases consistent with state efforts to address climate change.

Policy S-1.2: The City will review all development projects for impact on air quality and will require the implementation of the Santa Barbara County Air Pollution Control District dust control measures during construction, implement exhaust control measures during construction activities, and require all development projects to pave roads and parking areas.

Policy S-1.3: The City will ensure that new development with sensitive uses located adjacent to toxic air contaminant (TAC) sources minimizes potential health risks by requiring new development to be designed with consideration of site and building orientation, location of trees, and incorporation of ventilation and filtration to lessen any potential health risks. At the City's discretion, it will require preparation of a health risk assessment for projects deemed to have acute potential for harm through the exposure of sensitive uses to the effects of TACs.

4.1.3 Analysis, Impacts and Mitigation

Methodology and Significance Thresholds

This analysis follows the guidance and methodologies recommended in the CEQA Appendix G thresholds, SBCAPCD's *Scope and Content of Air Quality Sections in Environmental Documents* (2022b), and the County of Santa Barbara *Environmental Thresholds and Guidelines Manual* (2021). While there is some overlap in the thresholds from these three sources, each has been individually listed below because thresholds from these sources may be applicable to individual projects under the Broadband Program.

CEQA Appendix G Significance Thresholds

Pursuant to the *State CEQA Guidelines*, air quality impacts related to the proposed project would be significant if the project would:

a) Conflict with or obstruct implementation of the applicable air quality plan;

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative guidelines for ozone precursors);

c) Expose sensitive receptors to substantial pollutant concentrations; and/or

d) Create objectionable odors affecting a substantial number of people.

SBCAPCD Significance Thresholds

According to the SBCAPCD *Scope and Content of Air Quality Sections in Environmental Documents* (2022), a proposed project would have a significant air quality impact on the environment if operation of the project would:

a) Emit (from all project sources, both stationary and mobile) more than the daily trigger for offsets or Air Quality Impact Analysis set in the SBCAPCD New Source Review Rule, for any pollutant (i.e., 240 lbs/day for ROC or NO_X and 80 lbs/day for PM10; there is no daily operational threshold for CO since it is an attainment pollutant);

b) Emit more than 25 lbs/day of NO_X or ROC from motor vehicle trips only;

c) Cause or contribute to a violation of any California or National Ambient Air Quality Standard (except ozone);

d) Exceed the SBCAPCD health risk public notification thresholds adopted by the SBCAPCD Board (10 excess cancer cases in a million for cancer risk and/or a Hazard Index of greater than (1.0) for non-cancer risk);

e) Be inconsistent with the latest adopted federal and State air quality plans for Santa Barbara County.

The SBCAPCD has not adopted quantitative thresholds of significance for short-term or construction emissions but suggests that construction-related NO_X, ROC, PM10, and PM2.5 emissions from diesel- and gasoline-powered equipment, paving and other activities, should be quantified. Additionally, SBCAPCD suggests using 25 tons per year for ROC or NO_X as a guideline for determining the significance of construction impacts for individual projects. Under SBCAPCD Rule 202 D.16, if

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 CO, in a 12-month period, the owner of the stationary source shall provide offsets under the provisions of SBCAPCD Rule 804 and shall demonstrate that no ambient air quality standard will be violated. Furthermore, standard dust control measures discussed above under Section 4.1.2 must be implemented for any discretionary project involving earth-moving activities.

County of Santa Barbara Significance Thresholds

The County of Santa Barbara has established its own CEQA thresholds. According to the County's Environmental Thresholds and Guidelines Manual (2021), a significant adverse air quality impact may occur when a project, individually or cumulatively, triggers any one of the following:

a) 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;

b) Equals or exceeds the state or federal ambient air quality standards for any criteria pollutants (as determined by modeling).

Additionally, the County of Santa Barbara has set quantitative emissions thresholds. However, the County has not set a quantitative threshold for short term/construction emissions but expects the CEQA document will discuss short-term/construction emissions for PM10 if it involves ground disturbance. Since the Broadband Program will involve ground disturbance, it will be required to utilize the dust control measures, identified above under Section 4.1.2, during construction activities. The long-term/operational emissions significance thresholds for NO_X and ROC are the same as those of the SBCAPCD. Additionally, for CO, a significant air quality impact would occur if it causes, by adding to the existing background CO levels, a CO "hot spot" where the CAAQS of 20 ppm CO is exceeded. The county has developed Project Screening for CO Impacts:

1. If a project contributes less than 800 peak hour trips, then CO modeling is not required.

2. Projects contributing more than 800 peak hour trips to an existing congested intersection at level of service (LOS) D or below, or will cause an intersection to reach LOS D or below, may be required to model for CO impacts. However, projects that will incorporate intersection modifications to ease traffic congestion, are not required to perform modeling to determine potential CO impacts.

Short-Term Emissions Methodology

Emissions from construction activities represent temporary impacts that are typically short in duration, depending on the size, phasing and type of project. Air quality impacts can nevertheless be acute during construction periods, resulting in significant localized impacts to air quality. Construction-related emissions would generate temporary criteria pollutant emissions, primarily due to the operation of construction equipment and truck trips for Broadband Program projects. As discussed in Chapter 2, *Project Description*, a total of nine communities in the County have already been identified as "Priority Areas" under the Broadband Program. However, funding has not been secured for all Priority Areas and it is unknown if all locations will be funded. Nonetheless, for the purposes of this EIR and to provide for a conservative and environmentally protective analysis, air quality impacts for all of the nine Priority Areas

are analyzed. While the specific size and location of all potential future broadband projects under the Broadband Program have not yet been identified, it is assumed that the nature and intensity of such future installation projects would be similar in scope and scale for each of the nine Priority Area projects. As such, for the purposes of analysis in this CEQA document, construction activities and methods employed for the initial nine Priority Area projects have been quantitatively analyzed and would be comparable to those necessary for the installation of future broadband facilities in other portions of the County.

The Project would include the installation of fiber optic cable in various locations throughout the County. For the nine Priority Area communities, high-level engineering designs that indicate the location of new broadband lines within each community have been prepared. In general, the new fiber optic lines would be installed underground following public or private roadways with the intention to minimize or avoid disturbance of roadway surfaces wherever feasible. However, it is possible some fiber optic lines could be installed directly under roadways in areas with limited shoulder space or where existing conduit under the road may be used, thus avoiding new surface disturbance. The Project also includes installation and construction activities within those areas where lateral lines are installed between public or private roadways and individual businesses or residences. Individual residence or business connections typically would be installed within previously disturbed and/or developed areas (e.g., adjacent to driveways or in landscaped areas), and generally would avoid drainages and sensitive habitats. Lateral alignments would typically follow other utility installations. Although not anticipated, where subsurface installation of fiber optic cable is infeasible, aerial installation along existing utility poles will be undertaken.

While funding has not been secured for all Priority Areas, for the purposes of this analysis and to provide for a conservative and environmentally protective analysis, it is assumed that construction of five near-term Priority Area projects would occur simultaneously over a period of approximately 24 months beginning as early as in Spring 2025, which includes any necessary permitting and construction of the new facilities. It is anticipated that future broadband projects of similar size and scale located in other areas of the County would require a comparable construction effort in terms of overall intensity, would employ a similar mix of construction methods and equipment, and would result in similar construction durations as those assumed for the nine Priority Area projects.

Short-term construction generated air pollutant emissions were calculated using the California Emissions Estimator model (CalEEMod), Version 2022.1 (See Appendix B), as recommended by the SBCAPCD and other air districts in California. Modeling was based on program-specific information (e.g., area to be graded, area to be paved, energy information) where available; assumptions based on typical construction activities; and default values in CalEEMod that are based on the program location and land use types. In general, for 1 mile of underground fiber optic conduit, boring activities were estimated to last approximately 10 days and trenching would last for an average of 18 to 20 days (approximately 30 days total). For the purposes of this analysis, it is assumed that up to five individual fiber optic line projects could be implemented concurrently throughout Santa Barbara County and participating cities. Total construction emissions detailed in this analysis provide a comprehensive view of program-level air quality emissions, which would occur over the course of program implementation and is representative of maximum annual emissions. For the purposes of the air quality analysis, construction activities were modeled for the earliest potential time frame to provide for a conservative analysis. If construction is delayed and begins subsequent to 2025, the emissions presented in this Program EIR would be conservative as emissions occurring in future years would be lower than those analyzed herein due to the use of a more

energy-efficient and cleaner burning construction vehicle fleet mix, pursuant to State regulations that require vehicle fleet operators to phase-in less polluting heavy-duty equipment.

Long-Term Emissions Methodology

Once constructed, the broadband network components would generally operate passively, with only incidental maintenance typically consisting of weed abatement and periodic accessing of hand holes and splice cases from the ground surface along a given alignment. Operational activities that would generate mobile source emissions for any given fiber optic line and associated facilities constructed under the program would be limited to routine maintenance checks. It was assumed that the program would only induce a few vehicles per month. The program would not induce any new electrical demand or generate solid water or wastewater beyond existing conditions.

Health Impacts

Short-term and long-term exposure to criteria pollutants and TACs may result in adverse health effects, which may include aggravated asthma, increases in respiratory symptoms like coughing and difficult or painful breathing, chronic bronchitis, decreased lung function, increased cancer risk, heart attack and premature death. The ambient air quality standards are health-based standards. Therefore, in this impact analysis, if the Project would result in a new violation of a particulate standard or substantially contribute to an existing violation, it would also contribute to these adverse health effects.

Impacts and Mitigation Measures

This section describes generalized air quality impacts associated with the Broadband Program. The five near-term Priority Area projects analyzed in this Program EIR would be representative of future broadband projects of similar size and scale located in other areas of the County. In general, implementation of future broadband projects envisioned by the Broadband Program could result in air quality impacts as described in the following sections.

Threshold 1: Would the project conflict with or obstruct implementation of the applicable air quality plan?

Impact Statement 1: Implementation of the Proposed Project could conflict with or interfere with the applicable air quality plan if it significantly increases ROC or NO_X emissions to an extent that meeting the CAAQS would be in jeopardy.

Priority Area Projects

The Broadband Program is subject to the SBCAPCD 2022 Ozone Plan (2022 Plan). As discussed above, the SBCAPCD has developed the 2022 Plan to meet the requirements of the CCAA. A significant air quality impact may occur if a project is not consistent with the 2022 Plan. The Project would include the installation of fiber optic cable in various locations throughout Santa Barbara County. The Project's construction would result in temporary emissions and would not include permanent stationary emissions sources regulated by the SBCAPCD. Additionally, the number of new employees and car trips for maintenance activities would be minimal.

The proposed Project would generate an increase in short-term construction employment; however, such short-term employment would be expected to be filled by employees within the construction industry in the SCCAB region. Construction industry jobs generally have no regular place of business, as construction workers commute to job sites throughout the region, which may change several times a year. Moreover, these jobs would be temporary in nature. With respect to temporary construction emission sources, construction contractors would be required to comply with the CARB Air Toxic Control Measure that limits heavy duty diesel motor vehicle idling to no more than five minutes at any given location with certain limited exceptions defined in the regulation for equipment in which idling is integral to the function of the equipment or activity (such as concrete trucks and concrete pouring). In addition, contractors would be required to comply with required and applicable BACT and the CARB In-Use Off-Road Diesel Vehicle Regulation to use lower emitting equipment in accordance with the phased-in compliance schedule for equipment fleet operators. The Project would not conflict with implementation of these strategies. Additionally, the Project would comply with all applicable SBCAPCD rules and regulations, such as Rule 345, which ensures that fugitive dust emissions are reduced. Additionally, as discussed in SBCAPCD's *Scope and Content of Air Quality Sections in Environmental Documents* (2022b), the Project Contractor(s) would be required to comply with measures to reduce PM10 emissions during any earthmoving activities. Furthermore, as detailed in Threshold 2, below, the projected construction emissions for criteria pollutants, especially ROC and NO_X would not exceed the SBCAPCD's regional significance thresholds for construction activities. Thus, the Project would not conflict with the County's ability to meet the CAAQS as outlined in the 2022 Plan. Compliance with these requirements is consistent with and meets or exceeds the 2022 Plan requirements for control strategies intended to reduce emissions from construction equipment and activities. Therefore, construction of the Broadband Program would not conflict with or obstruct implementation of the 2022 Plan, and impacts would be **less than significant**

Operation of the Broadband Program would generally operate passively, with only incidental maintenance typically consisting of weed abatement and periodic accessing of hand holes and splice cases from the ground surface along a given alignment. Thus, operation would require minimal employees and maintenance vehicles. Projects that are considered consistent with the 2022 Plan would not interfere with attainment because this growth is included in the projections used in the formulation of the 2022 Plan. Operation of the Project would not result in new growth and would not interfere with employee or population growth projections contained in Connected 2050: Regional Transportation Plan & Sustainable Communities Strategy (SBCAG 2021), which forms the basis of the growth projections in the 2022 Plan Additionally, operation of the Project would not result in significant new emissions over those of existing conditions. As a result, the Project would not conflict with or obstruct implementation of the 2022 Plan and impacts would be **less than significant**.

Future Broadband Projects

It is anticipated that future broadband projects, located in other areas of the County, would be of similar size and scale, with a comparable construction effort in terms of overall intensity, would employ a similar mix of construction methods and equipment, and would result in similar construction durations as those assumed for the nine Priority Area projects. Therefore, construction of future broadband projects would not conflict with or obstruct implementation of the 2022 Plan, and impacts would be **less than significant**.

Similarly, operation of future broadband projects would generally operate passively, with only incidental maintenance typically consisting of weed abatement and periodic accessing of hand holes and splice cases from the ground surface along a given alignment similar to the nine Priority Area projects. Therefore, operation of future broadband projects would not conflict with or obstruct implementation of the 2022 Plan, and impacts would be **less than significant**.

Mitigation Measures

No mitigation is required.

Cumulative Impacts

Implementation of the Project, in combination with other development would contribute to a cumulative impact if it conflicted with or interfered with the applicable air quality plan by significantly increasing ROC or NO_X emissions to an extent that meeting the CAAQS would be in jeopardy.

As discussed above, the Broadband Program would not conflict with or interfere with the 2022 Plan or the SBCAPCD's ability to meet the CAAQS. All past, present, and reasonably future projects would also comply with CARB and/or the USEPA mandated mobile source emissions regulations related to on-road vehicle emissions standards, off-road equipment fleet standards, and fuel sulfur standards. They would also comply with SBCAPCD's measures to reduce PM10 during any earthmoving activities. Thus, the Project along with past, present, and reasonably probable future projects would not interfere with the ability of the SBCAPCD's ability to meet the CAAQS for ozone. The cumulative impact would be **less than significant**.

Threshold 2: Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard??

Impact Statement 2: Implementation of the Project could result in a cumulatively considerable net increase of ROC, NO_X, or PM10 for which the SCCAB is in nonattainment for an applicable federal or state ambient air quality standard.

Priority Area Projects

Construction of the Project has the potential to generate temporary regional criteria pollutant emissions through the use of heavy-duty construction equipment, such as backhoes, loaders, drill rigs, trenchers, and other equipment; and through vehicle trips generated by workers and haul trucks traveling to and from the various broadband installation sites within the Priority Areas. In addition, fugitive dust emissions would result from site preparation and various soil-handling activities. Mobile source emissions, primarily NOx, would result from the use of construction equipment. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of construction activity, and prevailing weather conditions.

The SBCAPCD has not adopted quantitative thresholds of significance for short-term or construction emissions but suggests that construction-related NO_X, ROC, PM10, and PM2.5 emissions from diesel- and gasoline-powered equipment, paving and other activities, should be quantified. Additionally, SBCAPCD suggests using 25 tons per year for ROC or NO_X as a guideline for determining the significance of construction impacts for individual projects. The construction emissions associated with

the Project and the applicable emissions thresholds are presented in **Table 4.1-3**, *Maximum Regional Construction Emissions for Broadband Program (Tons per Year)*.

TABLE 4.1-3
MAXIMUM REGIONAL CONSTRUCTION EMISSIONS FOR BROADBAND PROGRAM (TONS PER YEAR)[A]

Year	ROC	NO_X	CO	SO2	PM10	PM2.5
Year 1	0.79	7.19	8.79	0.02	0.40	0.27
Year 2	1.68	12.97	16.73	0.04	0.59	0.42
Year 3	0.19	0.76	0.84	0.00	0.06	0.03
Maximum Annual Emissions	1.68	12.97	16.73	0.04	0.59	0.42
Significance Thresholds	25	25	--	--	--	--
Significant Impact?	No	No	No	No	No	No

Notes:

[a] Annual emissions are representative of construction of the five near-term Priority Area broadband installations occurring simultaneously. Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix B.

-- No Significance Threshold.

Emissions were assumed to begin in the first Quarter of 2025.

SOURCE: ESA, 2024

As shown in Table 4.1-3 the maximum daily construction emissions generated by the Project's worst-case construction scenario of up to five Priority Area broadband installations occurring simultaneously would not exceed the SBCAPCD's annual significance threshold for ROC or NO_X. Therefore, the Broadband Program would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard and construction impacts would be **less than significant**.

Operation of the Broadband Program would generally operate passively, with only incidental maintenance typically consisting of weed abatement and periodic accessing of hand holes and splice cases from the ground surface along a given alignment. Mobile emissions from the few vehicles for periodic maintenance would result in minimal emissions. The Project would not require additional employees to conduct maintenance; therefore, an increase in worker related commuting vehicle emissions would not be anticipated. Thus, operation would require minimal employees and maintenance vehicles and would result in negligible new emissions over those of existing conditions. Therefore, mobile emissions resulting from the Project would be below the SBCAPCD's daily significance threshold for ROC, NO_X, or PM10. Overall, given the sporadic usage of maintenance vehicles, Project operational-source emissions would not exceed applicable SBCAPCD thresholds of significance. As a result, the Broadband Program would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard and operational impacts would be **less than significant**.

Future Broadband Projects

It is anticipated that future broadband projects, located in other areas of the County, would be of similar size and scale, with a comparable construction effort in terms of overall intensity, would employ a similar mix of construction methods and equipment, and would result in similar construction durations as those assumed for the nine near-term Priority Area projects. As shown above, since construction emissions for

the construction of up to five of the near-term Priority Area projects occurring simultaneously would not exceed SBCAPCD significance thresholds, it is assumed that construction of future broadband projects would also not exceed SBCAPCD significance thresholds for ROC, NO_X, and PM10, and impacts would be **less than significant**.

Similarly, operation of future broadband projects would generally operate passively, with minimal operational emissions limited to occasional maintenance, typically consisting of weed abatement and periodic accessing of hand holes and splice cases from the ground surface along a given alignment similar to the nine Priority Area projects. Furthermore, operation of the broadband installations could encourage and support telecommunication opportunities and strategies, such as telework and telemedicine, which could in turn lead to reduced vehicle miles traveled (VMT) and reduced vehicle emissions. The Project's broadband installations would not include any stationary sources of emissions. Therefore, it is assumed that operation of future broadband projects would not exceed SBCAPCD significance thresholds for ROC, NO_X, and PM10, and impacts would be **less than significant**.

Mitigation Measures

No mitigation is required.

Cumulative Impacts

Implementation of the Project, in combination with other developments could result in a cumulatively considerable net increase of ROC, NO_X, or PM10 for which the SCCAB is in nonattainment for an applicable federal or state ambient air quality standard.

As discussed above, the Broadband Program emissions would not exceed the SBCAPCD's suggested annual construction significance thresholds for ROC and NO_X. Due to the Project's limited maintenance operations, the Project would not surpass the daily operational significance thresholds. All past, present, and reasonably future projects would also be required to meet the SBCAPCD's significance thresholds or provide feasible mitigation measures to reduce emissions. Thus, the Project along with past, present, and reasonably probable future projects would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. The cumulative impact would be **less than significant**.

Threshold 3: Would the project expose sensitive receptors to substantial pollutant concentrations?

Impact Statement 3: Implementation of the Project could expose sensitive receptors to substantial pollutant concentrations of DPM and CO.

Priority Area Projects

Toxic Air Contaminants

Construction activities for Priority Area projects would occur over approximately 24 months. For potential health risks, the construction duration would be significantly lower than the 30-year residential exposure period associated with cancer health risks. Sensitive receptors (i.e., residential receptors) may be exposed to DPM, a TAC, from the exhaust from construction equipment and diesel-fueled motor vehicles. Fiber optic cable installation is inherently linear such that construction equipment and activity would be continually moving along the roadway or planned fiber route and would not remain in one place for any

substantial length of time. Thus, sensitive receptor exposure would be limited in duration since the construction would always be moving. Health risk impacts from Project construction would not be anticipated due to the short-term and temporary construction duration, the buffers to nearby sensitive receptors, the movement of construction activities around the Project Site and short time frame near any single receptor, and the small number of construction equipment. The construction emissions modeling shown above in Table 4.1-3 accounts for the simultaneous construction of five of the near-term Priority Area projects. However, it is noted that the five Priority Area projects would be located in different locations throughout the County. As such, the emissions presented in Table 4.1-3 would not be representative of localized emissions to which any one sensitive receptor would be potentially exposed.

Construction activities associated with the nine Priority Areas, as well as for future installation projects, would move and progress along the linear alignment such that any one specific sensitive receptor location would not be exposed to the full duration of construction emissions from the full extent of construction activities. For instance, while it is conservatively assumed that construction of the five near-term Priority Area projects could occur simultaneously over a period of approximately 24 months, any one specific sensitive receptor location would not be exposed to construction emissions for the full 24-month duration, but rather only for several days or several weeks as construction moves or progresses along the alignment. Thus, exposure to construction emissions localized to a specific area would be a temporary and short-term occurrence to any one specific sensitive receptor location. Furthermore, as shown in Table 4.1-3, Project construction PM10 (including DPM) would not exceed any thresholds specified by SBCAPCD thresholds. Construction contractors would also be required to comply with regulations that limit diesel emissions, such as the CARB Air Toxics Control Measure that limits diesel vehicle idling to no more than five minutes at a location. Therefore, Project construction would not expose sensitive receptors to substantial TAC emissions and impacts would be **less than significant**.

Operation of the Broadband Program would generally operate passively, with only occasional maintenance typically consisting of weed abatement and periodic accessing of hand holes and splice cases from the ground surface along a given alignment. Mobile emissions from the few vehicles for periodic maintenance would result in minimal DPM emissions. Health risk impacts from Project operation would not be anticipated at any nearby receptors due to the minimal maintenance vehicles, the buffers to nearby sensitive receptors, and limited frequency of the Project's operations. Therefore, Project operation would not expose sensitive receptors to substantial TAC emissions and impacts would be **less than significant**.

CO Hotspots

The SCCAB is currently designated as a CO attainment area for both the NAAQS and CAAQS. The SBCAPCD does not have a significance threshold for CO as it is an attainment pollutant. However, the County of Santa Barbara has developed Project Screening guidance for CO Impacts as discussed above under Significance Thresholds, which utilizes 800 peak hour trips as the cutoff for conducting CO modeling. Construction of the Broadband Program's five near-term Priority Area projects would require a total of approximately 150 round trips per day or 300 one-way trips per day (i.e., 150 inbound and 150 outbound trips) of which approximately 100 one-way trips would be from worker commute vehicles and approximately 200 one-way trips would be from vendor and haul trucks, which would not exceed the County's Screening Threshold of 800 peak hour trips. Operation of the Project would only require a few vehicles per month for maintenance, which would not exceed the County's Screening Threshold of 800 peak hour trips. Thus, CO modeling is not required as the Project is not expected to result in a CO

hotspot. Therefore, Project construction and operation would not expose sensitive receptors to CO hotspots and impacts would be **less than significant**.

Fugitive Dust and Valley Fever

Valley Fever is an infective disease caused by the fungus *Coccidioides immitis*. Infection occurs via inhalation of *Coccidioides immitis* spores that have become airborne from the upturn of dry, dusty soil by wind, construction, farming, or other activities. Sensitive receptors may be exposed to Coccidioides immitis, the fungus that causes Valley Fever, if present in soil that is disturbance and made airborne as a result of the Project's construction activities. Onsite workers are the most at risk of contracting Valley Fever, due to their proximity to the potentially impacted soils. Soil criteria that may indicate the potential presence of Valley Fever fungus include the disturbance of undeveloped topsoil, the presence of dry, alkaline soils, or the disturbance of virgin undisturbed soil in non-urban areas. The Project would minimize the exposure to the *Coccidioides immitis* (Valley Fever) spores from the disruption of soil by complying with the SBCAPCD rules and regulations, such as Rule 345, which ensures that fugitive dust emissions are reduced. Therefore, with regulatory compliance and buffers to nearby sensitive receptors, risk of health concerns associated with presence of *Coccidioides immitis* spores, would reduce the potential for Valley fever impacts during construction activities. However, due to the undeveloped nature of much of the land area that may be disturbed as a result of Project construction activities, there is a potential, albeit very limited, for exposure that can be further reduced with implementation of mitigation. With the implementation of **Mitigation Measure AQ-1**, impacts to workers and the surrounding community receptors would be reduced to be **less than significant**.

Naturally Occurring Asbestos

Construction in areas of rock formations that contain naturally occurring asbestos could release asbestos into the air and pose a health hazard. A review of the United States Geological Survey (USGS) *Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California*, which includes a map containing areas more likely to have rock formations containing naturally occurring asbestos in California, indicates that there are no areas likely containing naturally occurring asbestos in the areas associated with the Priority Area projects (USGS 2011). The locations of the Priority Area projects are shown in Figure 2-2 of Chapter 2, *Project Description*. Based on the USGS data, areas in the County that may contain naturally occurring asbestos are located to the east of the Los Olivos Priority Area and to the west/southwest of the Riverpark Priority Area. Therefore, the Project would not expose sensitive receptors to naturally occurring asbestos during construction. Project impacts to air quality related to naturally occurring asbestos would be **less than significant**.

Future Broadband Projects

It is anticipated that future broadband projects, located in other areas of the County, would be of similar size and scale, with a comparable construction effort in terms of overall intensity, would employ a similar mix of construction methods and equipment, and would result in similar construction durations as those assumed for the Priority Area projects. As discussed above, construction emissions for the five near-term Priority Area projects would not expose sensitive receptors to substantial TAC emissions or CO hotspots. Similar to the five near-term Priority Area projects, future broadband projects would not occur in areas likely to contain naturally occurring asbestos and would not expose sensitive receptors to naturally occurring asbestos. Future broadband projects would generate emissions similar to these near-term

Priority Area projects and would also not expose sensitive receptors to substantial TAC emissions or CO hotspots, and impacts would be **less than significant**.

Similarly, operation of future broadband projects would generally operate passively, with only occasional maintenance typically consisting of weed abatement and periodic accessing of hand holes and splice cases from the ground surface along a given alignment like the Priority Area projects. Therefore, as shown above, since operational emissions for the Priority Area projects would not expose sensitive receptors to substantial TAC emissions or CO hotspots, it is assumed that operation of future broadband projects would also not expose sensitive receptors to substantial TAC emissions or CO hotspots, and impacts would be **less than significant**.

Mitigation Measures

Mitigation Measure AQ-1: Valley Fever. During heavy grading where the top 12 inches of soil would be disturbed, and in locations with potential Valley Fever fungal spores (i.e., disturbance of the top soil of undeveloped land to a depth of about 12 inches; dry, alkaline, sandy soils; virgin, undisturbed, non-urban areas; windy areas; and archaeological resources probable or known to exist in the area (Native American midden sites), construction contractors will comply with the following measures as feasible to reduce potential Valley Fever impacts:

- Require crews to use respirators during project clearing, grading, and excavation operations in accordance with California Division of Occupational Safety and Health regulations.
- Require that the cabs of grading and construction equipment be air-conditioned or enclosed with sufficient ventilation and particulate matter filtration systems.
- Require crews to work upwind from excavation sites where possible.
- Where acceptable to the fire department, control weed growth by mowing instead of disking, thereby leaving the ground undisturbed and with a mulch covering.
- During rough grading and construction, ensure that the access way into the project site from adjoining paved roadways is paved or treated with environmentally safe dust control agents.

Cumulative Impacts

Implementation of the Project, in combination with other developments, could expose sensitive receptors to substantial pollutant concentrations of DPM and CO.

As discussed above, the Broadband Program is not expected to expose sensitive receptors to substantial pollutant concentrations of DPM or CO hotspots. All past, present, and reasonably future projects would also be required to analyze if sensitive receptor would be exposed to substantial pollutant concentrations of DPM and CO and mitigate impacts, if required. Cumulative projects would also comply with applicable construction fugitive dust rules, such as SBCAPCD Rule 345, reduce fugitive dust-related impacts including potential Valley Fever impacts, and require mitigation measures if potentially significant impacts are identified. Thus, the Project along with past, present, and reasonably probable future projects would not expose sensitive receptors to substantial pollutant concentrations of TACs or CO hotspots. Cumulative impact would be **less than significant** or **mitigated to less than significant**, as appropriate.

Threshold 4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Impact Statement 6: Implementation of the Project could result in other emissions, such as odors, adversely affecting a substantial number of people.

Priority Area Projects

During Project construction, diesel trucks and off-road construction equipment may emit odors such as that of diesel exhaust which would be temporary and intermittent in nature. Such odors would be a temporary source of nuisance to adjacent uses but would not affect a substantial number of people. Through mandatory compliance with SBCAPCD Rules, specifically Rule 303, no construction activities or materials are expected to create objectionable odors affecting a substantial number of people. Therefore, construction activities for the Broadband Program would result in **less than significant** impacts with respect to other emissions, including those leading to odors.

Land uses typically producing objectionable odors include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The Project would not contain any active manufacturing activities and would not convert current agricultural land to residential land uses. In addition, the Project would not result in the creation of smoke or ash, or excessive dust generation. Furthermore, the Project would comply with SBCAPCD Rule 303 – Nuisance. Therefore, operational activities for the Broadband Program would result in **less than significant** impacts with respect to other emissions, including those leading to odors.

Future Broadband Projects

It is anticipated that future broadband projects, located in other areas of the County, would be of similar size and scale, with a comparable construction effort in terms of overall intensity, would employ a similar mix of construction methods and equipment, and would result in similar construction durations as those assumed for the Priority Area projects. As shown above, since construction emissions for the five Priority Area projects would not result in other emissions, such as odors, adversely affecting a substantial number of people, it is assumed that construction of future broadband projects would also not result in other emissions, such as odors, adversely affecting a substantial number of people, and impacts would be **less than significant**.

Similarly, operation of future broadband projects would generally operate passively, with only occasional maintenance typically consisting of weed abatement and periodic accessing of hand holes and splice cases from the ground surface along a given alignment like the five Priority Area projects. Therefore, as shown above, since operational emissions for the five priority area projects would not result in other emissions, such as odors, adversely affecting a substantial number of people, it is assumed that operation of future broadband projects would also not result in other emissions, such as odors, adversely affecting a substantial number of people, and impacts would be **less than significant**.

Mitigation Measures

No mitigation is required.

Cumulative Impacts

Implementation of the Project, in combination with other developments, could result in other emissions, such as odors, adversely affecting a substantial number of people.

As discussed above, the Broadband Program is not expected to result in other emissions, such as odors, adversely affecting a substantial number of people. All past, present, and reasonably future projects would also be required to comply with SBCAPCD Rules, specifically Rules 302, 303, and 345, which would prohibit nuisance emissions, such as odors. Thus, the Project along with past, present, and reasonably probable future projects would not result in other emissions, such as odors, adversely affecting a substantial number of people. The cumulative impact would be **less than significant**.

4.1.4 References

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4.2 Biological Resources

This section describes the existing biological resources within Santa Barbara County and evaluates the significance of the changes in biological resources that would result from implementation of the Santa Barbara County Last-Mile Broadband Program ("Broadband Program" or "Project") and feasible mitigation measures to reduce these potential impacts. The information and analysis presented are based in part on the biological resources data presented in Appendix C.

4.2.1 Environmental Setting

Regional Setting

The Project would facilitate construction and operation of future broadband facilities in various communities across Santa Barbara County that are currently underserved or unserved by high-speed broadband internet services. These broadband facilities could include both underground and aerial fiberoptic cable as part of proposed "last-mile" broadband facilities, which are intended to reach end users in these affected communities. These last-mile facilities would provide connections to end users in communities across the County and connect from the State of California's "middle-mile" broadband network ("Statewide Middle Mile Network") currently being implemented by the California Department of Technology.

The area subject to future broadband facility installations under the proposed Broadband Program (i.e., the "Project Area") includes the entire County of Santa Barbara (County), since, with a few exceptions discussed below, the specific locations of future broadband facility installations are currently not known (see Figure 2-1, *Regional Location*, in Chapter 2, *Project Description*, of this Draft PEIR). A total of nine communities in the County have already been identified as "Priority Areas" under the Broadband Program, all of which have already been the subject of high-level engineering design. Figure 2-2, *Broadband Facility Locations*, in Chapter 2 provides a County-wide view of the Project Area, including the location of existing and/or approved middle-mile broadband facilities in the County, as well as the locations of all nine identified Priority Areas.

This section describes the existing environment for biological resources in the County. The setting information presented herein was compiled from available database searches and scientific literature. Specific sources used to analyze the distribution of biological resources and assess impacts of the future broadband facilities within the Priority Areas and within other parts of the County are cited below and include the following:

- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) (CDFW 2024a);
- California Native Plant Society (CNPS) Rare Plant Inventory (RPI) (CNPS 2024);
- CDFW Special Animals List (CDFW 2024b);
- CDFW State and Federally Listed Endangered, Threatened, and Rare Plants of California List (CDFW 2024c);
- U.S. Fish and Wildlife Service (USFWS) Critical Habitat Mapper web application (USFWS 2024a);

- United States Department of Agriculture (USDA) and United States Forest Service (USFS) CALVEG Vegetation Classification & Mapping (CALVEG) database (USDA & USFS 2018);
- USFWS National Wetlands Inventory Mapper (NWI) Wetlands Mapper web application (USFWS 2024b);
- Missing Linkages: Restoring Connectivity to the California Landscape (Penrod et al. 2001); and
- CDFW Habitat Connectivity Mapper web application (CDFW 2024d).

Vegetation Types

The County contains a wide variety of vegetation types. Twenty vegetation types have been mapped within the County using the USDA and USFS CALVEG database (USDA & USFS 2018), as shown below in **Figure 4.2-1:** *Vegetation Cover*. It should be noted that the classification system mapped habitats from a broad perspective and that site-specific variation may be present (e.g., site-specific vegetation communities may be identified on a more detailed level based on the dominant species present). Additionally, the data was mapped in 2004, so there may be variations due to changes in vegetation types over time (e.g., due to development, disturbance, introduction of exotic plant species, restoration of native habitat). **Table 4.2-1**, *CALVEG Vegetation Types within Priority Areas*, below, provides a summary of the acreages of each vegetation type within each Priority Area. Note that there are CALVEG vegetation types listed in Table 4.2-1 that are not present within the Priority Areas but that are present elsewhere within the County.

TABLE 4.2-1
CALVEG VEGETATION TYPES WITHIN PRIORITY AREAS

	Priority Area								
Vegetation Type	**Guadalupe**	**Casmalia**	**East of Santa Maria**	**Cuyama and New Cuyama**	**Los Alamos**	**Los Olivos**	**Jonata Park**	**Hwy 246 Corridor**	**Refugio Canyon**
Agriculture	248.8	29.6	1,134.5	971.5	122.6	538.1	37.7	4,288.7	72.6
Barren Land	22.1	12.1	188.7	--	24.4	26.2	--	132.1	18.6
Big Basin Sagebrush	--	--	--	--	--	--	--	--	--
Blackbush	--	--	--	--	--	--	--	--	--
Ceanothus Mixed Chaparral	--	3.1	450.6	--	--	--	--	17.8	786.6
Chamise Chaparral	--	--	60.1	--	--	128.2	--	--	0.3
Chokecherry – Serviceberry - Rose	--	--	--	--	--	--	--	--	--
Coastal Sage Scrub	--	23.7	1,691.7	6.1	85.3	227.1	690.8	2,035.5	433.9
Creosote Bush Scrub	--	--	--	--	--	--	--	--	--
Forest Land	27.4	11.1	2,044.1	8.5	150.2	1,561.8	466.3	1,467.3	1,169.7
Montane Meadows	2.3	--	--	--	--	--	--	--	--

Vegetation Type	Priority Area								
	Guadalupe	Casmalia	East of Santa Maria	Cuyama and New Cuyama	Los Alamos	Los Olivos	Jonata Park	Hwy 246 Corridor	Refugio Canyon
Montane Shrubland	--	--	--	--	--	--	--	--	--
Mountain Big Sagebrush	--	--	--	--	--	--	--	--	--
North Coastal Scrub	--	--	--	--	--	--	--	--	25.7
Salt Desert Scrub	--	--	--	--	--	--	--	--	--
Scrub Oak Mixed Chaparral	--	--	145.0	--	--	--	--	--	512.8
Urban	521.2	32.1	88.2	212.7	246.3	33.7	4.2	292.6	517.0
Valley Grassland	19.9	427.4	1,107.8	350.3	831.6	2,410.7	704.6	4,486.5	739.9
Water	--	--	3.0	4.0	--	1.6	--	4.6	8.1
Wetlands	--	--	--	--	--	--	--	--	--

SOURCE: ESA 2024, CALVEG 2018.

Descriptions of each of the habitats adapted from the Society for Range Management's *Rangeland Cover Types of the United States*; USDA's *South Coast and Montane Ecological Province Vegetation Descriptions*; and USDA's *Existing Vegetation Classification, Mapping, and Inventory Technical Guide* Version 2.0 Appendices are presented below (Society for Range Management 1994, USDA 2009, and UDSA & USFS 2015). It should be noted that these vegetation types are generalized, and that site-specific variation is likely to be present. Habitats which occur within populated areas can also show variation because of a greater exposure to anthropogenic influences such as the introduction of exotic plant species.

Agriculture

Agricultural land is used primarily for the production of food and fiber and includes orchards, vineyards, and field crops. Land used exclusively for livestock pasture may be mapped as Annual Grassland in those cases in which land uses are not recognizable (USDA 2009).

Barren Land

Barren land includes landscapes that are generally devoid of vegetation, such as exposed bedrock, cliffs, interior sandy or gypsum areas. It may include quarries and mine sites (USDA 2009).

Basin Big Sagebrush

Basin big sagebrush is characterized by an overstory of mainly basin big sagebrush and an understory of perennial grasses and perennial forbs. Basin big sagebrush (*Artemisia tridentata* ssp. *tridentata*) is the principal shrub with smaller amounts of rubber and green rabbitbrush (*Chrysothamnus nauseosus* and *C. viscidiflorus*). Antelope bitterbrush (*Purshia tridentata*) and gray horsebrush (*Tetradymia canescens*) also occur. The major grasses are bluebunch wheatgrass (*Agropyron spicatum*), Sandberg bluegrass (*Poa secunda*) and Idaho fescue (*Festuca idahoensis*). Other perennial grasses may include bottlebrush squirreltail (*Sitanion hystrix*), needle-and-thread (*Stipa comata*), rhizomatic wheatgrasses (*Agropyron dasystachyum*) and related species. Cheatgrass (*Bromus tectorum*) also occurs on most sites. The forb cover may contain yarrow (*Achillea millefolium* var. *lanulosa*), pale agoseris (*Agoseris glauca*), pussytoes (*Antennaria dimorpha*) and spp., tapertip onion (*Allium acuminatum*), milkvetch (*Astragalus* spp.), arrowleaf balsamroot (*Balsamorhiza sagittata*), hawksbeard (*Crepis acuminata* and spp.), fleabane (*Erigeron pumilis* and spp.), biscuit root (*Lomatium macrocarpum* and *L. triternatum*), Lupine (*Lupinus* spp). and longleaf phlox (*Phlox longifolia*) (Society for Range Management 1994).

Blackbush

Blackbush (*Coleogyne ramosissima*) occurs in stands where it may comprise 95 percent of the vegetation. Plants from the creosote bush (*Larrea tridentata*) and pinyon (*Pinus* spp.) juniper (*Juniperus* spp.) types are common associates including spiny hopsage (*Grayia spinosa*), mormon-tea (*Ephedra* spp.), rabbitbrush (*Chrysothamnus* spp.), desert thorn (*Lycium andersonii*), desert bitterbrush (*Purshia glandulosa*), antelope bitterbrush, big sagebrush (*Artemisia tridentata*), California buckwheat (*Eriogonum fasciculatum*), and goldenbush (*Haplopappus cooperii*). Red brome (*Bromus rubens*), filaree (*Erodium cicutarium*), desert needlegrass (*Stipa speciosa*) and black grama (*Bouteloua uripoa*) may be in the understory (Society for Range Management 1994).

Ceanothus Mixed Chaparral

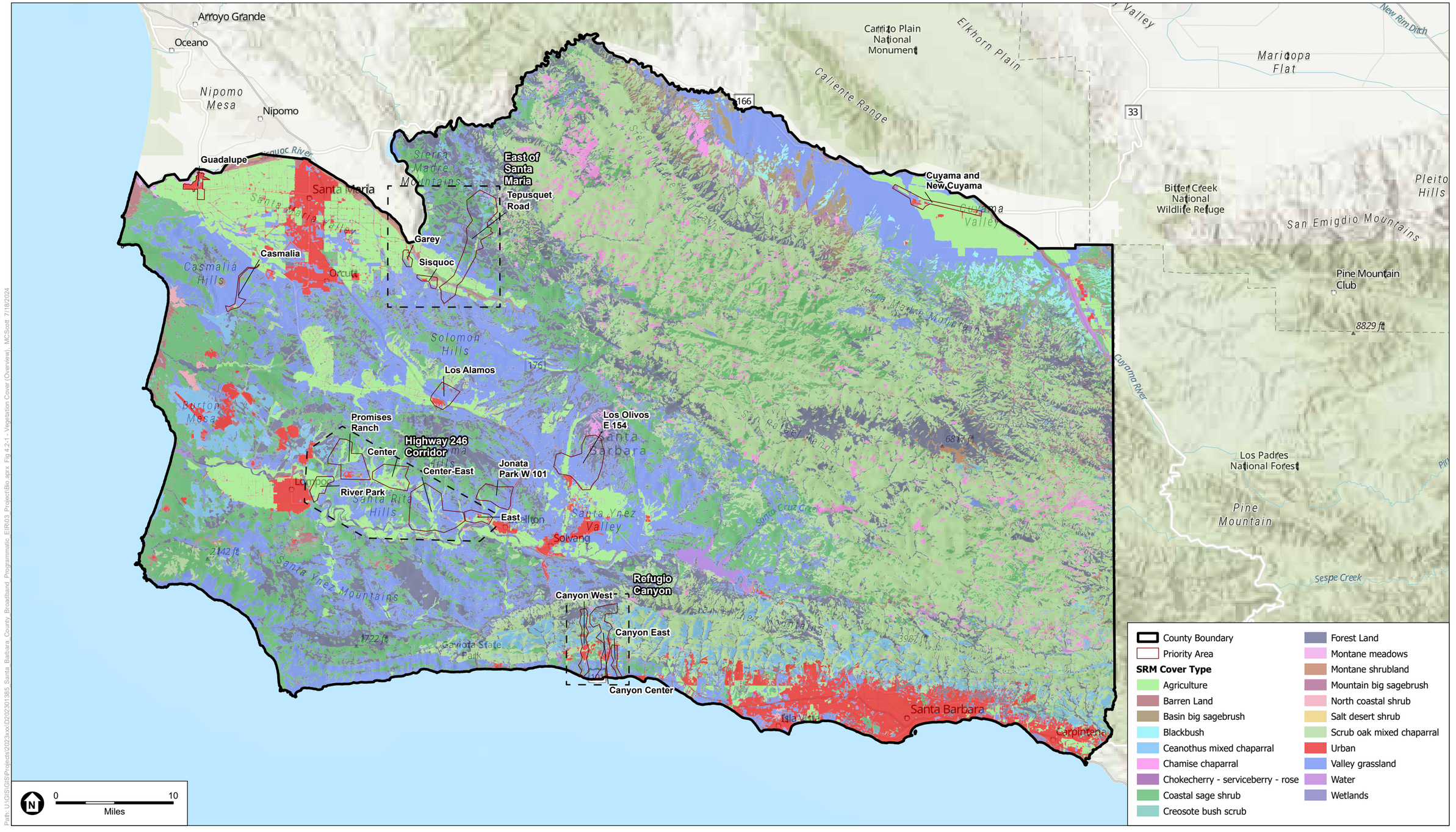
Mixed chaparral is made up of a variety of several plant communities dominated by ceanothus species including hoaryleaf ceanothus (*Ceanothus crassifolius*), buckbrush (*C. cuneatus*), cupleaf ceanothus (*C. greggii*), hairy ceanothus (*C. oliganthus*) and woolyleaf ceanothus (*C. tomentosus*) (Society for Range Management 1994).

Chamise Chaparral

Chamise chaparral associated species include California buckwheat, black sage (*Salvia mellifera*), scrub oak (*Quercus dumosa*), manzanita (*Arctostaphylos* spp.), ceanothus (*Ceanothus* spp.), mountain mahogany (*Cercocarpus betuloides*), laural sumac (*Malosma laurina*), sugarbush (*Rhus ovata*), silktassel (*Garrya* spp.), coyote bush (*Baccharis pilularis*), chaparral ryegrass (*Elymus* spp.), and chaparral yucca (*Yucca whipplei*) (Society for Range Management 1994).

Chokecherry – Serviceberry – Rose

This vegetation type is dominated by one or more of the following species: chokecherry (*Prunus virginiana*), serviceberry (*Amelanchier alnifolia*), wild rose (*Rosa* spp.) and snowberry (*Symphoricarpos* spp.) (Society for Range Management 1994).



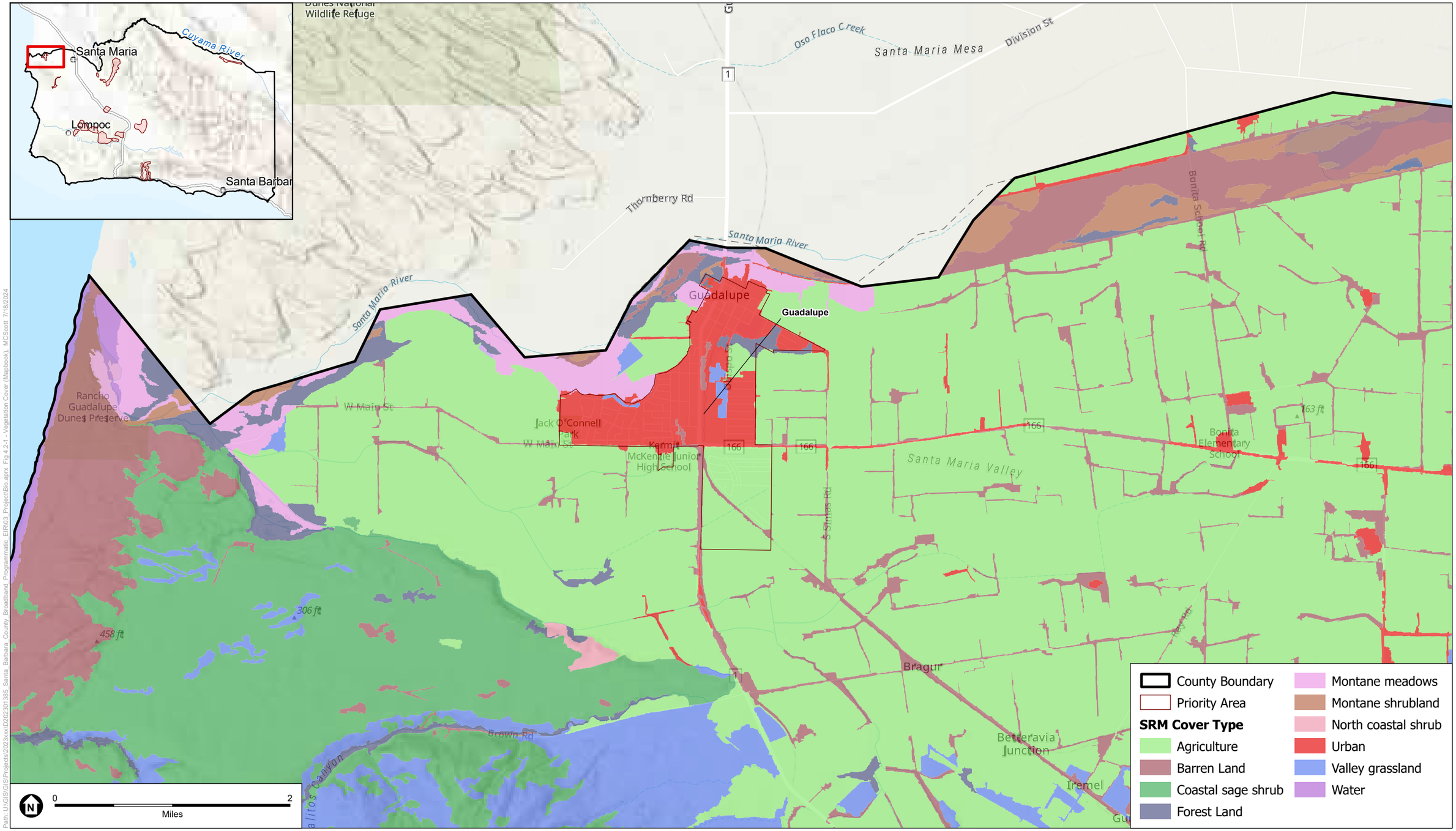
Path: U:\GIS\GIS\Projects\2023xxx\D2023013B5_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio.aprx Fig 4.2-1 - Vegetation Cover (Overview), MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-1
Vegetation Cover

ESA



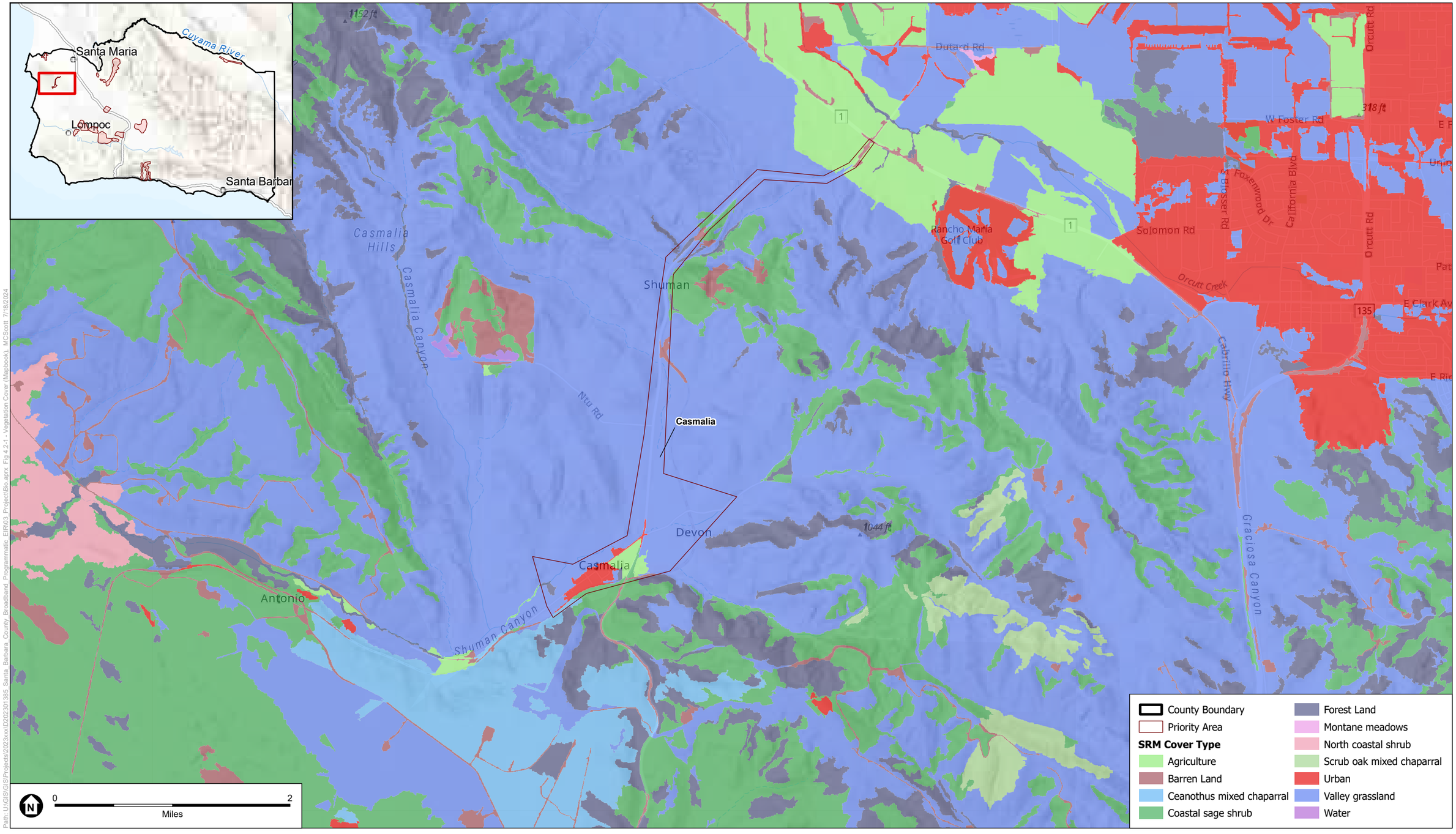
Path: U:\GIS\GISProjects\2023xxx\D202301385_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio aprx Fig 4.2-1 - Vegetation Cover (Maybook), MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-1A
Vegetation Cover
Guadalupe

ESA



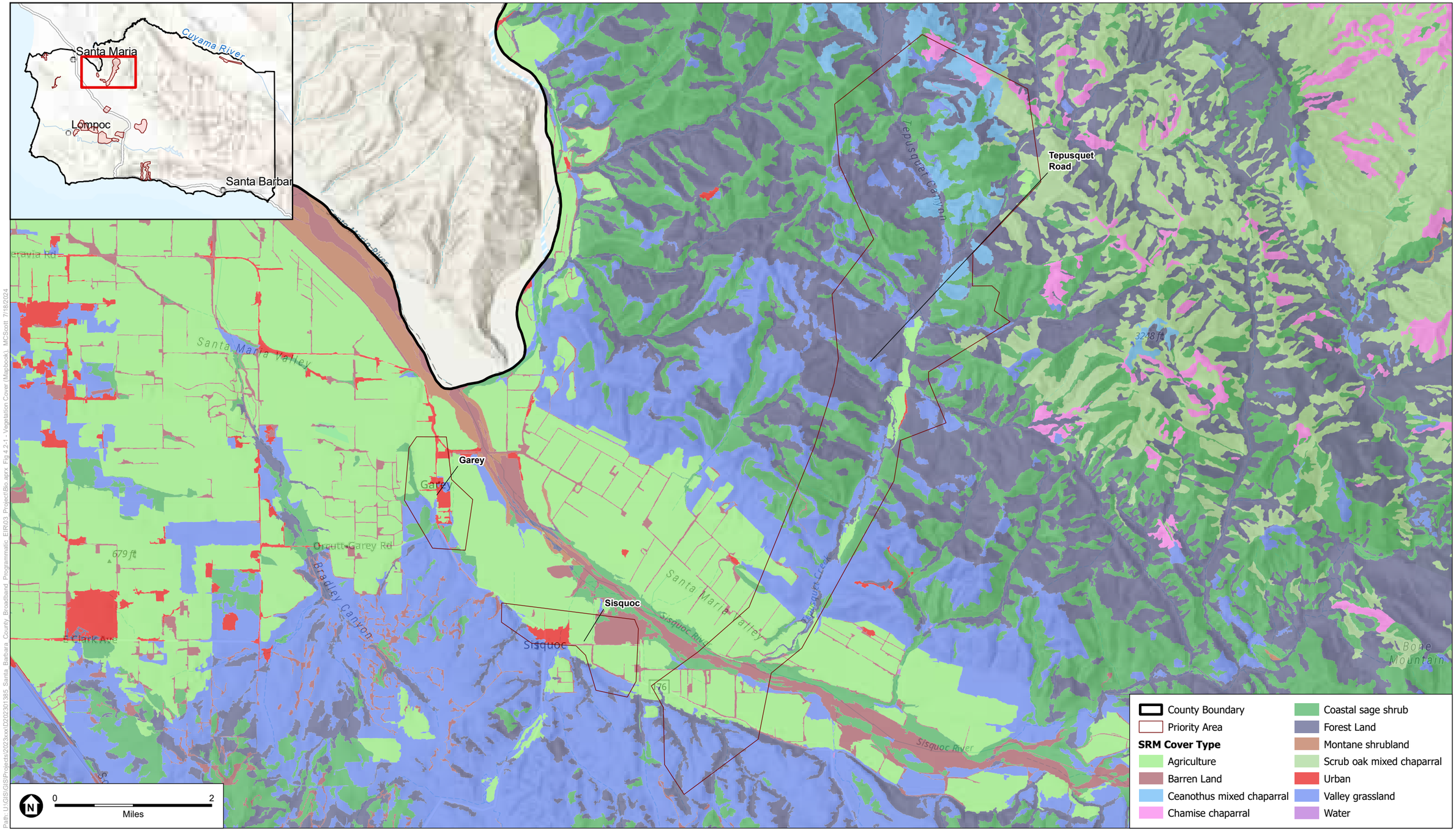
Path: U:\GIS\GIS\Projects\2023xxx\D2023013B5_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio.aprx Fig 4.2-1 - Vegetation Cover (Maybook), MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-1B
Vegetation Cover
Casmalia

ESA



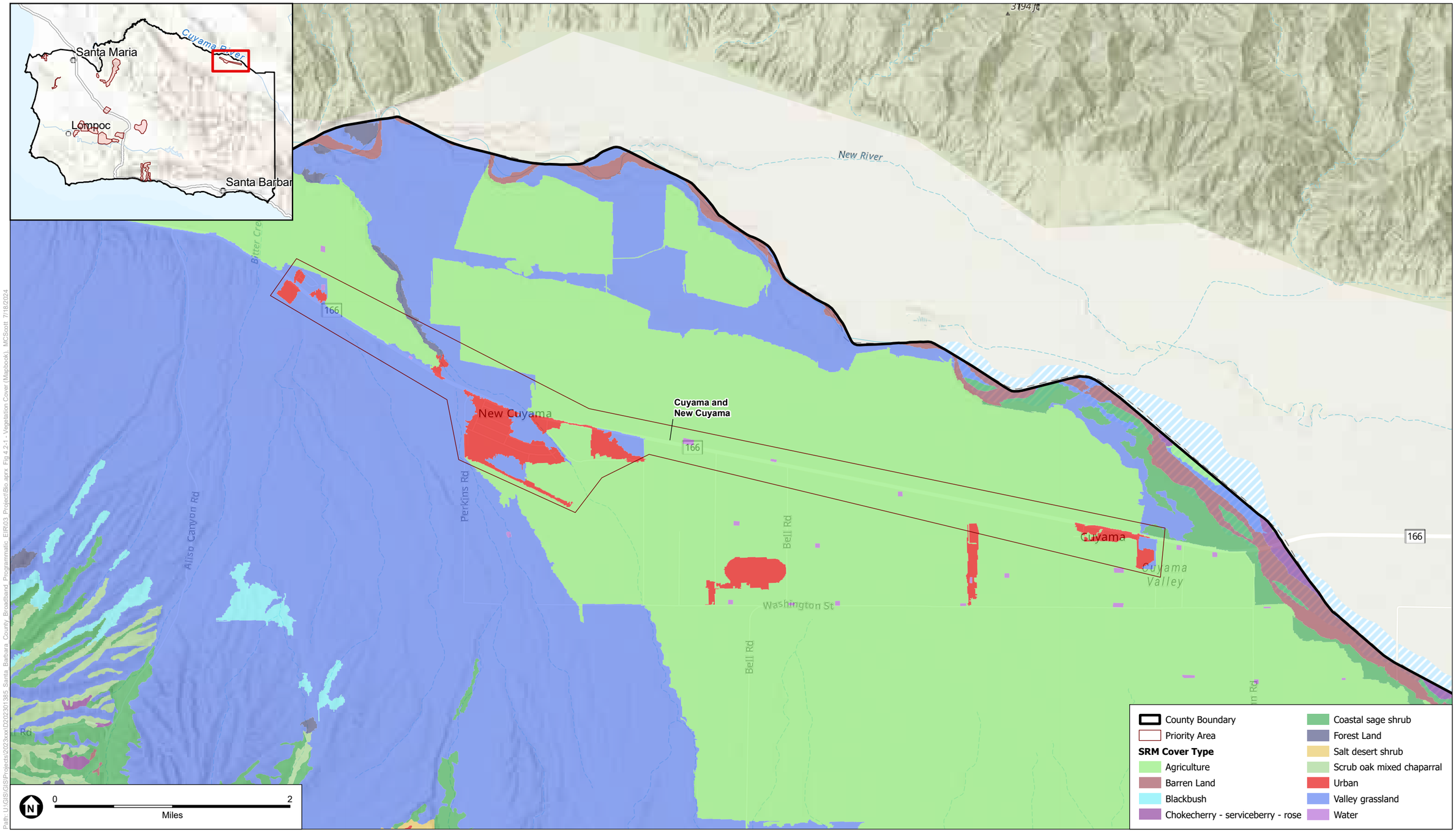
Path: U:\GIS\GIS\Projects\2023xxx\D202301385 Santa Barbara County Broadband Programmatic EIR\03 ProjectBio aprx Fig 4.2-1 - Vegetation Cover (Maybook) MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-1C
Vegetation Cover
East of Santa Maria

ESA



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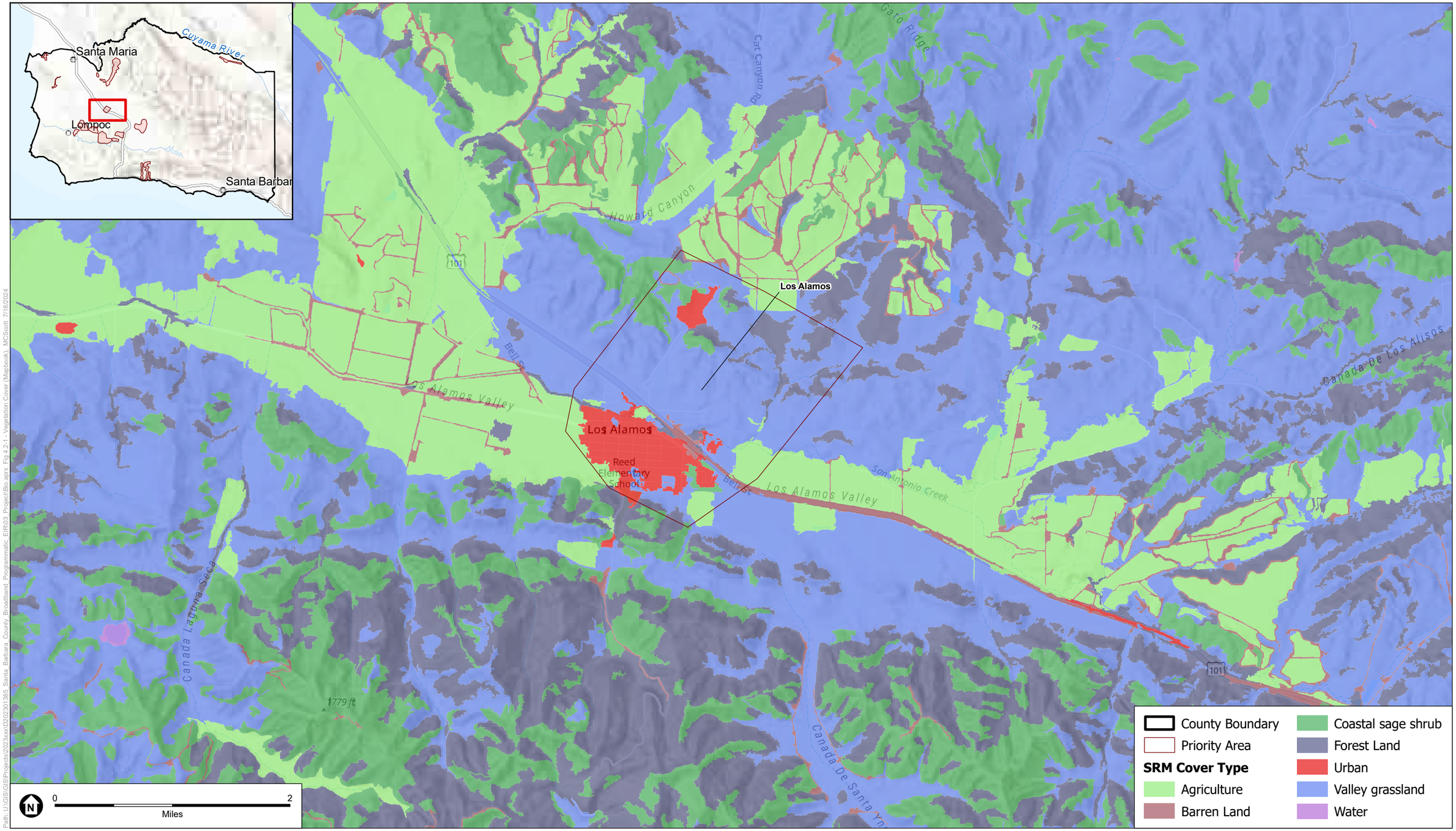
SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-1D
Vegetation Cover
Cuyama and New Cuyama

ESA



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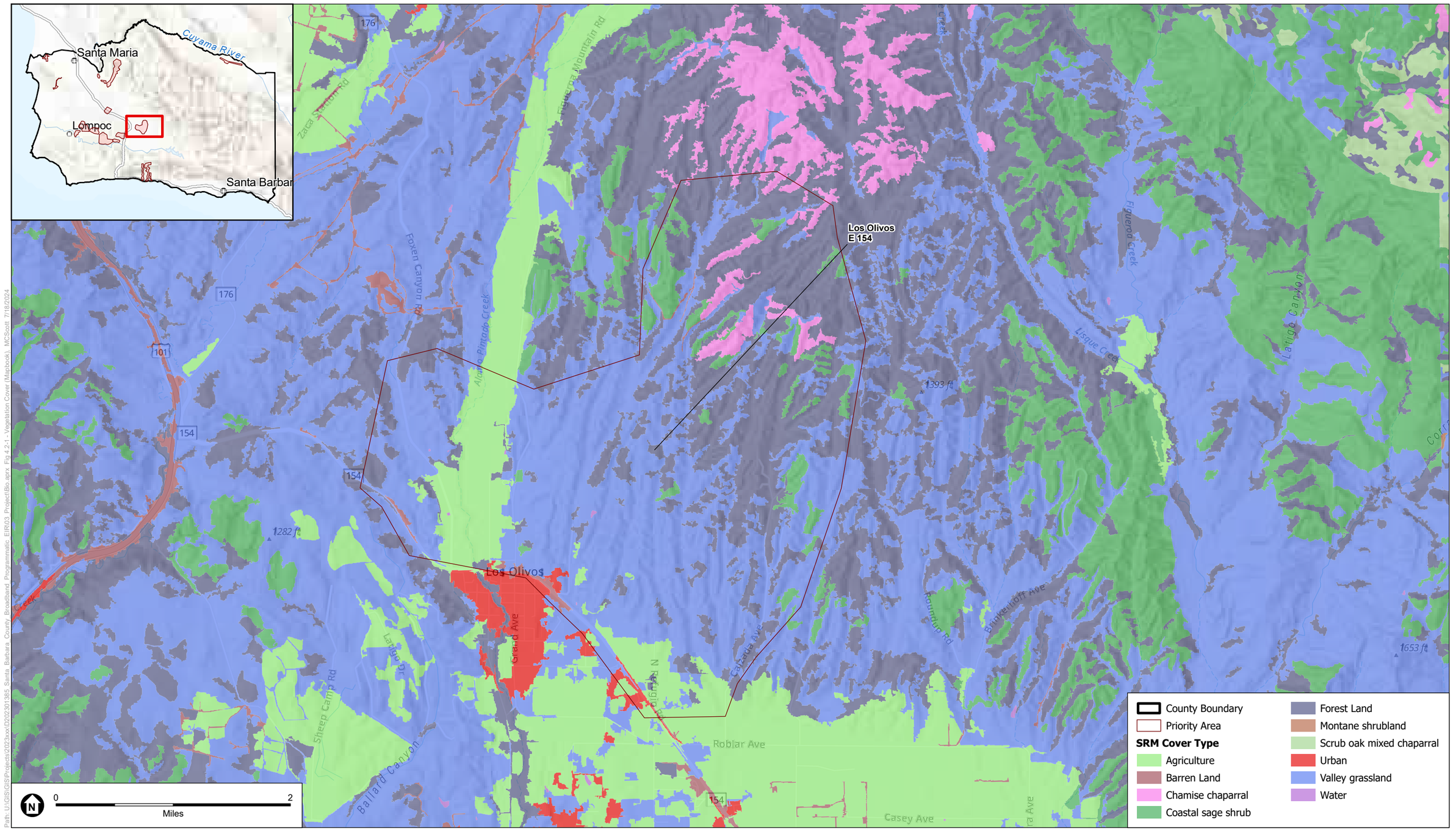
SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-1E
Vegetation Cover
Los Alamos

ESA



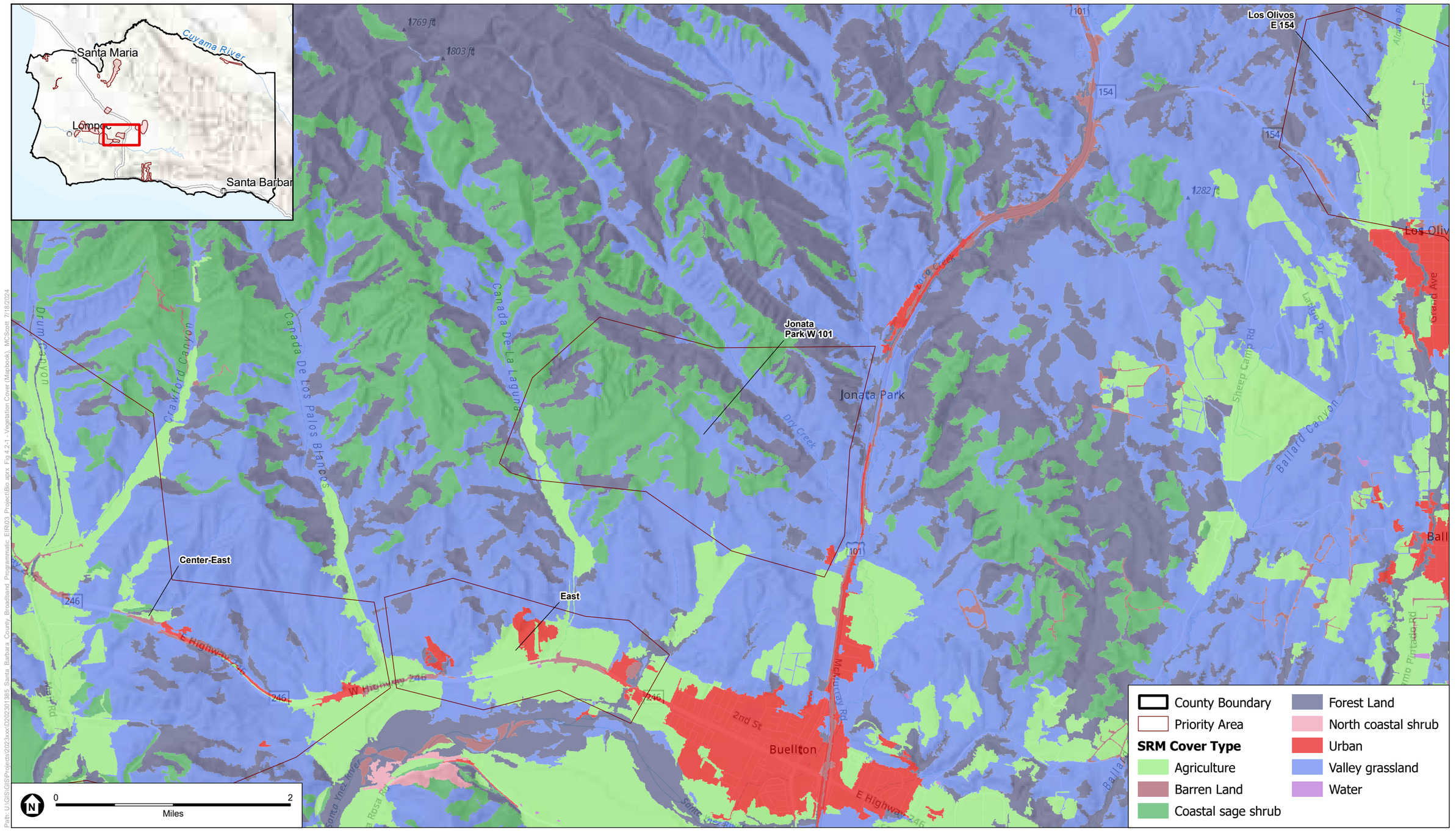
Path: U:\GIS\GIS\Projects\2023\xxx\D2023013B5_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio.aprx Fig 4.2-1 - Vegetation Cover (Maybook), MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-1F
Vegetation Cover
Los Olivos E 154

ESA



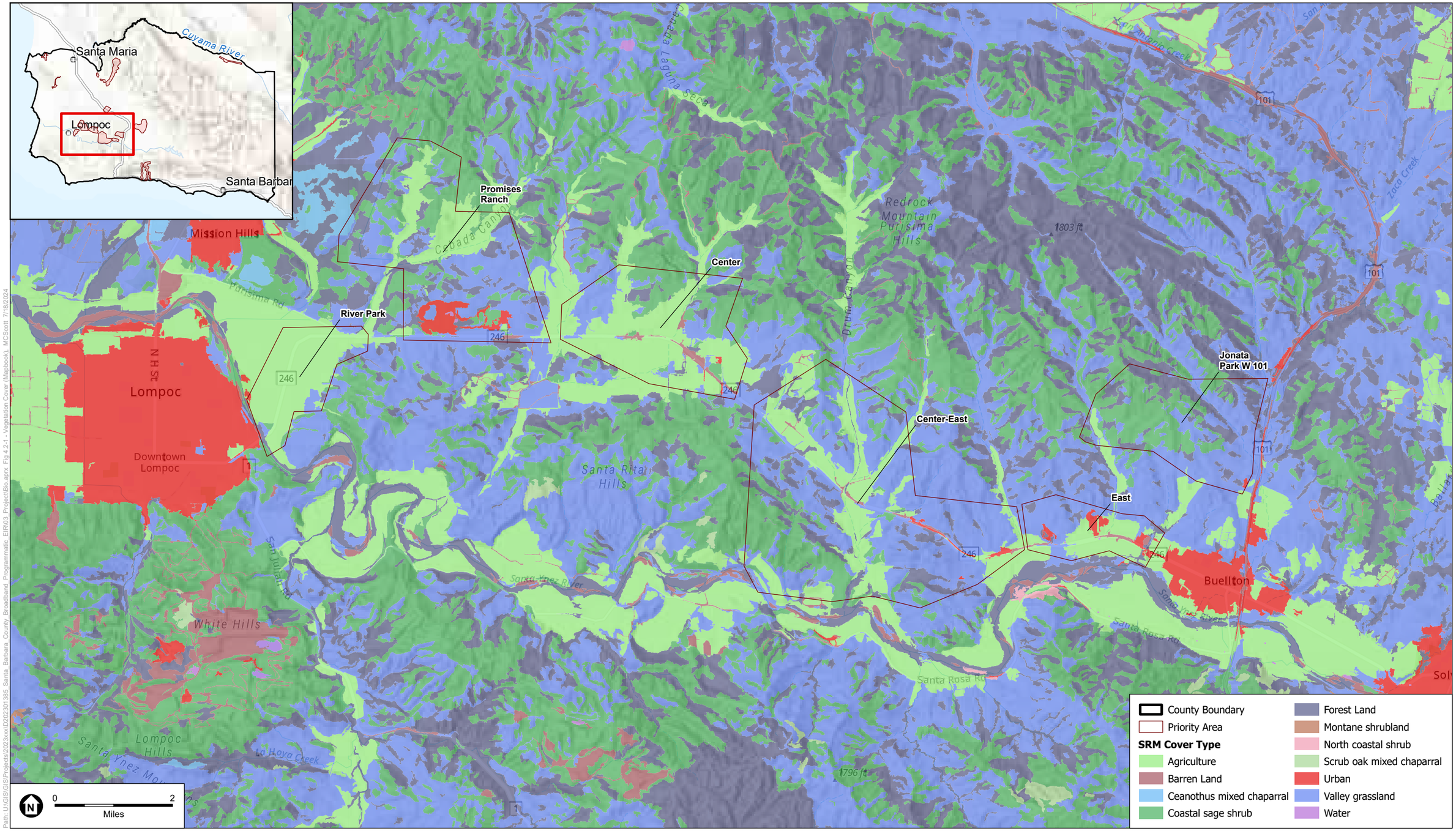
SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-1G
Vegetation Cover
Jonata Park W 101

ESA

Path: U:\GIS\GIS\Projects\2023xxx\D2023013B5_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio.aprx Fig 4.2-1 - Vegetation Cover (Maybook), MCScott 7/18/2024



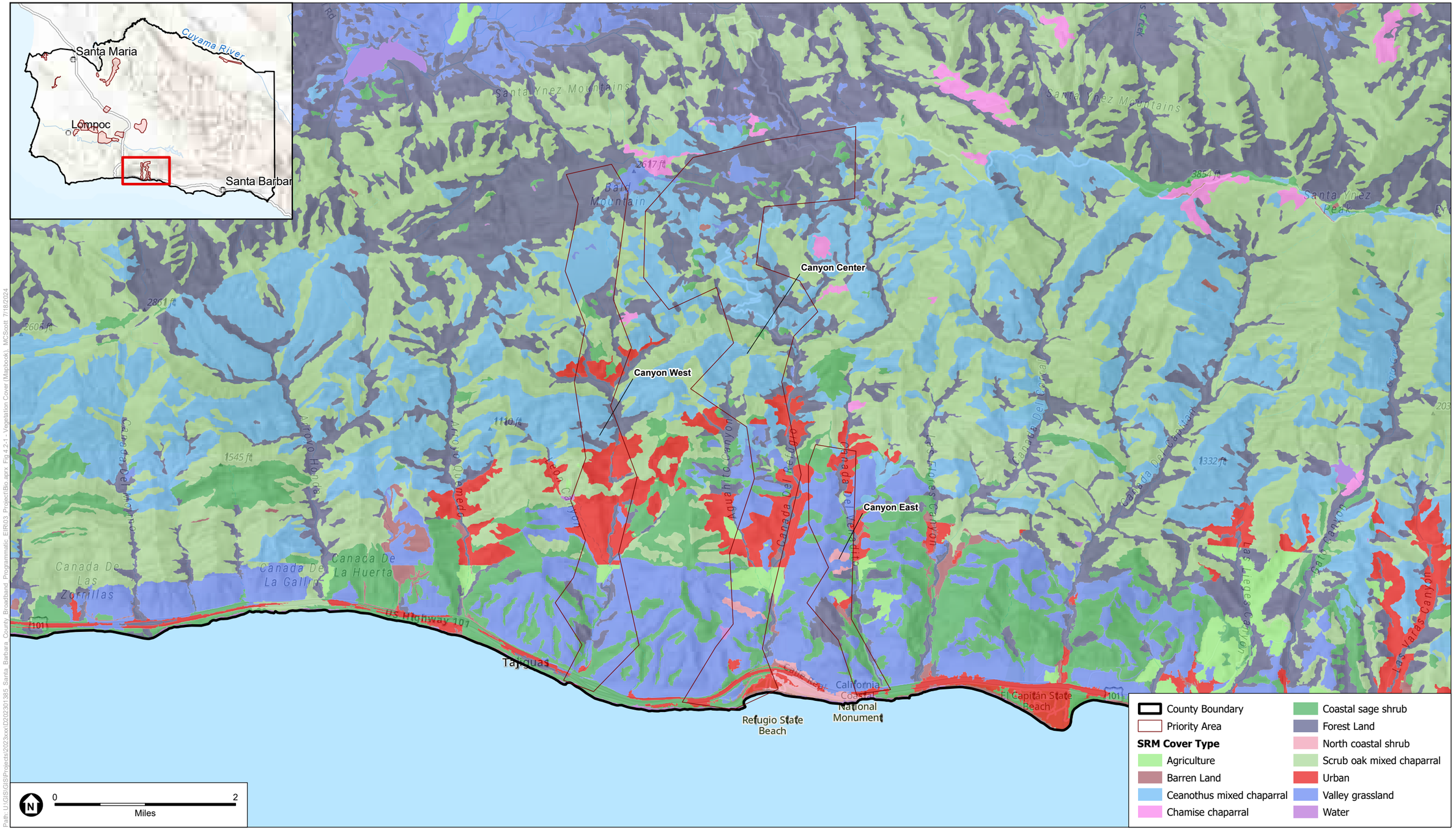
Path: U:\GIS\GISProjects\2023xxx\D202301385_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio aprx Fig 4.2-1 - Vegetation Cover (Maybook), MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-1H
Vegetation Cover
Highway 246 Corridor

ESA



Path: U:\GIS\GIS\Projects\2023xxx\D202301385_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio aprx Fig 4.2-1 - Vegetation Cover (Maybook), MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-1l
Vegetation Cover
Refugio Canyon

ESA

Coastal Sage Shrub

Coastal sage shrub is dominated by facultatively drought-deciduous subshrubs less than 4.5 feet (1.5m) tall. The principal species are black sage, purple sage (*Salvia leucophylla*), white sage (*Salvia apiana*), California sagebrush (*Artemisia californica*), California buckwheat, California encelia (*Encelia californica*), and lemonade berry (*Rhus integrifolia*). Commonly associated species include perennial bunch grasses, perennial forbs, stemless rosette plants, succulents, and additional evergreen and drought-deciduous shrubs (Society for Range Management 1994).

Creosote Bush Scrub

Creosote bush is the dominant species, while codominant species include burro weed (*Franseria dumosa*) galleta grass (*Hilaria rigida*), jumping cholla (*Opuntia bigelovii*), cheese bush (*Hymenoclea salsola*), and brittle bush (*Encelia farinosa*, *E. frutescens*). Other species occurring in this type are Ephedra sp., blackbush, hedgehog cactus (*Echinocactus* sp.), yucca (*Yucca* sp.), Joshua tree (*Yucca brevifolia*), ocotillo (*Fouquieria splendens*), indigo bush (*Dalea*), boxthorn (*Lycium*), globemallow (*Sphaeralcea ambigua*), cactus (*Echinocereus engelmanii*, *E. mojavensis*), golden cholla (*Opuntia echinocarpa*), beaver tail cactus (*O. basilaris*), mesquite (*Prosopis juliflora*), screwbean mesquite (*P. pubescens*) and various perennial and annual grasses and forbs. Baccharis (*Baccharis brachyphylla, B. sergiloides*), desert ironwood (*Olneya tesota*), arrowweed (*Pluchea sericea*) and desert willow (*Chilopsis linearis*) may occur along water courses (Society for Range Management 1994).

Forest Land

Forest Land contains a tree-crown aerial density of 10 percent or more. These areas are stocked with trees capable of producing timber or other wood products (USDA & USFS 2015).

Montane Meadows

Montane meadows are habitats occupied by grass (*Poaceae* family) and grasslike species. The primary environmental characteristic of meadow vegetation is an associated high water table, during all or part of the year (Society for Range Management 1994).

Montane Shrubland

The cover type is characterized by evergreen species but deciduous or partially deciduous species may also be present. The following species usually characterize montane shrubland communities: whitethorn ceanothus (*Ceanothus cordulatus*), snowbrush ceanothus (*C. velutinus*), greenleaf manzanita (*Artostaphylos patula*), pinemat manzanita (*A. nevadensis*), Hoary manzanita (*A. canescens*), bitter cherry (*Prunus emarginata*), huckleberry oak (*Quercus vaccinifolia*), Sierra chinquapin (*Castanopsis sempervirens*), juneberry (*Amelanchier pallida*), fremont silktassel (*Garrya fremontii*), Greene goldenweed (*Haplopappus greenei*), mountain mahogany, toyon (*Heteromeles arbutifolia*), sumac (*Rhus* sp.), and California coffeeberry (*Rhamnus californica*). In addition, conifer and oak trees may occur in sparse stands or as scattered individuals (Society for Range Management 1994).

Mountain Big Sagebrush

Mountain big sagebrush is dominated by mountain big sagebrush (*Artemisia tridentata* ssp. *vaseyana*) with understory of perennial grasses and forbs. Mountain big sagebrush is the most abundant shrub accompanied by antelope bitterbrush, green rabbitbrush (*Chrysothamnus ciscidiflorus*), gray horsebrush,

and Mountain snowberry (*Sumphoricarpos oreophilus*). The understory consists of perennial grasses and forbs including Idaho fescue and bluebunch wheatgrass, Sandberg bluegrass, mountain brome (*Bromus carinatus* and related spp.), slender wheatgrass (*Agropyron caninum*), junegrass (*Koeleria pyramidata*), onion grass (*Melica* spp.), western needlegrass (*Stipa occidentalis*) and sedges (*Carex geyeri* and spp.). Common forms include yarrow, milkvetches (*Astragalus miser* and spp.), arrowleaf balsamroot, tapertip, hawksbeard (*Crepis acuminata*), Wyeth and sulphur buckwheat (*Eriogonum heraleoides* and *E. umbellatum*), Aven (*Geum triflorum*), biscuitroot (*Lomatium triternatum* and spp.), Lupine, longleaf phlox and groundsel (*Senecio interrimus*) (Society for Range Management 1994).

North Coastal Shrub

North coastal shrub includes coyote bush (*Baccharis pilularis* spp. *consanguinea*), blueblossom ceanothus (*Ceanothus thrysiflorus*), California coffeeberry, California wax myrtle (*Myrica californica*), bush lupine (*Lupinus arboreus*), and salal (*Gaultheria shallon*) cowparsnip (*Heracleum lanatum*), blue wildrye (*Elymus glaucus*), and giant horsetail (*Equisetum telemateia*) in the overstory. Beneath the overstory is a mixture of bush monkeyflower (*Diplacus aurantiacus*), coastal buckwheat (*Eriogonum latifolium*), goldenweed (*Haplo-pappus ericoides*), golden yarrow (*Eriophyllum staechadifolium*), Suksdorfs sagebrush (*Artemisia suksdorfii*), yerba santa (*Eriodictylon californicum*), California blackberry (*Rubus vitifolius*), Nootka rose (*Rosa nutkana*), poison oak (*Toxicodendron diversilobum*), salmonberry (*Rubus spectabilis*), thimbleberry (*Rubus parviflorus*), trailing blackberry (*Rubus ursinus*), red fescue (*Festuca rubra*), slough sedge (*Carex obnupta*), sweet vernalgrass (*Anthoxanthum odoratum*), sweet velvetgrass (*Holcus lanatus*), Canada goldenrod (*Solidago canadensis*), paintbrush (*Castilleja latifolia*), pearly everlasting (*Anaphalis margaritacea*), western yarrow (*Achillea millefolium*), brackenfem (*Pteridium aquilinum var. lanuginosum*), and sword fern (*Polystichum munitum*). Gorse (*Ulex europaeus*) and Scotch broom (*Cytisus scoparius*) are sometimes major components (Society for Range Management 1994).

Salt Desert Shrub

Salt desert shrub occurs in low elevation landscapes in the temperate deserts of the Great Basin and surrounding areas in the western United States (U.S.). Vegetation cover is low and is dominated by one or more species of low growing chenopod shrubs. Dominant species include shadscale (*Atriplex confertifolia*), black greaseweed (*Sarcobatus vermiculatus*) and winterfat (*Ceratoides lanata*). Other species may include four-wing saltbush (*Atriplex canescens*), Bailey's greasewood (*Sarcobatus baileyii*), bud sagebrush (*Artemisia spinescens*), salt rabbitbrush, blacksagebrush (*Artemisia nova*), Nuttall's saltbush (*Atriplex nuttallii*), Indian rice grass (*Oryzapsis hymenoides*), Saltgrass (*Distichlis spicatum*), Galleta (*Hilaria jamesii*), Squirreltail, alkali sacaton (*Sporobolus airoides*), bluejoint (*Elymus triticoides*), and great basin wildrye (*Elymus cinereus*) (Society for Range Management 1994).

Scrub Oak Mixed Chaparral

Scrub Oak Mixed Chaparral is dominated by scrub oak or interior live oak (*Quercus wislizenii* var. *frutescents*) with a wide variety of associated shrubs. Common associates include mountain mahogany, toyon, hollyleaf cherry (*Prunus ilicifolia*), silktassel (*Garrya flavescens*, *G. veatchii*), California coffeeberry, redberry (*Rhamnus ilicifolia*), foothill ash (*Fraxinus dipetala*), and elderberry (*Sambucus mexicana*), honeysuckle (*Lonicera subspicata*), wild cucumber (*Marah macrocarpus*), chaparral virgin's bower (*Clematis lasiantha*), and poison oak. Seral communities (10-60 years old) are characterized by a

relatively high cover of ceanothus species including chaparral whitehorn (*Ceanothus leucodermis*), hairy ceanothus, woollyleaf ceanothus, hoaryleaf ceanothus (*C. crassifolius*), cupleaf ceanothus, buckbrush and blue-blossom ceanothus (*C. thyrsiflorus*) (Society for Range Management 1994).

Urban

This category applies to landscapes that are dominated by urban structures, residential units, or other developed land use elements such as highways, city parks, cemeteries and the like. In those cases where the managed landscapes may have a considerable vegetation component, other land use categories may be more appropriate, such as Ornamental Conifer and Hardwood mixtures within city parks. Much of the landscape in southern California has been mapped in this category (USDA 2009).

Valley Grassland

Valley grassland is characterized by herbaceous annual plants including common genera like Erodium, Trifolium, Madia, Amsinckia, and Brassica, mixed with species from the grass genera (Avena, Bromus, Festuca, and Hordeum) (Society for Range Management 1994).

Water

Water is labeled in CALVEG mapping in those cases in which permanent sources of surface water are identified within a landscape unit of sufficient size to be mapped. The category includes lakes, streams, and canals of various sizes, bays and estuaries and similar water bodies. These areas are considered to have a minimum of vegetation components, except along the edges, which may be mapped as types such as Wet Meadows, Tule-Cattail freshwater marshes, or Pickleweed-Cordgrass saline or mixed marshes. Islands of sufficient size within water bodies are mapped according to their terrestrial dominant vegetation types (USDA 2009).

Wetlands

Wetlands can be divided into two major types: fresh emergent wetland and saline emergent wetland. Fresh emergent wetlands are characterized by frequent flooding, upright, perennial hydrophytes and roots that are adapted to anaerobic conditions, with species such as big leaf sedge (*Carex amplifolia*), balticrush (*Juncus balticus*), redroot nutgrass (*Cyperus erythrorhizas*), saltgrass (*Distichlis spicata*), tule bulrush (*Scirpus validus*), river bulrush (*Scirpus fluviatilis*), and arrowhead (*Sagitarria* spp.). Saline emergent wetlands are characterized by salt or brackish water and are dominated by species such as cordgrass (*Spartina* spp.), pickleweed (*Salicornia* spp.), saltgrass (*Distichlis spicata* var. *stricta*), marsh dodder (*Cuscuta* spp.) (Society for Range Management 1994).

Special-Status Species

The term special-status species refers to plant and wildlife species that are considered sufficiently rare that they require special consideration and/or protection and should be, or currently are, listed as rare, threatened, or endangered by the federal and/or state governments. Such species are legally protected under the federal Endangered Species Act (FESA) and/or state Endangered Species Act (CESA) or other regulations or are species that are considered sufficiently rare by the regulatory and scientific community to qualify for protection. The term special-status species includes the following:

- Species listed or proposed for listing as threatened or endangered under the FESA (Code of Federal Regulations Title 50, Section 17.12 [listed plants] and Section 17.11 [listed animals] and various notices in the Federal Register [FR] [proposed species]);
- Species that are candidates for possible future listing as threatened or endangered under the FESA (61 FR 40, February 28, 1996);
- Species listed or proposed for listing by the State of California as threatened or endangered under the CESA (California Code of Regulations Title 14, Section 670.5);
- Plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code [CFGC] Section 1900 et seq.);
- Species designated by CDFW as California Species of Special Concern (SSC);
- Animals fully protected under the CFGC (Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]);
- Species that meet the definitions of rare and endangered under CEQA. CEQA Section 15380 provides that a plant or animal species may be treated as "rare or endangered" even if not on one of the official lists (CEQA Guidelines Section 15380); and
- Plants considered by CDFW and CNPS to be "rare, threatened or endangered in California" (California Rare Plant Rank 1A, 1B, and 2).

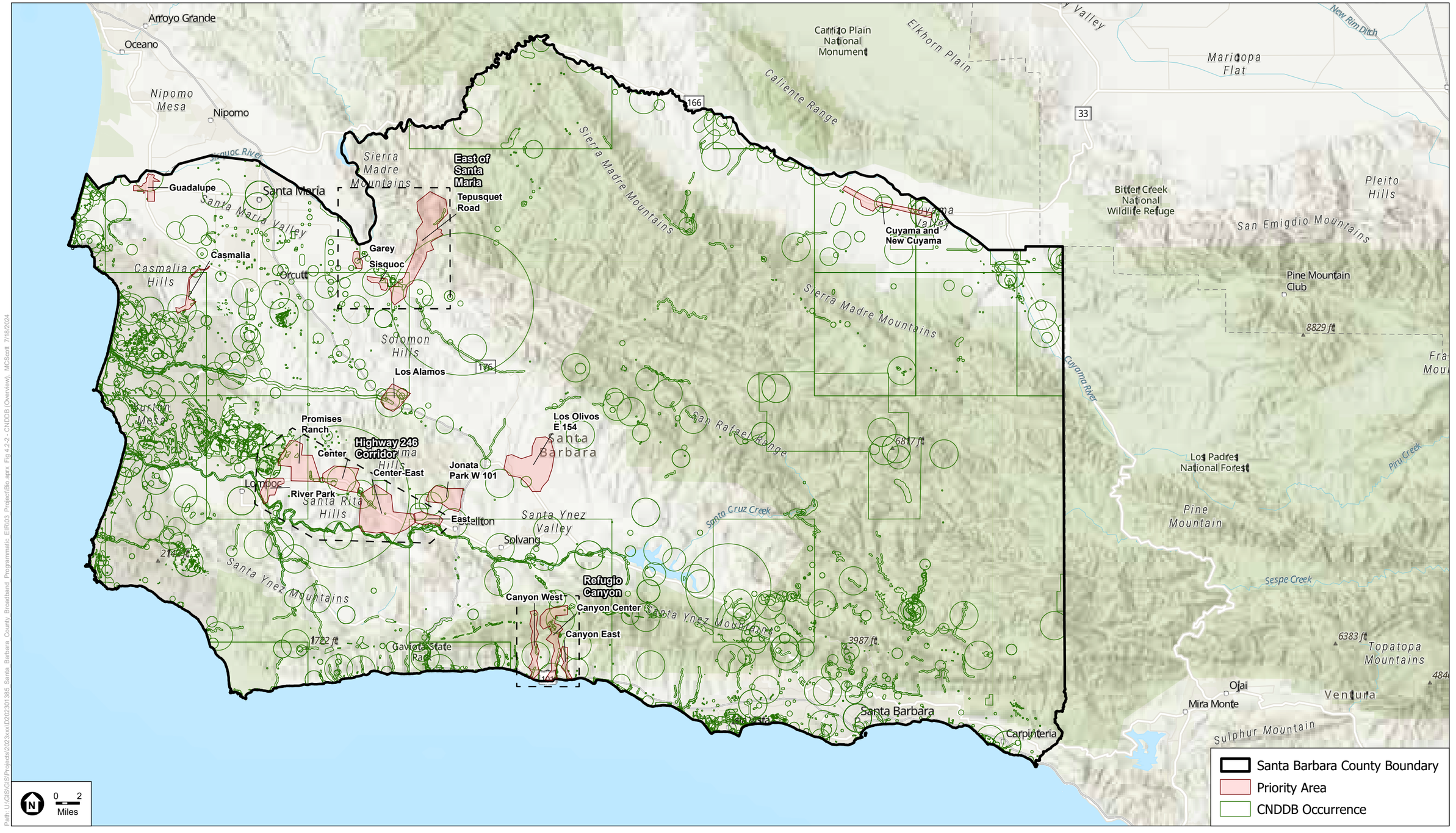
A comprehensive list of special-status plant and wildlife species that could occur in the County was compiled based on a database search and literature review to assess the likelihood of species occurrence and potential impacts of future broadband facilities within the Priority Areas and impacts of future broadband facilities in other parts of the County to these species. Occurrences of special-status species within the County and the nine Priority Areas that have been recorded in the CNDDB are shown in **Figure 4.2-2:** *CNDDB Occurrences***.**

Plants

A total of 117 special-status plant species were evaluated for their potential to occur within the Priority Areas and within the County as a whole. Of these, it was determined that one is not expected to occur, 24 have a low potential to occur, four have a low to moderate potential to occur, 75 have a moderate potential to occur, two have a moderate to high potential to occur, and 11 have a high potential to occur within the County. A detailed discussion of each special-status plant species, their preferred habitat, and potential to occur within the County and each of the Priority Areas is included in **Appendix C**.

Wildlife

A total of 77 special-status wildlife species were evaluated for their potential to occur within the County and within the Priority Areas. It was determined that three have a low potential to occur, ten have a moderate potential to occur, and 64 have a high potential to occur within the County. A detailed discussion of each special-status wildlife species, their preferred habitat, and potential to occur is included in **Appendix C**.



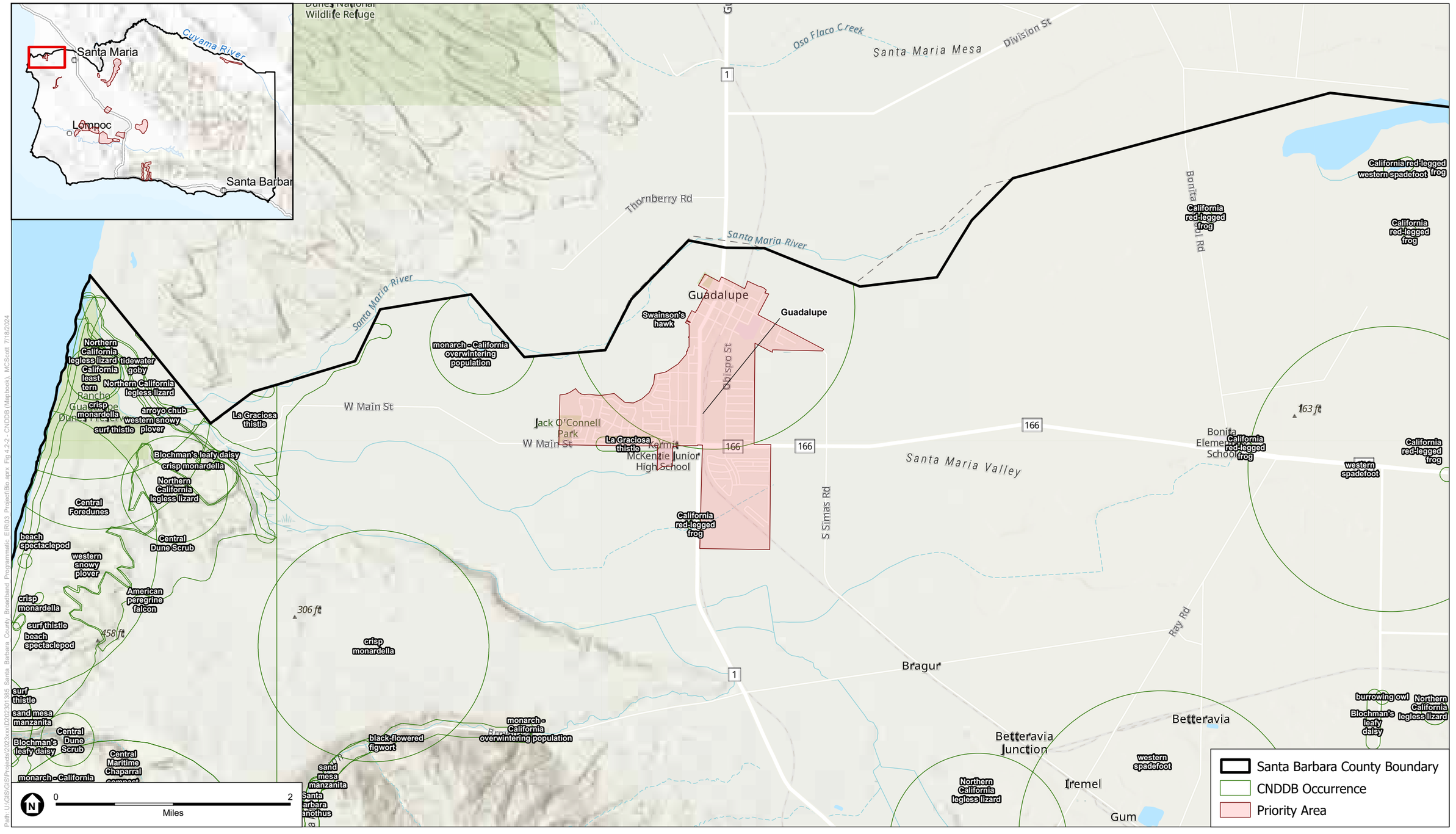
Path: U:\GIS\GIS\Projects\2023xxx\D2023013B5_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio.aprx Fig 4.2-2 - CNDDB (Overview), MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-2
CNDDB Occurrences

ESA

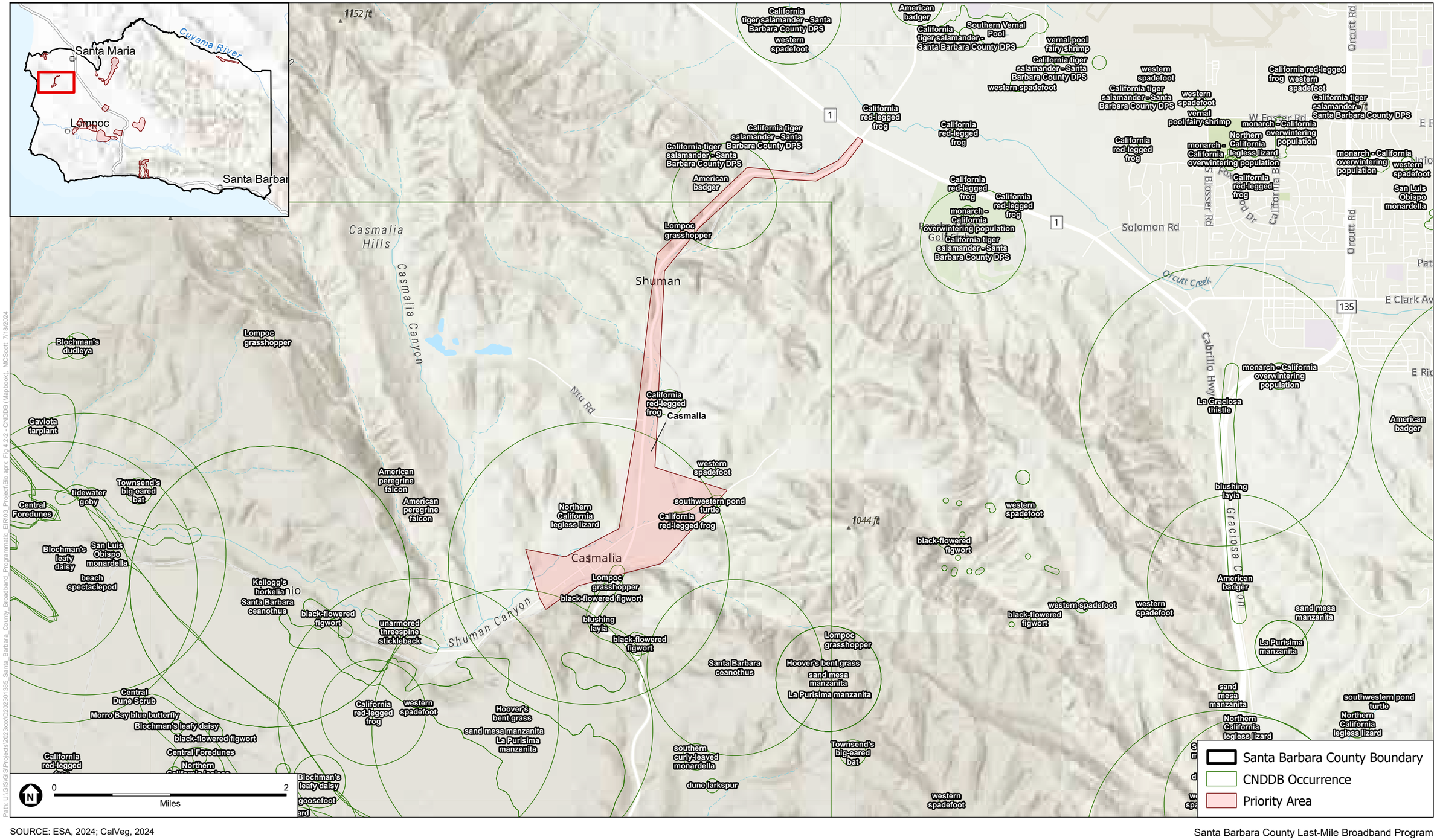


SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-2A
CNDDB Occurrences
Guadalupe

ESA

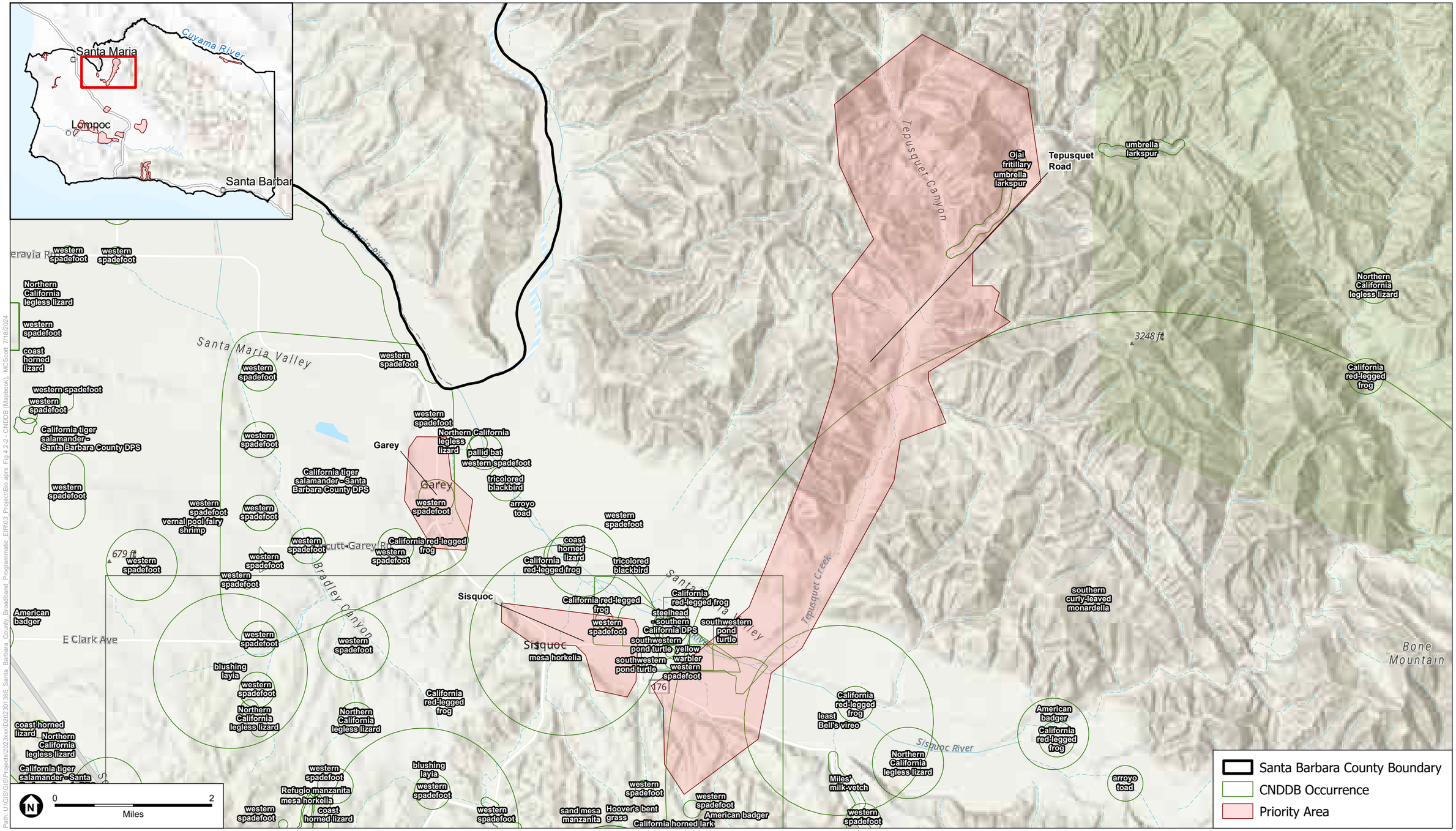


SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-2B
CNDDB Occurrences
Casmalia

ESA



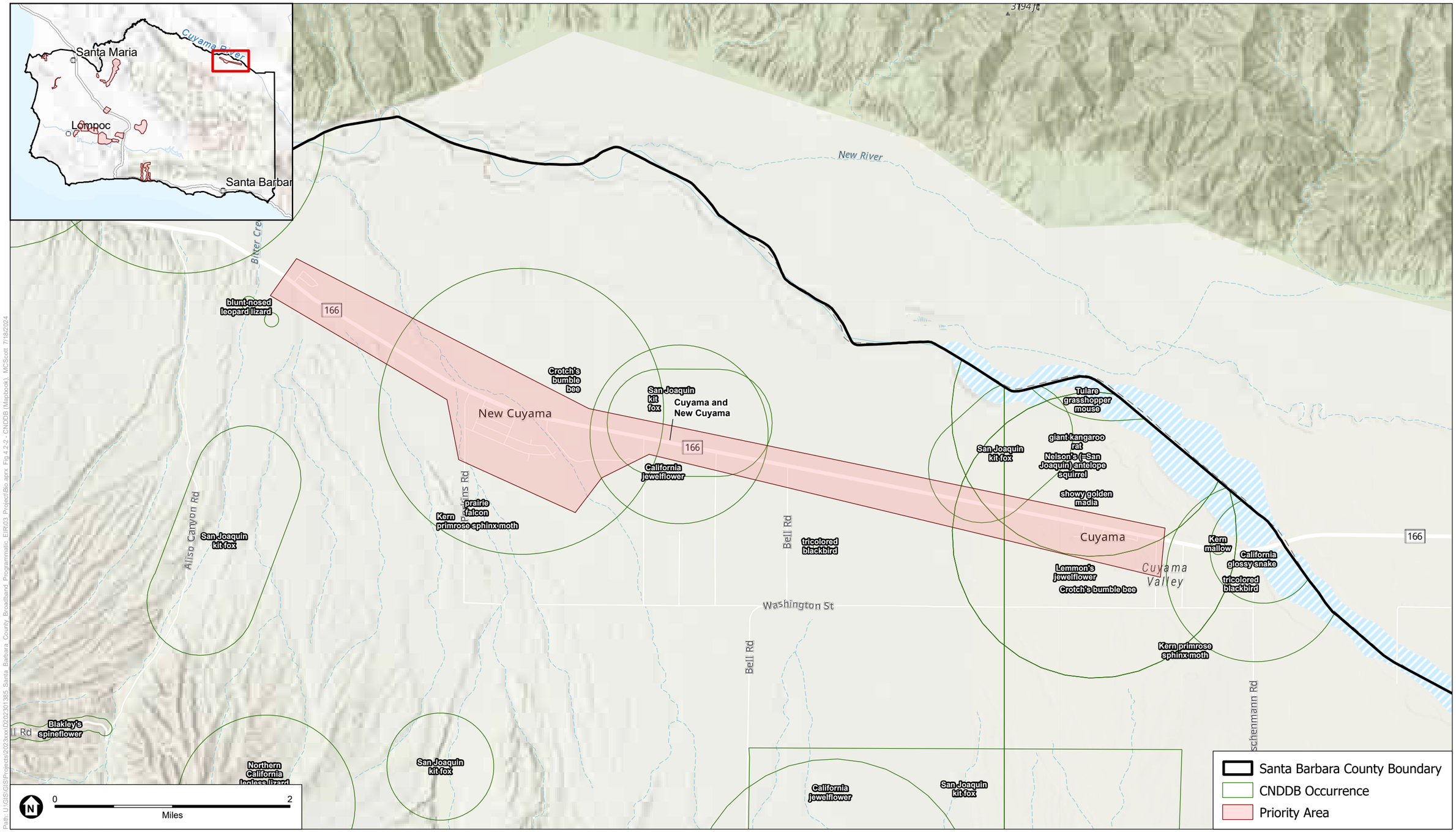
SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-2C
CNDDB Occurrences
East of Santa Maria

ESA

Path: U:\GIS\GIS\Projects\2023xxxx\D2023013B5_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio.aprx Fig 4.2-2 - CNDDB (Maybook), MCScott 7/18/2024



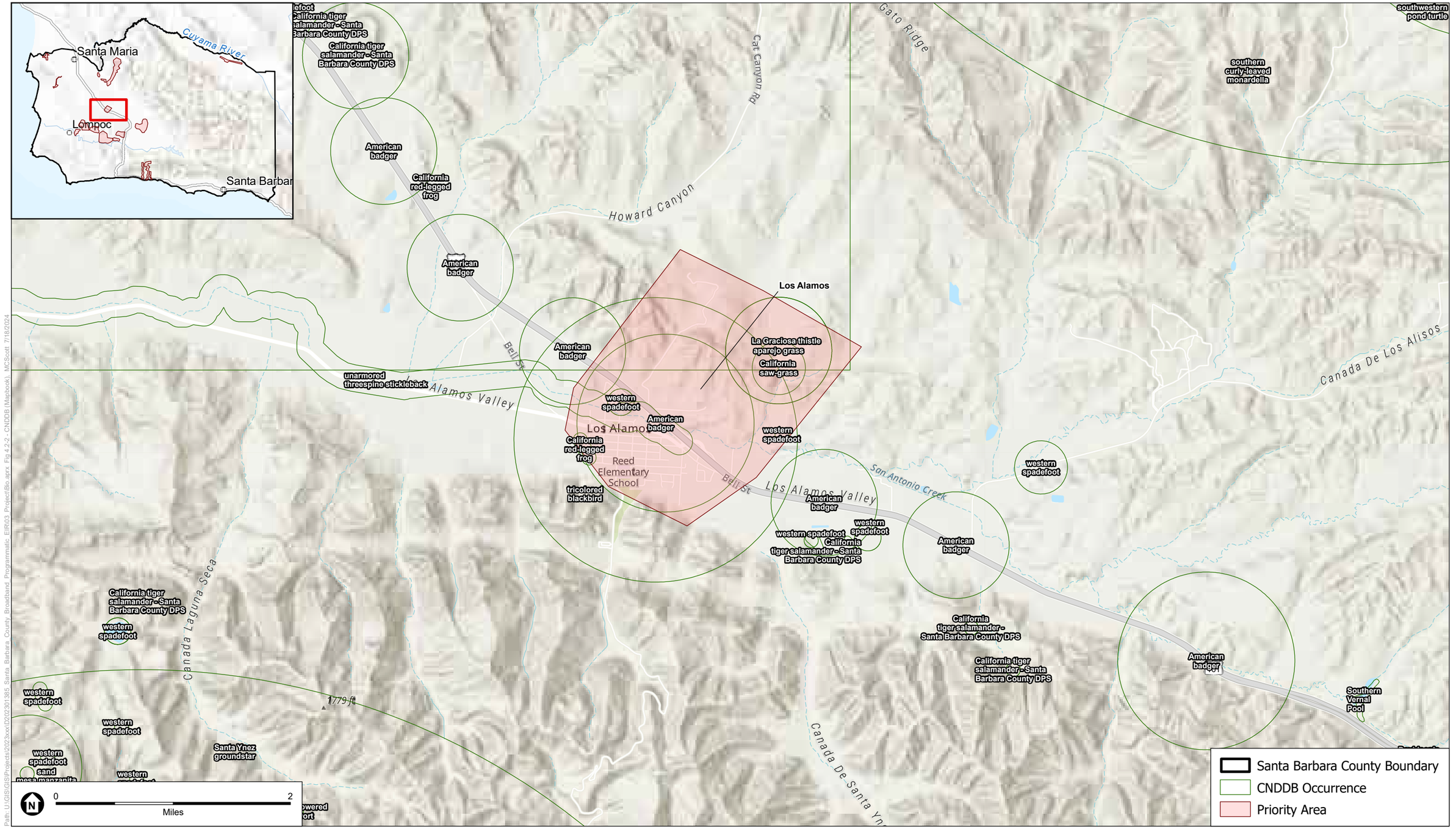
Path: U:\GIS\GIS\Projects\2023xxx\D202301385_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio.aprx Fig 4.2-2 - CNDDB (Maybook), MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-2D
CNDDB Occurrences
Cuyama and New Cuyama

ESA



Path: U:\GIS\GIS\Projects\2023xxx\D202301385_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio_aprx Fig 4.2-2 - CNDDB (Maybook)_MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-2E
CNDDB Occurrences
Los Alamos

ESA

Santa Barbara County Boundary
CNDDB Occurrence
Priority Area
Los Olivos E 154
Northern California legless lizard
Santa Barbara jewelflower
obscure bumble bee
Crotch's bumble bee
tricolored blackbird
Davidson's saltscale
American badger
Hoover's bent grass
western spadefoot
Santa Maria
Lompoc
Santa Barbara
Cuyama River
Zaca Station Rd
Figueroa Mountain Rd
Foxen Canyon Rd
Alamo Pintado Creek
Sisquoc River
Lisque Creek
Latigo Canyon
Los Olivos
Grand Ave
Sheep Camp Rd
Latigo Dr
Ballard Canyon
N Refugio Rd
Calzada Ave
Roblar Ave
Roundup Rd
Brinkerhoff Ave
Casey Ave
1393 ft
1282 ft
1653 ft
176
101
154
0
2
Miles

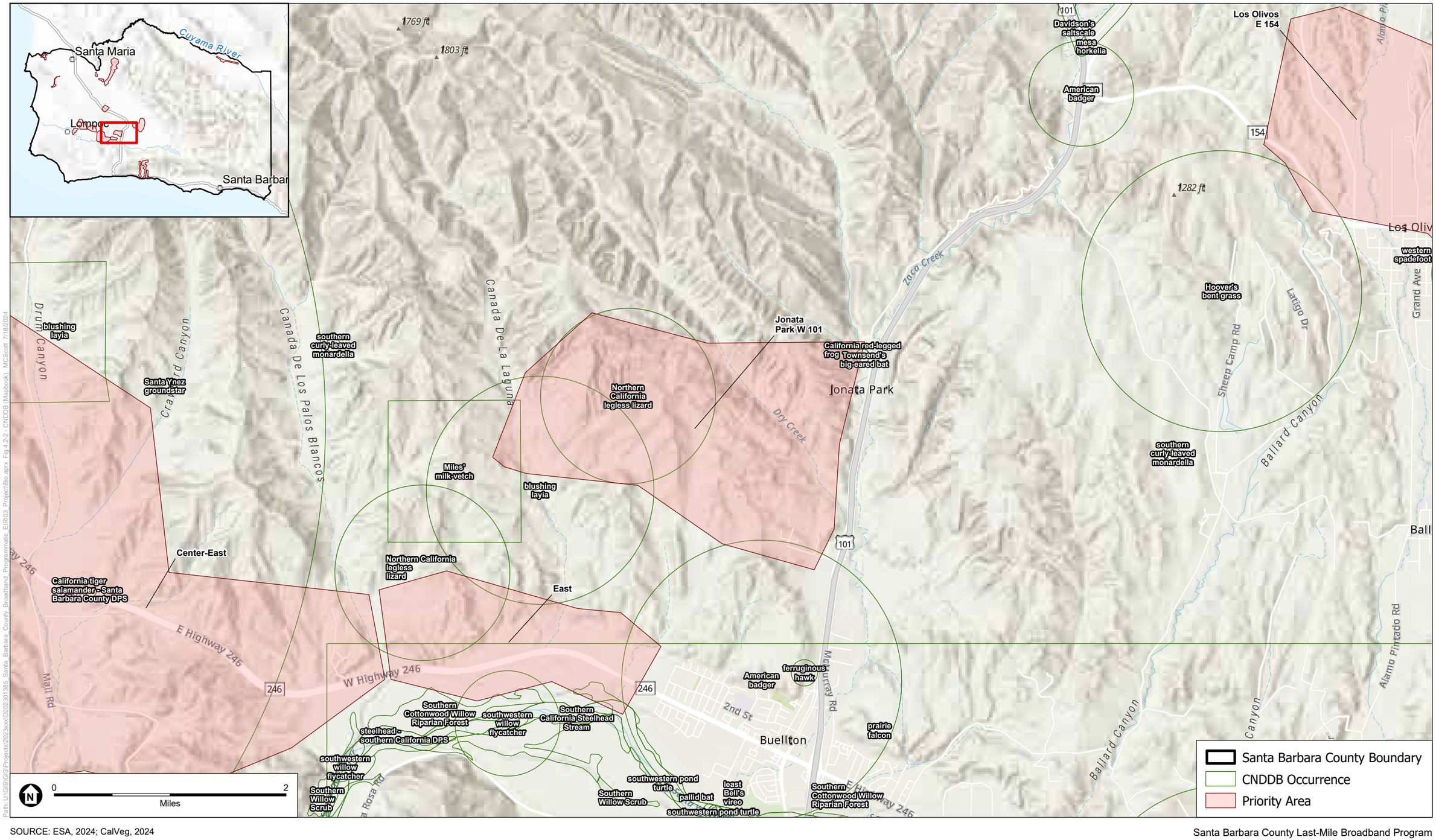
Path: U:\GIS\GIS\Projects\2023xxx\ID202301385_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio.aprx Fig 4.2-2 - CNDDB (Maybook), MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-2F
CNDDB Occurrences
Los Olivos E 154

ESA



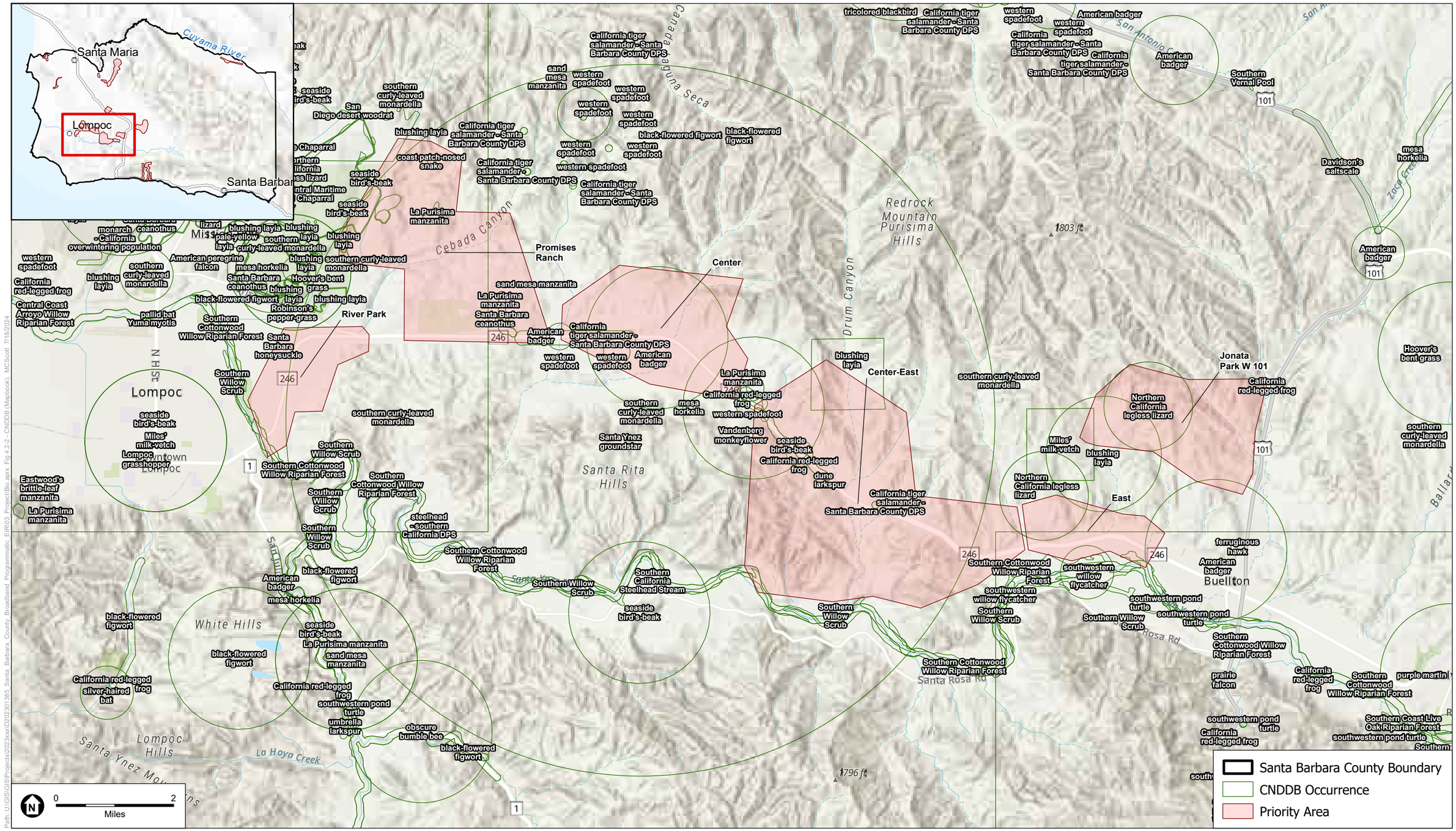
Path: U:\GIS\GIS\Projects\2023xxx\D202301385_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio.aprx Fig 4.2-2 - CNDDB (Mapbook) MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-2G
CNDDB Occurrences
Jonata Park W 101

ESA

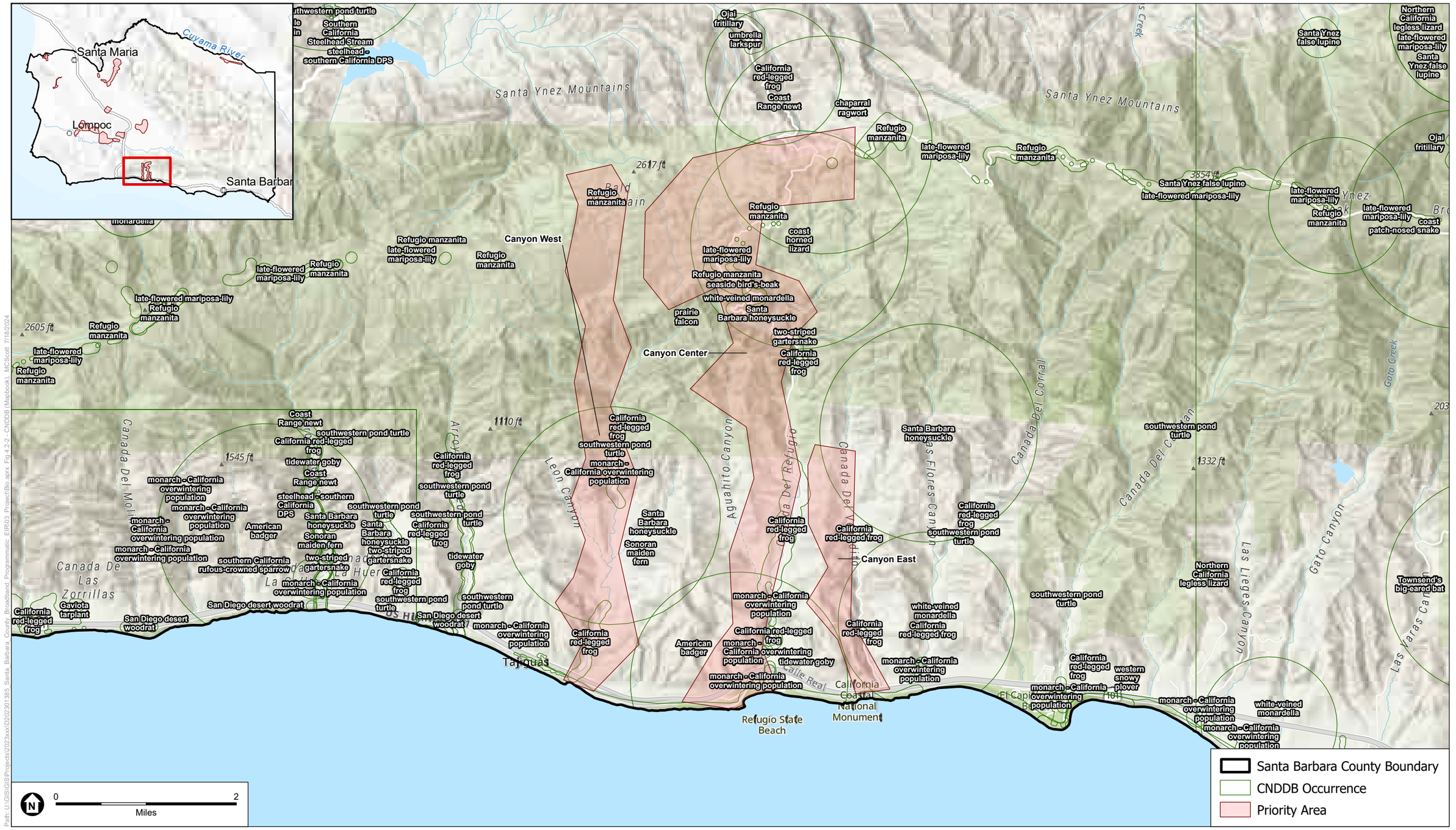


SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-2H
CNDDB Occurrences
Highway 246 Corridor

ESA



SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-2l
CNDDB Occurrences
Refugio Canyon

ESA

Path: U:\GIS\GIS\Projects\2023xxx\D20230138S_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio.aprx Fig 4.2-2 - CNDDB (Maprbook) MCScott 7/18/2024

Critical Habitat

The USFWS designates critical habitat for species that have been listed as threatened or endangered. Critical habitat is defined in FESA Section 3(5)(A) as those lands (or waters) within a species' current range that contains the physical or biological features that are considered essential to its conservation. Agencies that propose, fund, or issue a permit for a project that may affect a federally listed species or critical habitat must prepare a Habitat Conservation Plan as part of an application for a permit from the USFWS. As shown below in **Figure 4.2-3,** *Critical Habitat,* the County contains critical habitat for 14 species including (USFWS 2024a):

- Arroyo toad (*Anaxyrus californicus*)
- California condor (*Gymnogyps californianus*)
- California red-legged frog (*Rana draytonii*)
- California tiger salamander (*Ambystoma californiense* pop. 2)
- Gaviota tarplant (*Deinandra increscens ssp. villosa*)
- La Graciosa thistle (*Cirsium scariosum var. loncholepis*)
- Least Bell's vireo (*Vireo bellii pusillus*)
- Lompoc yerba santa (*Eriodictyon capitatum*)
- Southwestern willow flycatcher (*Empidonax traillii extimus*)
- Tidewater goby (*Eucyclogobius newberryi*)
- Vandenberg monkeyflower (*Diplacus vandenbergensis*)
- Ventura marsh milk-vetch (*Astragalus pycnostachyus var. lanosissimus*)
- Vernal pool fairy shrimp (*Branchinecta lynchi*)
- Western snowy plover (*Anarhynchus nivosus nivosus*)

Within the Priority Areas, critical habitat is present within the Guadalupe, Casmalia, Hwy 246 Corridor, and Refugio Canyon Priority Areas. Specifically, La Graciosa thistle critical habitat is present within Guadalupe and Casmalia Priority Areas, California red-legged frog critical habitat is present within Casmalia and Refugio Canyon Priority Areas, and arroyo toad critical habitat and California tiger salamander critical habitat is present within the Hwy 246 Corridor Priority Area. The specific location of critical habitat with respect to the Priority Areas is shown in Figure 4.2-3.

Aquatic Resources

Four primary watersheds occur within the County including Santa Maria, which includes the Cuyama and Sisquoc watersheds; San Antonio Creek; Santa Ynez; and South Coast, which is composed of approximately 50 short, steep watersheds. The headwaters of the principal waters are generally undeveloped, and the middle and lower sections are often developed with urban or agricultural uses. The four major rivers draining these watersheds are the Santa Maria, Sisquoc, Cuyama, and Santa Ynez. Several creeks are associated with each one of these watersheds. The drainages within these watersheds are of biological importance as they provide valuable foraging habitat, breeding habitat, and movement habitat for a variety of animal species including sensitive species such as steelhead – Southern California distinct population segment (DPS) 10 (*Oncorhynchus mykiss*), California red-legged frog, and southwestern willow flycatcher.

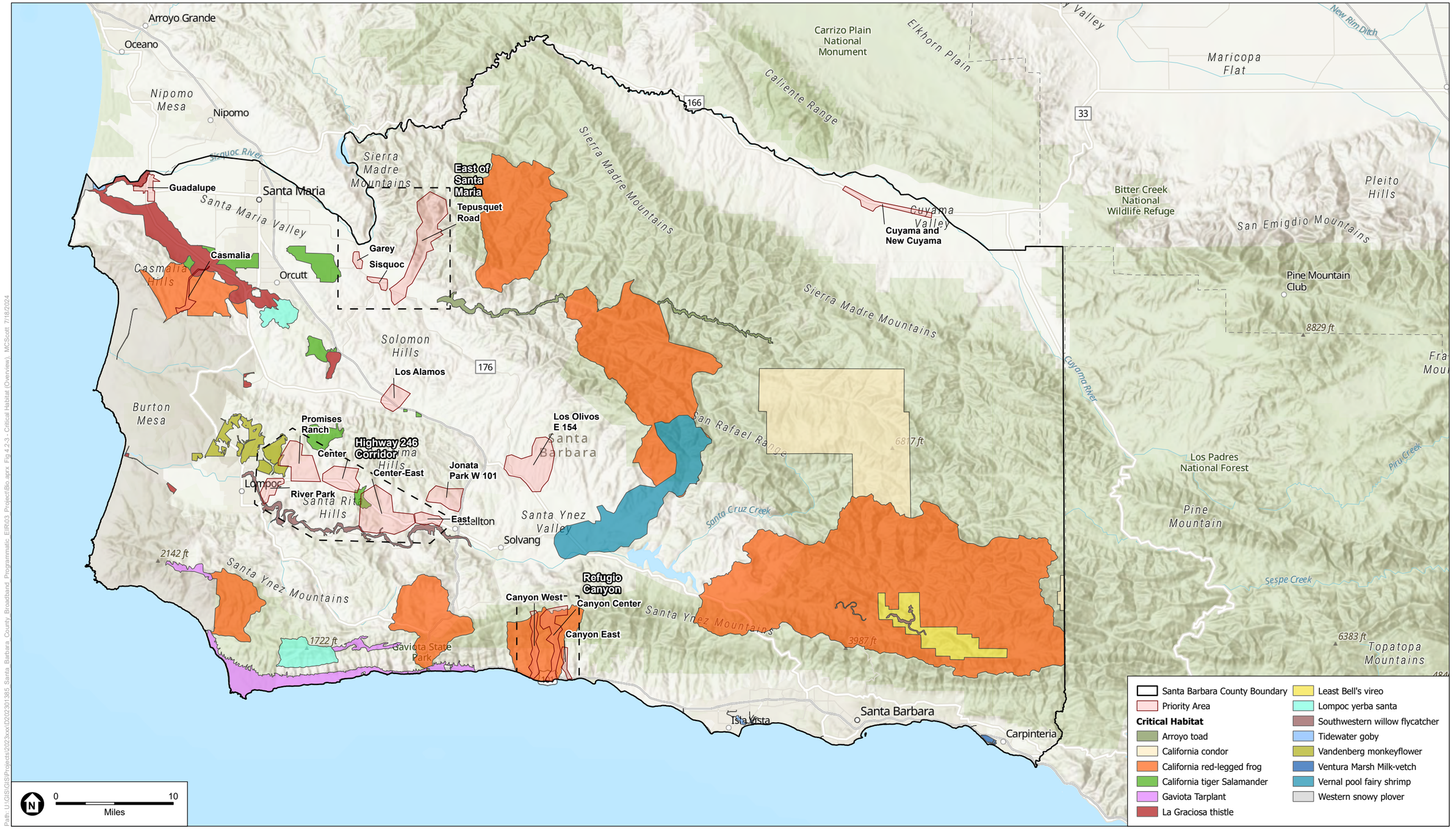
Wetlands are regarded as important biological resources both because of their rarity in southern California and because they serve a variety of functional values. Several types of wetlands exist in the County including coastal salt marshes, vernal pools, and riparian habitats. The USFWS NWI is a nationwide database showing the distribution and types of U.S. wetlands to aid in conservation efforts. An aquatic resources delineation was not conducted as part of this analysis; however, this analysis considers riparian and wetland areas identified by the NWI within the County (USFWS 2024b). These resources are shown below in **Figure 4.2-4,** *Aquatic Resources.*

Aquatic resources within the County may be subject to United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW jurisdiction and regulatory authority. The limits of potential USACE waters of the U.S. and RWQCB waters of the State are based on the presence of "ordinary high water mark" (OHWM) indicators, such as a clear, natural line impressed on the bank; shelving; changes in the character of the soil; destruction of terrestrial vegetation; and/or the presence of litter and debris. Wetlands, including seasonal wetlands, seeps, marshes, and similar areas, are defined by the USACE 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 for life in saturated soil conditions" (33 CFR 328.3[b]; 40 CFR 230.3[t]). Indicators of three wetland parameters (i.e., hydric soils, hydrophytic vegetation, and wetlands hydrology), as determined by field investigation, must be present for a site to be classified as a wetland by USACE. Areas within CDFW jurisdiction typically refer to streambeds and associated wetland or riparian vegetation. The boundaries of the streams and associated vegetation are delineated based on a break in slope at the top of bank for aquatic features or to the outer edge of the overhanging riparian or wetland vegetation.

Wildlife Movement Corridors

Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as providing a linkage between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network.

The habitats within the linkage or corridor do not necessarily need to be the same as the habitats that are being linked. Rather, the link merely needs to contain sufficient cover and forage to allow temporary inhabitation by ground-dwelling species. Typically, habitat linkages are contiguous strips of natural areas, though dense plantings of landscape vegetation can be used by certain disturbance-tolerant species. Depending upon the species using a corridor, specific physical resources (such as rock outcroppings, vernal pools, or oak trees) may need to be located within the habitat link at certain intervals to allow slower-moving species to traverse the link. For highly mobile or aerial species, habitat linkages may be discontinuous patches of suitable resources spaced sufficiently close together to permit travel along a route in a short period of time.



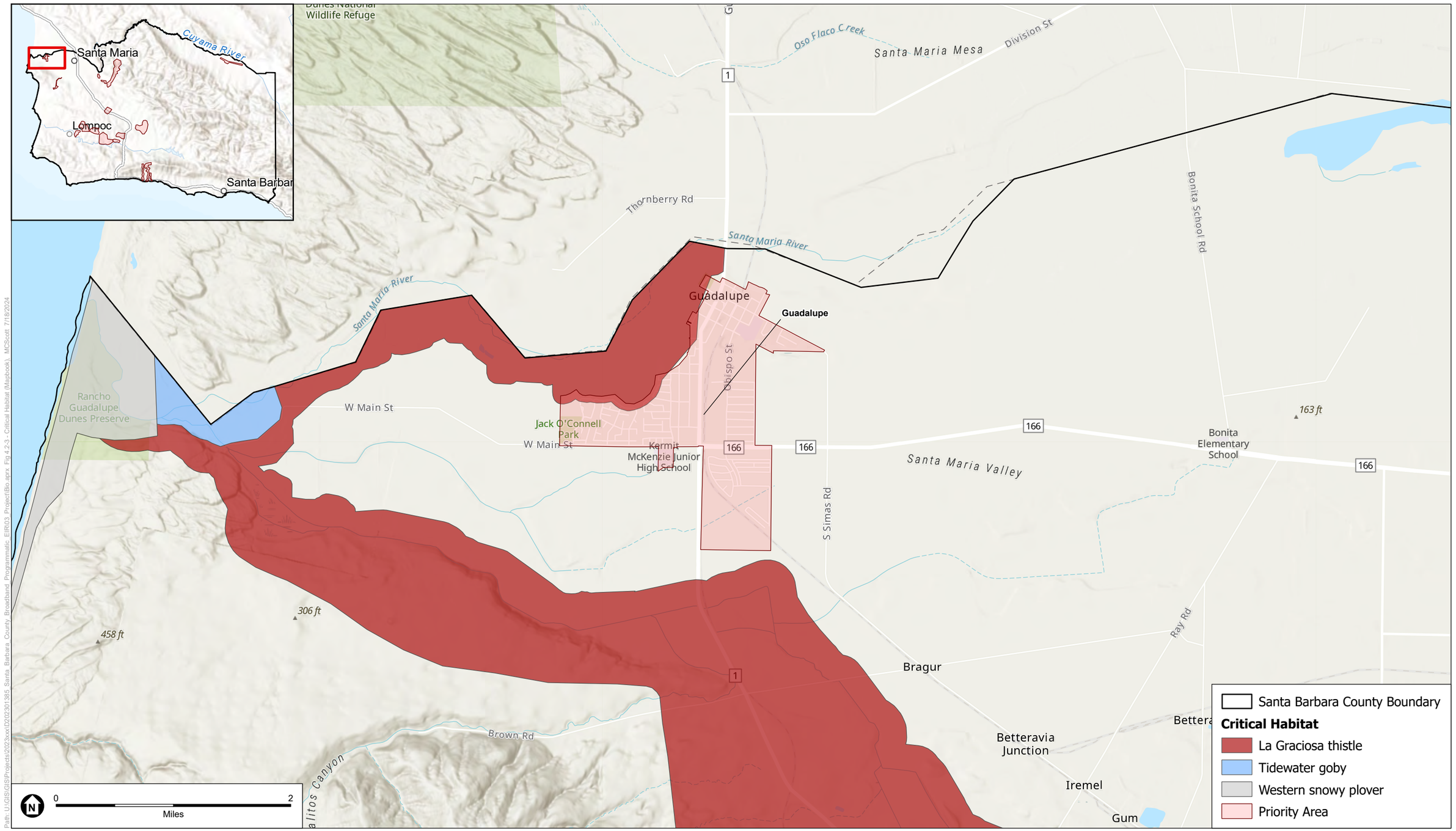
Path: U:\GIS\GIS\Projects\2023xxx\D2023013B5_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio.aprx: Fig 4.2-3 - Critical Habitat (Overview), MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-3
Critical Habitat

ESA



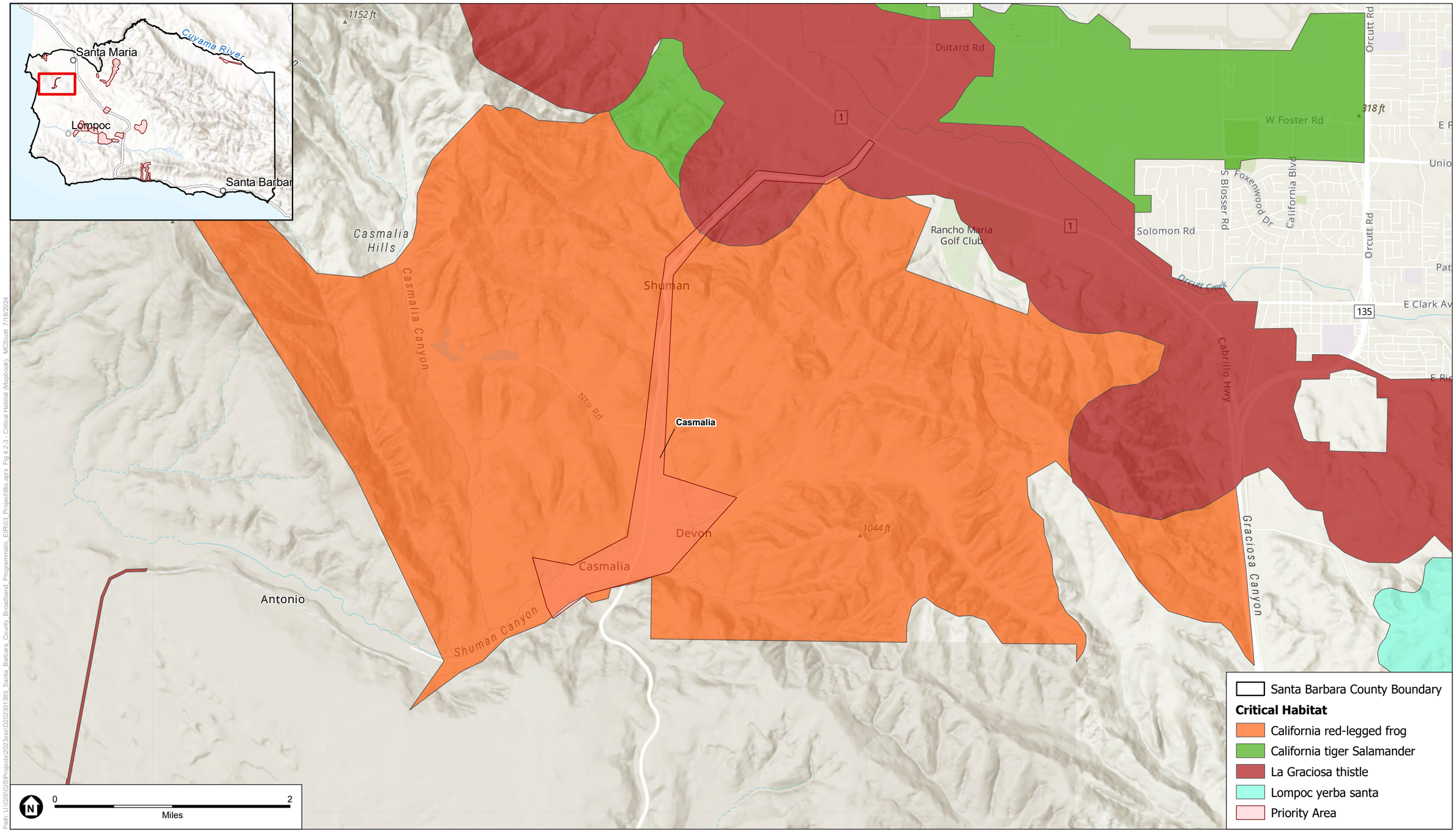
Path: U:\GIS\GIS\Projects\2023xxx\D2023013B5_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio.aprx Fig 4.2-3 - Critical Habitat (Mapbook), MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-3A
Critical Habitat
Guadalupe

ESA



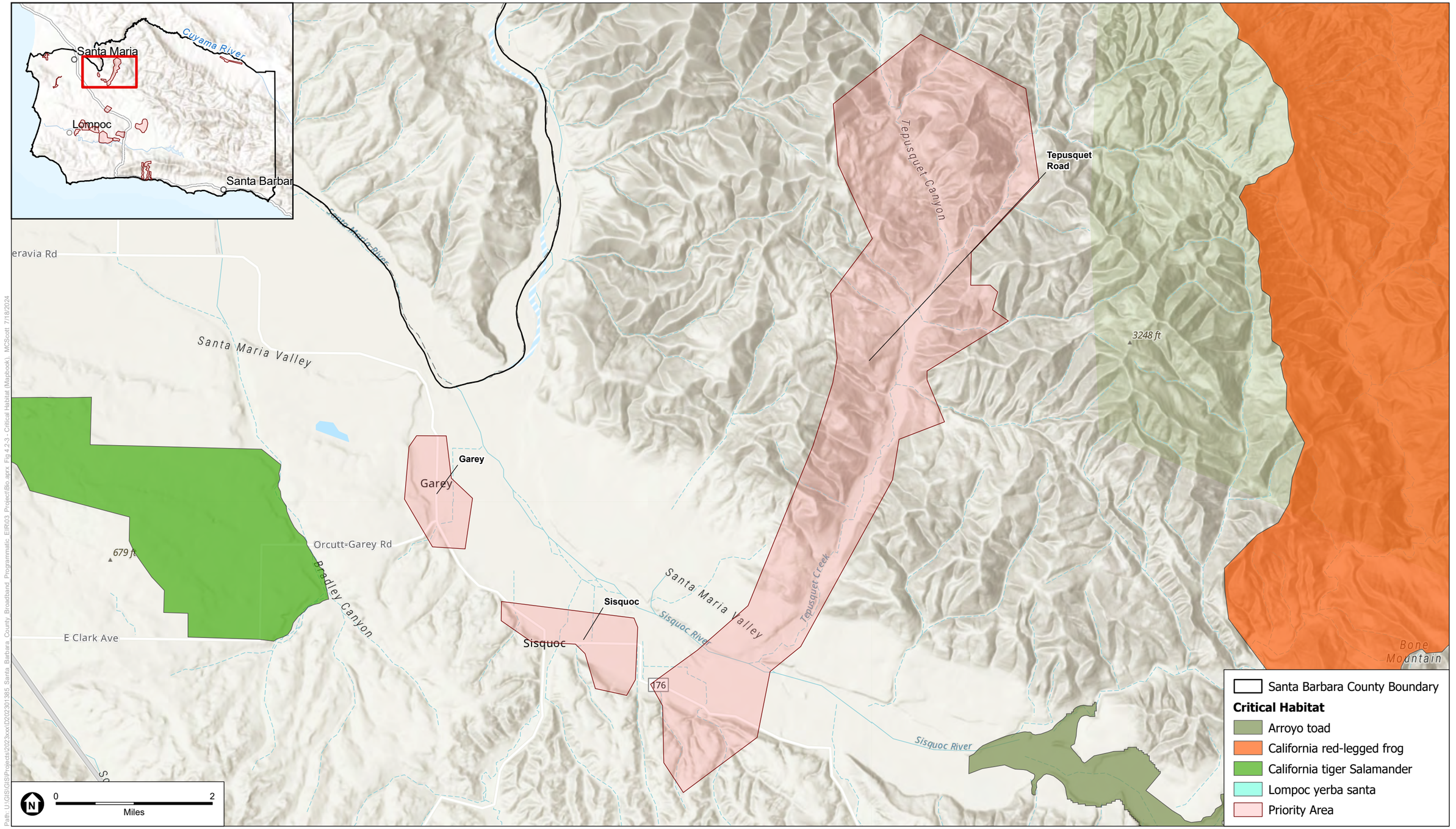
Path: U:\GIS\GIS\Projects\2023xxx\D202301385_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio.aprx Fig 4.2-3 - Critical Habitat (Mapbook), MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-3B
Critical Habitat
Casmalia

ESA



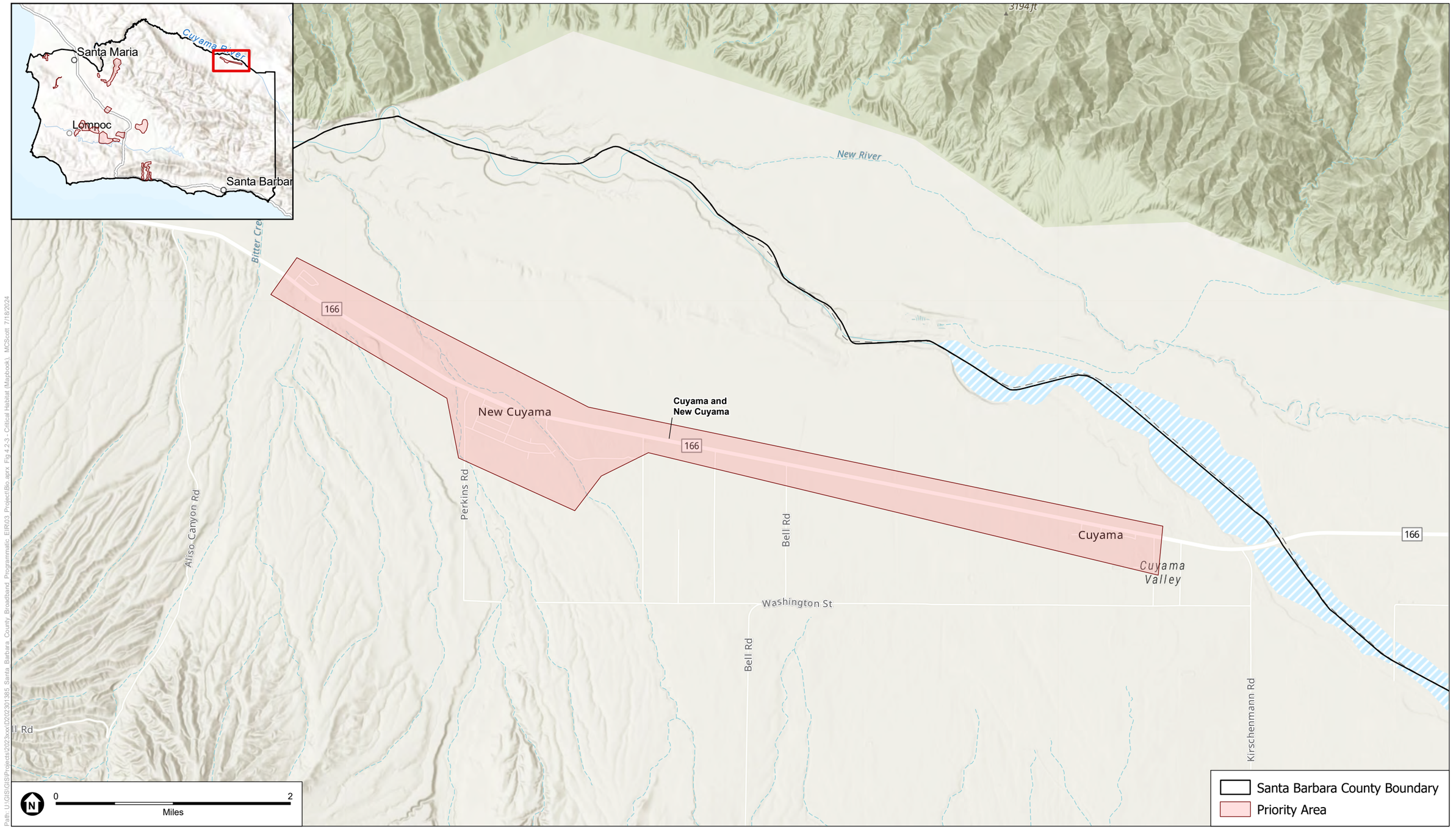
Path: U:\GIS\GIS\Projects\2023xxx\ID202301385_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio_aprx_Fig 4.2-3 - Critical Habitat (Mapbook)_MCScott 7/18/2024.aprx

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-3C
Critical Habitat
East of Santa Maria

ESA



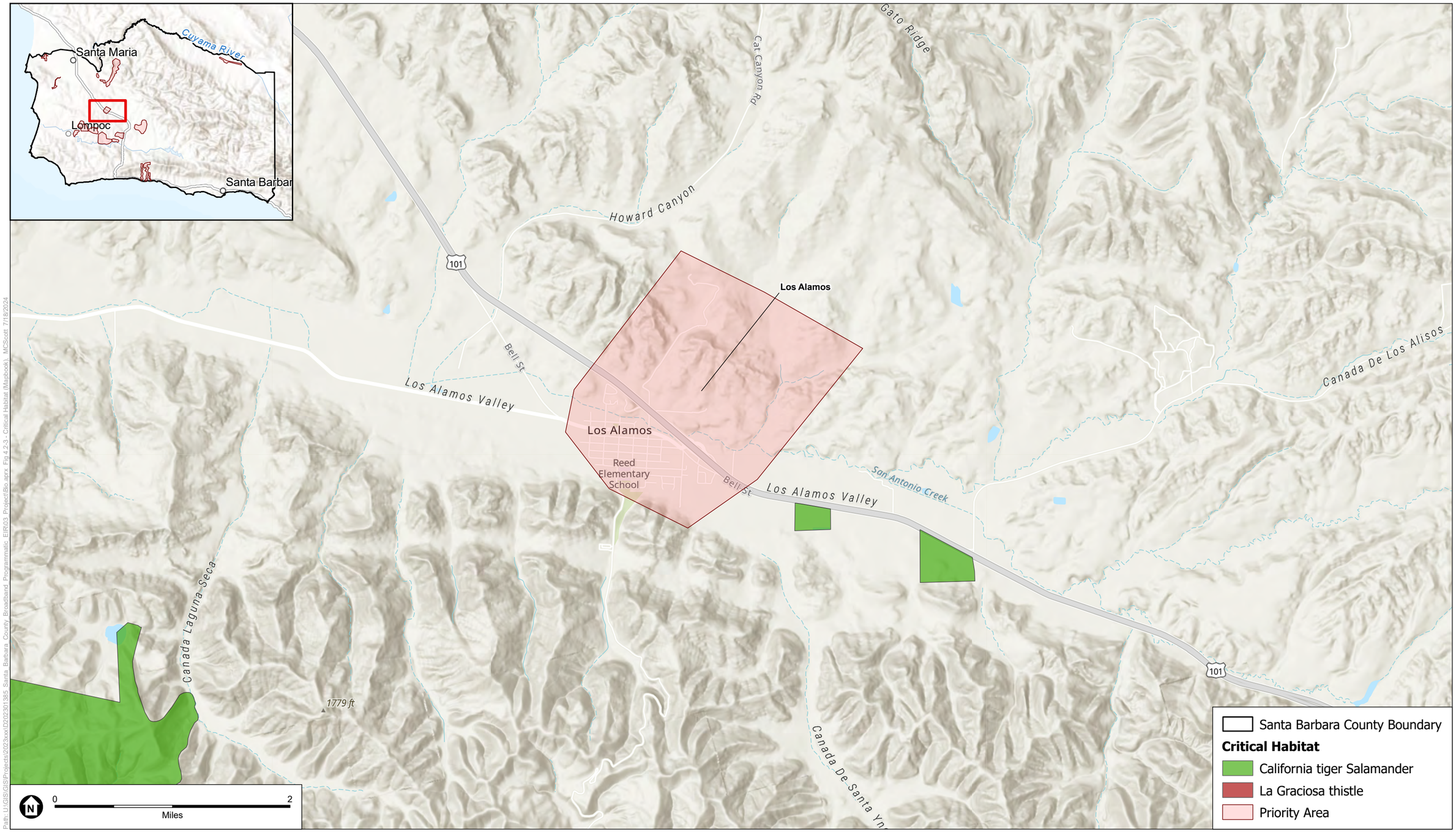
Path: U:\GIS\GIS\Projects\2023xxx\D202301385_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio aprx Fig 4.2-3 - Critical Habitat (Mapbook), MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-3D
Critical Habitat
Cuyama and New Cuyama

ESA



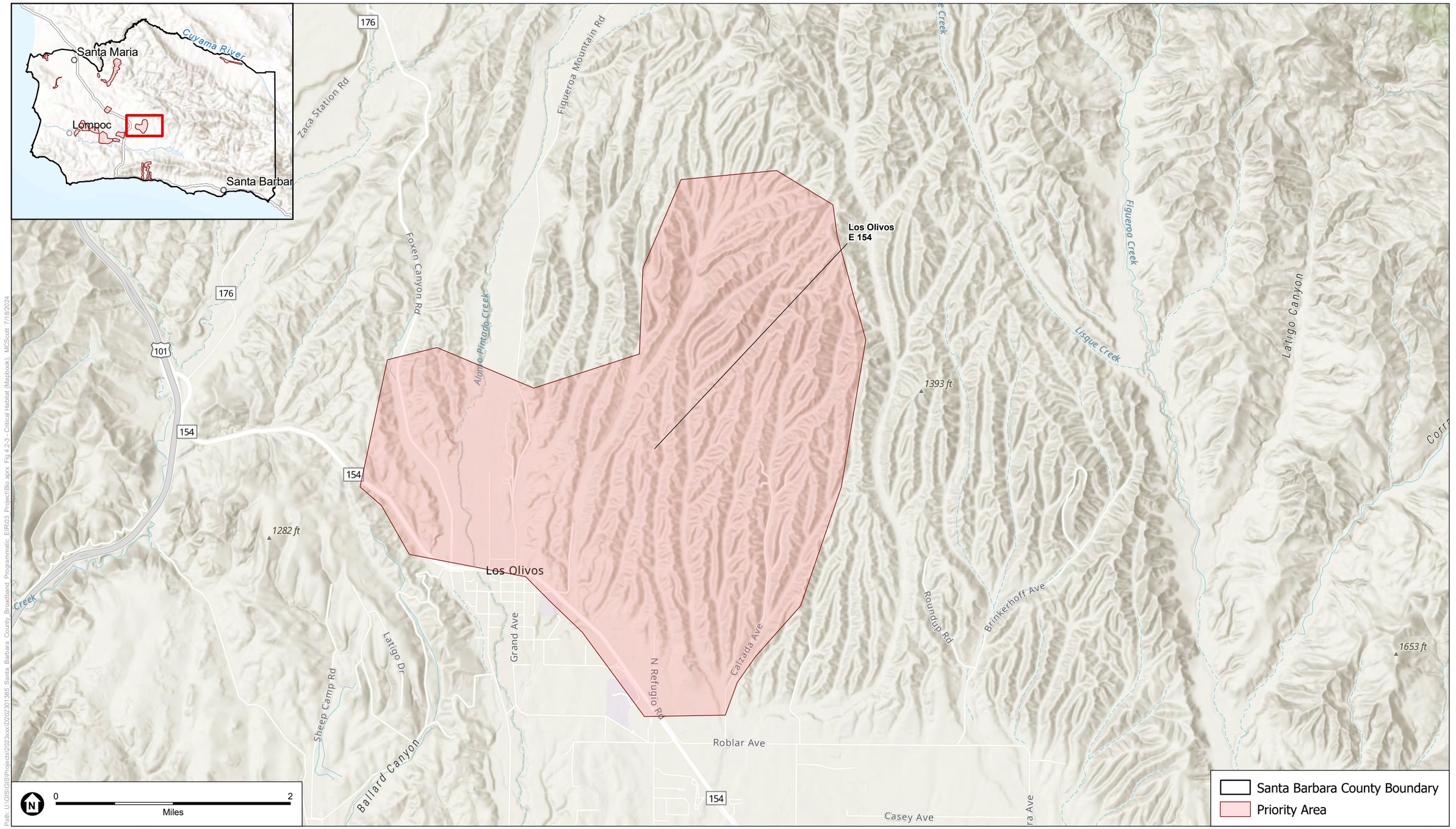
Path: U:\GIS\GIS\Projects\2023xxx\D2023013B5_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio.aprx Fig 4.2-3 - Critical Habitat (Mapbook), MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-3E
Critical Habitat
Los Alamos

ESA



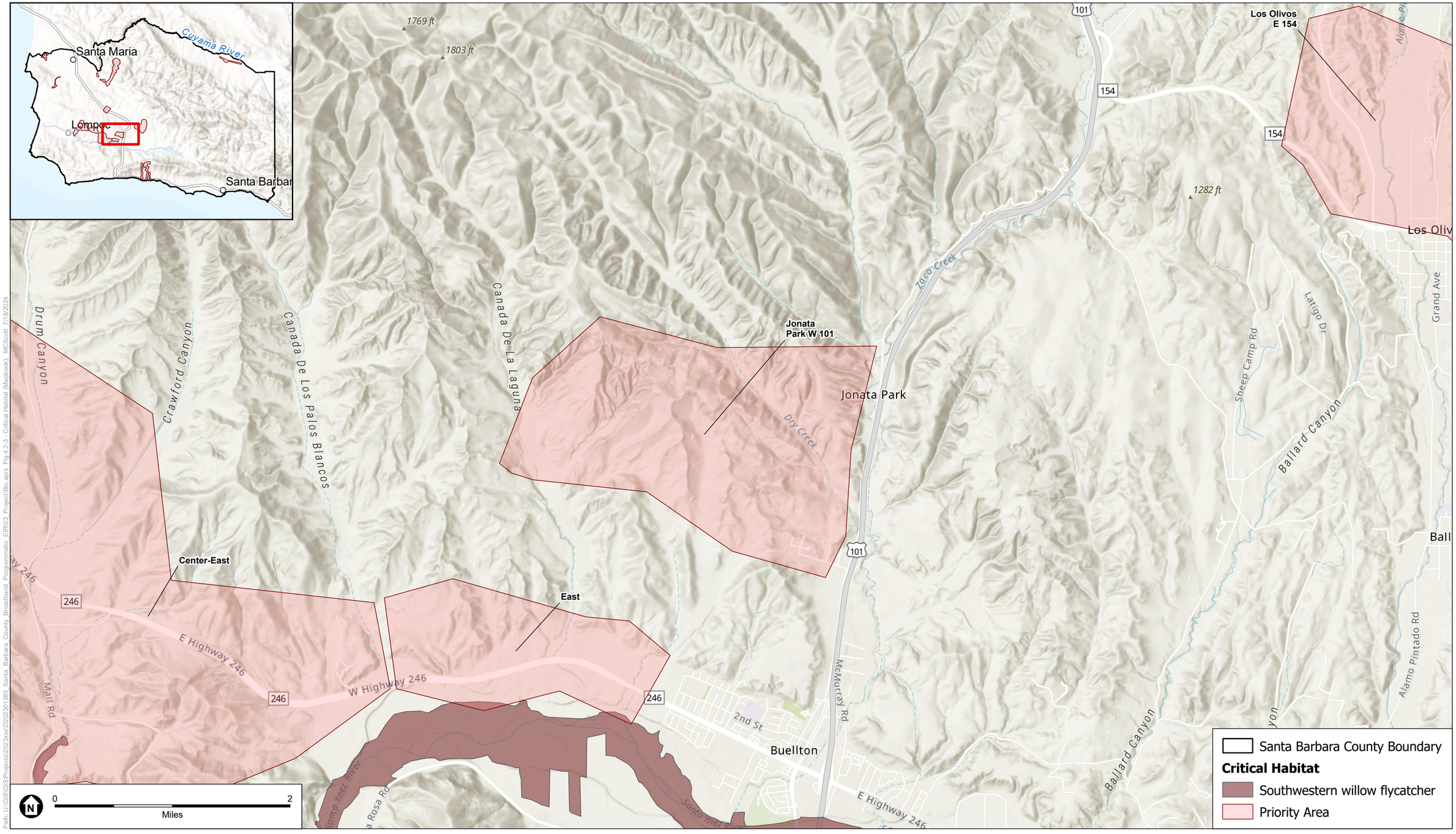
Path: U:\GIS\GIS\Projects\2023xxx\D20230138S_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio aprx Fig 4.2-3 - Critical Habitat (Mapbook), MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-3F
Critical Habitat
Los Olivos E 154

ESA



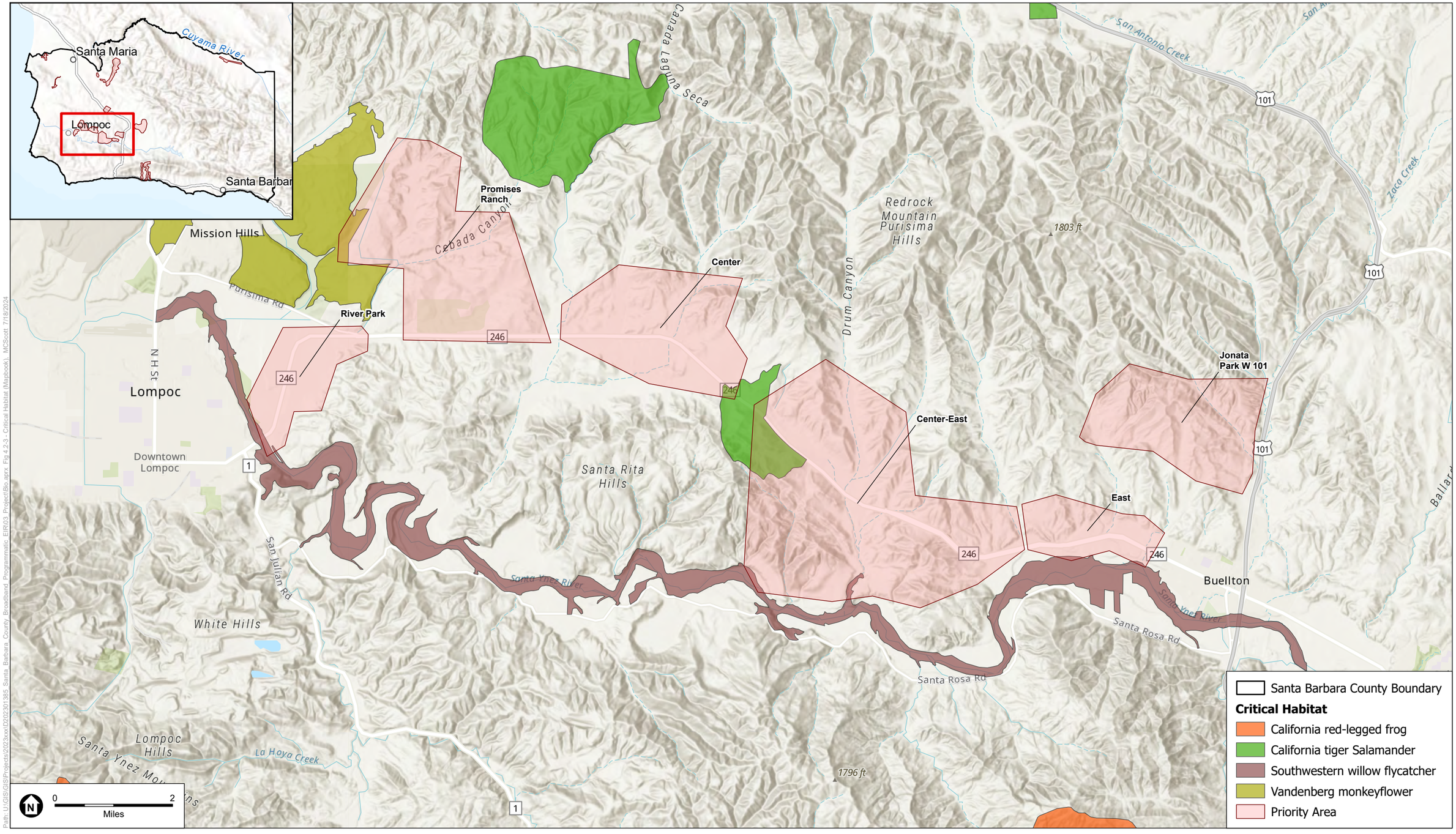
Path: U:\GIS\GIS\Projects\2023xxx\D202301385_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio.aprx Fig 4.2-3 - Critical Habitat (Mapbook), MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-3G
Critical Habitat
Jonata Park W 101

ESA



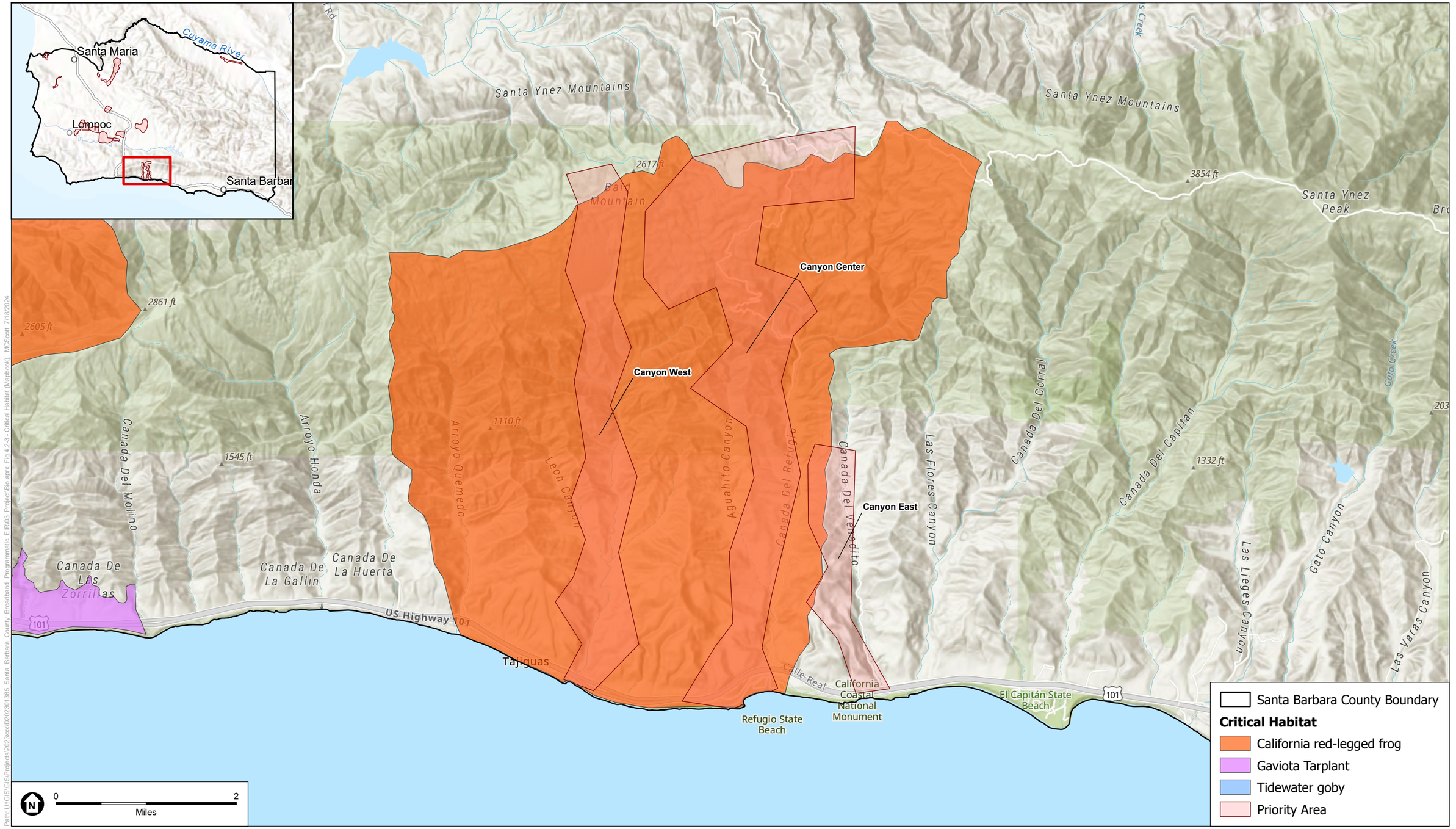
Path: U:\GIS\GIS\Projects\2023xxx\D202301385_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio.aprx Fig 4.2-3 - Critical Habitat (Mapbook), MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-3H
Critical Habitat
Highway 246 Corridor

ESA



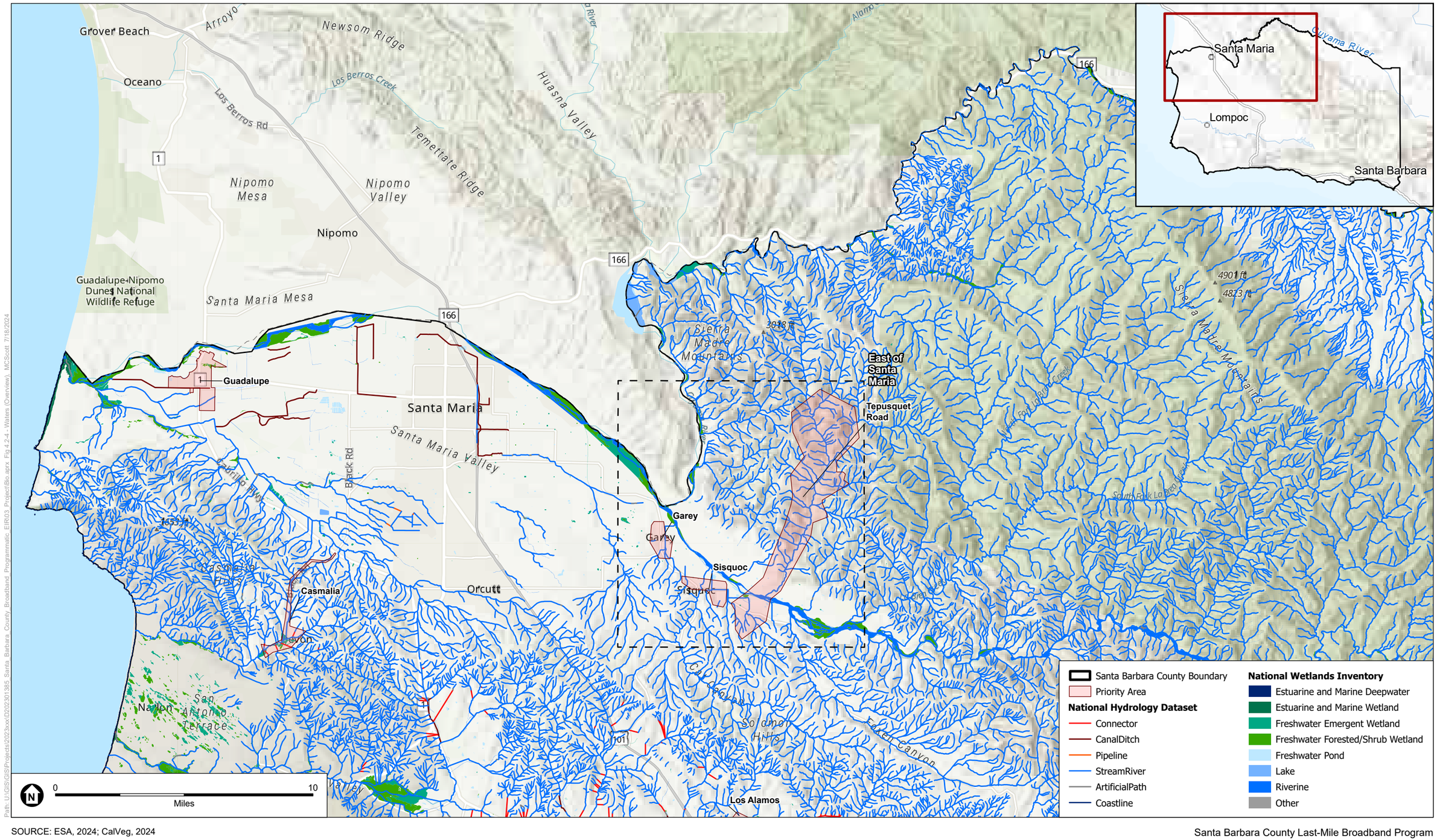
Path: U:\GIS\GIS\Projects\2023xxx\D202301385_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio_aprx Fig 4.2-3 - Critical Habitat (Mapbook), MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-3l
Critical Habitat
Refugio Canyon

ESA



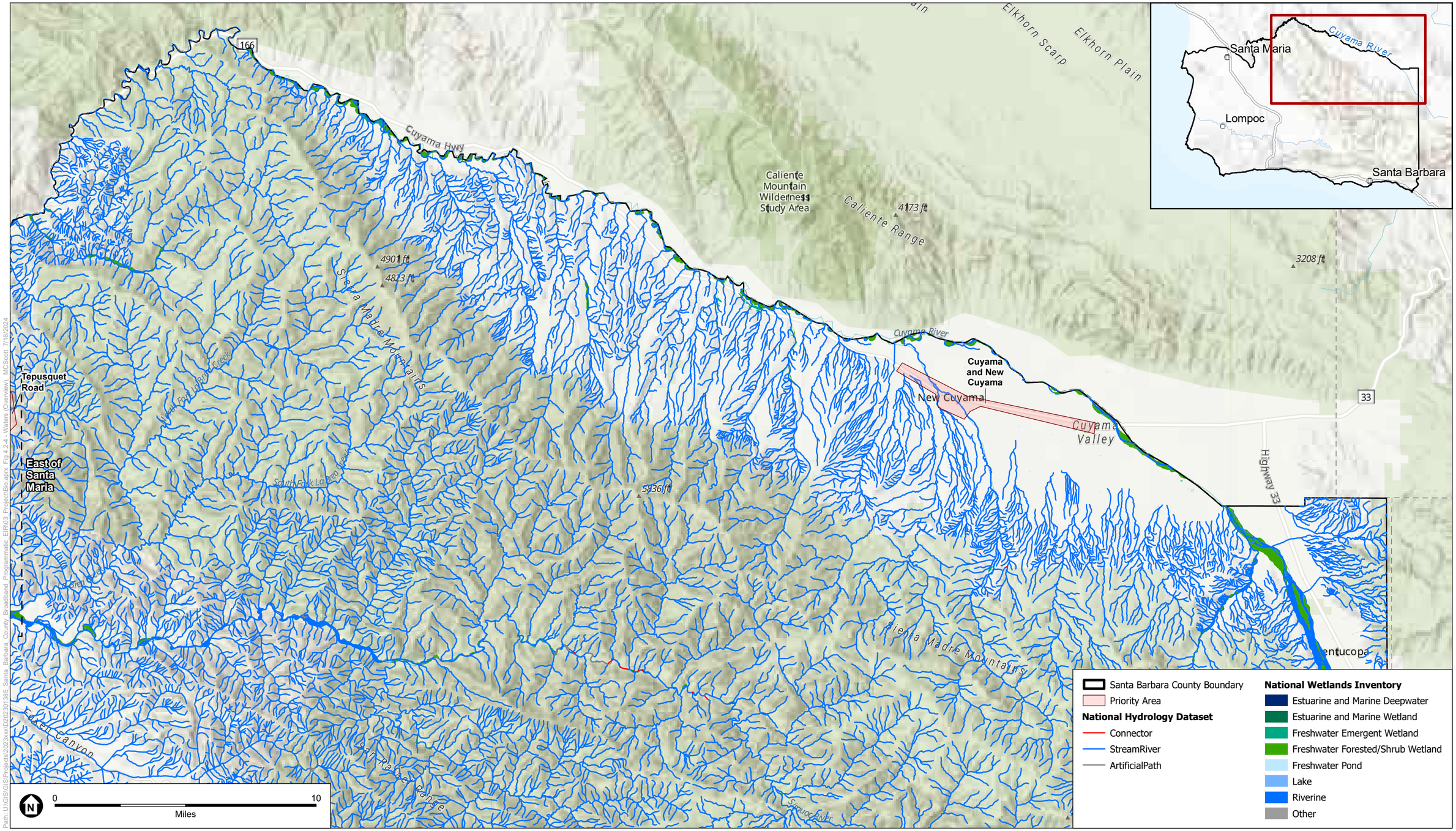
SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-4
Waters
Waters Overview 1

ESA

Path: U:\GIS\GIS\Projects\2023xx\D202301385_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio.aprx Fig 4.2-4 - Waters (Overview). MCScott 7/18/2024

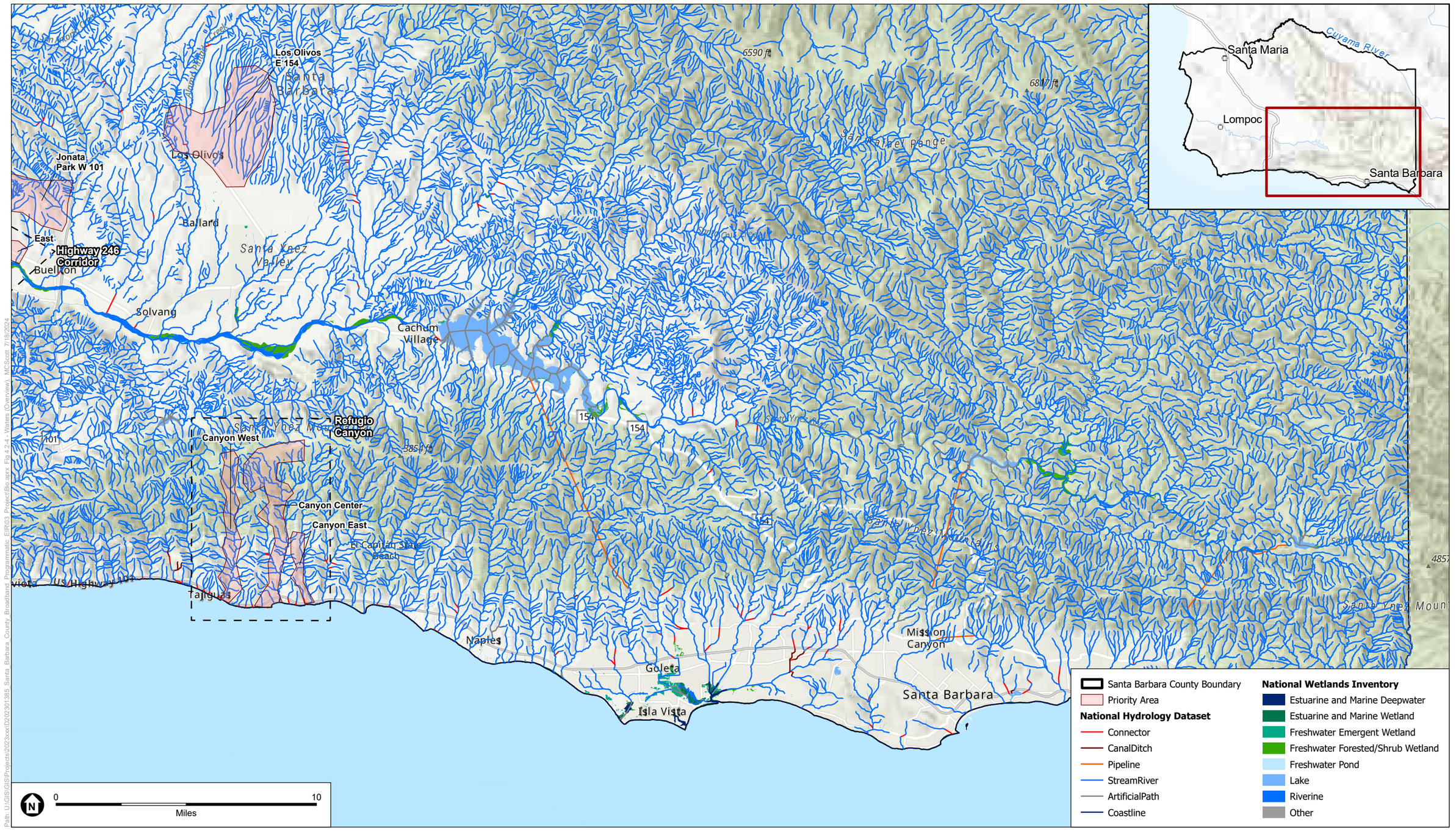


SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-4
Waters
Waters Overview 2

ESA

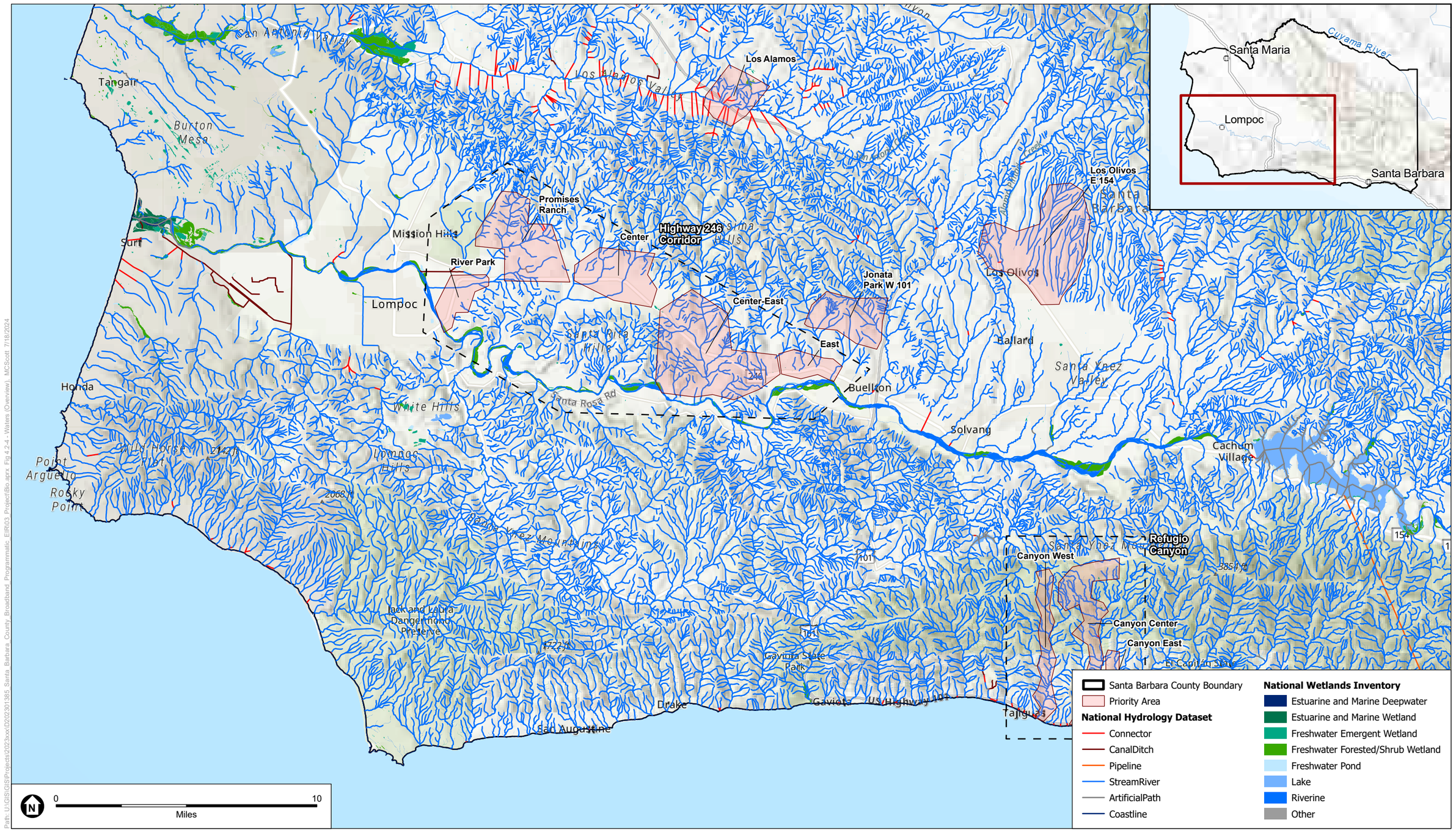


SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-4
Waters
Waters Overview 3

ESA



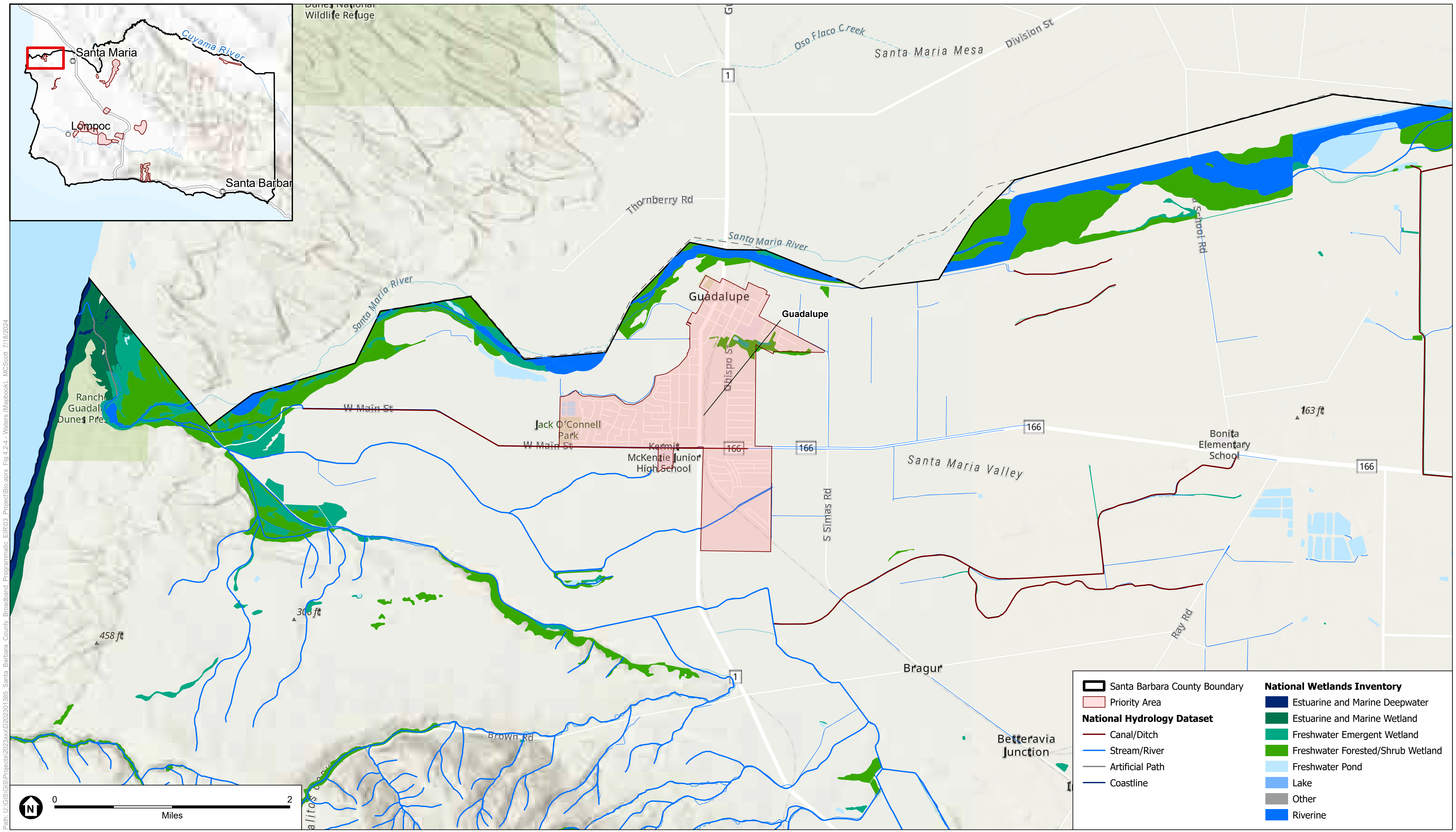
SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-4
Waters
Waters Overview 4

ESA

Path: U:\GIS\GIS\Projects\2023xxx\D202301385_Santa_Barbara_County_Broadband_Programmatic_EIR\03_ProjectBio.aprx: Fig 4.2-4 - Waters (Overview). MCScott 7/18/2024

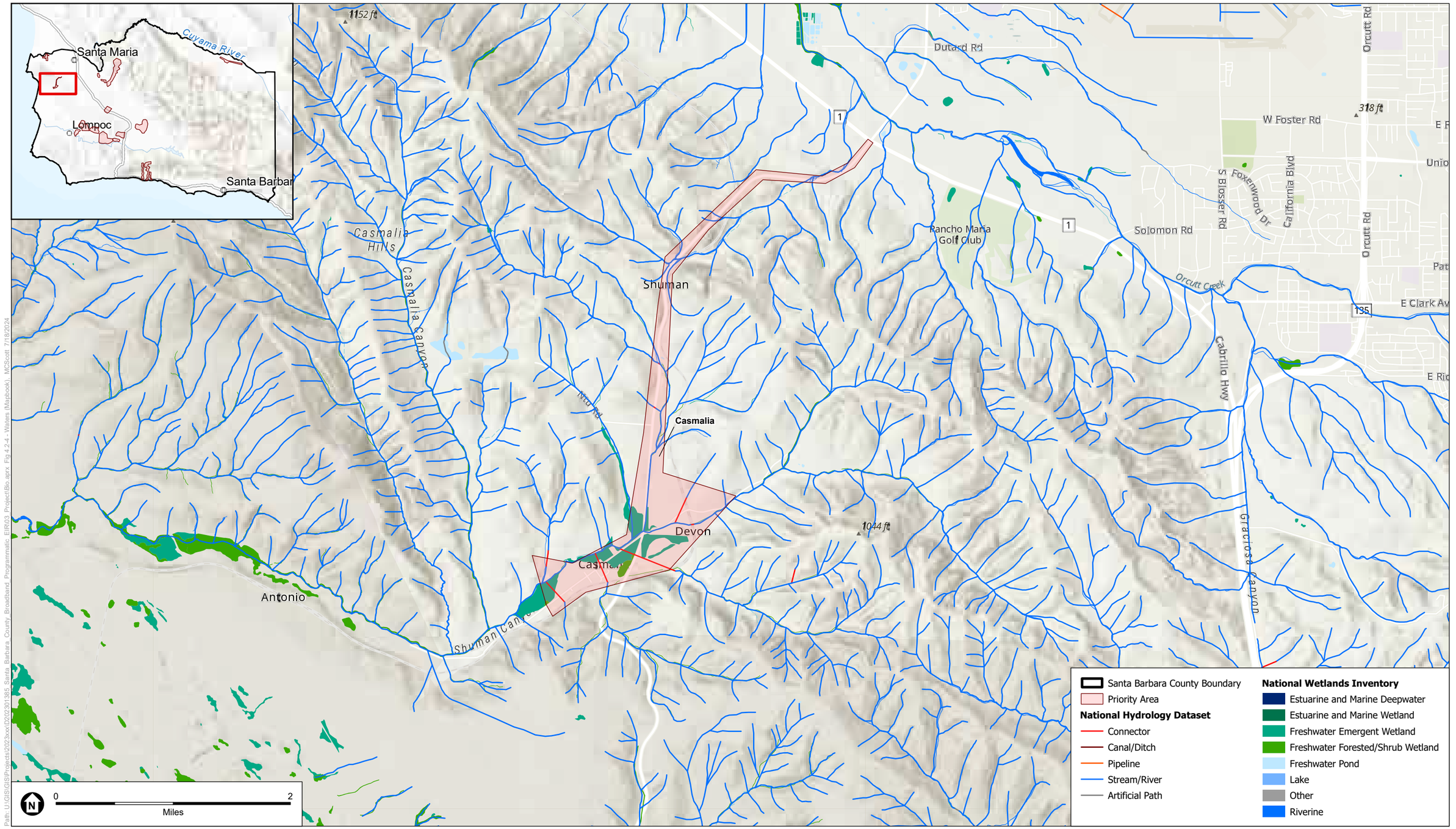


SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-4A
Waters
Guadalupe

ESA



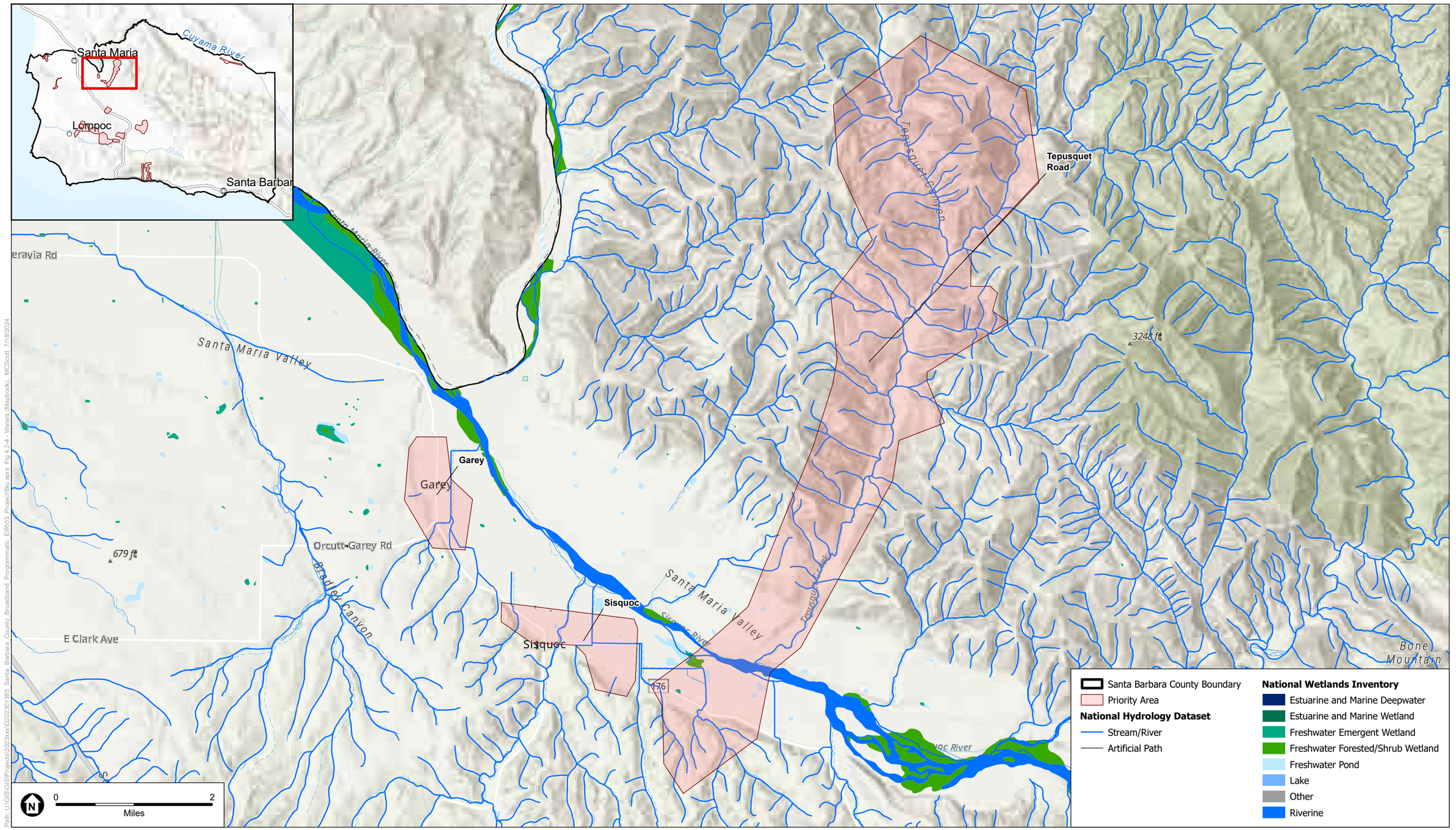
Path: U:\GIS\GIS\Projects\2023xxx\D2023013B5_Santa_Barbara_County_Broadband_Programmatic_EIR\03_ProjectBio aprx Fig 4.2-4 - Waters (Mapbook) MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-4B
Waters
Casmalia

ESA



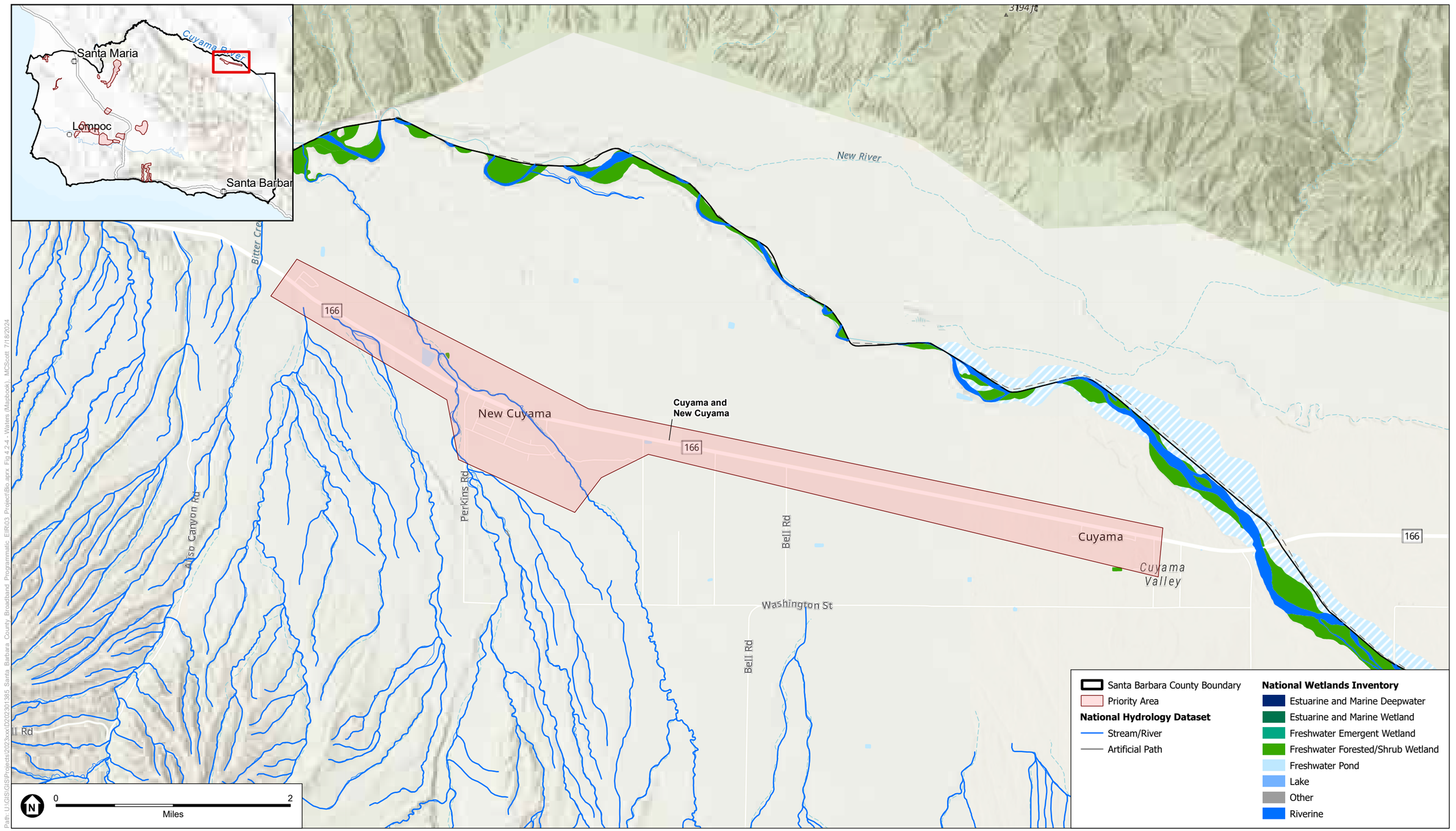
Path: U:\GIS\GIS\Projects\2023xxx\D2023013B5_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio.aprx, Fig 4.2-4 - Waters (Mapbook), MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-4C
Waters
East of Santa Maria

ESA



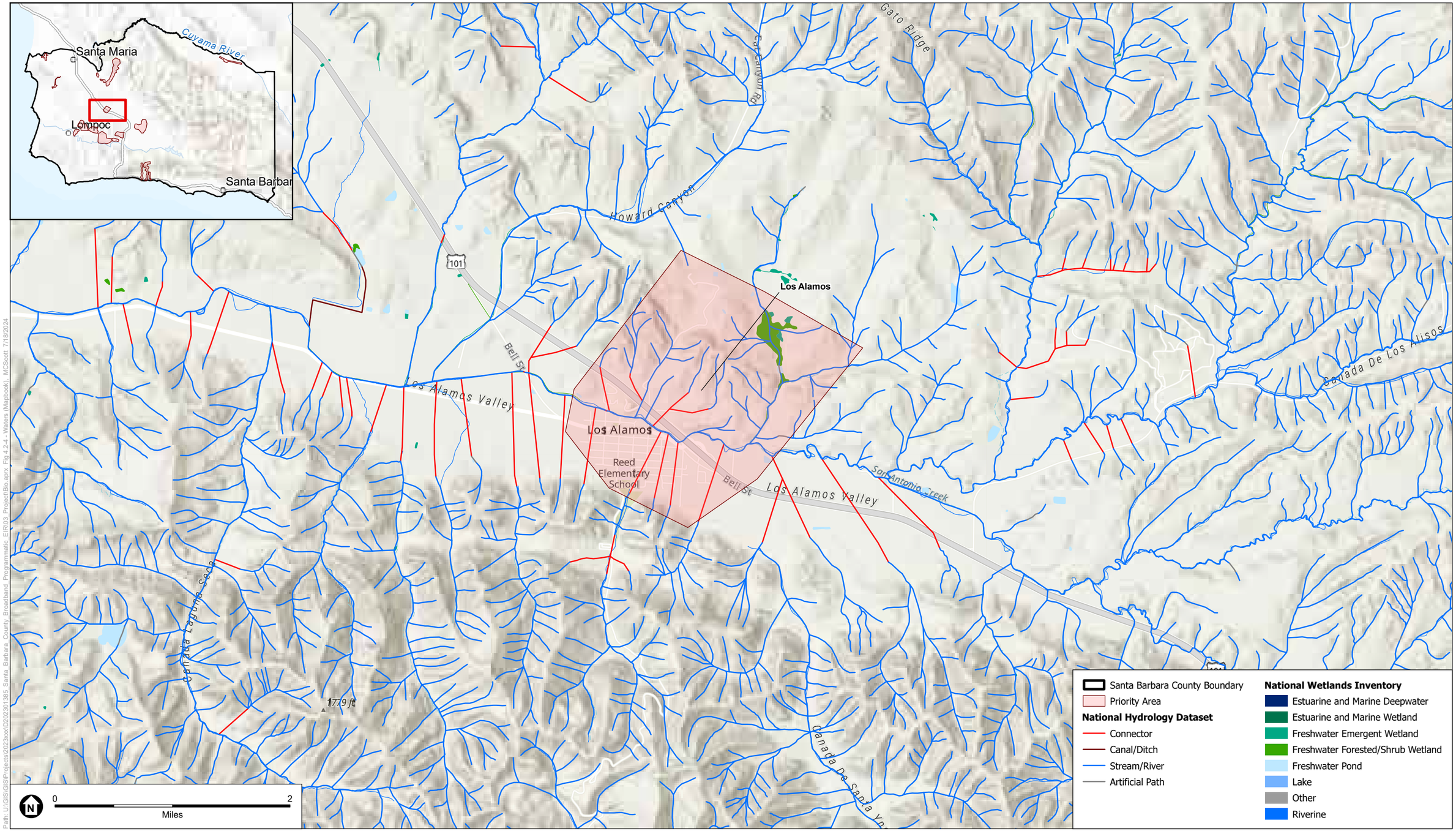
Path: U:\GIS\GIS\Projects\2023xxx\D2023013B5_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio.aprx Fig 4.2-4 - Waters (Mapbook) MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-4D
Waters
Cuyama and New Cuyama

ESA



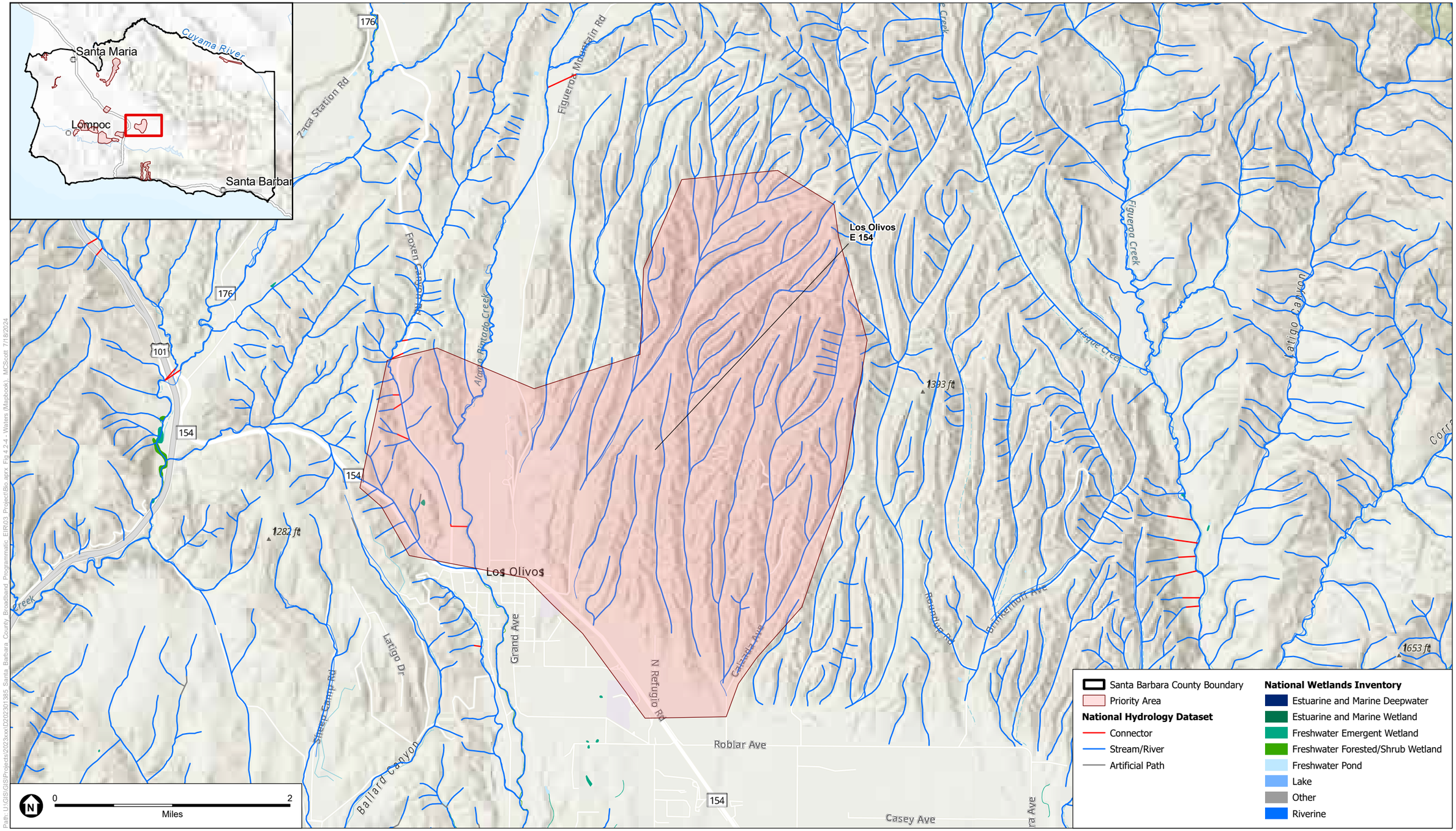
Path: U:\GIS\GISProjects\2023xxx\D202301385_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio.aprx Fig 4.2-4 - Waters (Mapbook) MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-4E
Waters
Los Alamos

ESA



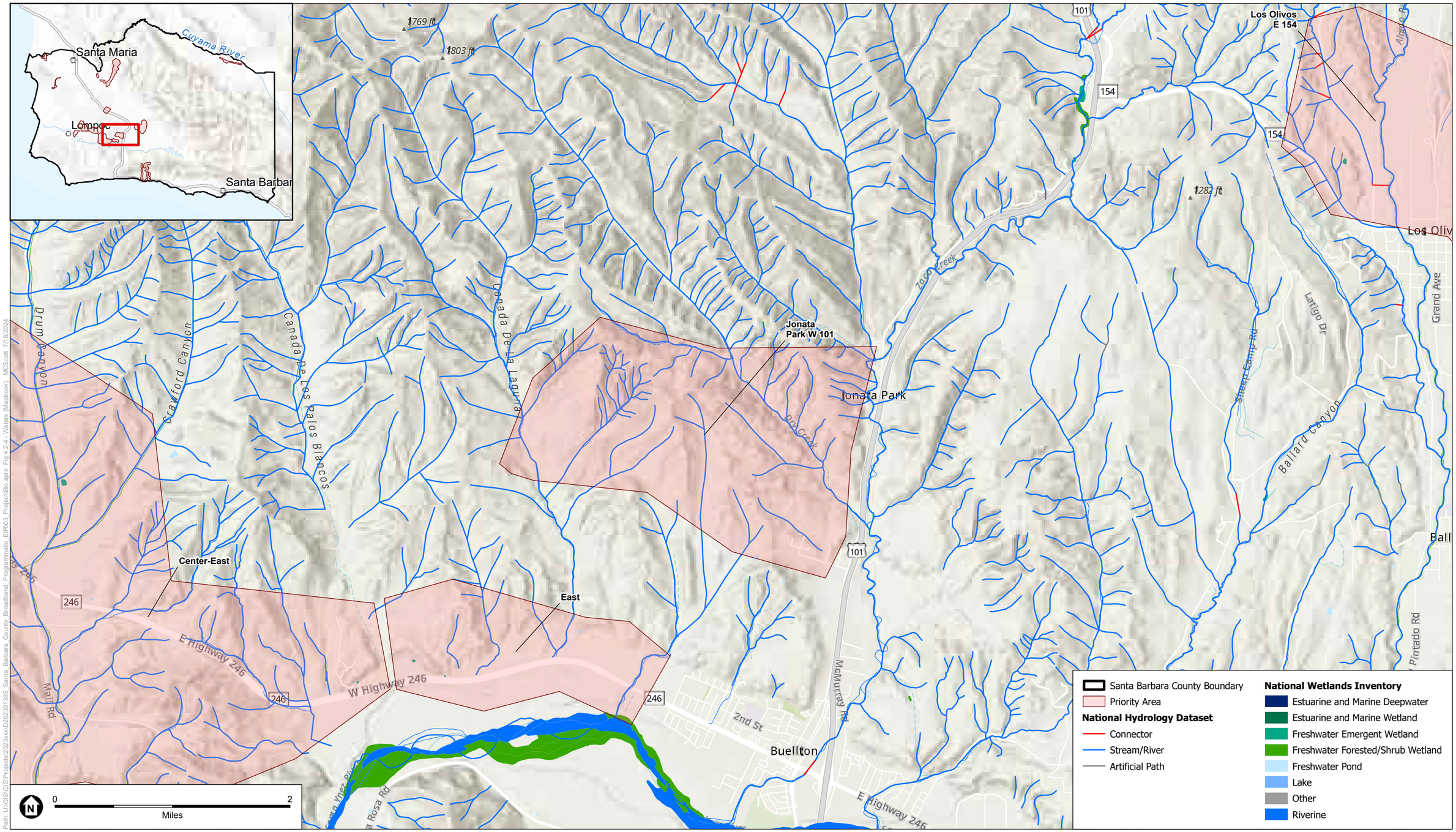
Path: U:\GIS\GIS\Projects\2023xxx\D20230138S_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio.aprx Fig 4.2-4 - Waters (Mapbook) MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-4F
Waters
Los Olivos E 154

ESA



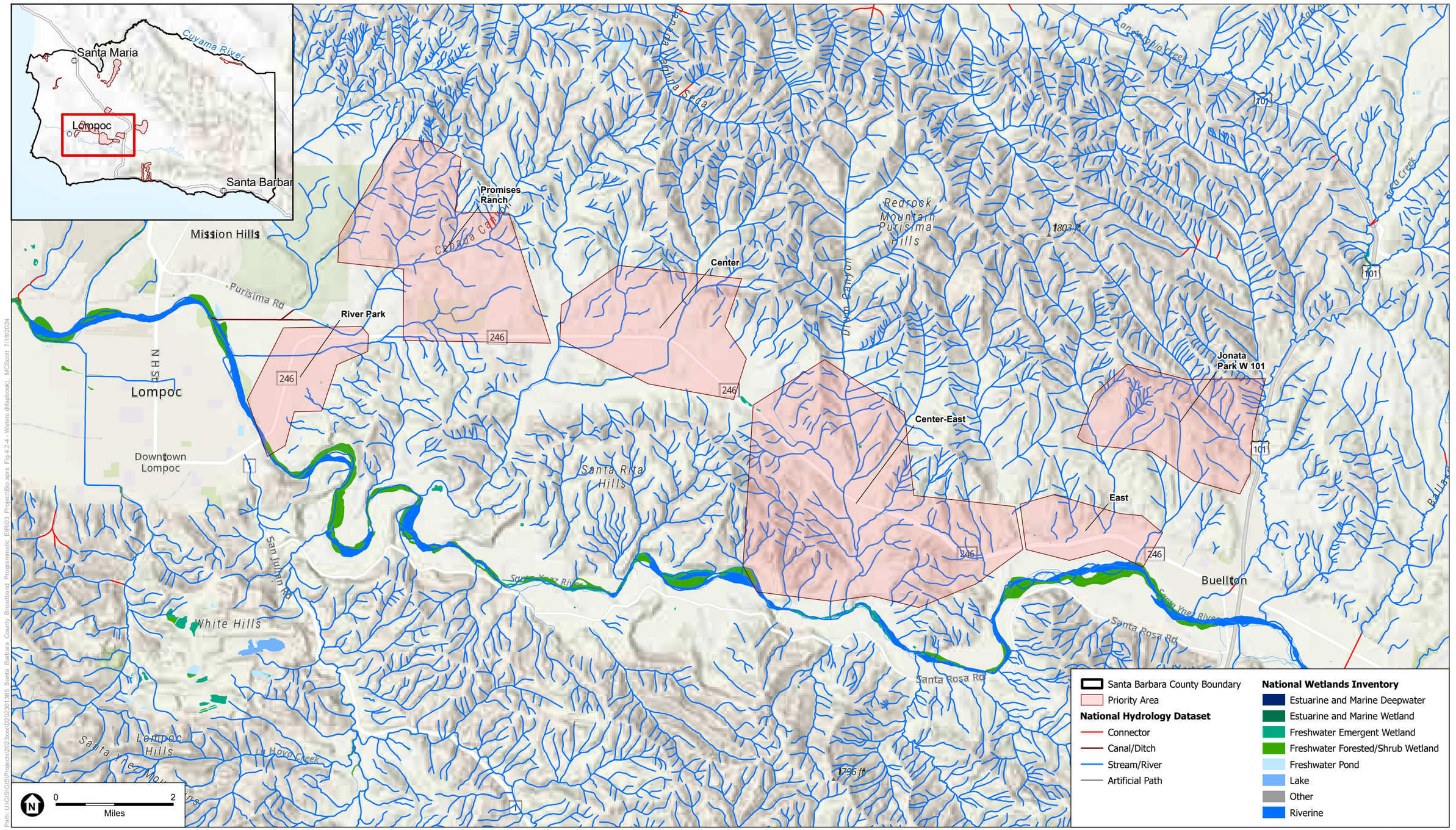
Path: U:\GIS\GIS\Projects\2023xxx\D2023013B5_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio.aprx: Fig 4.2-4 - Waters (Mapbook) - MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-4G
Waters
Jonata Park W 101

ESA



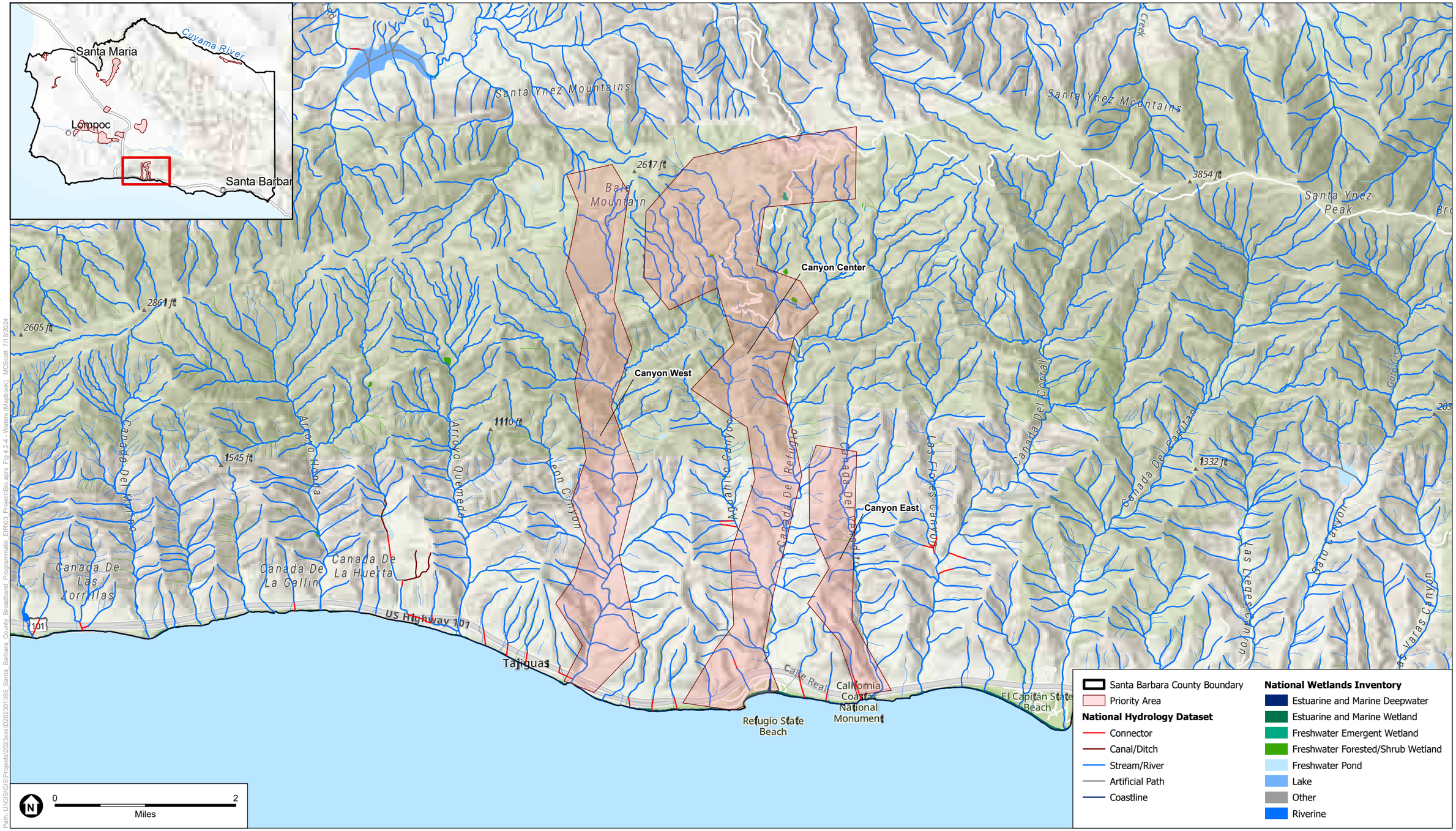
Path: U:\GIS\GIS\Projects\2023\xxx\D2023013B5_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\Bio.aprx Fig 4.2-4 - Waters (Mapbook) MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-4H
Waters
Highway 246 Corridor

ESA



Path: U:\GIS\GIS\Projects\2023xxx\D202301385_Santa_Barbara_County_Broadband_Programmatic_EIR\03_ProjectBio_aprx\ Fig 4.2-4 - Waters (Mapbook) - MCScott 7/18/2024

SOURCE: ESA, 2024; CalVeg, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-4l
Waters
Refugio Canyon

ESA

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The mountainous regions of the County may support wildlife movement on a regional scale while riparian corridors may provide more local scale opportunities for wildlife movement throughout the County. The CDFW Habitat Connectivity Mapper identifies two essential connectivity areas within the County (CDFW 2024d). One is located near the coastline in the western portion of the County from south of Guadalupe to south of Lompoc. The other is located over a large area of the mountainous regions in the southern portion of the County. In addition, three important movement corridors are also identified from the report titled *Missing Linkages: Restoring Connectivity to the California Landscape* (Penrod et al. 2001). All three are located in the western part of the County and are associated with the Santa Ynez River, San Antonio Creek/Purissima Hills and along the south coast near Gaviota. These areas are identified as important movement corridors for species such as steelhead, mountain lion, riparian birds, and other small carnivores. Wildlife movement corridors within the County are shown in **Figure 4.2-5,** *Wildlife Movement Corridors,* below**.**

Nesting Birds and Native Wildlife Nursery Sites

The trees and shrubs within the County may provide habitat for nesting birds. Even the disturbed and developed areas within the County may provide suitable habitat for ground nesting species such as killdeer.

4.2.2 Regulatory Setting

This section describes the federal, state, and local laws, policies, and regulations that would apply to the Project.

Federal

Federal Endangered Species Act

The USFWS and National Marine Fisheries Service (NMFS) are the designated federal agencies responsible for administering the FESA. The FESA defines species as “endangered” and “threatened” and provides regulatory protection for any species thus designated. FESA Section 9 prohibits the “take” of species listed by USFWS as threatened or endangered. As defined in the FESA, taking means “… to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in such conduct.” Recognizing that take cannot always be avoided, FESA Section 10(a) includes provisions for takings that are incidental to, but not the purpose of, otherwise lawful activities.

FESA Section 7(a)(2) requires all federal agencies, including USFWS, to evaluate projects authorized, funded, or carried out by federal agencies with respect to any species proposed for listing or already listed as endangered or threatened and the species’ critical habitat, if any is proposed or designated. Federal agencies must undertake programs for the conservation of endangered and threatened species and are prohibited from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or modify its “critical habitat.”

As defined in the FESA, "individuals, organizations, states, local governments, and other non-federal entities are affected by the designation of critical habitat only if their actions occur on federal lands, require a federal permit, license, or other authorization, or involve federal funding."

FESA Section 4(a)(3) and (b)(2) requires the designation of critical habitat to the maximum extent possible and prudent based on the best available scientific data and after considering the economic impacts of any designations. Critical habitat is defined in FESA Section 3(5)(A): (1) areas within the geographic range of a species that are occupied by individuals of that species and contain the primary constituent elements (PCEs) (physical and biological features) essential to the conservation of the species, thus warranting special management consideration or protection; and (2) areas outside of the geographic range of a species at the time of listing but that are considered essential to the conservation of the species.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC 703 et seq.) domestically implements a series of international treaties that provide for international migratory bird protection. The MBTA authorizes the Secretary of the Interior to regulate the taking of migratory birds; the act provides that it shall be unlawful, except as permitted by regulations, "to pursue, take, or kill any migratory bird, or any part, nest or egg of any such bird" (16 USC 703).

Bald and Golden Eagle Protection Act

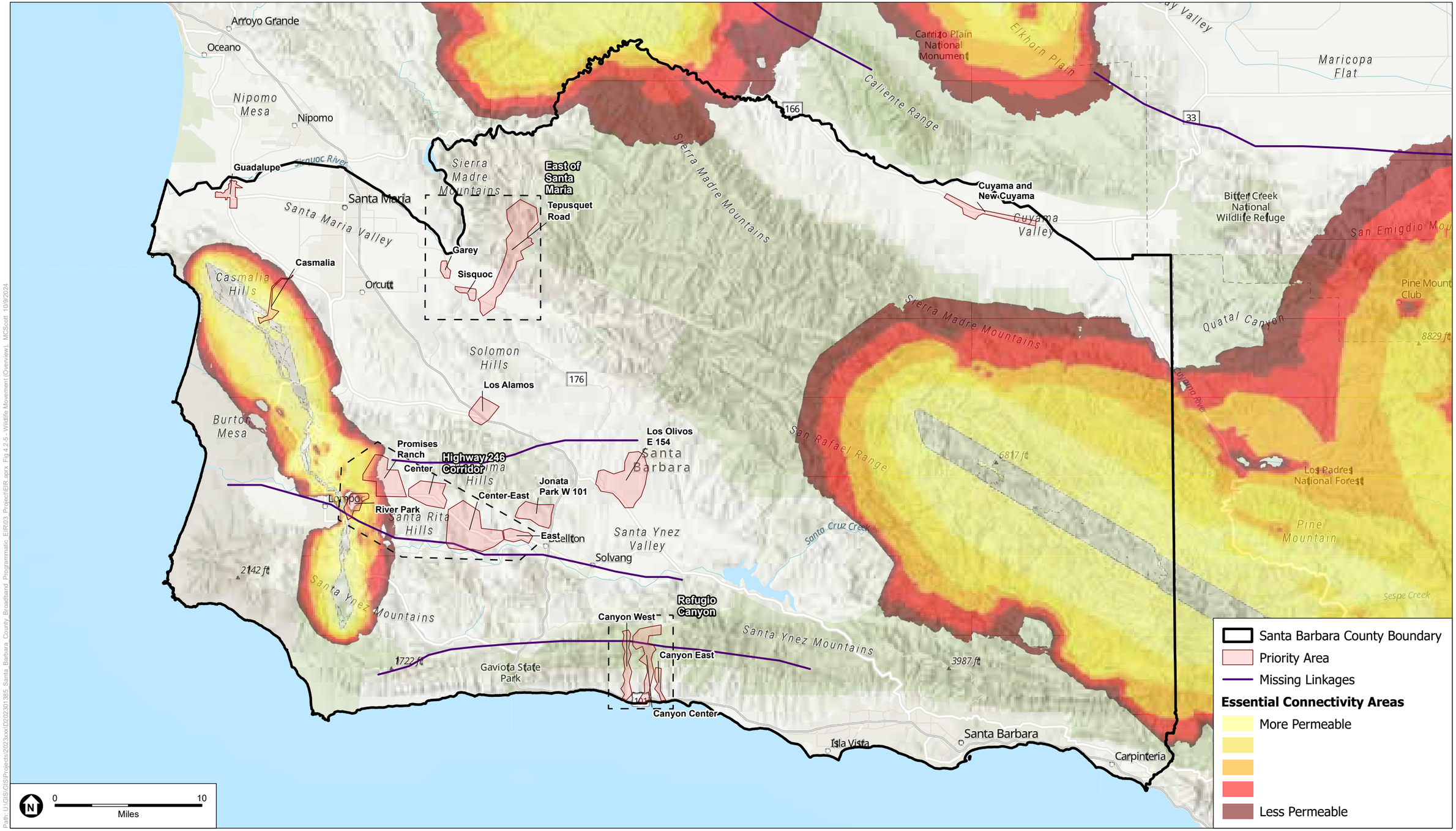
The Bald and Golden Eagle Protection Act (16 USC 668) protects bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) by prohibiting the taking, possession, and commerce of these species, and establishes civil penalties for violation of this act.

Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the U.S. and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the law was significantly reorganized and expanded in 1972. "Clean Water Act" became the law's common name with amendments in 1972.

Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. Activities in waters of the U.S. regulated under this program include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports), and mining projects. Section 404 requires that a permit be issued before dredged or fill material may be discharged into waters of the U.S., unless the activity is exempt from regulation under Section 404 (e.g., certain farming and forestry activities).

Wetlands are defined by USACE as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" (33 CFR 328.3[c][1]; 40 CFR 120.2[c][1]). Indicators of three wetland parameters (hydric soils, hydrophytic vegetation, and wetlands hydrology), as determined by site investigation, must be present at a site for USACE to classify the site as a wetland (Environmental Laboratory 1987).



SOURCE: ESA, 2024; CDFW, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-5
Wildlife Movement Overview

ESA

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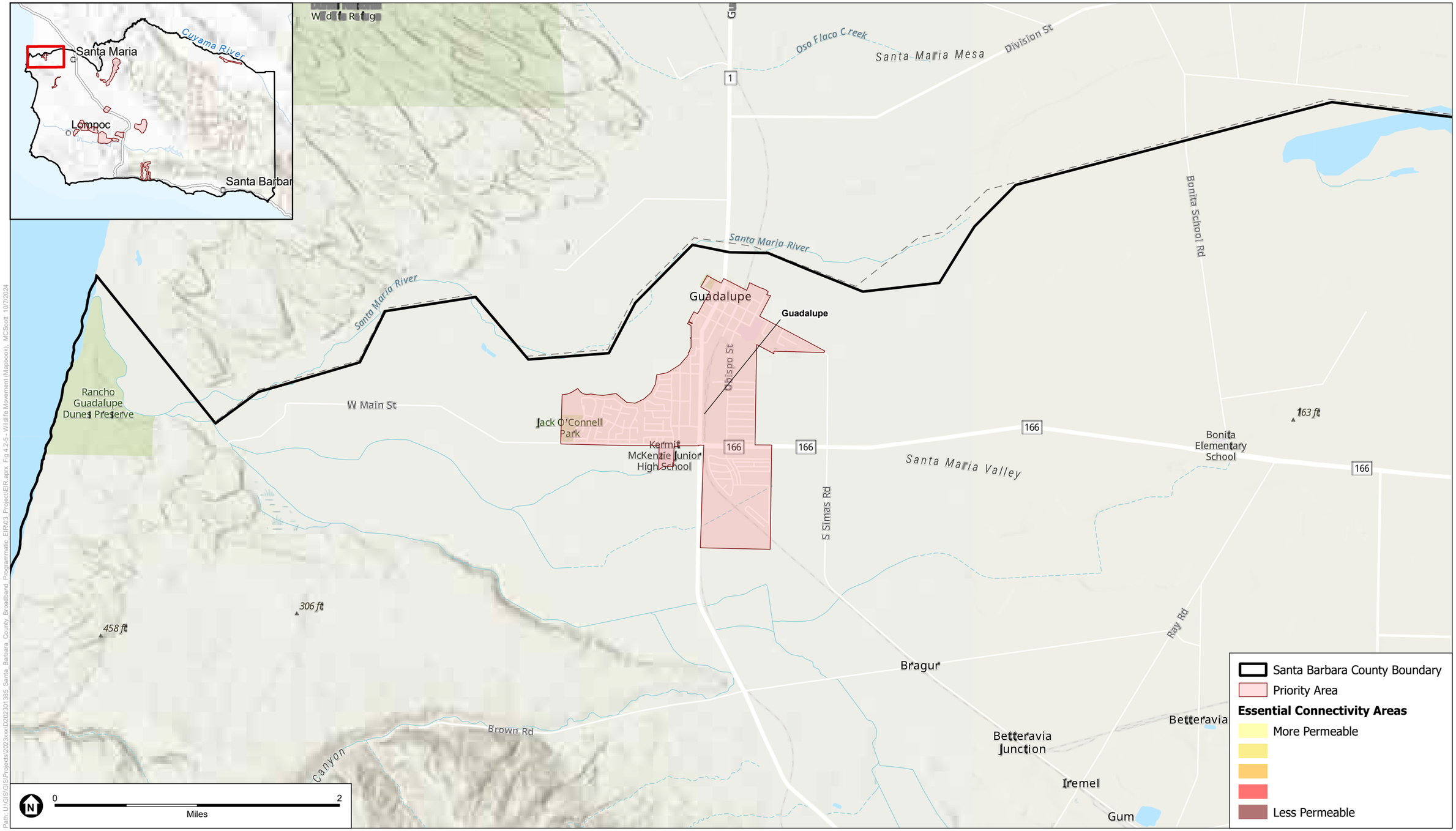
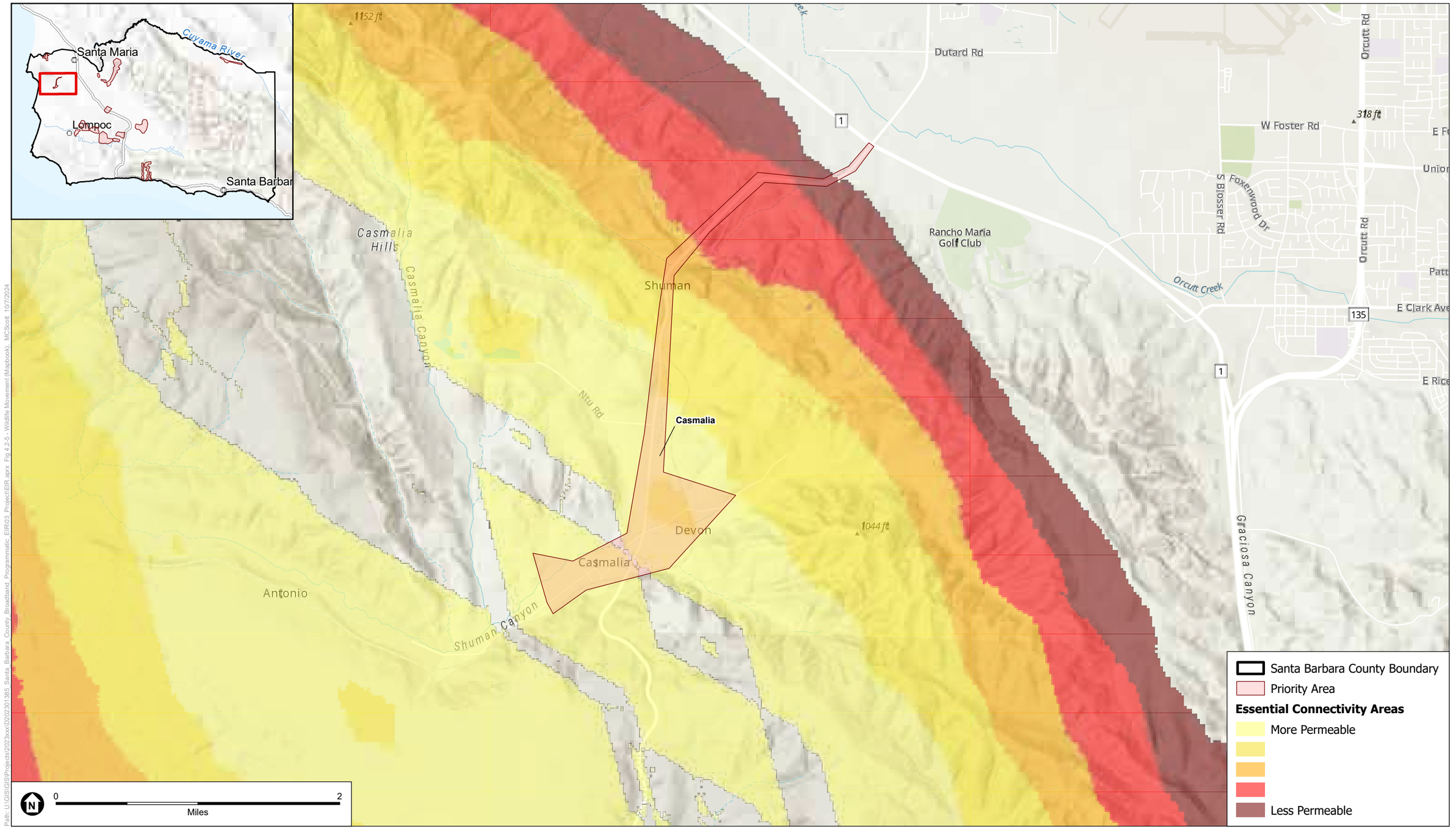


SOURCE: ESA, 2024; CDFW, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-5A
Wildlife Movement
Guadalupe

ESA



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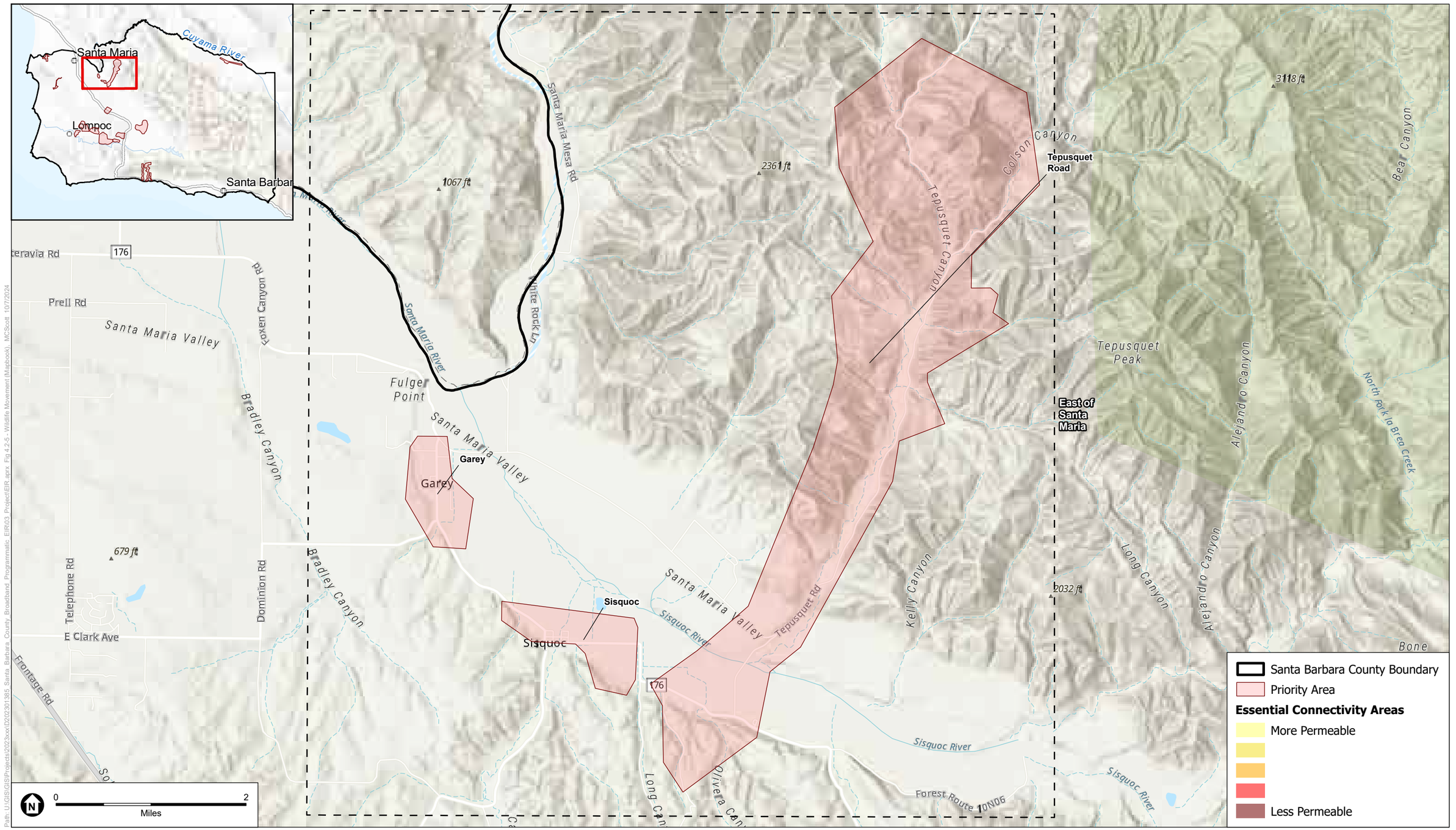
SOURCE: ESA, 2024; CDFW, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-5B
Wildlife Movement
Casmalia

ESA



SOURCE: ESA, 2024; CDFW, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-5C
Wildlife Movement
East of Santa Maria

ESA

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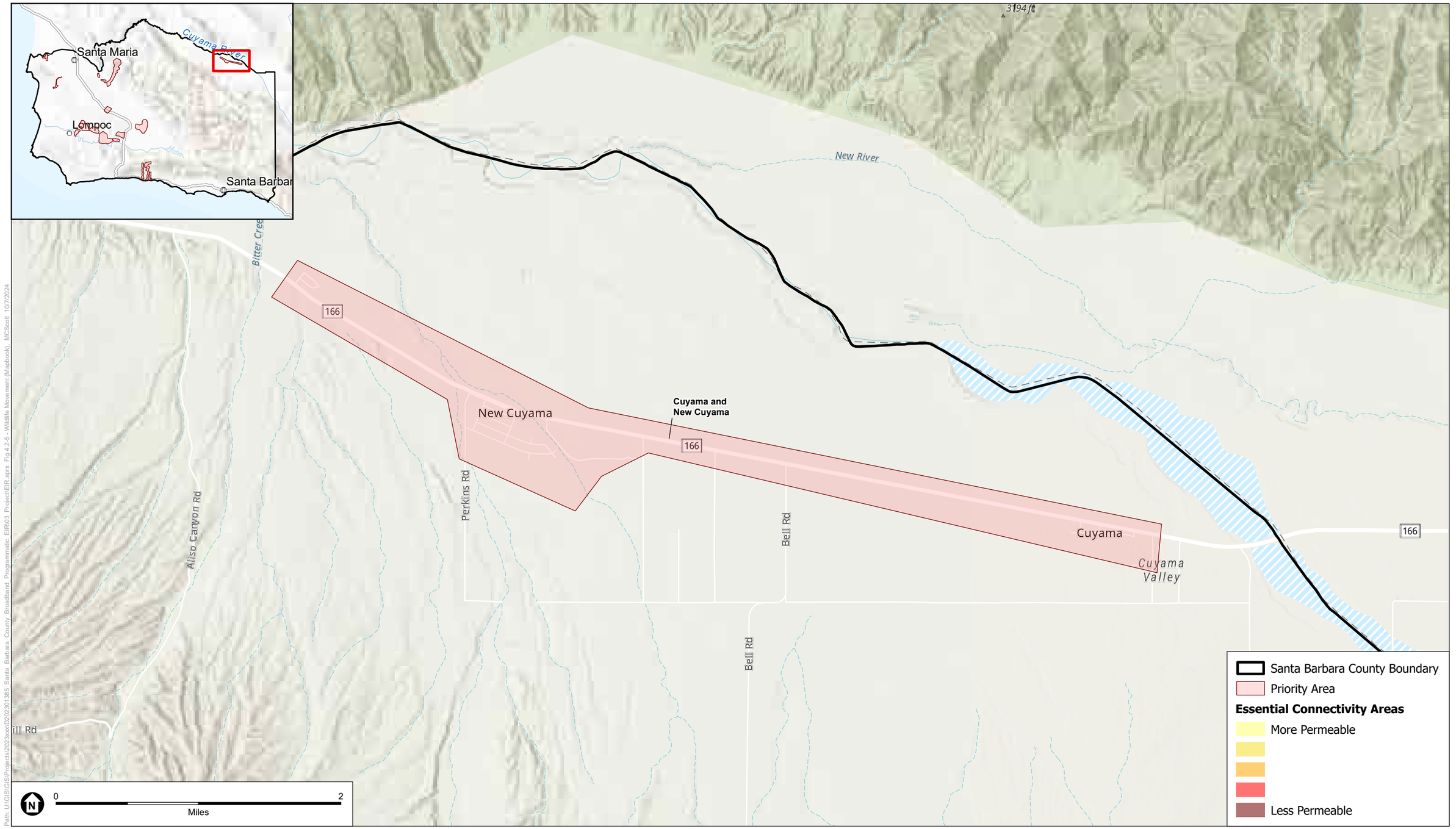

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SOURCE: ESA, 2024; CDFW, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-5D
Wildlife Movement
Cuyama and New Cuyama

ESA

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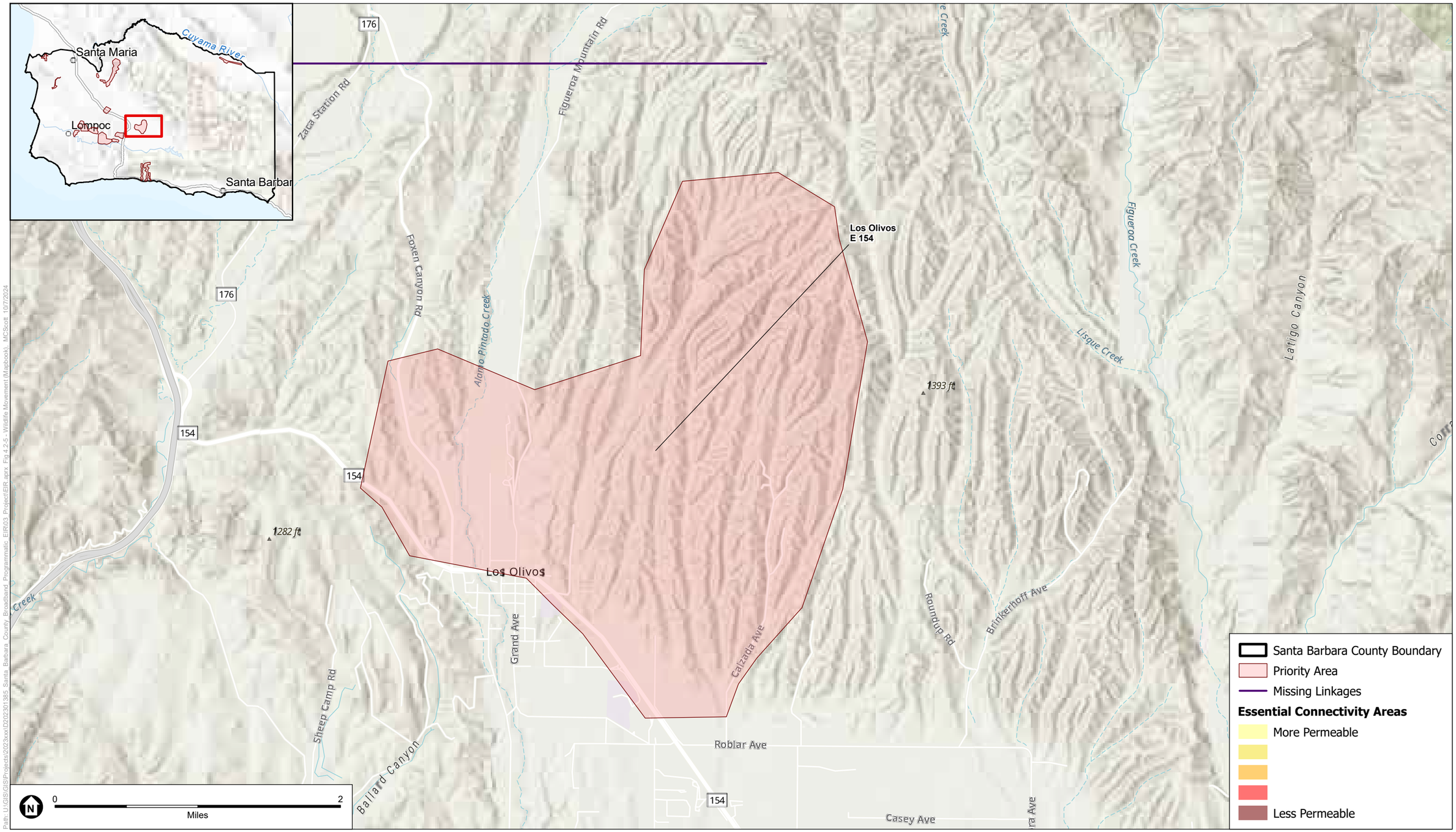
SOURCE: ESA, 2024; CDFW, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-5E
Wildlife Movement
Los Alamos

ESA



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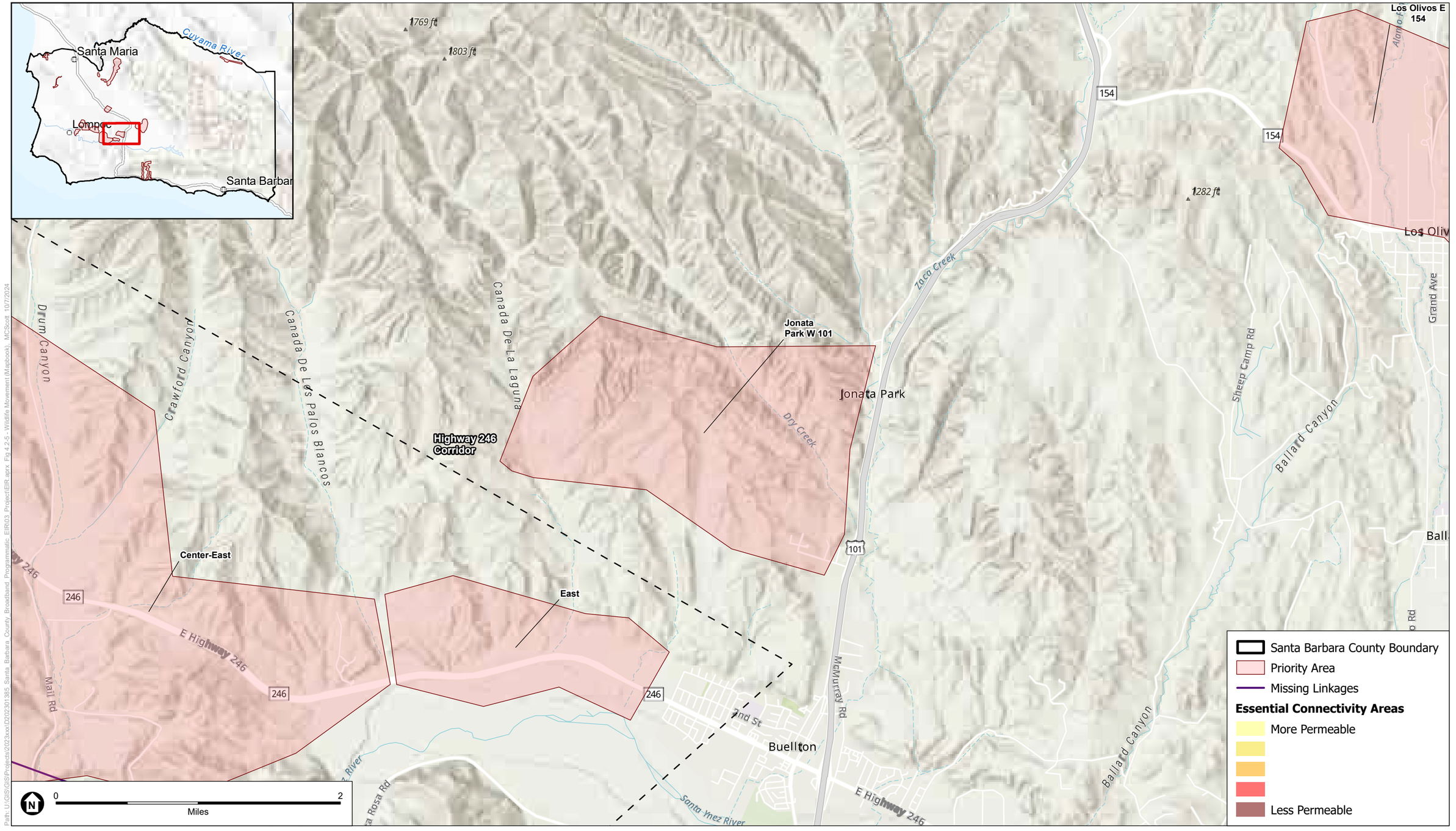
SOURCE: ESA, 2024; CDFW, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-5F
Wildlife Movement
Los Olivos E 154

ESA

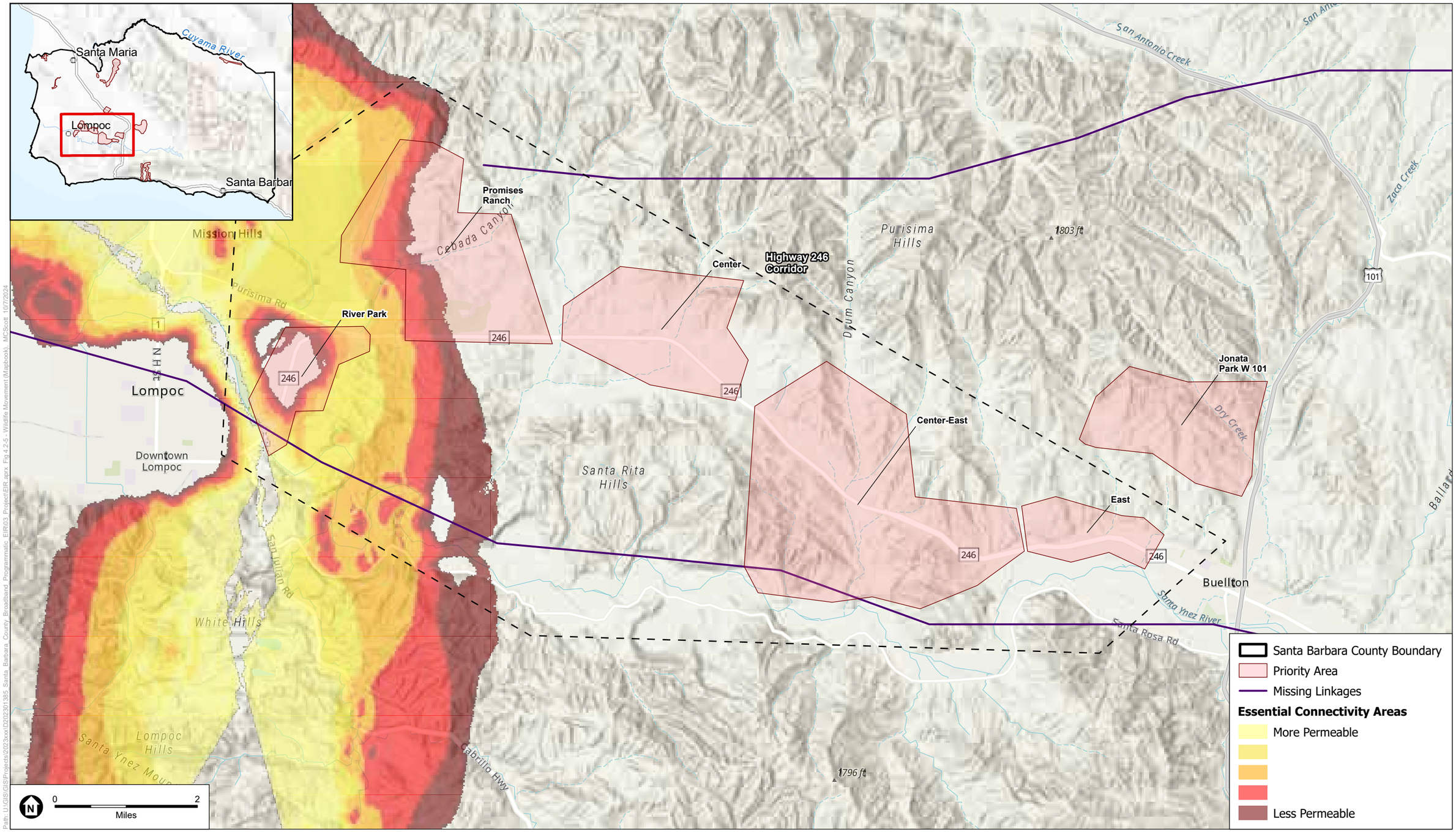


SOURCE: ESA, 2024; CDFW, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-5G
Wildlife Movement
Jonata Park W 101

ESA



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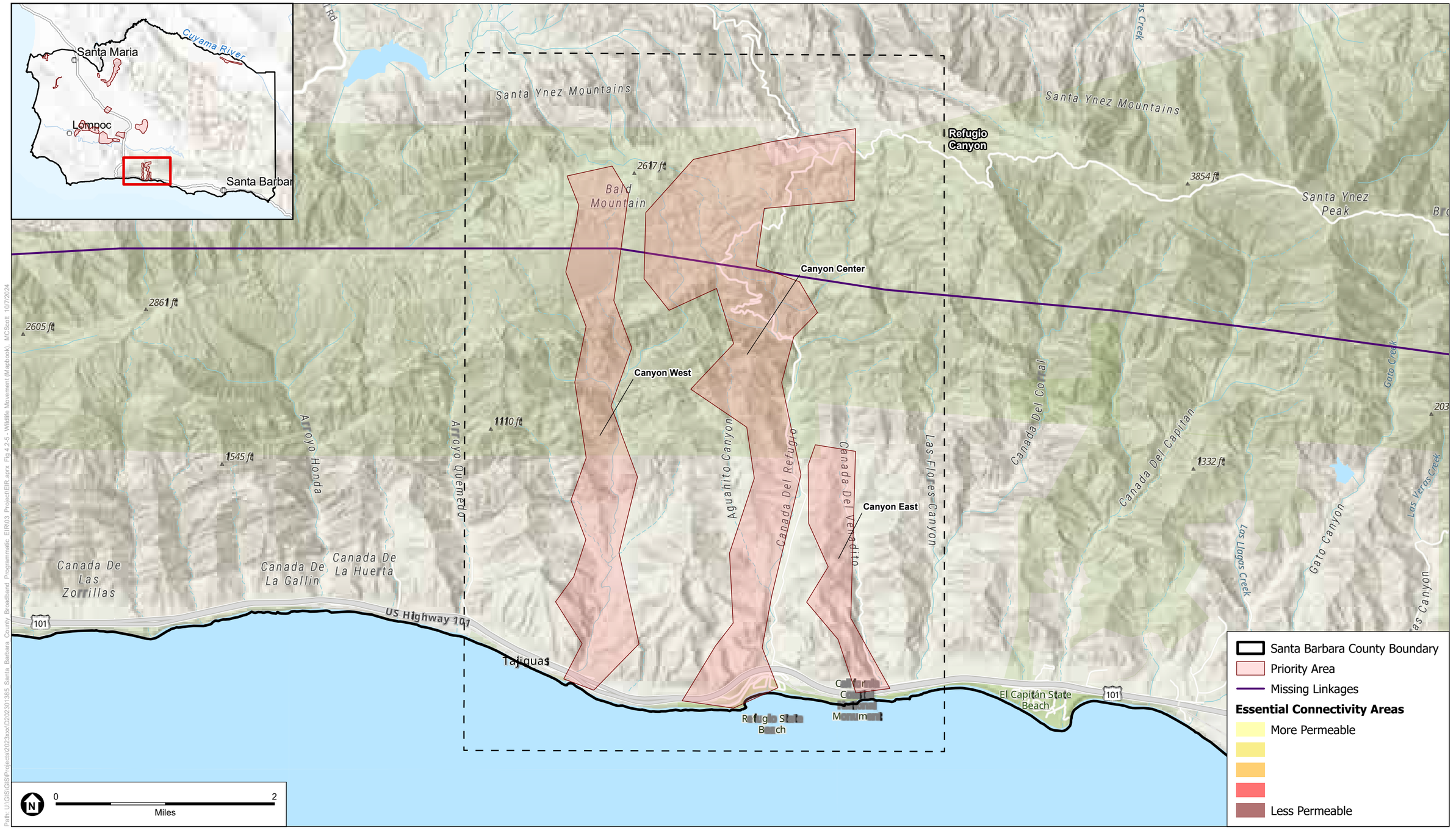
SOURCE: ESA, 2024; CDFW, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-5H
Wildlife Movement
Highway 246 Corridor

ESA



SOURCE: ESA, 2024; CDFW, 2024

Santa Barbara County Last-Mile Broadband Program

Figure 4.2-5l
Wildlife Movement
Refugio Canyon

ESA

Path: U:\GIS\GIS\Projects\2023xxx\D2023013B5_Santa_Barbara_County_Broadband_Programmatic_EIR\03_Project\EIR.aprx Fig 4.2-5 - Wildlife Movement (Mapbook), MCScott 10/7/2024

Section 401 of the CWA gives the state authority to grant, deny, or waive certification of proposed federally licensed or permitted activities resulting in discharge to waters of the U.S. The State Water Resources Control Board (State Water Board) directly regulates multi-regional projects and supports the Section 401 certification and wetlands program statewide. The RWQCB regulates activities pursuant to Section 401(a)(1) of the federal CWA, which specifies that certification from the state is required for any applicant requesting a federal license or permit to conduct any activity including but not limited to the construction or operation of facilities that may result in any discharge into navigable waters. The certification shall originate from the state or appropriate interstate water pollution control agency in/where the discharge originates or will originate. Any such discharge will comply with the applicable provisions of CWA Sections 301, 302, 303, 306, and 307.

Rivers and Harbors Act, Section 10

Section 10 of the Rivers and Harbors Act of 1899 requires authorization from the USACE for the construction of any structure in or over any navigable water of the U.S. Structures or work outside the limits defined for navigable waters of the U.S. require a Section 10 permit if the structure or work affects the course, location, or condition of the water body. The law applies to any dredging or disposal of dredged materials, excavation, filling, re-channelization, or any other modification of a navigable water of the U.S. and applies to all structures and work. It further includes, without limitation, any wharf, dolphin, weir, boom breakwater, jetty, groin, bank protection (e.g., riprap, revetment, bulkhead), mooring structures such as pilings, aerial or subaqueous power transmission lines, intake or outfall pipes, permanently moored floating vessel, tunnel, artificial canal, boat ramp, aids to navigation, and any other permanent, or semi-permanent obstacle or obstruction. It is important to note that Section 10 applies only to navigable waters, and thus does not apply to work in non-navigable wetlands or tributaries. In some cases, Section 10 authorization is issued by the USACE concurrently with CWA Section 404 authorization, such as when certain Nationwide Permits are used.

State

CEQA Guidelines Section 15380

Although Threatened and Endangered species are protected by specific federal and State statues, CEQA Guidelines Section 15380(b) provides that a species not listed by FESA or the CESA may be considered rare or endangered if it can be shown to meet certain criteria for rarity. These criteria have been modeled after the definition of FESA and the section of CFGC discussing rare or endangered plants or animals. This section was included in the CEQA Guidelines primarily for situations in which a public agency is reviewing a project that may have a significant effect on a species that meets the CEQA criteria but has not been listed by CDFW or USFWS. CEQA provides the ability to protect species from potential project impacts until the respective agencies have the opportunity to designate the species protection.

CEQA Guidelines also identify other locally or regionally significant resources, including natural communities or habitats as sensitive resources. CEQA requires an assessment of such communities and potential project impacts. Natural communities identified by CDFW as sensitive are considered to be significant resources and fall under the CEQA Guidelines for addressing impacts. Local planning documents such as general and area plans often identify natural communities.

California Endangered Species Act

The CESA (CFGC Section 2050 et seq.) establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The CESA mandates that state agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. There are no state agency consultation procedures under the CESA. For projects that would affect a listed species under both the CESA and the FESA, compliance with the FESA would satisfy the CESA if CDFW determines that the federal incidental take authorization is "consistent" with the CESA under CFGC Section 2080.1. For projects that would result in take of a species listed under the CESA only, an incidental take permit is required under Section 2081(b).

Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act, waters of the state (California's surface waters and groundwater, including wetlands) fall under the jurisdiction of the appropriate RWQCB. Under the act, the RWQCB must prepare and periodically update water quality control basin plans. Each basin plan sets forth water quality standards for surface water and groundwater, as well as actions to control nonpoint and point sources of pollution to achieve and maintain these standards. Projects that affect waters of the state must obtain a Waste Discharge Requirement from the RWQCB in the absence of federal waters. The majority of the County falls under the jurisdiction of the Central Coast RWQCB, though a small portion of the County (along its eastern boundary) is within the jurisdiction of the Los Angeles RWQCB.

California Fish and Game Code

Sections 1600–1616

Under these sections of the CFGC, a project proponent is required to notify CDFW prior to any project that would divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. Pursuant to the code, a "stream" is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel having banks and supporting fish or other aquatic life. Based on this definition, a watercourse with surface or subsurface flows that supports or has supported riparian vegetation is a stream and is subject to CDFW jurisdiction. Altered or artificial watercourses valuable to fish and wildlife are subject to CDFW jurisdiction. CDFW also has jurisdiction over dry washes that carry water during storm events. Preliminary notification and project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFW is required to propose reasonable project changes to protect the resource. These modifications are formalized in a Streambed Alteration Agreement, which becomes part of the plans, specifications, and bid documents for the project.

Sections 3503, 3503.5, 3513, and 3800

Under these sections, a project proponent is not allowed to conduct activities that would result in the taking, possessing, or destroying of any birds of prey or their nests or eggs; the taking or possessing of any migratory nongame bird as designated in the MBTA; the taking, possessing, or needlessly destroying of the nest or eggs of any bird; or the taking of any nongame bird pursuant to CFGC Section 3800.

Sections 3511, 4700, 5050, and 5515

These sections of the CFGC prohibit take or possession of fully protected species. CDFW does not have the authority to permit incidental take of fully protected species when activities are proposed in areas inhabited by those species.

Native Plant Protection Act

California's Native Plant Protection Act requires all state agencies to use their authority to carry out programs to conserve endangered and rare native plants. Provisions of the NPPA prohibit the taking of listed plants from the wild and require notification of CDFW at least ten days in advance of any change in land use. This allows CDFW to salvage listed plant species that otherwise would be destroyed. Landowners are required to conduct botanical inventories and consult with CDFW during project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.

Porter-Cologne Water Quality Control Act

The State Water Board regulates the protection of waters of the state through Section 13050[e] of the California Water Code. Waters of the state are broadly defined by the Porter-Cologne Water Quality Control Act to mean any surface water or groundwater, including saline waters within the boundaries of the state. Under this definition, isolated wetlands that may not be subject to regulations under federal law are considered waters of the state and regulated accordingly. The California Water Boards are in the process of updating the state Wetland Area Protection Policy, which includes a proposed wetland definition.

Local

County of Santa Barbara

County of Santa Barbara Comprehensive Plan

The County has prepared the Santa Barbara County Comprehensive Plan (Comprehensive Plan), which is a long-term plan that is meant to guide future development within the County. The Comprehensive Plan includes a Land Use Element, which lays out the general patterns of development throughout the County, as well as a Conservation Element, which includes policies that address the conservation, development, and use of natural resources including water, forests, soils, rivers, and mineral deposits in the County (Santa Barbara County 1979a; Santa Barbara County 1980). The Comprehensive Plan also includes an Open Space Element that identifies areas within the County where natural resources such as wetlands, rare and endangered species, and shorelines and dunes occur (Santa Barbara County 1979b).

The Land Use Element and Conservation Element policies related to biological resources that would be applicable to the Project include the following (Santa Barbara County 1979a; Santa Barbara County 1980):

Land Use Element

Hillside and Watershed Protection Policies

1. Plans for development shall minimize cut and fill operations. Plans requiring excessive cutting and filling may be denied if it is determined that the development could be carried out with less alteration of the natural terrain.

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.
3. For necessary grading operations 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.
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.
5. 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.
6. 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.

Streams and Creeks Policies

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.

Conservation Element

- Naples Reef and inshore area should be maintained primarily as a scientific research and educational area. The Local Coastal Program, in consultation with the state Department of Fish and Game, recommends that continued recreational use of this area be permitted and monitored to prevent depletion of marine resources.
- Coastal dunes should be protected from all but scientific and educational uses, except portions of the Guadalupe Dunes already scarred by ORV's. Wherever possible, dune areas should be placed in a "preserve" status. Ocean Beach County Park should not be expanded.
- In Goleta, Devereux, and Carpinteria sloughs, scientific and educational research and recreational activities should be limited, traffic should be minimized, and the present size of the sloughs should be maintained. The Mosquito Abatement District should be encouraged to reduce control activities to the minimum level needed to avoid severe nuisance problems and to carry out studies to achieve this goal.
- Native grasslands should be subjected only to regulated scientific study wherever they occur.
- On the More Mesa grasslands, only very light recreation restricted to trails should be permitted, in order to protect the White-tailed Kite.
- In the Santa Maria Grassland where the Spadefoot Toad lives, moderate intensity recreation can be tolerated as long as soil disturbance is minimized.

- In the Santa Ynez Valley canyon communities, unregulated and haphazard development should be prohibited, roads should be kept narrow, and cattle grazing closely controlled.
- In the Southern Oak Woodland along Rincon Creek, urban development and all but very light recreation should not be allowed.
- In the Foothill Woodland between Santa Cruz Guard Station and Wheat Peak, development should be stopped, and further road construction should be prevented. Moderate recreational use would be acceptable.
- In the Mixed Evergreen Forest Habitat, disturbance should be minimized by keeping roads as they are and curtailing development.
- In the Jualachichi Summit area, Jalama Road should not be widened, and cattle grazing should not be permitted near the summit.
- The Purisima Hills should be preserved by limiting road widening and restricting the number of trails.
- In the Coulter Pine Forest on the ridge of the Santa Ynez Mountains, the practice of spraying herbicide should be curtailed. The U.S. Forest Service has banned ORV's in order to minimize disturbance of the habitat.
- In the Miranda Pine Mountain and associated upland area, light recreation activities could be allowed, but road building and development should be stopped.
- Around trees serving as traditional roosting sites for butterflies and Turkey Vultures, a 100 foot wide buffer zone should be established for protection of these species.
- The nine streams in the County deserving special protection are Rattlesnake, Mission, San Roque, San Jose, Dos Pueblos, Tajiguas, Arroyo Hondo, Refugio, and Jalama Creeks. Only scientific study and light recreation activities should be permitted in or near these streams, and buffer strips at least 100 feet wide should be established. Pesticides should not be used in these buffer zones.
- Development of the Santa Ynez River should be halted, the river water should not be depleted further, and no pollutants should be discharged into the river.
- The eastern end of Lake Cachuma should remain undisturbed to protect the bird habitat, and the lake's north shore also should remain closed to the public.
- The County should evaluate each of these recommendations in preparing environmental impact reports, in order to ensure that adequate consideration is given to preserving ecological communities.

Santa Barbara County Coastal Land Use Plan

Each of the counties and cities along the California coast is required by the Coastal Act to prepare a Local Coastal Program (LCP) for the portion of the unincorporated area of the County within the Coastal Zone. The local coastal program is required to include a Land Use Plan, which serves as the local coastal element of the County's general plan. The Santa Barbara County Coastal Land Use Plan (CLUP) is a guide for the general patterns of development throughout the coastal areas of the County. Its purpose is to protect coastal resources while accommodating land use development within the Coastal Zone. The CLUP includes policies related to major topics that reflect the principal coastal resource protection and development issues in the County. These policies are meant to bring the County into conformity with the Coastal Act and all new development within the County's coastal zone will have to meet the standards set forth in these policies. CLUP policies related to biological resources that may be applicable to the future

broadband facilities that could be developed under the Project include the following (Santa Barbara County 1982):

> **9-1:** Prior to the issuance of a development permit, all projects on parcels shown on the land use plan and/or resource maps with a Habitat Area overlay designation or within 250 feet of such designation or projects affecting an environmentally sensitive habitat area shall be found to be in conformity with the applicable habitat protection policies of the land use plan. All development plans, grading plans, etc., shall show the precise location of the habitat(s) potentially affected by the proposed project. Projects which could adversely impact an environmentally sensitive habitat area may be subject to a site inspection by a qualified biologist to be selected jointly by the County and the applicant.

Habitat Type: Dunes

> **9-2:** Because of their State-wide significance, coastal dune habitats shall be preserved and protected from all but resource dependent, scientific, educational, and light recreational uses. Sand mining and oil well drilling may be permitted if it can be shown that no alternative location is feasible and such development is sited and designed to minimize impacts on dune vegetation and animal species. Disturbance or destruction of any dune vegetation shall be prohibited, unless no feasible alternative exists, and then only if re-vegetation is made a condition of project approval. Such re-vegetation shall be with native California plants propagated from the disturbed sites or from the same species at adjacent sites.
>
> **9-5:** For all permitted uses, including recreation, foot traffic on vegetated dunes shall be minimized. Where access through dunes is necessary, well-defined footpaths shall be developed and used.

Habitat Type: Wetlands

> **9-9:** A buffer strip, a minimum of 100 feet in width, shall be maintained in natural condition along the periphery of all wetlands. No permanent structures shall be permitted within the wetland or buffer area except structures of a minor nature, i.e., fences, or structures necessary to support the uses in Policy 9-10.
>
> The upland limit of a wetland shall be defined as: 1) the boundary between land with predominantly hydrophytic cover and land with predominantly mesophytic or xerophytic cover; or 2) the boundary between soil that is predominantly hydric and soil that is predominantly nonhydric; or 3) in the case of wetlands without vegetation or soils, the boundary between land that is flooded or saturated at some time during years of normal precipitation and land that is not.
>
> Where feasible, the outer boundary of the wetland buffer zone should be established at prominent and essentially permanent topographic or manmade features (such as bluffs, roads, etc.). In no case, however, shall such a boundary be closer than 100 feet from the upland extent of the wetland area, nor provide for a lesser degree of environmental protection than that otherwise required by the plan. The boundary definition shall not be construed to prohibit public trails within 100 feet of a wetland.
>
> For the Highway 101: Carpinteria to Santa Barbara project and the projects identified in Policy 7-31 and Policy 7-32, new development in wetlands or within the 100-foot wetland buffer strip may be permitted in accordance with the provisions of the Transportation Corridor Wetland Overlay District (TCWO), in Chapter 35-102H of the Coastal Zoning Ordinance.
>
> **9-14:** New development adjacent to or in close proximity to wetlands shall be compatible with the continuance of the habitat area and shall not result in a reduction in the biological productivity

or water quality of the wetland due to runoff (carrying additional sediment or contaminants), noise, thermal pollution, or other disturbances.

Habitat Type: Native Grasslands

9-18: Development shall be sited and designed to protect native grassland areas.

Habitat Type: Vernal Pools

9-21: Development shall be sited and designed to avoid vernal pool sites as depicted on the resource maps.

Habitat Type: Butterfly Trees

9-22: Butterfly trees shall not be removed except where they pose a serious threat to life or property, and shall not be pruned during roosting and nesting season.

9-23: Adjacent development shall be set back a minimum of 50 feet from the trees.

Habitat Type: Marine Mammal Rookeries and Hauling Grounds

9-25: Marine mammal rookeries shall not be altered or disturbed by recreational, industrial, or any other uses during the times of the year when such areas are in use for reproductive activities, i.e., mating, pupping, and pup care.

Habitat Type: White-Tailed Kite

9-26: There shall be no development including agricultural development, i.e., structures, roads, within the area used for roosting and nesting.

9-28: Any development around the nesting and roosting area shall be set back sufficiently far as to minimize impacts on the habitat area.

9-29: In addition to preserving the ravine plant communities on More Mesa for nesting and roosting sites, the maximum feasible area shall be retained in grassland to provide feeding area for the kites.

Habitat Type: Native Plant Communities

9-35: Oak trees, because they are particularly sensitive to environmental conditions, shall be protected. All land use activities, including cultivated agriculture and grazing, should be carried out in such a manner as to avoid damage to native oak trees. Regeneration of oak trees on grazing lands should be encouraged.

9-36: When sites are graded or developed, areas with significant amounts of native vegetation shall be preserved. All development shall be sited, designed, and constructed to minimize impacts of grading, paving, construction of roads or structures, runoff, and erosion on native vegetation. In particular, grading and paving shall not adversely affect root zone aeration and stability of native trees.

Habitat Type: Streams

9-37: The minimum buffer strip for major streams in rural areas, as defined by the land use plan, shall be presumptively 100 feet, and for streams in urban areas, 50 feet. These minimum buffers may be adjusted upward or downward on a case-by-case basis. The buffer shall be established based on an investigation of the following factors and after consultation with the Department of

Fish and Game and Regional Water Quality Control Board in order to protect the biological productivity and water quality of streams:

1) soil type and stability of stream corridors;

2) how surface water filters into the ground;

3) slope of the land on either side of the stream; and

4) location of the 100-year flood plain boundary.

Riparian vegetation shall be protected and shall be included in the buffer. Where riparian vegetation has previously been removed, except for channelization, the buffer shall allow for the reestablishment of riparian vegetation to its prior extent to the greatest degree possible.

9-38: No structures shall be located within the stream corridor except: public trails, dams for necessary water supply projects, flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development; and other development where the primary function is for the improvement of fish and wildlife habitat. Culverts, fences, pipelines, and bridges (when support structures are located outside the critical habitat) may be permitted when no alternative route/location is feasible. All development shall incorporate the best mitigation measures feasible.

9-40: All development, including dredging, filling, and grading within stream corridors, shall be limited to activities necessary for the construction of uses specified in Policy 9-38. When such activities require removal of riparian plant species, revegetation with local native plants shall be required except where undesirable for flood control purposes. Minor clearing of vegetation for hiking, biking, and equestrian trails shall be permitted.

9-41: 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.

Santa Barbara County Code

Chapter 9A – Brush Removal, Southeasterly Coastal Area and Coastal Zone

Chapter 9A of the Santa Barbara County Code (County Code) regulates the removal of native brush, shrubs, trees and roots within the southeasterly coastal area of the unincorporated County to reduce erosion damage, flood hazards, and soil loss. This regulation requires that written approval from the building and safety division of the department of planning and development be obtained prior to removing, destroying, or causing the removal or destruction of natural vegetation within the southeasterly coastal areas of the County covered by this regulation.

Chapter 14 Appendix A – Grading Ordinance Guidelines for Native Oak Tree Removal

The purpose of this regulation is to protect native oak trees and govern deciduous and live oak removals. It proposes a tiered system based on lot size and the number of trees removed to determine the applicable permits required. Tier 1 covers exempt tree removals, Tier 2 requires replanting, Tier 3 requires a management plan, and Tier 4 requires discretionary permit review from the County. The County Grading Ordinance applies to all private land outside of the Coastal Zone and urban boundaries.

Santa Barbara County Land Use and Development Code

The County's Land Use and Development Code, Chapter 35 of the County Code, includes development standards that are meant to protect biological resources (Santa Barbara County 2024).

Section 35.28.100 Environmentally Sensitive Habitat Overlay

Section 35.28.100 of the Land Use and Development Code provides restrictions on development in areas with unique natural resources including sensitive plant and wildlife species and/or their habitats. The overlay is intended to:

1. Protect and preserve specified areas in which plant or wildlife species or their habitats are either rare or especially valuable because of their role in the ecosystem, and that could be easily disturbed or degraded by human activities and developments; and

2. Ensure that each project permitted in the overlay zone is designed and carried out in a manner that will provide the maximum feasible protection to sensitive habitat areas.

Sections 35.28.100(B) and (C) describe the applicability of the overlay (e.g., description of how a determination of the ESH boundary is made during permit application review) and permit and processing requirements, respectively.

Section 35.28.170 Riparian Corridor – Goleta (RC-GOL) Overlay Zone

Section 35.28.170 of the LUDC identifies the Goleta (RC-GOL) overlay zone is applied within rural areas designated agriculture on the Comprehensive Plan maps for the Eastern Goleta Valley Community Plan area and Goleta Community Plan area to protect and preserve mapped Riparian Corridors that could be easily disturbed or degraded by development and other human activities. The overlay is also intended to maintain a continuous canopy of trees along each Riparian Corridor and protect the overall ecological integrity of the mapped stream system. Sections 35.28.170(B) and (C) describe the applicability of the overlay and permit and processing requirements, respectively.

Chapter 35 – Zoning, Article IX – Deciduous Oak Tree Protection and Regeneration

The County Deciduous Oak Tree Protection and Regeneration Ordinance implements the goals and policies of the Santa Barbara County Comprehensive Plan that promote the protection of deciduous oak trees (Santa Barbara County 2003). Article IX identifies requirements for oak tree replacement if an oak tree removal permit is permitted, including requiring preparation of an Oak Tree Management Plan, replacing oak trees removed at a compensation ratio of 15 to 1, replacing trees with native nursery stock, planting saplings in suitable locations, and maintaining and protecting planted saplings. These regulations address deciduous oak tree removal in the inland rural areas of the county if such removal is not associated with development that requires a permit under Articles III or IV of Chapter 35 of the County Code. For the urban and coastal areas, community plans and the CLUP determine tree protection policies.

Santa Barbara County Coastal Zoning Ordinance

As described above, each of the counties and cities along the California coast is required by the Coastal Act to prepare a Local Coastal Program (LCP) for the portion of the unincorporated area of the County within the Coastal Zone. The local coastal program is required to include a zoning ordinance. Thus, the County prepared and adopted the County Coastal Zoning Ordinance which will implement the certified Land Use Plan by classifying and regulating the uses of land, buildings, and structures within the

County's Coastal Zone. The Coastal Zoning Ordinance applies to any development within the Coastal Zone of the unincorporated area of the County (Santa Barbara County 2008).

County Environmental Thresholds and Guidelines Manual

The County prepared its Environmental Thresholds and Guidelines Manual to assist the public, applicants, environmental consulting firms, and County decision makers in understanding the use and application of various environmental impacts from proposed Projects (Santa Barbara County 2021). The most recent update to the County Environmental Thresholds and Guidelines Manual was published in January of 2021. The manual includes thresholds of significance that are intended to supplement provisions of the State CEQA Guidelines for a variety of environmental resources, including biological resources. These thresholds are included in Section 4.2.4, below.

Incorporated Cities

There are eight incorporated cities in Santa Barbara County including Buellton, Carpinteria, Goleta, Guadalupe, Lompoc, Santa Barbara, Santa Maria, and Solvang. Each of these incorporated cities has been required by State law to adopt their own general plans to guide development within the sphere of influence for each city. These general plans are required to include conservation and open space elements which are often combined as one general plan element that describes the natural and human-made resources within the cities and how these resources, including biological resources, will be preserved and protected. Furthermore, each city has its own Municipal Code which may include regulations and requirements for the protection of biological resources within the City, including, but not limited to, tree preservation ordinances. These local plans and regulations would be applicable to construction and operation of future broadband facilities developed under the proposed project that fall within the "sphere of influence" of these cities.

One of the Priority Areas that has been identified for the development of broadband network facilities, the Guadalupe Priority Area, is located within the sphere of influence of the City of Guadalupe. Therefore, City of Guadalupe plans, polices, and regulations that have been developed for the protection of biological resources are discussed in detail below.

City of Guadalupe General Plan

The City of Guadalupe is located in northern Santa Barbara County, within the Santa Maria Valley. The City's General Plan was adopted in November 2022 and serves as a blueprint of the use and development of land within the City. As required by State law, the General Plan includes a Conservation and Open Space Element that addresses conservation of natural resources and open spaces, including biological resources. The goals and policies included in the Conservation and Open Space Element that are specific to biological resources include the following:

> **Goal COS-2:** To protect natural habitats and other open space areas to ensure the longevity of native species as the built environment develops and to preserve aesthetic and visual amenities.
>
> > **Policy COS-1.4:** The City will work to protect existing open space and habitat resources, as they are essential to the wellbeing of Guadalupe.
> >
> > **Policy COS-1.5:** Where development could occur in areas with potential habitat for special-species occur, such as within the riparian or disturbed grassland areas shown in Figure 5-2,

Habitat Map, and Figure 5-3, Recorded Observations of Special-Status Species, or in other locations where such habitat may be present as identified by the Planning Director, an assessment of potential impacts to biological resources shall be conducted by a qualified biologist. If determined necessary by a qualified biologist, focused surveys per applicable regulatory agency protocols shall be conducted to determine if such species could occur. impacts to special-status species shall be avoided or minimized to the extent possible. If impacts cannot be avoided, measures to mitigate for the loss of individuals and/or habitat shall be implemented.

Policy COS-1.6: Where development could occur in areas with potential nesting bird habitat, such as within the riparian or disturbed grassland areas shown on Figure 5-2, Habitat Map, or in other locations where such habitat may be present as may be identified by the Planning Director, native nesting birds protected by the Federal Migratory Bird Treaty Act and the California Fish and Game Code shall be surveyed for and protected, if found. Disturbance activities shall not occur during the nesting season (generally considered February 1 – August 31) until nesting bird surveys have been conducted and no nesting activity is occurring on or adjacent to a project site. If nesting activity is observed, a qualified biologist may recommend an exclusion area be maintained until birds have fledged.

Policy COS-1.7: The City shall protect the ecological, aesthetic, and recreational value of sensitive wetland and riparian habitats associated with aquatic features within and directly adjacent to the city limits. Where development could occur in or within 50 feet of the edge of riparian vegetation or 50 feet from the top of bank of wetland habitats shown on Figure 5-2, Habitat Map, or in other locations where such features may be present as may be identified by the Planning Director, a qualified biologist or restoration ecologist shall be retained to determine the appropriate development setbacks and other protective measures needed to ensure the long-term protection and enhancement of the sensitive community.

Policy COS-1.8: Applicants for projects on sites within 50 feet from the top of bank of potential jurisdictional wetlands or waterways as shown on Figure 5-2, Habitat Map, or in other locations where such features may be present as may be identified by the Planning Director, shall retain a qualified biologist/wetland regulatory specialist to conduct a site investigation and assess whether the wetland or waterway features are jurisdictional, assess potential impacts, and determine whether stream buffers/riparian setbacks are required. If a feature is found to be jurisdictional or potentially jurisdictional, the applicant shall comply with the appropriate permitting processes.

City of Guadalupe Street Tree Ordinance

The City of Guadalupe Street Tree Ordinance was enacted in 1959 and was amended in 2023. The purpose of the Street Tree Ordinance is to maintain the City's "urban forest" by regulating the planting of trees in public places and protecting these and other existing trees from injury or abuse as well as providing for required maintenance of street trees. The Street Tree Ordinance prohibits planting or removing from any public parking strip (i.e., any portion of a City easement over privately owned project adjacent to a City street) or other public place in the City without permission from the Director of Public Works. In addition, the Street Tree Ordinance prohibits destroying or mutilating trees and prohibits attaching rope, wire, sign, poster, handbill, or other thing to a tree growing in a public space. It is also a violation of the ordinance to cause or permit wire charged with electricity to come into contact with protected trees, or to allow any gaseous, liquid, or solid substance which is harmful to protected trees to come into contact with their roots or leaves.

4.2.3 Analysis, Impacts and Mitigation

Methodology and Significance Thresholds

The database searches and literature review identified sensitive biological resources have been previously recorded within the County, which assisted in establishing a list of potential special-status species and sensitive habitats that could be affected by the implementation of the future broadband facilities within the Priority Areas and the future broadband facilities within other parts of the County. The CNDDB and CNPS RPI were queried for special-status species with the potential to occur within the County, which are included in Appendix C, while the USFWS Critical Habitat Mapper was used to identify USFWS-designated critical habitat for these special-status species within the County. The CALVEG database was used to identify vegetation types within the County that could support sensitive natural communities as designated by various resource agencies, such as the CDFW California Natural Community List (CDFW 2023a). These sensitive natural communities are generally considered to have important functions or values for wildlife and/or are recognized as declining in extent or distribution and are considered threatened enough to warrant some level of protection. In addition, the NWI was used to identify riparian and wetland areas within the County. The results of the database search and literature review formed the basis for the analysis of impacts of future broadband facilities on sensitive resources within the County and the development of mitigation measures to avoid, reduce, and minimize impacts to those resources.

As discussed within Chapter 2, *Project Description,* the area subject to future broadband facility installations under the Project includes the entire County, and, with the exception of the Priority Areas, the specific locations of future broadband facilities are not currently known. Therefore, the analysis presented below considers the impacts that would result from implementation of the future broadband facilities within the Priority Areas as well as potential impacts that could result from implementation of the future broadband facilities within the County as a whole.

Significance Thresholds

CEQA Appendix G

Pursuant to the *CEQA Guidelines*, potentially significant impacts to biological resources would result if the Project would:

a) Have a substantial adverse effect, 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

c) Have a substantial adverse effect on state or federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

d) 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.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

County of Santa Barbara Thresholds of Significance

In addition to the CEQA Guidelines, the Santa Barbara County Environmental Thresholds and Guidelines Manual (2021) contains criteria for determining the significance of an impact to biological resources. Disturbance to habitats or species may be significant, based on substantial evidence in the record, if they substantially impact significant resources for either the short- or the long-term 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).
- Substantially interfere with natural processes, such as fire or flooding, upon which the habitat depends.

The manual states that environmental impact analysis and mitigation needs to include federal and State biological resource regulations (i.e., the federal and State Endangered Species Acts, National Environmental Policy Act, Clean Water Act Section 404, Bald Eagle Protection Act, Migratory Bird Treaty Act, Executive Order 11990 [wetlands protection], Rivers and Harbors Act Section 10, Marine Protection, Sanctuary and Research Act, Marine Mammal Protection Act, and Section 1601 and 1603 Stream Alteration Agreements). In addition, requirements for the protection of biological resources listed in the Comprehensive Plan Conservation Element, Environmental Resource Management Element, Land Use Element, Community Plans, and Local Coastal Plans should also be included for projects in the unincorporated area of Santa Barbara County.

Section D of the County's Environmental Thresholds and Guidelines Manual (2021) includes habitat-specific impact assessment guidelines, which provides additional impact assessment guidelines specific to several biological communities. The following summarizes the thresholds applied to different habitat types and resources throughout the county.

Wetlands. Based on the County guidelines, the following types of project-created impacts may be considered significant:

- Projects that 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.
- Wildlife access, use, and dispersal in wetland habitats are key components of their ecosystem value. Projects that substantially interrupt wildlife access, use and dispersal in wetland areas, would typically be considered to have potentially significant impacts.

- The hydrology of wetlands systems must be maintained if their function and values are to be preserved. Therefore, maintenance of hydrological conditions, such as the quantity and quality of runoff, must be assessed in project review.

Coastal Salt Marsh. Based on the County guidelines, the following types of project- related impacts may be considered significant:

- Substantial alteration of tidal circulation or decrease of tidal prism;
- Adverse hydrological changes, substantial increase in sedimentation, introduction of toxic elements or alteration of ambient water temperature;
- Creation of indirect impacts such as noise and turbidity that affects sensitive animal species, especially during critical periods such as breeding and nesting;
- Disruption of wildlife dispersal corridors; and
- Disturbance or removal of substantial amounts of marsh habitats.

Vernal Pools. Based on the County guidelines, the following types of project-related impacts may be considered significant:

- Direct removal of a vernal pool or vernal pool complex;
- Direct or indirect adverse hydrologic changes such as altered freshwater input, changes in the watershed area or runoff quantity and/or quality, substantial increase in sedimentation, introduction of toxic elements or alteration of ambient water temperature;
- Disruption of a larger plant community (e.g., grassland) within which a vernal pool(s) occur;
- Isolation or fragmentation of contiguous habitat which would disrupt animal movement patterns or seed dispersal routes;
- Activities that would increase the chance of exotic plant invasion;
- Activities that would increase the vulnerability of species to local extirpation.

Riparian Habitats. Based on the County 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), 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; and

- Construction activity that disrupts critical time periods (nesting, breeding) for fish and other wildlife species.

Native Grasslands. Native grasslands are defined as an area where native grassland species comprise 10% or more of the total relative cover. Based on the County guidelines, the following types of project-related impacts may be considered significant:

- Removal or severe disturbance to a patch or patches of native grasses greater than ¼ acre; or
- Removal or severe disturbance to native grassland patches that are part of a larger significant native grassland.

Oak Woodlands and Forests. Based on the County guidelines, project-created impacts on oak woodlands and forests may be considered significant due to changes in habitat value and species composition such as the following:

- Habitat fragmentation;
- Removal of understory;
- Alteration to drainage patterns;
- Disruption of the canopy; or
- 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.

Individual Native Trees. Based on the County guidelines, the following types of project- related impacts may be considered significant:

- Impacts to native specimen trees, regardless of size. Specimen trees are defined as mature trees that are healthy and structurally sound and have grown into the natural stature particular to the species;
- Impacts to rare native trees, which are very low in number or isolated in distribution; or
- The loss of 10% or more of the trees of biological value on a project site.

Impacts and Mitigation Measures

The following section presents a programmatic-level discussion of the potential for impacts to sensitive biological resources from implementation of the Project, but also provides Project-level analysis of proposed broadband installations within the identified Priority Areas. This section summarizes the impacts associated with construction and operation of future broadband facilities proposed as part of the Santa Barbara County Last-Mile Broadband Program. Due to the programmatic nature of the Project, a precise, project-level analysis of the specific impacts associated with all future individual broadband facilities is not possible at this time. However, a total of nine communities in the County have already been identified as “Priority Areas” under the Broadband Program, which have already been the subject of high-level engineering design. Therefore, the following discussion of impacts and mitigation measure includes discussions of impacts that could occur from installation of broadband facilities within the nine Priority Areas as well as a discussion of impacts that could occur from installation of broadband facilities that may be developed in future within other yet-to-be identified underserved communities in the County.

Threshold 1: Would the Project have a substantial adverse effect, 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Impact Statement 1: Implementation of the Project could have a substantial adverse effect, either directly or through habitat modifications, or any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

A total of 117 special-status plant species and 77 special-status wildlife species have been recorded within the County. Future broadband facilities that are sited in undeveloped lands that support suitable habitat for these species could result in negative effects to special-status plants and wildlife. If these species are present and impacts cannot be avoided, then impacts to special-status species from construction or operation of future broadband facilities would be potentially significant.

The Project would include the installation of fiber optic cable in various locations throughout the County. The new fiber optic lines would be installed underground following public or private roadways. The Project also includes installation and construction activities within areas where lateral lines are installed between public or private roadways and individual businesses or residences. Individual residence or business connections typically would be installed within previously disturbed and/or developed areas (e.g., adjacent to driveways or in landscaped areas), and generally would avoid drainages and sensitive habitats. Lateral alignments would typically follow other utility installations. Although the Project would be designed to generally avoid drainages and sensitive habitats, specific locations and designs for future broadband facility locations have not yet been determined. Therefore, implementation of the Project could be located within undeveloped land, and it is possible that construction or operation of the Project could impact special status plant or wildlife.

Priority Area Projects

Special-status species that have been recorded within the County were evaluated for their potential to occur in each of the Priority Areas (see Appendix C). It was determined that 56 special-status plant and 50 special-status wildlife species have a moderate to high potential to occur within one or more of the Priority Areas and are evaluated (CDFW 2024a; CNPS 2024). In addition, USFWS-designated critical habitat for 14 special-status species is present within the County (USFWS 2024a).

As described within Chapter 2, *Project Description,* in general, the new fiber optic lines would be installed underground following public or private roadways with the intention to minimize or avoid disturbance of roadway surfaces wherever feasible. However, it is possible some fiber optic lines could be installed directly under roadways in areas with limited shoulder space or where existing conduit under the road may be used, thus avoiding new surface disturbance. The Project would also include installation and construction activities within those areas where lateral lines are installed between public or private roadways and individual businesses or residences. Individual residence or business connections typically would be installed within previously disturbed and/or developed areas (e.g., adjacent to driveways or in landscaped areas), and generally would avoid drainages and sensitive habitats. Lateral alignments would typically follow other utility installations. Although not anticipated, where subsurface installation of fiber

optic cable is infeasible, aerial installation along existing utility poles will be undertaken. GSCA's methods of aerial installation will follow General Order 95 pole safety and loading requirements.

Construction

Plants

There are 56 special-status plant species that were determined to have a moderate to high potential to occur within at least one of the Priority Areas. **Table 4.2-2,** below, provides a summary of each special-special-status plant species with a moderate to high potential to occur within the Priority Areas.

Although the Project would focus construction along roadways and would be designed to generally avoid drainages and sensitive habitats, construction activities including grading, vegetation clearing and grubbing, earth moving, and vehicle and equipment use may result in direct crushing or burial of individual plants and may alter or degrade existing suitable habitat for these species. In addition, construction-related traffic and earth moving activities may generate dust that adheres to leaves and inhibits photosynthesis and grading activities could disturb soils that could contain seeds, bulbs, nutrients, and mycorrhizae that special-status plants utilize for survival. Furthermore, incidental introduction of nonnative weed species from construction activities could result in loss of suitable habitat for native special-status plant species. Therefore, impacts to special-status plant species, if present, from construction of future broadband facilities within the Priority Areas would be considered potentially significant.

In order to avoid and/or minimize construction-related impacts to special-status plant species within the Priority Areas, **Mitigation Measure BIO-01: Habitat Assessment; Mitigation Measure BIO-02: Special-Status Plant Species; Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program; Mitigation Measure BIO-04: Qualified Biological Monitor**; **Mitigation Measure BIO-05: Invasive Plant Species Control Measures**; **Mitigation Measure BIO-06: General Construction Best Management Practices**; and **Mitigation Measure BIO-07: Revegetation Plan** would be implemented. With implementation of these mitigation measures, construction-related impacts to special-status species within the Priority Areas would be reduced to a **less than significant** level with mitigation incorporated.

Wildlife

There are 48 special-status wildlife species that have been determined to have a moderate to high potential to occur within at least one of the Priority Areas. **Table 4.2-3,** below, provides a summary of each special-status wildlife species with a moderate to high potential to occur within the Priority Areas.

TABLE 4.2-2
SPECIAL-STATUS PLANT SPECIES WITH POTENTIAL TO OCCUR IN PRIORITY AREAS

Species Common Name Scientific Name	Status	Priority Area								
		Guadalupe	Casmalia	East of Santa Marai	Cuyama and New Cuyama	Los Alamos	Los Olivos	Jonata Park	Hwy 246 Corridor	Refugio Canyon
Hoover's bent grass *Agrostis hooveri*	1B.2	M	H	H	--	H	H	H	H	M
Santa Ynez groundstar *Ancistrocarphus keilii*	1B.1	--	--	--	--	M	M	H	H	M
aphanisma *Aphanisma blitoides*	1B.2	--	M	--	--	--	--	--	--	--
Eastwood's brittle-leaf manzanita *Arctostaphylos crustacea ssp. eastwoodiana*	1B.1	--	--	--	--	--	--	--	M	--
La Purisima manzanita *Arctostaphylos purissima*	1B.1	--	M	H	--	M	--	M	M	M
Refugio manzanita *Arctostaphylos refugioensis*	1B.2	--	--	H	--	--	--	--	M	H
sand mesa manzanita *Arctostaphylos rudis*	1B.2	--	H	H	--	M	--	M	H	--
Miles' milk-vetch *Astragalus didymocarpus var. milesianus*	1B.2	--	--	--	--	--	--	--	H	M
Coulter's saltbush *Atriplex coulteri*	1B.2	--	--	--	--	--	--	--	M	M
south coast saltscale *Atriplex pacifica*	1B.2	--	--	--	--	--	--	--	M	--
Davidson's saltscale *Atriplex serenana var. davidsonii*	1B.2	--	--	--	--	H	H	H	M	--
late-flowered mariposa-lily *Calochortus fimbriatus*	1B.3	--	--	--	--	--	M	M	M	H

Species Common Name Scientific Name	Status	Priority Area								
		Guadalupe	Casmalia	East of Santa Marai	Cuyama and New Cuyama	Los Alamos	Los Olivos	Jonata Park	Hwy 246 Corridor	Refugio Canyon
La Panza mariposa-lily *Calochortus simulans*	1B.3	--	--	M	--	--	--	--	--	--
California jewelflower *Caulanthus californicus*	FE; CE; 1B.1	--	--	--	H	--	--	--	--	--
Lemmon's jewelflower *Caulanthus lemmonii*	1B.2	--	--	--	H	--	--	--	--	--
Santa Barbara ceanothus *Ceanothus impressus var. impressus*	1B.2	--	H	--	--	--	--	--	H	--
southern tarplant *Centromadia parryi ssp. australis*	1B.1	--	--	--	--	--	--	--	--	M
Blakley's spineflower *Chorizanthe blakleyi*	1B.3	--	--	--	H	--	--	--	--	--
Bolander's water-hemlock *Cicuta maculata var. bolanderi*	2B.1	--	H	--	--	M	--	--	--	--
compact cobwebby thistle *Cirsium occidentale var. compactum*	1B.2	H	M	--	--	--	--	--	--	--
La Graciosa thistle *Cirsium scariosum var. loncholepis*	FE; CT; 1B.1	H	H	M	--	H	--	M	H	--
California saw-grass *Cladium californicum*	2B.2	--	H	M	--	H	M	M	M	--
seaside bird's-beak *Cordylanthus rigidus ssp. littoralis*	CE; 1B.1	--	M	--	--	M	M	H	H	H
Gaviota tarplant *Deinandra increscens ssp. villosa*	FE; CE; 1B.1	M	H	--	--	--	--	--	M	H

Species Common Name Scientific Name	Status	Priority Area								
		Guadalupe	Casmalia	East of Santa Marai	Cuyama and New Cuyama	Los Alamos	Los Olivos	Jonata Park	Hwy 246 Corridor	Refugio Canyon
dune larkspur *Delphinium parryi ssp. blochmaniae*	1B.2	M	H	M	--	--	M	M	H	--
recurved larkspur *Delphinium recurvatum*	1B.2	--	--	--	M	--	--	--	--	--
umbrella larkspur *Delphinium umbraculorum*	1B.3	--	--	H	M	--	H	--	--	H
Vandenberg monkeyflower *Diplacus vandenbergensis*	FE; 1B.1	--	M	--	--	--	--	--	H	--
beach spectaclepod *Dithyrea maritima*	CT; 1B.1	M	--	--	--	--	--	--	M	--
Blochman's dudleya *Dudleya blochmaniae ssp. blochmaniae*	1B.1	H	H	--	--	--	--	--	M	--
Kern mallow *Eremalche parryi ssp. kernensis*	FE; 1B.2	--	--	--	H	--	--	--	--	--
Blochman's leafy daisy *Erigeron blochmaniae*	1B.2	H	--	--	--	--	--	--	--	--
Lompoc yerba santa *Eriodictyon capitatum*	FE; CR; 1B.2	--	M	M	--	M	--	--	M	--
Ojai fritillary *Fritillaria ojaiensis*	1B.2	--	--	H	--	--	M	M	M	H
mesa horkelia *Horkelia cuneata var. puberula*	1B.1	--	H	H	--	M	H	H	H	M
Kellogg's horkelia *Horkelia cuneata var. sericea*	1B.1	M-H	H	M	--	M	--	--	M	--
Santa Lucia dwarf rush *Juncus luciensis*	1B.2	--	--	--	--	--	--	--	--	M
Coulter's goldfields *Lasthenia glabrata ssp. coulteri*	1B.1	--	--	--	--	--	M	--	M	M

Species Common Name Scientific Name	Status	Priority Area								
		Guadalupe	Casmalia	East of Santa Marai	Cuyama and New Cuyama	Los Alamos	Los Olivos	Jonata Park	Hwy 246 Corridor	Refugio Canyon
blushing layia *Layia erubescens*	1B.2	M	H	H	--	H	H	H	H	M
pale-yellow layia *Layia heterotricha*	1B.1	--	--	--	M	--	M	--	H	--
Santa Barbara honeysuckle *Lonicera subspicata var. subspicata*	1B.2	--	--	--	--	M	H	--	H	H
showy golden madia *Madia radiata*	1B.1	--	--	--	H	--	--	--	--	--
slender bushmallow *Malacothamnus jonesii var. gracilis*	1B.1	--	--	M	--	--	--	--	--	--
Carmel Valley malacothrix *Malacothrix saxatilis var. arachnoidea*	1B.2	--	--	--	--	--	--	--	M	--
white-veined monardella *Monardella hypoleuca ssp. hypoleuca*	1B.3	--	--	--	--	--	M	M	H	H
southern curly-leaved monardella *Monardella sinuata ssp. sinuata*	1B.2	--	H	H	--	H	H	H	H	M
crisp monardella *Monardella undulata ssp. crispa*	1B.2	--	H	--	--	--	--	--	M	--
San Luis Obispo monardella *Monardella undulata ssp. undulata*	1B.2	M	H	M	--	--	--	--	M	--
San Joaquin woollythreads *Monolopia congdonii*	FE; 1B.2	--	--	--	H	--	--	--	--	--
aparejo grass *Muhlenbergia utilis*	2B.2	--	--	M	--	H	M	M	M	--
Gambel's water cress *Nasturtium gambelii*	FE; CT; 1B.1	--	M	--	--	--	--	--	M	--

Species Common Name Scientific Name	Status	Priority Area								
		Guadalupe	Casmalia	East of Santa Marai	Cuyama and New Cuyama	Los Alamos	Los Olivos	Jonata Park	Hwy 246 Corridor	Refugio Canyon
Sonoran maiden fern *Pelazoneuron puberulum var. sonorense*	2B.2	--	--	--	--	--	--	--	M	H
black-flowered figwort *Scrophularia atrata*	1B.2	H	H	M	--	H	--	M	H	M
chaparral ragwort *Senecio aphanactis*	2B.2	--	--	--	--	--	M	M	H	H
San Bernardino aster *Symphyotrichum defoliatum*	1B.2	--	H	M	--	M	--	--	M	--
Santa Ynez false lupine *Thermopsis macrophylla*	CR; 1B.3	--	--	--	--	--	--	--	--	H

NOTES:

Federal Listing Status

- FE Federally Endangered
- FT Federally Threatened
- FC Federal Candidate
- FPE Federally Proposed as Endangered
- FPT Federally Proposed as Threatened
- FPD Federally Proposed for Delisting

State Listing Status

- SE State Listed as Endangered
- ST State Listed as Threatened
- SCE State Candidate for Endangered
- SCT State Candidate for Threatened
- SR State Rare

California Rare Plant Ranks (CRPR):

- California Rare Plant Rank 1A Plants presumed extirpated in California and either rare or extinct elsewhere
- California Rare Plant Rank 1B Plants rare, threatened, or endangered in California and elsewhere
- California Rare Plant Rank 2A Plants presumed extirpated in California but common elsewhere
- California Rare Plant Rank 2B Plants rare, threatened, or endangered in California, but common elsewhere
- California Rare Plant Rank 3 Plants about which more information is needed, a review list
- California Rare Plant Rank 4 Plants of limited distribution, a watch list

Threat Code extensions and their meanings:

- 0.1- Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- 0.2- Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
- 0.3- Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

TABLE 4.2-3
SPECIAL-STATUS WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN PRIORITY AREAS

Species Common Name Scientific Name	Status	Priority Area								
		Guadalupe	Casmalia	East of Santa Marai	Cuyama and New Cuyama	Los Alamos	Los Olivos	Jonata Park	Hwy 246 Corridor	Refugio Canyon
Invertebrates										
Crotch's bumble bee *Bombus crotchii*	SCE	--	M	M	H	M	H	M	M	M
American bumble bee *Bombus pensylvanicus*	None	--	M	M	M	M	H	M	M	M
vernal pool fairy shrimp *Branchinecta lynchi*	FT	H	H	H	M	M	M	M	H	M
Kern primrose sphinx moth *Euproserpinus euterpe*	FT	--	--	--	H	--	--	--	--	--
Fish										
tidewater goby *Eucyclogobius newberryi*	FE; SSC	--	--	--	--	--	--	--	--	H
unarmored threespine stickleback *Gasterosteus aculeatus williamsoni*	FE; SE; FP	--	H	--	--	--	--	--	--	--
arroyo chub *Gila orcuttii*	SSC	--	M	--	--	--	--	--	--	--
steelhead - southern California DPS *Oncorhynchus mykiss irideus pop. 10*	FE; SC	--	--	M	--	--	--	--	M	--
Amphibians										
California tiger salamander - Santa Barbara County DPS *Ambystoma californiense pop. 2*	FE; ST; WL	--	H	H	--	H	H	H	H	--
arroyo toad *Anaxyrus californicus*	FE	--	--	H	--	--	--	--	--	--

Species Common Name Scientific Name	Status	Priority Area Guadalupe	Casmalia	East of Santa Marai	Cuyama and New Cuyama	Los Alamos	Los Olivos	Jonata Park	Hwy 246 Corridor	Refugio Canyon
foothill yellow-legged frog - south coast DPS *Rana boylii pop. 6*	FE; SE; SSC	--	--	M	--	--	--	--	--	H
California red-legged frog *Rana draytonii*	FT; SSC	H	H	H	--	H	H	H	H	H
western spadefoot *Spea hammondii*	FPT; SSC	--	H	H	--	H	H	H	H	M
Coast Range newt *Taricha torosa*	SSC	--	--	--	--	--	--	--	--	H
Reptiles										
California glossy snake *Arizona elegans occidentalis*	SSC	--	--	--	H	--	--	--	--	--
southwestern pond turtle *Actinemys pallida*	FPT; SSC	M	H	H	H	H	H	H	H	H
coast horned lizard *Phrynosoma blainvillii*	SSC	M	H	H	H	M	M	--	H	H
coast patch-nosed snake *Salvadora hexalepis virgultea*	SSC	--	--	--	--	--	--	--	--	H
two-striped gartersnake *Thamnophis hammondii*	SSC	M	--	--	--	--	--	--	--	H
Birds										
Cooper's hawk *Accipiter cooperii*	WL	H (nesting) H (foraging)	H (nesting) H (foraging)	H (nesting) H (foraging)	H (nesting) H (foraging)	H (nesting) H (foraging)	H (nesting) H (foraging)	H (nesting) H (foraging)	H (nesting) H (foraging)	H (nesting) H (foraging)
tricolored blackbird *Agelaius tricolor*	ST; SSC	H	H	H	H	M	M	--	M	M
southern California rufous-crowned sparrow *Aimophila ruficeps canescens*	WL	--	M	H	--	M	M	M	M	H

Species Common Name Scientific Name	Status	Priority Area Guadalupe	Casmalia	East of Santa Marai	Cuyama and New Cuyama	Los Alamos	Los Olivos	Jonata Park	Hwy 246 Corridor	Refugio Canyon
grasshopper sparrow *Ammodramus savannarum*	SSC	--	M	--	--	--	--	--	--	--
golden eagle *Aquila chrysaetos*	BGEPA, BCC; FP, WL	M (foraging)	M (foraging)	M (nesting) M (foraging	M (foraging)	M (foraging)	M (foraging)	M (foraging	M (nesting) M (foraging)	M (nesting) M (foraging)
Bell's sparrow *Artemisiospiza belli belli*	WL	--	--	--	M	--	--	--	M	M
burrowing owl *Athene cunicularia*	BCC; SCC	--	M	M	M	--	M	--	--	M
ferruginous hawk *Buteo regalis*	BCC; WL	H (foraging)	M (foraging)	M (foraging)	H (foraging)	M (foraging)	M (foraging)	H (foraging)	H (foraging)	M (foraging)
Swainson's hawk *Buteo swainsoni*	BCC; ST	M (foraging)	--	--	H (foraging)	M (foraging)	M (foraging)	M (foraging)	M (foraging)	M (foraging)
western snowy plover *Anarhynchus nivosus nivosus*	FT; BCC SCC	--	--	--	--	--	--	--	--	H
white-tailed kite *Elanus leucurus*	FP	H (nesting) H (foraging)	M (nesting) M (foraging)	M (nesting) M (foraging)	M (nesting) M (foraging)	M (nesting) M (foraging)	M (nesting) M (foraging)	M (nesting) M (foraging)	M (nesting) M (foraging)	H (nesting) H (foraging)
southwestern willow flycatcher *Empidonax traillii extimus*	FE; SE	--	--	--	--	--	--	--	H	--
California horned lark *Eremophila alpestris actia*	WL	M	--	H	M	H	M	M	M	M
American peregrine falcon *Falco peregrinus anatum*	BCC, delisted; Delisted	M (nesting) M (foraging)	--	--	--	--	--	--	--	--
California condor *Gymnogyps californianus*	FE; SE; FP	--	--	--	M-H (foraging)	--	M (foraging)	--	--	--
bald eagle *Haliaeetus leucocephalus*	BGEPA, delisted; SE; FP	M (foraging)	M (foraging)	M (foraging)	M (foraging)	M (foraging)	M (foraging)	M (foraging)	M (foraging)	M (foraging)

Species Common Name Scientific Name	Status	Priority Area								
		Guadalupe	Casmalia	East of Santa Marai	Cuyama and New Cuyama	Los Alamos	Los Olivos	Jonata Park	Hwy 246 Corridor	Refugio Canyon
double-crested cormorant *Nannopterum auritum*	WL	M	--	--	M	--	--	--	--	H
purple martin *Progne subis*	SSC	--	--	--	M	--	--	--	--	H
bank swallow *Riparia riparia*	ST	--	--	--	M	--	--	--	M	--
yellow warbler *Setophaga petechia*	SSC	M	M	H	H	M	M	M	H	H
California least tern *Sternula antillarum browni*	FE; SE; FP	--	--	--	--	--	--	--	--	M
Mammals										
Nelson's (=San Joaquin) antelope squirrel *Ammospermophilus nelsoni*	ST	--	--	--	H	--	--	--	--	--
pallid bat *Antrozous pallidus*	SSC	--	H	H	--	M	M	H	H	M
Townsend's big-eared bat *Corynorhinus townsendii*	SSC	H	H	M	--	M	H	H	H	H
giant kangaroo rat *Dipodomys ingens*	FE; SE	--	--	--	H	--	--	--	--	--
western mastiff bat *Eumops perotis californicus*	SSC	--	--	--	--	--	--	--	H	--
western red bat *Lasiurus frantzii*	SSC	--	--	M	--	--	--	--	--	M
San Diego desert woodrat *Neotoma lepida intermedia*	SSC	--	--	M	--	M	--	--	H	H
Tulare grasshopper mouse *Onychomys torridus tularensis*	SSC	--	--	--	H	--	--	--	--	--
American badger *Taxidea taxus*	SSC	M	H	H	--	H	H	H	H	H

Species Common Name Scientific Name	Status	Priority Area								
		Guadalupe	Casmalia	East of Santa Marai	Cuyama and New Cuyama	Los Alamos	Los Olivos	Jonata Park	Hwy 246 Corridor	Refugio Canyon
San Joaquin kit fox *Vulpes macrotis mutica*	FE; ST	--	--	--	H	--	--	--	--	Wat

NOTES:

Federal Listing Status

FE	Federally Endangered
FT	Federally Threatened
FC	Federal Candidate
FPE	Federally Proposed as Endangered
FPT	Federally Proposed as Threatened
FPD	Federally Proposed for Delisting

State Listing Status

SE	State Listed as Endangered
ST	State Listed as Threatened
SCE	State Candidate for Endangered
SCT	State Candidate for Threatened
SR	State Rare

CDFW Status

FP	Fully Protected. Species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock
SA	Special Animals. Animals tracked by CDFW or that have been given special-status by a non-governmental agency.
SSC	Special of Special Concern. Species are given this designation by CDFW due to declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.
WL	Watch List. For species that were previously SSC but no longer merit SSC status, or which do not meet SSC criteria but for which there is concern and a need for additional information to clarify its status.

Invertebrates. Four special status invertebrates have a moderate to high potential to occur within the Priority Areas including Crotch's bumble bee (*Bombus crotchii*), American bumble bee (*Bombus pensylvanicus*), vernal pool fairy shrimp (*Branchinecta lynchi*), and Kern primrose sphinx moth (*Euproserpinus euterpe*). Although the Project would focus construction along roadways and would be designed to generally avoid drainages and sensitive habitats, construction activities including grading, vegetation clearing and grubbing, earth moving, and vehicle and equipment use may result in direct injury or mortality to these special-status invertebrates, if present, within the Priority Areas. In addition, increased noise, artificial light, increased human presence, and/or introduction of nonnative weed species during construction activities may temporarily result in a loss of suitable habitat for special-status invertebrates within the Priority Areas. Therefore, impacts to special-status invertebrates from construction of future broadband facilities within the Priority Areas would be considered potentially significant.

In order to avoid and/or minimize construction-related impacts to special-status invertebrates within the Priority Areas, Mitigation Measure BIO-01: Habitat Assessment; Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program; Mitigation Measure BIO-04: Qualified Biological Monitor; Mitigation Measure BIO-05: Invasive Plant Species Control Measures; Mitigation Measure BIO-06: General Construction Best Management Practices; Mitigation Measure BIO-07: Revegetation Plan; **Mitigation Measure BIO-08: Endangered/Threatened Wildlife Species**; and **Mitigation Measure BIO-09: Non-Listed Special-Status Wildlife Species** would be implemented. With implementation of these mitigation measures, construction-related impacts to special-status invertebrates within the Priority Areas would be reduced to a **less than significant** level with mitigation incorporated.

Special Status Fish. Four special-status fish species have a moderate to high potential to occur within the Priority Areas including tidewater goby, unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), arroyo chub (*Gila orcuttii*), and steelhead - southern California DPS. Although the Project would focus construction along roadways and would be designed to generally avoid drainages and sensitive habitats, construction activities including grading, vegetation clearing and grubbing, earth moving, and vehicle and equipment use may result in direct injury or mortality to special-status fish, if present, within the Priority Areas. In addition, increased noise, artificial light, increased human presence, and/or introduction of nonnative weed species during construction activities may temporarily result in a loss of suitable habitat for special-status fish within the Priority Areas. Therefore, impacts to special-status fish from construction of future broadband facilities within the Priority Areas would be considered potentially significant.

In order to avoid and/or minimize construction-related impacts to special-status fish within the Priority Areas Mitigation Measure BIO-01: Habitat Assessment; Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program; Mitigation Measure BIO-04: Qualified Biological Monitor; Mitigation Measure BIO-05: Invasive Plant Species Control Measures; Mitigation Measure BIO-06: General Construction Best Management Practices; Mitigation Measure BIO-07: Revegetation Plan; Mitigation Measure BIO-08: Endangered/Threatened Wildlife Species; and Mitigation Measure BIO-09: Non-Listed Special-Status Wildlife Species would be implemented. With implementation of these mitigation measures, construction-related impacts to special-status fish within the Priority Areas would be reduced to a **less than significant** level with mitigation incorporated.

Special Status Amphibians. Six special-status amphibians have a moderate to high potential to occur within the Priority Areas including California tiger salamander - Santa Barbara County DPS, arroyo toad, foothill yellow-legged frog - south coast DPS (*Rana boylii* pop. 6), California red-legged frog, western spadefoot (*Spea hammondii*), and coast range newt (*Taricha torosa*). Although the Project would focus construction along roadways and would be designed to generally avoid drainages and sensitive habitats, construction activities including grading, vegetation clearing and grubbing, earth moving, and vehicle and equipment use may result in direct injury or mortality to special-status amphibians, if present, within the Priority Areas. In addition, increased noise, artificial light, increased human presence, and/or introduction of nonnative weed species during construction activities may temporarily result in a loss of suitable habitat for special-status amphibians within the Priority Areas. Therefore, impacts to special-status amphibians from construction of future broadband facilities within the Priority Areas would be considered potentially significant.

In order to avoid and/or minimize construction-related impacts to special-status amphibians within the Priority Areas, Mitigation Measure BIO-01: Habitat Assessment; Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program; Mitigation Measure BIO-04: Qualified Biological Monitor; Mitigation Measure BIO-05: Invasive Plant Species Control Measures; Mitigation Measure BIO-06: General Construction Best Management Practices; Mitigation Measure BIO-07: Revegetation Plan; Mitigation Measure BIO-08: Endangered/Threatened Wildlife Species; and Mitigation Measure BIO-09: Non-Listed Special-Status Wildlife Species would be implemented. With implementation of these mitigation measures, construction-related impacts to special-status amphibians within the Priority Areas would be reduced to a **less than significant** level with mitigation incorporated.

Special Status Reptiles. Five special-special status reptiles have a moderate to high potential to occur within the Priority Areas including California glossy snake (*Arizona elegans occidentalis*), southwestern pond turtle (*Actinemys pallida*), coast horned lizard (*Phrynosoma blainvillii*), coast patch-nosed snake (*Salvadora hexalepis virgultea*), and two-striped gartersnake (*Thamnophis hammondii*). Although the Project would focus construction along roadways and would be designed to generally avoid drainages and sensitive habitats, construction activities including grading, vegetation clearing and grubbing, earth moving, and vehicle and equipment use may result in direct injury or mortality to special-status reptiles, if present, within the Priority Areas. In addition, increased noise, artificial light, increased human presence, and/or introduction of nonnative weed species during construction activities may temporarily result in a loss of suitable habitat for special-status reptiles within the Priority Areas. Therefore, impacts to special-status reptiles from construction of future broadband facilities within the Priority Areas would be considered potentially significant.

In order to avoid and/or minimize construction-related impacts to special-status reptiles within the Priority Areas Mitigation Measure BIO-01: Habitat Assessment; Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program; Mitigation Measure BIO-04: Qualified Biological Monitor; Mitigation Measure BIO-05: Invasive Plant Species Control Measures; Mitigation Measure BIO-06: General Construction Best Management Practices; Mitigation Measure BIO-07: Revegetation Plan; Mitigation Measure BIO-08: Endangered/Threatened Wildlife Species; and Mitigation Measure BIO-09: Non-Listed Special-Status Wildlife Species would be implemented. With implementation of these mitigation measures, construction-related impacts to special-status reptiles within the Priority Areas would be reduced to a **less than significant** level with mitigation incorporated.

Special Status Birds. Twenty-one special-status bird species have a moderate to high potential to occur within the Priority Areas including Cooper's hawk (*Accipiter cooperii*), tricolored blackbird (*Agelaius tricolor*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), grasshopper sparrow (*Ammodramus savannarum*), golden eagle, Bell's sparrow (*Artemisiospiza belli belli*), burrowing owl (*Athene cunicularia*), ferruginous hawk (*Buteo regalis*), Swainson's hawk (*Buteo swainsoni*), western snowy plover, white-tailed kite (*Elanus leucurus*), southwestern willow flycatcher, California horned lark (*Eremophila alpestris actia*), American peregrine falcon (*Falco peregrinus anatum),* double-crested cormorant (*Nannopterum auritum*), purple martin (*Progne subis*), bank swallow (*Riparia riparia*), yellow warbler (*Setophaga petechia*), and California least tern (*Sternula antillarum browni*). Although the Project would focus construction along roadways and would be designed to generally avoid drainages and sensitive habitats, construction activities including grading, vegetation clearing and grubbing, earth moving, and vehicle and equipment use may result in direct injury or mortality to special-status birds, if present, within the Priority Areas. In addition, increased noise, artificial light, increased human presence, and/or introduction of nonnative weed species during construction activities may temporarily result in a loss of suitable habitat for special-status birds within the Priority Areas. Therefore, impacts to special-status birds from construction of future broadband facilities within the Priority Areas would be considered potentially significant.

In order to avoid and/or minimize construction-related impacts to special-status birds within the Priority Areas, Mitigation Measure BIO-01: Habitat Assessment; Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program; Mitigation Measure BIO-04: Qualified Biological Monitor; Mitigation Measure BIO-05: Invasive Plant Species Control Measures; Mitigation Measure BIO-06: General Construction Best Management Practices; Mitigation Measure BIO-07: Revegetation Plan; Mitigation Measure BIO-08: Endangered/Threatened Wildlife Species; and **Mitigation Measure BIO-10: Nesting Birds** would be implemented. With implementation of these mitigation measures, construction-related impacts to special-status birds within the Priority Areas would be reduced to a **less than significant** level with mitigation incorporated.

Special Status Mammals. Ten special-status mammals have a moderate to high potential to occur within the Priority Areas including Nelson's antelope squirrel (*Ammospermophilus nelson*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), giant kangaroo rat (*Dipodomys ingens*), western mastiff bat (*Eumops perotis californicus*), western red bat (*Lasiurus frantzii*), San Diego desert woodrat (*Neotoma lepida intermedia*), Tulare grasshopper mouse (*Onychomys torridus tularensis*), American badger (*Taxidea taxus*), and San Joaquin kit fox (*Vulpes macrotis mutica*). Although the Project would focus construction along roadways and would be designed to generally avoid drainages and sensitive habitats, construction activities including grading, vegetation clearing and grubbing, earth moving, and vehicle and equipment use may result in direct injury or mortality to special-status mammals, if present, within the Priority Areas. In addition, increased noise, artificial light, increased human presence, and/or introduction of nonnative weed species during construction activities may temporarily result in a loss of suitable habitat for special-status mammals within the Priority Areas. Therefore, impacts to special-status mammals from construction of future broadband facilities within the Priority Areas would be considered potentially significant.

In order to avoid and/or minimize construction-related impacts to special-status mammals within the Priority Areas Mitigation Measure BIO-01: Habitat Assessment; Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program; Mitigation Measure BIO-04: Qualified Biological Monitor; Mitigation Measure BIO-05: Invasive Plant Species Control Measures; Mitigation Measure BIO-06: General Construction Best Management Practices; Mitigation Measure BIO-07: Revegetation Plan Mitigation Measure; BIO-08: Endangered/Threatened Wildlife Species; Mitigation Measure BIO-09: Non-Listed Special-Status Wildlife Species; and **Mitigation Measure BIO-10: Bats** would be implemented. With implementation of these mitigation measures, construction-related impacts to special-status mammals within the Priority Areas would be reduced to a **less than significant** level with mitigation incorporated.

Critical Habitat

As discussed in Section 4.2.2, above, USFWS-designated critical habitat for California red-legged frog, La Graciosa thistle, Vandenberg monkeyflower, and California tiger salamander are present within the Priority Areas. Although the Project would focus construction along roadways and would be designed to generally avoid drainages and sensitive habitats, construction activities within the Priority Areas could result in modification or conversion of designated critical habitat for California red-legged frog, La Graciosa thistle, Vandenberg monkeyflower, and/or California tiger salamander and the impact to critical habitat would be potentially significant. Therefore, **Mitigation Measure BIO-13: Critical Habitat** would be implemented. With implementation of these measures, impacts to California red-legged frog, La Graciosa thistle, Vandenberg monkeyflower, and California tiger salamander critical habitat within the Priority Areas would be **less than significant** with mitigation incorporated.

Operation

Plants, Wildlife and Critical Habitat

As described in Chapter 2, *Project Description,* once constructed, operational activities for any individual fiber project implemented under the Project would be limited to routine maintenance to check the vaults that access the fiber optic line. The fiber optic facilities would generally operate passively unless additional service connections are installed or if incidental repairs are required due to damage. These maintenance activities would occur within previously disturbed areas and are not expected to result in impacts to special-status plant and wildlife species or result in modification or conversion of USFWS-designated critical habitat within the Priority Areas. Therefore, the impact from construction of future broadband facilities in the Priority Areas would be **less than significant** and no mitigation is required.

Future Broadband Facilities

As discussed above, 117 special-status plant species and 77 special-status wildlife species have been recorded in the County (see Appendix C) (CDFW 2024a; CNPS 2024). These species could be impacted by future broadband facility installations within the County. It is assumed that the nature and intensity of such future broadband facilities would be similar in scope and scale to those identified for the Priority Areas.

Construction

Plants

A total of 117 special-status plant species (see Appendix C) have been recorded within the County (CDFW 2024a, CNPS 2024). Project components that are sited in undeveloped lands that support suitable habitat may support one or more of these species. If these species are present and impacts cannot be avoided, then impacts to special-status plant species from construction of future broadband facilities that could be developed under the Project would be potentially significant.

Although the future broadband facilities would focus construction along roadways and would be designed to generally avoid drainages and sensitive habitats, as the location of future broadband facilities that could be developed under the Project is unknown, construction activities including grading, vegetation clearing and grubbing, earth moving, and vehicle and equipment use may result in direct crushing or burial of individual plants and may alter or degrade existing suitable habitat for these species. In addition, construction-related traffic and earth moving activities may generate dust that adheres to leaves and inhibits photosynthesis and grading activities could disturb soils that could contain seeds, bulbs, nutrients, and mycorrhizae that special-status plants utilize for survival. Furthermore, incidental introduction of nonnative weed species from construction activities could result in loss of suitable habitat for native special-status plant species. Therefore, impacts to special-status plant species from construction of future broadband facilities within the County would be considered potentially significant.

In order to avoid and/or minimize construction-related impacts to special-status plant species within the County, Mitigation Measure BIO-01: Habitat Assessment; Mitigation Measure BIO-02: Special-Status Plant Species, Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program; Mitigation Measure BIO-04: Qualified Biological Monitor; Mitigation Measure BIO-05: Invasive Plant Species Control Measures; Mitigation Measure BIO-06: General Construction Best Management Practices; and Mitigation Measure BIO-07: Revegetation Plan would be implemented. With implementation of these mitigation measures, construction-related impacts to special-status species within the County would be reduced to a **less than significant** level with mitigation incorporated.

Furthermore, future projects developed under the Project requiring discretionary approval would be required to undergo site-specific environmental review in accordance with CEQA as part of the planning application process in order to identify and mitigate potential significant impacts to candidate, sensitive, or special-status species and their habitats. Through subsequent environmental review, future projects may be required to conduct site-specific biological resources surveys and/or incorporate site-specific mitigation measures, as deemed necessary.

Wildlife

Seventy-seven special-status wildlife species (see Appendix C) have been recorded within the County. Project components that are sited in undeveloped lands that support suitable habitat may support one or more of these species. If these species are present and impacts cannot be avoided, then impacts to special-status wildlife species from construction of future broadband facilities that could be developed under the Project would be potentially significant.

Special Status Invertebrates. Although the future broadband facilities would be similar in scope and scale to those identified for the Priority Areas and would focus construction along roadways and would be designed to generally avoid drainages and sensitive habitats, construction activities could impact special-status invertebrates (see Appendix C). Construction activities such as grading, vegetation clearing and grubbing, earth moving, and vehicle and equipment use may result in direct injury or mortality to special-status invertebrates, if present, within the County. In addition, increased noise, artificial light, increased human presence, and/or introduction of nonnative weed species during construction activities may temporarily result in a loss of suitable habitat for special-status invertebrates within the County. Therefore, impacts to special-status invertebrates from construction of future broadband facilities within the County would be considered potentially significant.

In order to avoid and/or minimize construction-related impacts to special-status invertebrates within the County, Mitigation Measure BIO-01: Habitat Assessment; Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program; Mitigation Measure BIO-04: Qualified Biological Monitor; Mitigation Measure BIO-05: Invasive Plant Species Control Measures; Mitigation Measure BIO-06: General Construction Best Management Practices; Mitigation Measure BIO-07: Revegetation Plan; Mitigation Measure BIO-08: Endangered/Threatened Wildlife Species; Mitigation Measure BIO-09: Non-Listed Special-Status Wildlife Species; and **Mitigation Measure BIO-12: Monarch Butterfly** would be implemented. With implementation of these mitigation measures, construction-related impacts to special-status invertebrates within the County would be reduced to a **less than significant** level with mitigation incorporated.

Special Status Fish. Although the future broadband facilities would be similar in scope and scale to those identified for the Priority Areas and would focus construction along roadways and would be designed to generally avoid drainages and sensitive habitats, construction activities could impact special-status fish (see Appendix C). Construction activities such as grading, vegetation clearing and grubbing, earth moving, and vehicle and equipment use may result in direct injury or mortality to special-status fish, if present, within the County. In addition, increased noise, artificial light, increased human presence, and/or introduction of nonnative weed species during construction activities may temporarily result in a loss of suitable habitat for special-status fish within the County. Therefore, impacts to special-status fish from construction of future broadband facilities within the County would be considered potentially significant.

In order to avoid and/or minimize construction-related impacts to special-status fish within the County, Mitigation Measure BIO-01: Habitat Assessment; Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program; Mitigation Measure BIO-04: Qualified Biological Monitor; Mitigation Measure BIO-05: Invasive Plant Species Control Measures; Mitigation Measure BIO-06: General Construction Best Management Practices; Mitigation Measure BIO-07: Revegetation Plan; Mitigation Measure BIO-08: Endangered/Threatened Wildlife Species; and Mitigation Measure BIO-09: Non-Listed Special-Status Wildlife Species would be implemented. With implementation of these mitigation measures, construction-related impacts to special-status fish within the County would be reduced to a **less than significant** level with mitigation incorporated.

Special Status Amphibians. Although the future broadband facilities would be similar in scope and scale to those identified for the Priority Areas and would focus construction along roadways and would be designed to generally avoid drainages and sensitive habitats, construction activities could impact special-

status amphibians (see Appendix C). Construction activities such as grading, vegetation clearing and grubbing, earth moving, and vehicle and equipment use may result in direct injury or mortality to special-status amphibians, if present, within the County. In addition, increased noise, artificial light, increased human presence, and/or introduction of nonnative weed species during construction activities may temporarily result in a loss of suitable habitat for special-status amphibians within the County. Therefore, impacts to special-status amphibians from construction of future broadband facilities within the County would be considered potentially significant.

In order to avoid and/or minimize construction-related impacts to special-status amphibians within the Conty, Mitigation Measure BIO-01: Habitat Assessment; Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program; Mitigation Measure BIO-04: Qualified Biological Monitor; Mitigation Measure BIO-05: Invasive Plant Species Control Measures; Mitigation Measure BIO-06: General Construction Best Management Practices; Mitigation Measure BIO-07: Revegetation Plan; Mitigation Measure BIO-08: Endangered/Threatened Wildlife Species; and Mitigation Measure BIO-09: Non-Listed Special-Status Wildlife Species would be implemented. With implementation of these mitigation measures, construction-related impacts to special-status amphibians within the County would be reduced to a **less than significant** level with mitigation incorporated.

Special Status Reptiles. Although the future broadband facilities would be similar in scope and scale to those identified for the Priority Areas and would focus construction along roadways and would be designed to generally avoid drainages and sensitive habitats, construction activities could impact special-status reptiles (see Appendix C). Construction activities such as grading, vegetation clearing and grubbing, earth moving, and vehicle and equipment use may result in direct injury or mortality to special-status reptiles, if present, within the County. In addition, increased noise, artificial light, increased human presence, and/or introduction of nonnative weed species during construction activities may temporarily result in a loss of suitable habitat for special-status reptiles within the County. Therefore, impacts to special-status reptiles from construction of future broadband facilities within the County would be considered potentially significant.

In order to avoid and/or minimize construction-related impacts to special-status reptiles within the County, Mitigation Measure BIO-01: Habitat Assessment; Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program; Mitigation Measure BIO-04: Qualified Biological Monitor; Mitigation Measure BIO-05: Invasive Plant Species Control Measures; Mitigation Measure BIO-06: General Construction Best Management Practices; Mitigation Measure BIO-07: Revegetation Plan; Mitigation Measure BIO-08: Endangered/Threatened Wildlife Species; and Mitigation Measure BIO-09: Non-Listed Special-Status Wildlife Species would be implemented. With implementation of these mitigation measures, construction-related impacts to special-status reptiles within the County would be reduced to a **less than significant** level with mitigation incorporated.

Special Status Birds. Although the future broadband facilities would be similar in scope and scale to those identified for the Priority Areas and would focus construction along roadways and would be designed to generally avoid drainages and sensitive habitats, construction activities could impact special-status birds (see Appendix C). Construction activities such as grading, vegetation clearing and grubbing, earth moving, and vehicle and equipment use may result in direct injury or mortality to special-status birds, if present, within the County. In addition, increased noise, artificial light, increased human

presence, and/or introduction of nonnative weed species during construction activities may temporarily result in a loss of suitable habitat for special-status birds within the County. Therefore, impacts to special-status birds from construction of future broadband facilities within the County would be considered potentially significant.

In order to avoid and/or minimize construction-related impacts to special-status birds within the County, Mitigation Measure BIO-01: Habitat Assessment; Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program; Mitigation Measure BIO-04: Qualified Biological Monitor; Mitigation Measure BIO-05: Invasive Plant Species Control Measures; Mitigation Measure BIO-06: General Construction Best Management Practices; Mitigation Measure BIO-07: Revegetation Plan; Mitigation Measure BIO-08: Endangered/Threatened Wildlife Species; and Mitigation Measure BIO-10: Nesting Birds would be implemented. With implementation of the aforementioned mitigation measures, construction-related impacts to special-status birds within the County would be reduced to a **less than significant** level with mitigation incorporated.

Special Status Mammals. Although the future broadband facilities would be similar in scope and scale to those identified for the Priority Areas and would focus construction along roadways and would be designed to generally avoid drainages and sensitive habitats, construction activities could impact special-status mammals (see Appendix C). Construction activities such as grading, vegetation clearing and grubbing, earth moving, and vehicle and equipment use may result in direct injury or mortality to special-status mammals, if present, within the County. In addition, increased noise, artificial light, increased human presence, and/or introduction of nonnative weed species during construction activities may temporarily result in a loss of suitable habitat for special-status mammals within the County. Therefore, impacts to special-status mammals from construction of future broadband facilities within the County would be considered potentially significant.

In order to avoid and/or minimize construction-related impacts to special-status mammals within the County Mitigation Measure BIO-01: Habitat Assessment; Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program; Mitigation Measure BIO-04: Qualified Biological Monitor; Mitigation Measure BIO-05: Invasive Plant Species Control Measures; Mitigation Measure BIO-06: General Construction Best Management Practices; Mitigation Measure BIO-07: Revegetation Plan; Mitigation Measure BIO-08: Endangered/Threatened Wildlife Species; Mitigation Measure BIO-09: Non-Listed Special-Status Wildlife Species Avoidance and Minimization; and Mitigation Measure BIO-11: Bats would be implemented. With implementation of these mitigation measures, construction-related impacts to special-status mammals within the County would be reduced to a **less than significant** level with mitigation incorporated.

Furthermore, future projects developed under the Project requiring discretionary approval would be required to undergo site-specific environmental review in accordance with CEQA as part of the planning application process in order to identify and mitigate potential significant impacts to candidate, sensitive, or special-status species and their habitats. Through subsequent environmental review, future projects may be required to conduct site-specific biological resources surveys and/or incorporate site-specific mitigation measures, as deemed necessary.

Critical Habitat

As discussed in Section 4.2.2, above, USFWS-designated critical habitat for 14 species including arroyo toad, California condor, California red-legged frog, California tiger salamander, Gaviota tarplant, La Graciosa thistle, least Bell's vireo, Lompoc yerba santa, southwestern willow flycatcher, tidewater goby, Vandenberg monkeyflower, Ventura marsh milk-vetch, vernal pool fairy shrimp, and western snowy plover are present within the County. Although the Project would focus construction along roadways and would be designed to generally avoid drainages and sensitive habitats, construction of future broadband facilities within the County could result in modification or conversion of designated critical habitat and the impact to critical habitat would be potentially significant. Therefore, Mitigation Measure BIO-13: Critical Habitat would be implemented. With implementation of these measures, impacts from construction of future broadband facilities to designated critical habitat within the County would be **less than significant** with mitigation incorporated.

Furthermore, future projects developed under the Project requiring discretionary approval would be required to undergo site-specific environmental review in accordance with CEQA as part of the planning application process in order to identify and mitigate potential significant impacts to candidate, sensitive, or special-status species and their habitats. Through subsequent environmental review, future projects may be required to conduct site-specific biological resources surveys and/or incorporate site-specific mitigation measures, as deemed necessary.

Operation

Plants, Wildlife, and Critical Habitat

As described in Chapter 2, *Project Description,* once constructed, operational activities for any individual fiber project implemented under the Project would be limited to routine maintenance to check the vaults that access the fiber optic line. The fiber optic facilities would generally operate passively unless additional service connections are installed or if incidental repairs are required due to damage. These maintenance activities would occur within previously disturbed areas and are not expected to result in impacts to special status plant and wildlife species or result in modification or conversion of USFWS-designated critical habitat within the County. Therefore, the impact from operation of future broadband facilities that could be developed within the County would be **less than significant** and no mitigation is required.

Mitigation Measures

Mitigation Measure BIO-01: Habitat Assessment. A habitat assessment should be conducted prior to ground-disturbing activities within 500 feet of each project component footprint. Vegetation mapping should be conducted using The Manual of California Vegetation, second edition, (Sawyer, Keeler-Wolf, & Evens, 2009). If no suitable habitat occurs to support special-status plant species, special-status wildlife species, nesting bird species, or sensitive natural communities, then no further mitigation is necessary. If suitable habitat for any of these sensitive resources is determined to be present, then one or more of the following mitigation measures may be applicable.

Mitigation Measure BIO-02: Special-Status Plant Species. If suitable habitat for special-status plant species is identified during the Habitat Assessment (conducted pursuant to Mitigation Measure BIO-01: Habitat Assessment), a special-status plant survey focusing on the special-status plant species with a moderate to high potential to occur shall be conducted by a qualified

biologist prior to construction. The surveys should take place during the appropriate blooming period for each species in accordance with CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (2018). If any special-status plant species are observed during the focused surveys, an appropriate setback buffer, as recommended by the qualified biologist, shall be established and these species should be avoided by the Project.

If avoidance of the special-status plant species is not feasible and Project-related impacts to special-status plants may be significant, a mitigation strategy for special-status plant species that may be impacted shall be developed by a qualified biologist. The mitigation strategy may include partial avoidance; preservation; and/or on-site or off-site restoration, translocation, and/or seed collection to create a similar population (e.g., based on number of individual plants, similar density over area, or both). If restoration and/or translocation is needed, a restoration/revegetation plan must be prepared and approved by CDFW. At a minimum, the plan should specify the following:

- A summary of impacts;
- The location of the mitigation site;
- Methods for harvesting seeds or salvaging and transplanting individuals to be impacted;
- Measures for propagating plants or transferring living plants from the salvage site to the mitigation site;
- Site preparation procedures for the mitigation site;
- A schedule and action plan to maintain and monitor the mitigation site;
- Performance standards by which to measure the success of the mitigation; and
- Contingency measures, such as replanting or weeding, if mitigation efforts are not successful.

Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program (WEAP). If any sensitive biological resources (i.e., special-status species, sensitive natural communities, or aquatic resources) are determined to be present within or near construction areas during the Habitat Assessment, the Project Applicant shall retain a qualified biologist to conduct a pre-construction WEAP training for all personnel working at the construction site. The WEAP should inform workers in recognizing special-status species and regulated biological resources known to occur or potentially occur on the site and avoidance buffers and measures necessary to avoid and/or minimize potential impacts to biological resources.

- All personnel associated with Project construction should attend the WEAP training prior to initiation of Project construction activities (including, but not limited to, site preparation, staging and mobilization, vegetation clearance/mowing/trimming, grading, and excavation). The training should include information about the special-status species potentially occurring within the Project Site, identification of special-status species and their habitats, a description of the regulatory status and general ecological characteristics of special-status species, and a review of the limits of construction and measures required to avoid and/or minimize impacts to biological resources within the work area. A fact sheet conveying this information should also be prepared for distribution to all contractors, their employees, and other personnel involved with construction of the Project.
- All employees working at the Project Site shall be required to sign a form provided by the qualified biologist documenting they have attended the WEAP and understand the

information presented to them. The signed form should be provided to the Project Applicant as documentation of training completion. The crew foreman should be responsible for ensuring crew members adhere to the guidelines and restrictions designed to avoid impacts to special status species and other regulated biological resources. If new personnel are brought onto the Project after completion of the initial WEAP training, the training should be conducted for all new personnel before they can participate in construction activities.

Mitigation Measure BIO-04: Qualified Biological Monitor. If any sensitive biological resources (i.e., special-status species, sensitive natural communities, or aquatic resources) are determined to be present within or near construction areas during the Habitat Assessment, the Project Applicant shall retain a qualified biological monitor(s) with relevant experience with the biological resources and regulations in the County. The qualified biologist should be present during initial ground disturbance or vegetation removal activities, should recommend appropriate setback buffers for protection of sensitive biological resources, where necessary, and shall have the authority to temporarily stop work if special-status species are observed that may be impacted by Project activities. The biologist should recommend measures for compliance with avoidance and minimization measures and applicable permit conditions related to the protection of biological resources.

Mitigation Measure BIO-05: Invasive Plant Species Control Measures. If any sensitive biological resources (i.e., special-status species, sensitive natural communities, or aquatic resources) are determined to be present within or near construction areas during the Habitat Assessment, the Project Applicant shall require construction contractors to ensure that equipment is free of invasive plant seeds, propagules, and any material which may contain them (e.g., soil). For purposes of this mitigation measure, invasive plant species should include all species with a Cal-IPC rating of moderate or high. Prior to entering the construction site, equipment should be inspected to confirm it is free of mud, dirt, and debris. For larger sites that would be accessed via non-paved roads, tire track stations should be installed at the construction site entrances and exits, where appropriate. Staging areas and access routes should avoid weed infestations, and infestations within the work area(s) should be flagged and avoided to the maximum extent feasible. Only certified weed-free materials (e.g., fiber rolls, straw, and fill) should be used during construction of future broadband facilities.

Mitigation Measure BIO-06: General Construction Best Management Practices. If any sensitive biological resources (i.e., special-status, sensitive natural communities, or aquatic resources) are determined to be present within or near construction areas during the Habitat Assessment, the Project Applicant shall require construction contractors to adhere to the following general construction best management practices during construction of future broadband network facilities:

- Construction vehicles shall limit speed to 10 miles per hour within the unpaved limits of construction.
- All open trenches or excavations shall be fenced and/or sloped to prevent entrapment of wildlife species or have wildlife ramps available to allow for escape.
- All food-related trash items such as wrappers, cans, bottles, and food scraps generated during construction activities shall be disposed of in closed containers only and removed daily from the construction site.
- No deliberate feeding of wildlife shall occur.
- No pets shall be allowed on construction sites.

- No firearms shall be allowed on construction sites.
- All vehicle and equipment maintenance shall be performed in designated staging areas.
- Access to the construction area shall she limited to established work hours.
- If construction activities must be performed at night (i.e., between dusk and dawn), all lighting shall be shielded and directed downwards to minimize light spillover and/or glare.
- All construction equipment used on-site shall be properly maintained to avoid leaks of oil, fuel, or residues.
- Provisions shall be in place to remediate accidental spills from construction equipment or other construction activities. All vehicle maintenance/fueling/staging shall occur a minimum of 100 feet away from any riparian habitat or water body. Suitable containment procedures shall be implemented to prevent spills. A minimum of one spill kit shall be available at each work location near riparian habitat or water bodies.
- No equipment shall be permitted to enter wetted portions of any affected drainage channel.
- If the construction of future broadband network installations have the potential to degrade water quality, water sampling shall be implemented to identify the pre-Project baseline, and to monitor during construction for comparison to the baseline.
- Any worker who inadvertently injures or kills a special-status species or finds one dead, injured, or entrapped shall immediately report the incident to the construction foreman or biological monitor (recommended under Mitigation Measure BIO-01: Habitat Assessment). The construction foreman or biological monitor shall immediately notify the Project Applicant.

Mitigation Measure BIO-07: Revegetation Plan(s). For temporary impacts to natural communities to be returned to pre-Project conditions, a Revegetation Plan(s) (one or more) shall be prepared by a qualified biologist prior to starting construction of the future broadband network facilities and shall be implemented by the Project Applicant following completion of construction. The Revegetation Plan shall guide and ensure successful restoration of self-sustaining habitats, and shall include, at a minimum, the following:

- A native planting palette appropriate for each vegetation type being restored and appropriate to local conditions.
- Qualitative and quantitative monitoring methods to ensure that performance standards are tracked and met for a minimum 3-year period or until pre-Project conditions are restored to equivalent or better condition.

Mitigation Measure BIO-08: Endangered/Threatened Wildlife Species. If the results of the Habitat Assessment, completed as required by Mitigation Measure BIO-01: Habitat Assessment, determine that suitable habitat may be present for endangered or threatened special-status wildlife species (see Appendix C for special-status species listing status) then prior to construction within 500 feet of areas that could support endangered/threatened wildlife species, protocol surveys shall be conducted by a qualified biologist in accordance with the most recent applicable USFWS and/or CDFW protocol guidelines (see CDFW's Survey and Monitoring Protocols and Guidelines (CDFW n.d.)).

If endangered/threatened wildlife species are observed during the protocol surveys, an appropriate setback buffer, as recommended by the qualified biologist, shall be established and direct and

indirect impacts to occupied habitat shall be avoided. In addition to avoiding direct mortality of these endangered/threatened wildlife species and direct impacts to occupied habitats, additional avoidance and mitigation measures may be required, such as constructing Project facilities outside the breeding season, establishing a suitable avoidance buffer around known territories, and restricting activities around certain times of year. If the Project results in potential direct or indirect impacts to endangered/threatened wildlife species and/or occupied habitats, the Project Applicant shall consult with USFWS and CDFW to ensure compliance with the Federal Endangered Species Act and/or California Endangered Species Act, which may include obtaining a "take" permit (e.g., Biological Opinion from USFWS, CESA Section 2081 Incidental Take Permit or CESA Section 2080.1 Consistency Determination from CDFW) and mitigation for permanent impacts occupied habitat (e.g., at a minimum mitigation-to-impact ratio of 2:1 or greater).

Mitigation Measure BIO-09: Non-Listed Special-Status Wildlife Species. Several State Species of Special Concern may be impacted by construction of future broadband network facilities. If the results of the Habitat Assessment, completed as required by Mitigation Measure BIO-01: Habitat Assessment, determine that suitable habitat may be present for non-listed special-status wildlife species (see Appendix C for special-status species listing status) and Project impacts may be potentially significant, then prior to construction within 500 feet of areas that could support non-listed special-status wildlife species, the following measures shall be applicable to the future broadband network facilities:

- Pre-construction clearance surveys shall be conducted by a qualified biologist within 14 days prior to the start of construction (including staging and mobilization). The surveys shall cover the entire disturbance footprint plus a minimum 200-foot buffer, if feasible, and shall identify all special-status wildlife species that may occur on-site. Any non-listed special-status species observed shall be relocated from the site either through direct capture or through passive exclusion.
- If any special-status animal species are present within or near construction areas, a WEAP training shall be implemented by the qualified biologist during construction activities to avoid and/or minimize potential impacts to these species (see Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program).
- If any special-status animal species are present within or near construction areas, an appropriate setback buffer, as recommended by the qualified biologist, shall be established.
- A qualified biologist shall be present during all initial ground disturbing activities, including vegetation removal.
- Any special-status wildlife species observed by the qualified biologist or construction crew shall be allowed to move out of harm's way. All trenches, pipes, culverts or similar structures shall be inspected for animals prior to burying, capping, moving, or filling. At the end of each workday, excavations shall be secured with cover or a ramp provided to prevent wildlife entrapment.
- Upon completion of construction of the future broadband network facilities, a qualified biologist shall prepare a Final Compliance report documenting compliance activities implemented during construction, including the pre-construction survey results. The report shall be submitted within 30 days of completion of construction.

Mitigation Measure BIO-10: Nesting Birds. If the results of the Habitat Assessment, completed as required by Mitigation Measure BIO-01: Habitat Assessment, determine that suitable habitat for nesting birds is identified at future broadband facility sites and construction is scheduled to commence during the avian nesting season (February 1–August 31 for songbirds, and January 15 to August 31 for raptors), a qualified biologist shall conduct a nesting bird survey within 7 days of the anticipated start date to identify any active nests within 500 feet of the Project Site. If an active nest is detected, a suitable avoidance buffer shall be established by the qualified biologist in the field. Construction activities shall not occur within the buffer until a qualified biologist determines that the nest is no longer active (e.g., chicks have fledged). Appropriate buffer distances are generally 300 feet for passerine species and up to 500 feet for raptors; however, these may be reduced at the discretion of the qualified biologist depending on site-specific factors such as the location of the nest, species tolerance to human presence, and the types of construction-related noises, vibrations, and human activities that are expected occur. If construction temporarily ceases for a period greater than 7 days, and activities expect to recommence during the avian nesting season, the Project Site (including surrounding 500 feet) shall be resurveyed. If nesting birds are present within 500 feet of the Project Site, construction WEAP training shall be implemented by the qualified biologist during construction activities to avoid or minimize potential impacts to nesting birds (see Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program) and monitoring may be recommended for any work in the vicinity of nest avoidance buffers if determined necessary by the qualified biologist (per Mitigation Measure BIO-04: Qualified Biological Monitor).

Mitigation Measure BIO-11: Bats. If the results of the Habitat Assessment, completed as required by Mitigation Measure BIO-01: Habitat Assessment, determine that suitable habitat may be present for special-status bat species, then, prior to construction within 500 feet of areas that could support bat species, the following measures shall be applicable to the future broadband network facilities:

- A qualified biologist shall conduct presence/absence surveys for bats within 30 days prior to the start of construction. Surveys shall be conducted using acoustic detectors and by searching tree cavities, crevices, and other areas where bats may roost.
- If active roosts are located, an appropriate setback buffer, as recommended by the qualified biologist, shall be established, the roost shall be avoided, and Project construction activities shall be conducted as recommended by the biologist to avoid the area, which may include temporary postponement of activities or provision of a suitable buffer (of no less than 100 feet) around the roost until roosting activities cease. Exclusion devices such as netting may be installed to discourage bats from occupying the site in consultation with the CDFW. If a roost is determined by a qualified biologist to be used by a large number of bats (large hibernaculum), bat boxes shall be installed near the Project Site. The number of bat boxes installed will depend on the size of the hibernaculum and shall be determined through consultations with the CDFW. If a maternity colony has become established, all construction activities shall be postponed within a 500-foot buffer around the maternity colony until it is determined by a qualified biologist that the young have dispersed. Once it has been determined that the roost is clear of bats, the roost shall be removed immediately.

Mitigation Measure BIO-12: Monarch Butterfly. Prior to completion of the final design, a qualified biologist shall review the planned future broadband network facilities for potential to impact monarch butterflies. If known or potential winter roost sites may be impacted, the biologist shall make recommendations to avoid impacts including, but not limited to, establishment of an appropriate setback buffer, as recommended by the qualified biologist,

relocation/redesign of project features to avoid roost sites, guidance regarding tree removal and trimming at roost sites, and recommendations regarding planting additional roost trees.

Between October 1 and March 1, construction shall not occur within 100 feet of known or potential roost sites, if feasible. If construction must occur during this period, a qualified biologist shall survey known and potential roost sites to confirm occupancy by monarch butterflies prior to the start of any construction within 100 feet. Multiple surveys may be necessary, and the closest known roost sites shall be used as voucher sites to confirm the timing of butterfly arrival. If monarch butterflies are found at a roost site, construction shall not occur within 100 feet of the roost site until the biologist has determined that the butterflies have left the area. The biologist shall visit the voucher sites to confirm that butterflies have left the region.

Mitigation Measure BIO-13: Critical Habitat. If critical habitat will potentially be impacted by the Project, but there is no "federal nexus" for the Project (e.g., impacts to a federally listed species, impacts to USACE waters or wetlands, federal funding), then no further mitigation is necessary. However, if critical habitat will potentially be impacted by the Project; there is a federal nexus for the Project; and the habitat to be impacted contains PCEs to support the federally-listed species (as defined in the Federal Register designating critical habitat for that species), then consultation with the USFWS shall be required and may include mitigation for permanent impacts critical habitat (e.g., at a minimum mitigation-to-impact ratio of 1:1 or greater, or as determined by the USFWS).

Cumulative Impacts

Impact Statement C1: Implementation of the Project, in combination with other development, could contribute to a substantial adverse effect, either directly or through habitat modifications, or any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Implementation of the Project could result in impacts to special-status species that have a potential to occur within the County (see Appendix C). Similarly, development of past, present, and reasonably foreseeable future projects within the County, as identified in **Table 3-1**, *Cumulative Project List*, in Chapter 3, *Environmental Setting*, of this Draft PEIR, would also have impacts on these biological resources. As a result, cumulative impacts would be considered potentially significant.

The Project would be expected to predominantly entail the installation of small-diameter fiber optic conduit and cabling along existing street rights-of-way with very limited ground disturbance, that would include small-scale above- and below-ground features such as access vaults (also known as handholes, pull boxes, and splice boxes), and potentially incidental small sheds housing network equipment. Due to the relatively small scale of the Project compared to past, present, and reasonably foreseeable cumulative projects that have been identified in Table 3-1**,** and the limited nature of construction and operational activities associated with the future broadband facilities, the Project's contribution to cumulative impacts would be less-than-cumulatively considerable. Therefore, the cumulative impact to special-status plant and wildlife species would be **less than significant.**

Threshold 2: Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Impact Statement 2: Implementation of the Project could have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Based on the CALVEG database, there are 20 vegetation types that have been mapped within the County. The following vegetation communities, or some associations of these communities, are considered sensitive natural communities by CDFW (CDFW 2023):

- Blackbush
- Ceanothus mixed chaparral
- Chamise chaparral
- Chokecherry – Serviceberry – Rose
- Coastal sage shrub
- Creosote bush scrub
- Forest land
- Montane meadows
- Montane shrubland
- Mountain big sagebrush
- North coastal scrub
- Salt desert shrub
- Scrub oak mixed chaparral
- Valley grassland
- Wetland

In addition, there are numerous aquatic features within the Priority Areas and within other parts of the County that could support riparian habitat (see Figure 4.2-4).

The Project would include the installation of fiber optic cable in various locations throughout the County. The new fiber optic lines would be installed underground following public or private roadways. The Project also includes installation and construction activities within areas where lateral lines are installed between public or private roadways and individual businesses or residences. Individual residence or business connections typically would be installed within previously disturbed and/or developed areas (e.g., adjacent to driveways or in landscaped areas), and generally would avoid drainages and sensitive habitats. Lateral alignments would typically follow other utility installations. Although the Project would be designed to generally avoid drainages and sensitive habitats, specific locations and designs for future broadband facility locations have not yet been determined. Therefore, implementation of the Project could be located within undeveloped land, and it is possible that construction or operation of the Project could impact special-status plant or animal species.

Priority Area Projects

Construction

Within the Priority Areas, there are eight CALVEG vegetation types that may support sensitive natural communities as designated by CDFW. **Table 4.2-4** summarizes the acreages of CALVEG vegetation types that are present within each of the Priority Areas and may support sensitive natural communities. There is potential for sensitive natural communities that occur within these CALVEG vegetation types or others that have not been reported or mapped (i.e., non-jurisdictional wetlands) to be affected by construction of one or more of the future broadband facilities that could be developed within the Priority Areas.

TABLE 4.2-4
CALVEG VEGETATION TYPES WITHIN PRIORITY AREAS THAT MAY SUPPORT SENSITIVE NATURAL COMMUNITIES

Vegetation Type	Acreage
Guadalupe	
Forest land	27.4
Montane meadows	2.3
Valley grassland	19.9
Casmalia	
Ceanothus mixed chaparral	3.1
Coastal sage scrub	23.7
Forest land	11.1
Valley grassland	427.4
East of Santa Maria	
Ceanothus mixed chaparral	450.6
Chamise chaparral	60.1
Coastal sage scrub	1,691.7
Forest land	2,044.1
Scrub oak mixed chaparral	145.0
Valley grassland	1,1078
Cuyama and New Cuyama	
Coastal sage scrub	6.1
Forest land	8.5
Valley grassland	350.3
Los Alamos	
Coastal sage scrub	122.6
Forest land	150.2
Valley grassland	831.6

Vegetation Type	Acreage
Los Olivos	
Chamise chaparral	128.2
Coastal sage scrub	227.1
Forest land	1,561.8
Valley grassland	2,410.7
Jonata Park	
Coastal sage scrub	690.8
Forest land	466.3
Valley grassland	704.6
Hwy 246 Corridor	
Ceanothus mixed chaparral	17.8
Coastal sage scrub	2,035.5
Forest land	1,467.3
Valley grassland	4,486.5
Refugio Canyon	
Ceanothus mixed chaparral	786.6
Chamise chaparral	0.3
Coastal sage scrub	433.9
Forest land	1,169.7
North coastal scrub	25.7
Scrub oak mixed chaparral	512.8
Valley grassland	739.9
SOURCE: ESA 2024, CALVEG XXXX.	

As described within Chapter 2, *Project Description,* in general, the new fiber optic lines would be installed underground following public or private roadways with the intention to minimize or avoid disturbance of roadway surfaces wherever feasible. However, it is possible some fiber optic lines could be installed directly under roadways in areas with limited shoulder space or where existing conduit under the road may be used, thus avoiding new surface disturbance. The Project would also include installation and construction activities within those areas where lateral lines are installed between public or private roadways and individual businesses or residences. Individual residence or business connections typically would be installed within previously disturbed and/or developed areas (e.g., adjacent to driveways or in landscaped areas), and generally would avoid drainages and sensitive habitats. Lateral alignments would typically follow other utility installations. Although not anticipated, where subsurface installation of fiber optic cable is infeasible, aerial installation along existing utility poles will be undertaken. GSCA's methods of aerial installation will follow General Order 95 pole safety and loading requirements.

Although the Project would focus construction along roadways and would be designed to generally avoid drainages and sensitive habitats, it is possible that the construction of future broadband facilities could result in modification or conversion of sensitive natural communities and/or riparian habitat. Therefore,

impacts to sensitive natural communities and/or riparian habitat, if present, from construction of future broadband facilities within the Priority Areas would be considered potentially significant.

In order to avoid and/or minimize construction-related impacts to sensitive natural communities and/or riparian habitat within the Priority Areas, Mitigation Measure BIO-01: Habitat Assessment; Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program; Mitigation Measure BIO-05: Invasive Plant Species Control Measures; Mitigation Measure BIO-06: General Construction Best Management Practices; Mitigation Measure BIO-07: Revegetation Plan; **Mitigation Measure BIO-14: Sensitive Natural Communities**; and **Mitigation Measure BIO-15: Aquatic Resources** would be implemented. With implementation of these mitigation measures, construction-related impacts to special-status species within the Priority Areas would be reduced to a **less than significant** level with mitigation incorporated.

Operation

As described in Chapter 2, *Project Description,* once constructed operational activities for any individual fiber project implemented under the Project would be limited to routine maintenance to check the vaults that access the fiber optic line. The fiber optic facilities would generally operate passively unless additional service connections are installed or if incidental repairs are required due to damage. These maintenance activities would occur within previously disturbed areas and are not expected to result in impacts to sensitive natural communities. Therefore, the impact from construction of future broadband facilities that could be developed within Priority Areas would be **less than significant** and no mitigation is required.

Future Broadband Facilities

Construction

As discussed above, CALVEG vegetation types that could support sensitive natural communities designated by the CDFW have been recorded in the County. These sensitive natural communities, if present, could be impacted by construction of future broadband facilities within the County. It is assumed that the nature and intensity of such future installation projects would be similar in scope and scale to those identified for the Priority Areas.

Although the Project would focus construction along roadways and would be designed to generally avoid drainages and sensitive habitats, as the location of future broadband facilities that could be developed under the Project is unknown, it is possible that the Project could result in modification or conversion of sensitive natural communities including riparian habitat. Therefore, impacts to special-status plant species, if present, from construction of future broadband facilities within the County would be considered potentially significant.

In order to avoid and/or minimize construction-related impacts to special-status plant species within the County, Mitigation Measure BIO-01: Habitat Assessment; Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program; Mitigation Measure BIO-05: Invasive Plant Species Control Measures; Mitigation Measure BIO-06: General Construction Best Management Practices; Mitigation Measure BIO-07: Revegetation Plan; Mitigation Measure BIO-14: Sensitive Natural Communities; and Mitigation Measure BIO-15: Aquatic Resources would be implemented. With implementation of the

aforementioned mitigation measures, construction-related impacts to special-status species within the County would be reduced to a **less than significant** level with mitigation incorporated.

Furthermore, future projects developed under the Project requiring discretionary approval would be required to undergo site-specific environmental review in accordance with CEQA as part of the planning application process in order to identify and mitigate potential significant impacts to sensitive natural communities. Through subsequent environmental review, future projects may be required to conduct site-specific biological resources surveys and/or incorporate site-specific mitigation measures, as deemed necessary.

Operation

As described in Chapter 2, *Project Description,* once constructed, operational activities for any individual fiber project implemented under the Project would be limited to routine maintenance to check the vaults that access the fiber optic line. The fiber optic facilities would generally operate passively unless additional service connections are installed or if incidental repairs are required due to damage. These maintenance activities would occur within previously disturbed areas and are not expected to result in impacts to sensitive natural communities that have been designated by CDFW. Therefore, the impact from construction of future broadband facilities that could be developed within County would be **less than significant** and no mitigation is required.

Mitigation Measures

Mitigation Measure BIO-01: Habitat Assessment. See Impact Statement 1.

Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program. See Impact Statement 1.

Mitigation Measure BIO-05: Invasive Plant Species Control Measures. See Impact Statement 1.

Mitigation Measure BIO-06: General Construction Best Management Practices. See Impact Statement 1.

Mitigation Measure BIO-07: Revegetation Plan. See Impact Statement 1.

Mitigation Measure BIO-14: Sensitive Natural Communities. Sensitive natural communities, as defined by CDFW, shall be mapped within the vicinity of future broadband facilities per Mitigation Measure BIO-01: Habitat Assessment. This map will be used during Project design to determine if sensitive natural communities can be avoided.

Sensitive natural communities identified for avoidance should be demarcated (e.g., using brightly colored flagging) and avoided during Project construction. The marked boundaries should be maintained for the duration of Project construction activities in each work area and should be clearly visible to personnel on foot and by heavy equipment operators. If sensitive natural communities can be avoided, then no further mitigation is necessary.

If future broadband facilities cannot be sited to avoid temporary impacts to sensitive natural communities, sensitive natural communities shall be returned to pre-Project conditions (i.e., pre-Project elevation contours and revegetation initiated) within six months after the construction is

completed, and will be monitored for three years, or until a qualified biologist determines that affected natural communities have been restored to equivalent or better condition as compared to pre-Project conditions. A Revegetation Plan shall be prepared which would include implementation requirements for re-seeding/re-planting the area with locally indigenous native species, performance standards, success criteria, maintenance requirements, and monitoring requirements.

If future broadband facilities cannot be sited to avoid permanent impacts to sensitive natural communities, impacts to sensitive natural communities shall be mitigated at a 1:1 impact-to-mitigation ratio. This may include, but is not limited to:

- The purchase of credits from a mitigation bank or in-lieu fee program;
- On- and/or off-site land acquisition and preservation; and/or
- On- and/or off-site creation, restoration, and/or enhancement of sensitive natural communities.

If compensatory mitigation is to occur on- or off-site (i.e., not a mitigation bank or in-lieu fee program), a Sensitive Natural Community Mitigation and Monitoring Plan shall be prepared by a qualified biologist/restoration ecologist. The plan shall include details related to implementation requirements (e.g., seeding, planting, and/or staking of sensitive natural community species; salvage/dispersal of duff and seed bank; and/or removal of invasive, non-native species), performance standards, maintenance requirements, and future monitoring requirements.

Mitigation Measure BIO-15: Aquatic Resources. An aquatic resources delineation shall be conducted to determine the limits of potential jurisdictional aquatic resources within the vicinity of future broadband facilities. The results of the aquatic resources delineation will be used during project design to determine if aquatic resources can be avoided.

Aquatic resources identified for avoidance should be demarcated (e.g., using brightly colored flagging) and avoided during Project construction. The marked boundaries should be maintained for the duration of Project construction activities in each work area and should be clearly visible to personnel on foot and by heavy equipment operators. If aquatic resources can be avoided, then no further mitigation is necessary.

If aquatic resources will potentially be impacted by the Project, then the appropriate regulatory permits shall be obtained (e.g., CWA Section 404 Nationwide Permit from the USACE, CWA Section 401 Water Quality Certification or Porter-Cologne Act Waste Discharge Requirement permit from the RWQCB, and Streambed Alteration Agreement permit under Section 1602 of the California Fish and Wildlife Code from the CDFW). The following would be incorporated, as a minimum, into the permitting, subject to approval by the regulatory agencies:

- On- and/or off-site creation, restoration and/or enhancement of USACE/RWQCB jurisdictional wetlands, waters of the U.S., and/or waters of the State at a ratio no less than 2:1 for permanent impacts, and for temporary impacts, restore impact area to pre-Project conditions (i.e., pre-Project contours and revegetate with native species, where appropriate). Off-site creation, restoration, and/or enhancement at a ratio no less than 2:1 may include the purchase of mitigation credits at an agency-approved off-site mitigation bank or in-lieu fee program.
- On- and/or off-site creation, restoration, and/or enhancement of CDFW jurisdictional streambed and associated riparian habitat at a ratio no less than 2:1 for permanent impacts, and for temporary impacts, restore impact area to pre-Project conditions (i.e., pre-Project contours and revegetate with native species, where appropriate). Off-site creation, restoration,

and/or enhancement at a ratio no less than 2:1 may include the purchase of mitigation credits at an agency-approved off-site mitigation bank or in-lieu fee program.

Cumulative Impacts

Impact Statement C2: Implementation of the Project, in combination with other development, could contribute to a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Implementation of the Project could result in impacts to riparian habitat or other sensitive natural communities that have a potential to occur within the County, as described above. Similarly, development of past, present, and reasonably foreseeable future projects within the County, as identified in Table 3-1, would also have impacts on these biological resources. As a result, cumulative impacts would be considered potentially significant.

The Project would be expected to predominantly entail the installation of small-diameter fiber optic conduit and cabling along existing street rights-of-way with very limited ground disturbance, that would include small-scale above- and below-ground features such as access vaults (also known as handholes, pull boxes, and splice boxes), and potentially incidental small sheds housing network equipment. Due to the relatively small scale of the Project compared to past, present, and reasonably foreseeable cumulative projects that have been identified in Table 3-1**,** and the limited nature of construction and operational activities associated with the future broadband facilities, the Project's contribution to cumulative impacts would be less-than-cumulatively considerable. Therefore, the cumulative impact to riparian habitat or other sensitive natural communities would be **less than significant.**

Threshold 3: Would the Project have a substantial adverse effect on state or federally protected wetlands (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Impact Statement 3: Implementation of the Project could have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means.

As discussed in Section 4.2.2, above, there are four primary watersheds within the County that support aquatic features including the Santa Maria, Sisquoc, Cuyama, and Santa Ynez rivers, as well as wetlands that have been mapped by the USFWS NWI (USFWS 2024b). These aquatic features are shown in Figure 4.2-4 and could be subject to USACE, RWQCB, and/or CDFW jurisdiction and regulatory authority. In addition, wetlands that have not been included in the NWI may be present within the County and could also be subject to USACE, RWQCB, and/or CDFW jurisdiction and regulatory authority.

The Project would include the installation of fiber optic cable in various locations throughout the County. The new fiber optic lines would be installed underground following public or private roadways. The Project also includes installation and construction activities within areas where lateral lines are installed between public or private roadways and individual businesses or residences. Individual residence or business connections typically would be installed within previously disturbed and/or developed areas (e.g., adjacent to driveways or in landscaped areas), and generally would avoid drainages and sensitive habitats. Lateral alignments would typically follow other utility installations. Although the future

broadband facilities would be designed to generally avoid drainages and sensitive habitats, specific locations and designs for future broadband facilities have not yet been determined. Therefore, future broadband facilities could be located within undeveloped land, and it is possible that construction or operation of the Project could impact state or federally protected wetlands.

Priority Area Projects

Construction

Wetland habitat identified by the USFWS NWI are present within the Guadalupe, Casmalia, East of Santa Maria, Cuyama and New Cuyama, Los Alamos, Los Olivos, Hwy 246 Corridor, and Refugio Canyon Priority Areas. These wetlands may be subject to USACE, RWQCB, and/or CDFW jurisdiction and regulatory authority. In addition, wetlands that have not been included in the NWI may be present within the Priority Areas and could also be subject to USACE, RWQCB, and/or CDFW jurisdiction and regulatory authority.

As described within Chapter 2, *Project Description,* in general, the new fiber optic lines would be installed underground following public or private roadways with the intention to minimize or avoid disturbance of roadway surfaces wherever feasible. However, it is possible some fiber optic lines could be installed directly under roadways in areas with limited shoulder space or where existing conduit under the road may be used, thus avoiding new surface disturbance. The Project would also include installation and construction activities within those areas where lateral lines are installed between public or private roadways and individual businesses or residences. Individual residence or business connections typically would be installed within previously disturbed and/or developed areas (e.g., adjacent to driveways or in landscaped areas), and generally would avoid drainages and sensitive habitats. Lateral alignments would typically follow other utility installations. Although not anticipated, where subsurface installation of fiber optic cable is infeasible, aerial installation along existing utility poles will be undertaken. GSCA's methods of aerial installation will follow General Order 95 pole safety and loading requirements.

Although the Project would focus construction along roadways and would be designed to generally avoid drainages, it is possible that the future broadband facilities could result in impacts to state or federally protected wetlands, if present. Therefore, impacts to state or federally protected wetlands from construction of future broadband facilities within the Priority Areas would be considered potentially significant.

In order to avoid and/or minimize construction-related impacts to special-status plant species within the Priority Areas, Mitigation Measure BIO-01: Habitat Assessment; Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program; Mitigation Measure BIO-06: General Construction Best Management Practices; and Mitigation Measure BIO-15: Aquatic Resources. With implementation of these mitigation measures, construction-related impacts to state or federally protected wetlands within the Priority Areas would be reduced to a **less than significant** level with mitigation incorporated.

Operation

As described in Chapter 2, *Project Description,* once constructed, operational activities for any individual fiber project implemented under the Project would be limited to routine maintenance to check the vaults that access the fiber optic line. The fiber optic facilities would generally operate passively unless

additional service connections are installed or if incidental repairs are required due to damage. These maintenance activities would occur within previously disturbed areas and are not expected to result in impacts to state and federally protected wetlands. Therefore, the impact from construction of future broadband facilities that could be developed within Priority Areas would be **less than significant** and no mitigation is required.

Future Broadband Facilities

Construction

Wetlands within the County have been identified by the USFWS NWI and are shown in Figure 4.2-4. These wetlands may be subject to USACE, RWQCB, and/or CDFW jurisdiction and regulatory authority. In addition, wetlands that have not been included in the NWI may be present within the County and could also be subject to USACE, RWQCB, and/or CDFW jurisdiction and regulatory authority. It is assumed that the nature and intensity of such future broadband facilities would be similar in scope and scale to those identified for the Priority Areas.

Although the Project would focus construction along roadways and would be designed to generally avoid drainages, as the location of future broadband facilities that could be developed under the Project is unknown, it is possible that the future broadband facilities could result in impacts to state or federally protected wetlands. Therefore, impacts to state or federally protected wetlands from construction of future broadband facilities within the County would be considered potentially significant.

In order to avoid and/or minimize construction-related impacts to state and federally protected wetlands within the County, Mitigation Measure BIO-01: Habitat Assessment; Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program; Mitigation Measure BIO-06: General Construction Best Management Practices; and Mitigation Measure BIO-15: Aquatic Resources would be implemented. With implementation of these mitigation measures, construction-related impacts to state and federally protected wetlands would be reduced to a **less than significant** level with mitigation incorporated.

Furthermore, future projects developed under the Project requiring discretionary approval would be required to undergo site-specific environmental review in accordance with CEQA as part of the planning application process in order to identify and mitigate potential significant impacts to state or federally protected wetlands. Through subsequent environmental review, future projects may be required to conduct site-specific biological resources surveys and/or incorporate site-specific mitigation measures, as deemed necessary.

Operation

As described in Chapter 2, *Project Description,* once constructed, operational activities for any individual fiber project implemented under the Project would be limited to routine maintenance to check the vaults that access the fiber optic line. The fiber optic facilities would generally operate passively unless additional service connections are installed or if incidental repairs are required due to damage. These maintenance activities would occur within previously disturbed areas and are not expected to result in impacts to state or federally protected wetlands. Therefore, the impact from construction of future broadband facilities that could be developed within the County under the Project would be **less than significant** and no mitigation is required.

Mitigation Measures

Mitigation Measure BIO-01: Habitat Assessment. See Impact Statement 1.

Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program. See Impact Statement 1.

Mitigation Measure BIO-06: General Construction Best Management Practices. See Impact Statement 1.

Mitigation Measure BIO-15: Aquatic Resources. See Impact Statement 2.

Cumulative Impacts

Impact Statement C3: Implementation of the Project, in combination with other development, could contribute to a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means.

Implementation of the Project could result in impacts to state or federally protected wetlands that have a potential to occur within the County (see Appendix C). Similarly, development of past, present, and reasonably foreseeable future projects within the County, as identified in Table 3-1, would also have impacts on these biological resources. As a result, cumulative impacts would be considered potentially significant.

The Project would be expected to predominantly entail the installation of small-diameter fiber optic conduit and cabling along existing street rights-of-way with very limited ground disturbance, that would include small-scale above- and below-ground features such as access vaults (also known as handholes, pull boxes, and splice boxes), and potentially incidental small sheds housing network equipment. Due to the relatively small scale of the Project compared to past, present, and reasonably foreseeable cumulative projects that have been identified in Table 3-1**,** and the limited nature of construction and operational activities associated with the future broadband facilities, the Project's contribution to cumulative impacts would be less-than-cumulatively considerable. Therefore, the cumulative impact to state or federally protected wetlands would be **less than significant.**

Threshold 4: Would the Project 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?

Impact Statement 4: Implementation of the Project could 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.

As discussed above, wildlife movement within the County is possible through mountainous regions and riparian corridors. There are two essential connectivity areas within the County including the western portion of the County from south of Guadalupe to south of Lompoc and a large area of the mountainous regions in the southeastern portion of the County. In addition, three movement corridors have been identified in the western portion of the County and are associated with the Santa Ynez River, San Antonio Creek/Purissima Hills, and along the south coast near Gaviota. Wildlife corridors within the County are shown in Figure 4.2-5: *Wildlife Movement Corridors*.

The Project would include the installation of fiber optic cable in various locations throughout the County. The new fiber optic lines would be installed underground following public or private roadways. The Project also includes installation and construction activities within areas where lateral lines are installed between public or private roadways and individual businesses or residences. Individual residence or business connections typically would be installed within previously disturbed and/or developed areas (e.g., adjacent to driveways or in landscaped areas), and generally would avoid drainages and sensitive habitats. Lateral alignments would typically follow other utility installations. Although the future broadband facilities would be designed to generally avoid drainages and sensitive habitats, specific locations and designs for future broadband facilities have not yet been determined. Therefore, future broadband facilities could be located within undeveloped land, and it is possible that construction or operation of the Project could impact wildlife corridors.

Priority Area Projects

Construction

The new fiber optic lines would be installed underground following public or private roadways with the intention to minimize or avoid disturbance of roadway surfaces wherever feasible. However, it is possible some fiber optic lines could be installed directly under roadways in areas with limited shoulder space or where existing conduit under the road may be used, thus avoiding new surface disturbance. The Project would also include installation and construction activities within those areas where lateral lines are installed between public or private roadways and individual businesses or residences. Individual residence or business connections typically would be installed within previously disturbed and/or developed areas (e.g., adjacent to driveways or in landscaped areas), and generally would avoid drainages and sensitive habitats. Lateral alignments would typically follow other utility installations. Although not anticipated, where subsurface installation of fiber optic cable is infeasible, aerial installation along existing utility poles will be undertaken. GSCA's methods of aerial installation will follow General Order 95 pole safety and loading requirements.

Wildlife Movement

The Los Alamos, Los Olivos, Jonata Park W 101, Hwy 246 Corridor, and Refugio Canyon Priority Areas may intersect with the wildlife movement corridors that have been identified within the County. Although the Project would focus construction along roadways, construction activities could result in localized, short-term hinderance of movement by resident or migratory wildlife due to temporary noise, lighting, dust, and human activities within the Priority Areas.

As discussed under Impact Statement 2, construction activities could result in impacts to vegetation which may support wildlife movement. However, construction of future broadband facilities within Priority Areas under the Project would implement Mitigation Measure BIO-01: Habitat Assessment; Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program; Mitigation Measure BIO-06: General Construction Best Management Practices; and Mitigation Measure BIO-07: Revegetation Plan. Therefore, long-term loss of habitat that could support species movement would be minimal and would not hinder use of habitat linkages of wildlife movement corridors. Construction-related impacts to migratory wildlife species or migratory wildlife corridors within the Priority Areas would be **less than significant** with mitigation incorporated.

Nursery Sites

Future broadband facilities within the Priority Areas may cross habitat types that could support nesting behavior of a variety of species that are protected under state and federal regulations. Construction activities associated with the future broadband facilities could disturb nesting birds and cause nest site abandonment and/or reproductive failure from increased noise, artificial light, human presence, and/or removal of habitat, which would be a potentially significant impact. Therefore, construction of future broadband facilities within the Priority Areas would implement Mitigation Measure BIO-01: Habitat Assessment and Mitigation Measure BIO-10: Nesting Birds. With implementation of these measures, construction-related impacts to nesting birds within the Priority Areas would be **less than significant** with mitigation incorporated.

Operation

Wildlife Movement and Nursery Sites

As described in Chapter 2, *Project Description,* once constructed, operational activities for any individual fiber project implemented under the Project would be limited to routine maintenance to check the vaults that access the fiber optic line. The fiber optic facilities would generally operate passively unless additional service connections are installed or if incidental repairs are required due to damage. These maintenance activities would occur within previously disturbed areas and are not expected to result in impacts to wildlife movement or nesting birds. Therefore, the impact from construction of future broadband facilities that could be developed within the Priority Areas under the Project would be **less than significant** and no mitigation is required.

Future Broadband Facilities

Construction

It is assumed that the nature and intensity of such future broadband facilities would be similar in scope and scale to those identified for the Priority Areas.

Wildlife Movement

The location of future broadband facilities within the County may intersect with the wildlife movement corridors that have been identified within the County. Although the Project would focus construction along roadways, as the location of future broadband facilities that could be developed under the Project is unknown, construction activities could result in localized, short-term hinderance of movement by resident or migratory wildlife due to temporary noise, lighting, dust, and human activities within the County.

As discussed under Impact Statement 2, construction activities could result in impacts to vegetation which may support wildlife movement. However, construction of future broadband facilities within the County would implement Mitigation Measure BIO-01: Habitat Assessment; Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program; Mitigation Measure BIO-06: General Construction Best Management Practices; and Mitigation Measure BIO-07: Revegetation Plan. Therefore, long-term loss of habitat that could support species movement would be minimal and would not hinder use of habitat linkages of wildlife movement corridors. Construction-related impacts to migratory wildlife species or migratory wildlife corridors within the County would be **less than significant** with mitigation incorporated.

Furthermore, future projects developed under the Project requiring discretionary approval would be required to undergo site-specific environmental review in accordance with CEQA as part of the planning application process in order to identify and mitigate potential significant impacts to migratory wildlife species or migratory wildlife corridors. Through subsequent environmental review, future projects may be required to conduct site-specific biological resources surveys and/or incorporate site-specific mitigation measures, as deemed necessary.

Nursery Sites

Future broadband facilities within the County may cross habitat types that could support nesting behavior of a variety of species that are protected under state and federal regulations. Construction activities associated with future broadband facilities within the County that would be developed under the Project could disturb nesting birds and cause nest site abandonment and/or reproductive failure from increased noise, artificial light, human presence, and/or removal of habitat, which would be a potentially significant impact. Therefore, construction of future broadband facilities within the County would implement Mitigation Measure BIO-01: Habitat Assessment and Mitigation Measure BIO-10: Nesting Birds. With implementation of these measures, construction-related impacts to nesting birds within the County would be **less than significant** with mitigation incorporated.

Furthermore, future projects developed under the Project requiring discretionary approval would be required to undergo site-specific environmental review in accordance with CEQA as part of the planning application process in order to identify and mitigate potential significant impacts to wildlife nursery sites. Through subsequent environmental review, future projects may be required to conduct site-specific biological resources surveys and/or incorporate site-specific mitigation measures, as deemed necessary.

Operation

Wildlife Movement and Nursery Sites

As described in Chapter 2, *Project Description,* once constructed, operational activities for any individual fiber project implemented under the Project would be limited to routine maintenance to check the vaults that access the fiber optic line. The fiber optic facilities would generally operate passively unless additional service connections are installed or if incidental repairs are required due to damage. These maintenance activities would occur within previously disturbed areas and are not expected to result in impacts to wildlife movement or nesting birds. Therefore, the impact from construction of future broadband facilities that could be developed within the County under the Project would be **less than significant** and no mitigation is required.

Mitigation Measures

Mitigation Measure BIO-01: Habitat Assessment. See Impact Statement 1.

Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program. See Impact Statement.

Mitigation Measure BIO-06: General Construction Best Management Practices. See Impact Statement 1.

Mitigation Measure BIO-07: Revegetation Plan. See Impact Statement 1.

Mitigation Measure BIO-10: Nesting Birds. See Impact Statement 1.

Cumulative Impacts

Impact Statement C4: Implementation of the Project, in combination with other development, could 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.

Implementation of the Project could result in impacts to wildlife movement corridors or native wildlife nursery sites that have a potential to occur within the County (see Appendix C). Similarly, development of past, present, and reasonably foreseeable future projects within the County, as identified in Table 3-1, would also have impacts on these biological resources. As a result, cumulative impacts would be considered potentially significant.

The Project would be expected to predominantly entail the installation of small-diameter fiber optic conduit and cabling along existing street rights-of-way with very limited ground disturbance, that would include small-scale above- and below-ground features such as access vaults (also known as handholes, pull boxes, and splice boxes), and potentially incidental small sheds housing network equipment. Due to the relatively small scale of the Project compared to past, present, and reasonably foreseeable cumulative projects that have been identified in Table3-1**,** and the limited nature of construction and operational activities associated with the future broadband facilities, the Project's contribution to cumulative impacts would be less-than-cumulatively considerable. Therefore, the cumulative impact to wildlife movement or native wildlife nursery sites would be **less than significant.**

Threshold 5: Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Impact Statement 5: Implementation of the Project could conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

As discussed above, the County has developed and implemented local policies and plans to protect biological resources including the Comprehensive Plan; CLUP; County Code, which includes the County Land Use and Development Code and, subsequently, the County Deciduous Oak Tree Protection and Regeneration Ordinance; and County Environmental Thresholds and Guidelines Manual. In addition, incorporated cities within the County have developed their own General Plans and municipal codes that would be applicable to any future broadband facilities that are proposed within their sphere of influence.

The Project would include the installation of fiber optic cable in various locations throughout the County. The new fiber optic lines would be installed underground following public or private roadways. The Project also includes installation and construction activities within areas where lateral lines are installed between public or private roadways and individual businesses or residences. Individual residence or business connections typically would be installed within previously disturbed and/or developed areas (e.g., adjacent to driveways or in landscaped areas), and generally would avoid drainages and sensitive habitats. Lateral alignments would typically follow other utility installations. Although the Project would be designed to generally avoid drainages and sensitive habitats, specific locations and designs for future broadband facilities have not yet been determined. Therefore, construction of the future broadband

facilities could be located within undeveloped land, and it is possible that construction or operation of the Project could conflict with local policies for ordinances protecting biological resources.

Priority Area Projects

Construction

The new fiber optic lines would be installed underground following public or private roadways with the intention to minimize or avoid disturbance of roadway surfaces wherever feasible. However, it is possible some fiber optic lines could be installed directly under roadways in areas with limited shoulder space or where existing conduit under the road may be used, thus avoiding new surface disturbance. The Project would also include installation and construction activities within those areas where lateral lines are installed between public or private roadways and individual businesses or residences. Individual residence or business connections typically would be installed within previously disturbed and/or developed areas (e.g., adjacent to driveways or in landscaped areas), and generally would avoid drainages and sensitive habitats. Lateral alignments would typically follow other utility installations. Although not anticipated, where subsurface installation of fiber optic cable is infeasible, aerial installation along existing utility poles will be undertaken. GSCA's methods of aerial installation will follow General Order 95 pole safety and loading requirements.

Although the Project would focus construction along roadways, protected trees and other biological resources which are protected by local plans and ordinances, including those biological communities discussed within the County Environmental Thresholds and Guidelines Manual, could be encountered by future broadband facilities that would be developed within the Priority Areas under the Project and the impact would be potentially significant. In addition, the Guadalupe Priority Area is located within the sphere of influence of the City of Guadalupe. Any project-related impacts to biological resources that are protected by the City of Guadalupe General Plan and the applicable requirements of the City of Guadalupe Municipal Code would be potentially significant.

Implementation of **Mitigation Measure BIO-16: Tree Protection** would reduce construction-related impacts to trees protected under the County Deciduous Oak Tree Protection and Regeneration Ordinance to a less-than-significant level with mitigation incorporated. In addition, the Project would implement Mitigation Measure BIO-01: Habitat Assessment; Mitigation Measure BIO-02: Special-Status Plant Species; Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program; Mitigation Measure BIO-04: Qualified Biological Monitor; Mitigation Measure BIO-05: Invasive Plant Species Control Measures; Mitigation Measure BIO-06: General Construction Best Management Practices; Mitigation Measure BIO-07: Revegetation Plan; Mitigation Measure BIO-08: Endangered/Threatened Wildlife Species; Mitigation Measure BIO-09: Non-Listed Special-Status Wildlife Species; Mitigation Measure BIO-10: Nesting Birds; Mitigation Measure BIO-11: Bats; Mitigation Measure BIO-12: Monarch Butterfly; Mitigation Measure BIO-14: Sensitive Natural Communities; and Mitigation Measure BIO-15: Aquatic Resources. Implementation of these measures would avoid, reduce and minimize, and/or mitigate potential impacts to biological communities, as discussed within the County Environmental Thresholds and Guidelines Manual, to a less than significant level. Furthermore, all construction of future broadband facilities would be required to comply with local plans, policies, ordinances, and applicable permitting procedures related to the protection of biological resources.

The Project would mitigate impacts to sensitive resources that are protected by any applicable plans, policies, or regulations adopted by incorporated cities, including the City of Guadalupe, as well as the Comprehensive Plan, CLUP, and County Environmental Thresholds and Guidelines Manual. In addition, the Project would comply with the requirements of the County Code, including the County Land Use and Development Code. Therefore, construction of future broadband facilities within the Priority Areas would have a **less than significant impact** with respect to compliance with local policies or ordinances protecting biological resources with mitigation incorporated.

Operation

As described in Chapter 2, *Project Description,* once constructed, operational activities for any individual fiber project implemented under the Project would be limited to routine maintenance to check the vaults that access the fiber optic line. The fiber optic facilities would generally operate passively unless additional service connections are installed or if incidental repairs are required due to damage. These maintenance activities would occur within previously disturbed areas and would not include actions that would conflict with any local plans, policies, or ordinances protecting biological resources. Therefore, operation of the future broadband facilities within the Priority Areas would have **no impact** with respect to compliance with local plans, policies, or ordinances protecting biological resources. No mitigation is required.

Future Broadband Facilities

Construction

It is assumed that the nature and intensity of such future broadband facilities would be similar in scope and scale to those identified for the Priority Areas. Although the Project would focus construction along roadways, protected trees and other biological resources which are protected by applicable incorporated city or County plans, policies, and ordinances, including those biological communities discussed within the County Environmental Thresholds and Guidelines Manual, could be encountered by future broadband facilities that would be developed within the Priority Areas under the Project and the impact would be potentially significant.

Implementation of Mitigation Measure BIO-16: Tree Protection would reduce construction-related impacts to trees protected under the County Deciduous Oak Tree Protection and Regeneration Ordinance to a less-than-significant level with mitigation incorporated. In addition, the Project would implement Mitigation Measure BIO-01: Habitat Assessment; Mitigation Measure BIO-02: Special-Status Plant Species; Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program; Mitigation Measure BIO-04: Qualified Biological Monitor; Mitigation Measure BIO-05: Invasive Plant Species Control Measures; Mitigation Measure BIO-06: General Construction Best Management Practices; Mitigation Measure BIO-07: Revegetation Plan; Mitigation Measure BIO-08: Endangered/Threatened Wildlife Species; Mitigation Measure BIO-09: Non-Listed Special-Status Wildlife Species; Mitigation Measure BIO-10: Nesting Birds; Mitigation Measure BIO-11: Bats; Mitigation Measure BIO-12: Monarch Butterfly; Mitigation Measure BIO-14: Sensitive Natural Communities; and Mitigation Measure BIO-15: Aquatic Resources. Implementation of these measures would avoid, reduce and minimize, and/or mitigate potential impacts to biological communities, as discussed within the County Environmental Thresholds and Guidelines Manual, to a less than significant level. Furthermore, all construction of future broadband facilities would be required to comply with local

plans, policies, ordinances, and applicable permitting procedures related to the protection of biological resources.

The Project would mitigate impacts to sensitive resources that are protected by any applicable plans, policies, or regulations adopted by incorporated cities, as well as the Comprehensive Plan, CLUP, and the County Environmental Thresholds and Guidelines Manual. In addition, the Project would comply with the requirements of the County Code, including the County Land Use and Development Code. Therefore, construction of future broadband facilities within the Priority Areas would have a **less than significant impact** with respect to compliance with local policies or ordinances protecting biological resources with mitigation incorporated.

Furthermore, future projects developed under the Project requiring discretionary approval would be required to undergo site-specific environmental review in accordance with CEQA as part of the planning application process in order to identify and mitigate potential significant impacts with respect to conflicts with local policies or ordinances. Through subsequent environmental review, future projects may be required to conduct site-specific biological resources surveys and/or incorporate site-specific mitigation measures, as deemed necessary.

Operation

As described in Chapter 2, *Project Description,* once constructed, operational activities for any individual fiber project implemented under the Project would be limited to routine maintenance to check the vaults that access the fiber optic line. The fiber optic facilities would generally operate passively unless additional service connections are installed or if incidental repairs are required due to damage. These maintenance activities would occur within previously disturbed areas and would not include actions that would conflict with any local plans, policies, or ordinances protecting biological resources. Therefore, operation of the future broadband facilities within the County would have **no impact** with respect to compliance with local policies or ordinances protecting biological resources. No mitigation is required.

Mitigation Measures

Mitigation Measure BIO-01: Habitat Assessment. See Impact Statement 1.

Mitigation Measure BIO-02: Special-Status Plant Species. See Impact Statement 1.

Mitigation Measure BIO-03: Construction Worker Environmental Awareness Program. See Impact Statement 1.

Mitigation Measure BIO-04: Qualified Biological Monitor. See Impact Statement 1.

Mitigation Measure BIO-05: Invasive Plant Species Control Measures. See Impact Statement 1.

Mitigation Measure BIO-06: General Construction Best Management Practices. See Impact Statement 1.

Mitigation Measure BIO-07: Revegetation Plan. See Impact Statement 1.

Mitigation Measure BIO-08: Endangered/Threatened Wildlife Species. See Impact Statement 1.

Mitigation Measure BIO-09: Non-Listed Special-Status Wildlife Species. See Impact Statement 1.

Mitigation Measure BIO-10: Nesting Birds. See Impact Statement 1.

Mitigation Measure BIO-11: Bats. See Impact Statement 1.

Mitigation Measure BIO-12: Monarch Butterfly. See Impact Statement 1.

Mitigation Measure BIO-14: Sensitive Natural Communities. See Impact Statement 1.

Mitigation Measure BIO-15: Aquatic Resources. See Impact Statement 1.

Mitigation Measure BIO-16: Tree Protection. If it is determined that construction may impact oak trees protected by the County's Deciduous Oak Tree Protection and Regeneration Ordinance included in Appendix IX of Chapter 35 of the Santa Barbara County Code, the Project Applicant shall procure an Oak Tree Removal Permit, if required by Section 35-909 of the County's Deciduous Oak Tree Protection and Regeneration Ordinance. Should an Oak Tree Removal Permit be required, the Project Applicant shall be required to implement the following, in addition to all other requirements as described within the County's Deciduous Oak Tree Protection Ordinance (Santa Barbara County 2003):

- An Oak Tree Management Plan shall be developed by an oak tree specialist for the Project Site on which any oak tree removal will take place and any lot used for off-site replacement. The plan shall comply with the requirements included in Section 35-911 of the County Deciduous Oak Tree Protection and Regeneration Ordinance, as included in Article IX of Chapter 35 of the County Code.
- Oak trees that are removed shall be compensated at a 15:1 ratio by replacement planting, or protection of naturally occurring oak trees between six inches and six feet tall on the Project Site.
- Replacement trees shall be nurtured for five years. At the end of the five years, ten trees for every protected tree removed shall be alive, in good health as defined by the oak tree specialist, and capable of surviving without nurturing and protection.
- Valley oak tree removal over an area of five acres or greater shall require valley oak replanting of an area of comparable size in an area of existing or historic valley oak habitat.

Cumulative Impacts

Impact Statement C5: Implementation of the Project, in combination with other development, could conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

As discussed above, all construction of future broadband facilities would be required to follow County development requirements, including compliance with local policies, ordinances, and applicable permitting procedures related to the protection of biological resources**.** All other future broadband facilities installed within the County would also be required to comply with applicable County development requirements. Therefore, the cumulative impact would be **less than significant.**

Threshold 6: Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Impact Statement 6: Implementation of the Project could conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Priority Area Projects and Future Broadband Facilities

There are no adopted habitat or natural community conservation plans in the region. Therefore, implementation of the Project within Priority Areas and other parts of the County would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. There would be **no impact** and no mitigation is required.

Mitigation Measures

None required.

Cumulative Impacts

Impact Statement C6: Implementation of the Project, in combination with other development, could conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

As discussed above, there are no adopted habitat or natural community conservation plans in the region. Therefore, the Project, in combination with other development, would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. There would be **no cumulative impact.**

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4.3 Cultural Resources

This section analyzes impacts to cultural resources within Santa Barbara County that would result from implementation of the Santa Barbara County Last-Mile Broadband Program ("Broadband Program" or "Project"), and feasible mitigation measures to reduce these potential impacts. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment. Records search results and other supporting information used in the analysis presented below are contained in Appendix D of this Draft PEIR.

4.3.1 Environmental Setting

The Project is located in the County of Santa Barbara (County). It is bordered by San Luis Obispo County to the north, the Pacific Ocean to the south and the west, Ventura County to the east, and Kern County to the northeast. Approximately one-half of the undeveloped land in the County falls within the Los Padres National Forest and Vandenberg Space Force Base (Appendix D). The County is diverse and is made up of built and natural environment. Urban communities are bounded and separated by rural lands. The inland North County areas consist of "rural open spaces of chaparral hillsides, oak woodlands, grassland meadows, and agricultural and pastoral landscapes containing farmlands, vineyards, and ranch-style development surrounding distinct urban communities", while the South Coast includes "an undisturbed natural environment on the periphery of urban areas in the foothills and along the coastline" (County of Santa Barbara 2023). Lastly, the coastline contains "dunes, sandy beaches, sea cliffs, and views of the surrounding mountains, Channel Islands, and Pacific Ocean" (County of Santa Barbara 2023).

4.3.1.1 Geologic Setting

Santa Barbara County lies at the western on-land terminus of the Transverse Ranges and the geology clearly reflects that history. The western Transverse Ranges formed through 110 degrees of clockwise rotation as the transform plate margin expanded northward in the Miocene Epoch, starting 18 million years ago (Sylvester and O'Black Gans 2016). This led to uplift of the older, primarily (in Santa Barbara County) Paleogene to early Neogene marine deposits. These bands of mudstone, sandstone, and minor limestone beds make up the coastal mountains throughout the county. As the area is still vigorously tectonically active, the coastline is dominated by uplifted marine terraces that preserve nearshore marine deposits that range back through the Pleistocene Epoch. Additionally, the easily eroded marine units have led to numerous canyons carved through the Transverse Ranges, leading to deposits of valley and coastal plain alluvium that filled the low-lying areas.

The northern project components lie north of the Transverse Ranges—dominated by east-west faults and folds—and instead is categorized in the southern Coastal Ranges. While the faults in this province are more typical of the north-northwest to south-southeast pattern of California, the underlying geological formations are similar to the coastal terraces.

More specific to the identified Priority Areas in the County, the geological formations potentially impacted can be grouped into five distinct geological intervals as shown on the various maps of Tom Dibblee (Dibblee, T.W., and Ehrenspeck, H.E., ed., 1988a, Dibblee, T.W., and Ehrenspeck, H.E., ed., 1993a, Dibblee, T.W., and Ehrenspeck, H.E., ed., 1993b, Dibblee, T.W., and Ehrenspeck, H.E., ed.,

1988b, Dibblee, T.W., and Ehrenspeck, H.E., ed., 1993c, Dibblee, T.W., and Ehrenspeck, H.E., ed., 1988c, Dibblee, T.W., and Ehrenspeck, H.E., ed., 1988d, Dibblee, T.W., Ehrenspeck, H.E., and Bartlett, W.L., 1994a, Dibblee, T.W., Ehrenspeck, H.E., and Bartlett, W.L., 1994b, Dibblee, T.W., and Ehrenspeck, H.E., ed., 1989a, Dibblee, T.W., and Ehrenspeck, H.E., ed., 1989b, Appendix D). The oldest unit is a small exposure of the ancient (Late Jurassic to Early Cretaceous) fore-arc basin deposits of deep-water shale and siltstone (Espada Formation). This unit is largely intruded by diabase, a volcanic rock that is equivalent to coarse basalt. The third interval is the most extensive and comprises a sequence of marine units deposited from the late Eocene through early Pliocene at a range of water depth. This includes, from oldest to youngest, the Sacate, Gaviota, Alegra, Vaqueros, Rincon, Monterey, and Sisquoc Formations. There were also sporadic volcanic eruptions recorded during this time, such as the Tranquillon Volcanics. The fourth interval captures the recession of the ocean and the transition to largely non-marine units during the Pliocene Epoch. This interval starts with the Foxen Claystone and includes the Careaga Sandstone and Paso Robles Formation. The final interval broadly encompasses the alluvium that fills the valley floors and broad plains, deposited during the Pleistocene up to the present day.

4.3.2 Precontact Setting

4.3.2.1 Pleistocene-Holocene Transition (14000 to 10000 years B.P.)

While archaeological evidence from the Northern Channel Islands shows that the wider region has been occupied since as early as 13,200 years before present (B.P.), no sites of similar age have been located within the Project's vicinity. It may be that areas appealing to early peoples, such as estuary environments along the coast, were covered by the 100 meters (300 feet) of subsequent sea level rise. Judging from the Northern Channel Islands, the coastal people likely belonged to the Paleo-Coastal Tradition that relied mostly on near-shore marine foods such as shellfish. (Erlandson 2012; Erlandson 2007). Stone tools to process plant foods have not been found dating from this period, leaving archaeologists in the dark about the rest of the Paleo-Coastal diet (Glassow 2007).

4.3.2.2 Early Holocene (10,000 – 7000 years B.P.)

During the beginning of the Early Holocene, climatic warming led to an increase of chaparral and grassland plant species. The greater availability of edible plants seems to have helped the human population of the Project's vicinity and surrounding areas increase. By 9,000 years B.P., heavy stone tools for grinding plant seeds into flour appear, marking the beginning of the Millingstone Horizon. This way of life is characterized by increasing population size, greater importance of grass and perennial plant seeds in the diet, and a decrease in how often people moved their settlements during the year. Seeds likely became important because they can be stored for long periods of time, alleviating the pressure of environmental change. Marine foods such as sea mammals and shellfish continue to be very important in the diet. Near the end of this period, the first olivella shell beads were produced, perhaps indicating the beginnings of a regional trade network that grew during later periods (Arnold 2010; Glassow 2007). Skeletal and archaeological evidence indicates that the ancestors of the Chumash peoples, who still inhabit the region today, were present by this time, although the linguistic evidence is less certain (Golla 2007).

4.3.2.3 Middle Holocene (7000 – 4000 years B.P.)

The first half of the Middle Holocene is generally a continuation of trends from the end of the Early Holocene, including the Millingstone Horizon. Between 8,000 and 6,000 years B.P. there appears to have been a decline in population along the coast, perhaps linked to a period of warmer seawater that depressed the shellfish and fish species. This signals the end of the Millingstone Horizon in the Project's vicinity. A reaction to lack of marine resources may have caused people to start to eat acorns or starchy tubers as a staple food. This is suggested by the appearance of mortars and pestles. At the same time the number of projectile points increases dramatically and changes from leaf-shaped to a side-notched form, indicating that hunting was important and that people were hunting a variety of animals (Arnold 2010; Glassow 2007).

4.3.2.4 Late Holocene (4000 years B.P. – Present)

By the Late Holocene, the Millingstone Horizon has disappeared, replaced by a way of life that involved less frequent movement of settlements throughout the year and a reliance on acorns as the main staple food, called the Intermediate Horizon. Other plant foods also seem to have been important, such as chaparral yucca, roasted in rock rings. The presence of more settlements on the mainland coast and an increase in both fishing and trade with the Channel Islands indicates that people's lives were very much oriented to the ocean. Rather than the majority of the dietary protein coming from shellfish, food sources became much more diverse, indicated by a wide array of fishing technologies, including circular shell fishhooks, stone fishing line sinkers, and fishing net weights. The hooks and line sinkers also show that fishing was not restricted to along the shoreline and that people were venturing further into the ocean to procure fish, probably in the kelp forests of the Santa Barbara Channel. The earliest evidence for asphaltum use in manufacturing tools is from the beginning of this period (Arnold 2010; Glassow 2007).

The second half of the Late Holocene, referred to as the Late Horizon, is another period of significant technological change, population expansion, and an increase in complicated trade networks, political systems, and social classes based on wealth. The two transformative technologies both appear on the coast between 1,500 and 1,000 years B.P.: the redwood plank-canoe (*tomol*) and the bow and arrow. Plank-canoes were built by specialists in the Carpinteria area. These allowed for relatively safe voyages into the open ocean and made it possible for people to fish for large ocean fish, particularly swordfish, and to expand their trade networks. The plank-canoe became both the way to increase social standing and a symbol of that standing, as canoe owners rented out their boats in exchange for food and other goods. By 800 years B.P., people along the coast lived in large permanent villages controlled by chiefs and used temporary camps near resources to gather storable foods such as acorns. Olivella shell beads, important for thousands of years, became a form of currency used in trade networks that connected the coast with the Nevada desert and beyond (Arnold 2010; Glassow 2007). Interior villages were of smaller size and focused more on terrestrial plants and animals as their main foods, supplemented by runs of large fish such as steelhead trout. The populations of these villages were also the link between the people of the coast and those of the interior deserts. While these villages were likely inhabited throughout the year, the lack of access to food rich coastal areas made it necessary for people to move more often between resource gathering camps (Glassow 2007).

4.3.2.5 Historic Setting

Spanish Period

Initial Spanish contact in the region occurred when Juan Cabrillo's exploration landed in 1542 on the Northern Channel Islands (Rawls 1993). Later in 1602, Sebastían Vizcaino sailed his ships through the channel and into Monterey Bay. In July of 1769, Gaspar de Portolà, his men, and Franciscan padres camped at the mouth of the Santa Maria River. The first Spanish constructions in the Project's vicinity were the El Presidio Real de Santa Bárbara in 1782, used as a barracks until the Santa Barbara Mission was constructed in 1786. Mission La Purísima Concepción was completed in 1787 in Lompoc and Mission Santa Inés in Solvang in 1804 (Yenne 2009). The mission locations were based on the area's farming potential and water supply. Once the mission was in a secure location, the missionaries had the Native Americans make adobe bricks, ceramic roof tiles, cut beams and reeds. Construction would utilize the material from the surrounding area. The establishment of the missions and numerous ranchos altered both the physical and cultural landscape of the region. The missions were the center of Spanish influence in the region and affected native patterns of settlement, culture, trade, industry, and agriculture (California State Legislature 2011).

Mexican Period

After the Mexican War of Independence of 1821, the region changed dramatically as California was opened to foreign trade and as the mission lands were secularized and granted as ranchos to both prominent local citizens and new immigrants. Santa Barbara County was broken up into 36 ranchos. (Perez 1982). The use of the land became focused on horse, sheep, and cattle ranching and the displaced Native American population had little choice but to find work on them. Immigration increased now that the lands were not under Spanish control. Monterey became a major stopping point for American traders and whalers in the northern Pacific (Rawls 1993).

American Period

On July 7th, 1846, Commodore Sloat sailed into Monterey and raised the American flag over the Customs House, declaring it part of the United States. Over the next few days, an American flag was raised above the presidios at San Francisco and Sonoma, as wells as Sutter's Fort (Cleland 1922). The American Period is characterized by the shift from cattle ranching to intensive farming and industrialization. Larger tracts of land were opened for farming and these agricultural developments demanded a large labor force, sparking a new wave of immigration into the region. Santa Barbara, San Luis Obispo, Monterey, and Santa Clara were among the first 26 counties established in 1850 at statehood. This coincided with the California Gold Rush, bringing many new immigrants to the region and increasing the economic infrastructure of California (Ryan 2010). The demand for beef and grain grew to meet the needs of each incoming miner. Droughts hit the area in the 1860s, wiping out cattle and decimating the ranchos. Lands were sold to incoming developers to cover debt. By 1873, the economy of the region had almost completely abandoned cattle ranching (Newman 2003).

Major forces of regional change occurred during the late 1800s through the 1900s, including: the development of the railroad system, the growth of agriculture, tourism, the rise of the fishing and canning industries, and the development of the oil industry. In the late 1800s, transportation became a major factor in supporting the growing economy of the region. At this time, access to California's central coast consisted of wagon roads along which stagecoach lines would run. In 1870, Southern Pacific Railroad

announced its plans to build a coastal rail line that connected San Francisco to Los Angeles. As the railroad construction pushed farther south, it opened new markets and stimulated settlement of new towns. Completed in 1901, this new transport capability allowed crops to be shipped to market more efficiently. As improved irrigation systems were introduced to the area in the late 19th century, combined with additional railroad connections, production of fruits and vegetables replaced dry farming of grains as the leading agricultural products (Ryan 2010). The train system also brought wealthy families from the east and south coasts of the United States. Grand resorts were built along the coastline to cater to these families.

The discovery of oil changed the local economy as well as the landscape. While the natural oil seeps had long been known and used, its value as a fuel did not become widely known until the late 19th century. The first sale of petroleum oil drilled in the region was in 1865 (Newman 2003). In the 1890s, the large Summerland Oil Field was found in Santa Barbara and began to be developed. Summerland was the site of the world's first offshore oil well. While most of the oil had been pumped out by 1910, derricks remained on the beach in Summerland into the 1920s, and the field remained partially productive until 1940. In 1942, during World War II, a Japanese submarine conducted a naval attack on Elwood Oil field in Santa Barbara; while the attack provided minimal damage, the threat of further attacks led to the internment of Japanese Americans in the United States (Rintoul 1990).

State Highway 1 was constructed in 1921 and US Route 101 in 1926, connecting Southern California to Northern California through the Central Coast. US Route 101 follows the preexisting route carved out by the Spanish El Camino Real. While construction of these highways proved very difficult due to the terrain, they provided an easier route for transportation that ushered in population and an expansion of tourism (Caltrans 2014). Orchards that once covered the landscape were now replaced by urban sprawl and golf courses. Another big change for this region came with the introduction of a new product, the semiconductor chip, developed in the 1950s.

Today the region has become a well-known tourist destination. Coastal cities provide beautiful beaches, wineries, and spa resorts. Inland areas include rugged mountains for the avid adventurer, including the Channel Island National Park (National Park Service 2024).

4.3.2.6 Ethnographic Setting

The County of Santa Barbara is located within the territorial boundary of the Chumash. Chumash territory extended from the existing city of Malibu, north passed San Luis Obispo, and approximately 68 kilometers (42 miles) inland (Glassow 1996). The Chumash also occupied the northern Channel Islands: Santa Cruz, Santa Rosa, San Miguel, and Anacapa. The Chumash spoke six languages, and were and are, divided into two broad groups: Northern and Southern Chumash. The Northern Chumash group spoke the Obispeño language, while the Southern Chumash group spoke Purisimeño, Ineseño, Barbareño, Ventureño, and Island Chumash languages (Mithun 1999). The Chumash are divided into three main geological groupings: Interior, Coastal, and Northern Channel Islands Chumash" (Grant 1978).

In the precontact era, the Chumash subsistence model was that of a hunter gatherer society and they lived in permanent villages. The size of Chumash villages ranged considerably from the coastal areas to the inland areas with many villages on the coast having several hundred occupants, whereas villages inland were significantly smaller, sometimes containing only a couple dozen inhabitants. Chumash villages were

most abundantly located along the coast and were often situated on high ground adjacent to a river or stream that flowed into the ocean or along the borders of sloughs or wetlands (Grant 1978).

Chumash subsistence included both terrestrial and maritime resources. Amongst terrestrial plant resources, the acorn, collected mainly from the California live oak, was the most important. Additional plant resources included pine nuts, wild cherry, cattail, California laurel berries, and chia sage seeds. Mule deer, coyote, and fox were hunted using the bow and arrow, and smaller game was taken using deadfalls and snares. Migratory birds such as ducks and geese were also hunted. In addition to terrestrial resources, the Chumash utilized an array of maritime resources including shellfish, sea mammals, and pelagic and schooling fish. Large fish and sea mammals such as seals, sea otters, and porpoises were hunted with harpoons. Dip nets, seines, and line and hook were used for smaller fish (Grant 1978).

Chumash villages were composed of a patrilineal descent group and usually had at least one chief, known as the *wot* or *wocha*, whose position was inherited but was subject to village approval. Chumash dwellings were hemispherical structures constructed by driving pliable wooden poles into the ground, bending them towards the center of the dwelling, and tying them together. The wooden pole frame was then covered with interwoven grass mats. While accompanying the Portola expedition, Father Juan Crespi noted that Chumash dwellings could be up to 50 feet in diameter and hold up to 70 people. Most villages contained one or more sweat houses that were semi-subterranean and consisted of a wooden pole frame covered with earth. Additional village structures included storehouses and ceremonial enclosures (Grant 1978).

Not much is known of the religion practiced by the Chumash. Father Olbés of the Santa Barbara mission noted a Chumash deity called *sup*, and, although the Chumash had no figures or idols of the deity, they made offerings of seeds and feathers to show their acknowledgement and gratitude for the blessings given them. Additionally, Chumash rock art sites, such as Painted Cave of San Marcos Pass located near the City of Santa Barbara and Burro Flats Painted Cave located in the northwestern portion of the San Fernando Valley, may have represented shrines or sacred areas. Many of the pictographs present at rock art sites consist of geometric figures as well as animal figures and are painted in vibrant colors that may have been painted while under the influence of the hallucinogenic ceremonial drink, toloache, which is associated with the *Chinigchinich* religion of the Gabrielino-Tongva (Grant 1978). The Chumash buried their dead with the body being bound in a flexed position (Kroeber 1925). The graves of prominent individuals were marked with planks containing images or from which the possessions of the deceased were hung.

The Chumash were one of the first native Californian groups met by Juan Rodriguez Cabrillo when he sailed into the Santa Barbara Channel Island region in 1542-43 (Kroeber 1925). The Gaspar de Portola expedition passed through Chumash territory on its way to Monterey Bay in 1769. Between 1772 and 1804, five missions, including Missions San Luis Obispo (1772), San Buenaventura (1782), Santa Barbara (1786), La Purisima Concepcion (1787), and Santa Ynez (1804) were established in Chumash territory. The establishment of the missions fractured the traditional culture of the Chumash, and by 1834, when the missions were secularized, the Chumash population had declined dramatically as a result of European diseases and treatment at the hands of the colonialists (Grant 1978).

4.3.2.7 Identification of Cultural Resources

Records Search

A records search for the Project was conducted by staff through the Central Coast Information Center (CCIC) on August 5, 2024. The records search included a review of all cultural resources studies and previously recorded cultural resources (archaeological and built environment) within the 17 individual broadband installation sites that comprise the nine Priority Areas for the Project. The records search results indicate that a total of 354 studies have been previously conducted within the Priority Areas. The results of the records search indicate that a total of 133 cultural resources are found within the nine Priority Areas. Specifically, a total of 26 resources were found in Refugio Canyon (including 13 resources within Canyon Center, four within Canyon East, and nine within Canyon West); seven within Casmalia; 56 within Highway 246 Corridor (including three in Center, 25 in Center-East, one in East, 22 in Promises Ranch, and five in River Park); three within Cuyama/New Cuyama; seven within Guadalupe; six within Jonata Park; three within Los Alamos; four within Los Olivos; and 11 within East of Santa Maria (including one in Garey and 10 in Tepusquet Road).

Of the 133 total cultural resources identified in the CCIC records search, 19 resources intersect or are adjacent to the proposed fiber optic cable alignments. The 19 resources include seven precontact sites (CA-SBA-87, -108, -236, -1189, -1490, -2687, and -3500); one historic-period site (P-42-1431); two multicomponent resources (CA-SBA-1976 (adjacent) and -3625); four built environment resources (CA-SBA-3620, P-42-40751, -41219, and -41756); and five historic districts (P-42-40731, -40729, -40733, -3865 and -003804).

The precontact sites include the following: CA-SBA-000087 (village site known as *Qasil,* recommended eligible for the National Register); CA-SBA-000108 (a charcoal midden with a sparse flake scatter, eligibility unknown); CA-SBA-000236 (site without description but presumed to be buried under roadway fill, unknown eligibility); CA-SBA-001189 (midden site with lithic scatter, human bone fragments, faunal remains and historic pottery; recommended as potentially eligible for the National Register); CA-SBA-001490 (described as containing manos, metates, flakes, and projectile points; eligibility unknown); CA-SBA-002687 (lithic scatter, ineligible for the National Register); and CA-SBA-003500 (originally described as flaked stone artifacts with faunal bone, but later revisited and described as not an archaeological due to absence of artifacts, eligibility unknown). The historic period site includes CA-SBA-001431, a stone foundation and olive orchard with unknown eligibility. The multicomponent resources include CA-SBA-001976 (scatter of fired clay tiles, glass, bone and chert flakes; eligibility unknown) and CA-SBA-003625 (Monterey and Franciscan chert flakes and human burials, eligibility unknown). The historic districts include the Anza Trail and the Lompoc Oil District. The Anza Trail was originally developed and used by the Chumash and later by Spanish explorers. Portions of the Anza Trail in Yuma, Imperial and San Diego County are listed on the National Register. A portion of the Anza Trail on Vandenberg Space Force Base appears eligible for inclusion on the National Register. Eligibility for the portion within the proposed fiber optic cable alignment for the Project is unknown. The Lompoc Oil Historic District includes mostly abandoned oil wells and associated archaeological deposits. This district has been previously assessed and appears eligible for the California and National Register.

Additional Recorded Built Environment Resources (County Database, BERD, and NRHP)

Additional databases were reviewed to identify the presence of previously recorded built environment resources within the nine Priority Areas beyond those identified as part of the CCIC records search. The following sources were reviewed as part of this effort: a historic resources database maintained by the County of Santa Barbara, the Built Environment Resources Directory (BERD), and National Register of Historic Places (NRHP), and California Register of Historical Resources (CRHR) databases.

From this research, there are 83 entries, 75 of which are either listed historic resources or are potentially eligible resources, and eight of which were determined to be ineligible as historic resources. Of these, seven (7) resources with Primary numbers also appear in the CCIC records search (P-42-040927, P-42-040925, P-42-040926, P-42-0409257, P-42-040479, P-42-040733 [which includes five resources], and P-42-040751). The following are the results of the additional recorded built environment resources search: one (1) NRHP-listed resource (1S status code), three (3) properties determined to be NRHP eligible by consensus with the Section 106 process (2S2 status codes), seven (7) Santa Barbara County Landmarks entries (two of which are listed twice), 63 potential historic resources (without assigned status codes), five (5) resources which are ineligible for the National Register (6Y status codes), one (1) resource that is ineligible for NRHP, CRHP, and local designation (6Z status code), and three (3) resources identified as significant (of these one [1] is eligible as a County Structure of Merit, while two [2] were noted as not eligible for listing). Of these, twelve resources intersect (one of which is a duplicate entry, P-42-070733) with the proposed fiber optic cable alignment.

The historic resources database maintained by the County of Santa Barbara (County database) was provided by the County on August 16, 2024 and serves as the main source of information related to built environment resources within the Priority Areas. The County database includes Santa Barbara County Landmarks and potential historic resources. It was created utilizing four different sources, including "June's Hand Written [sic] List," the Santa Barbara Landmarks Commission, the Santa Ynez Historical Society, California Department of Parks and Recreation (DPR) 523 Series forms, and a historic structures report. Not all identified resources in the County database have associated reports or documentation.

Sacred Lands File Search

A Sacred Lands File (SLF) search was requested from the Native American Heritage Commission (NAHC) on July 26, 2024. The NAHC responded to the request in a letter dated August 16, 2024, indicating that the results were positive (Appendix D).

Cultural Resources Survey

ESA conducted cultural resources survey within portions of the nine Priority Areas, targeting a sample of areas where previously recorded archaeological and built environment resources intersected roadways or proposed fiber optic cable alignments. In instances where previously recorded resources were classified as Historic Districts, survey fieldwork was prioritized for those multi-component sites including archaeological resources which could be more impacted by the Project than the built environment. Historic Districts comprised exclusively of built environmental resources were subjected to review by means of desktop analysis utilizing historic aerial imagery and maps, as well as local, state, and federal resource registers.

Fieldwork was conducted by ESA on October 21, 2024, via systematic pedestrian survey using 5- to 10-meter spaced transects at locations meeting these criteria and exhibiting surface visibility. Locational data for resources, when identified in the field, as well as survey coverage, were recorded using handheld devices paired with sub-meter Global Positioning Satellite (GPS) receivers and attribute data was documented using Survey 1-2-3 and ArcGIS Field Maps applications. Additionally, overview and close up imagery of resources were captured using digital point-and-shoot cameras and documented on a photo log sheet. Survey locations with restricted access (i.e., private land) or accessibility issues (i.e., slope, active highways) were not surveyed and, instead, were documented with GPS reference points and overview photographs. A total of eight out of 19 previously recorded resources from the CCIC results that intersect with fiber lines within the Priority Areas were visited. The survey did not yield surface indications of the known historic-period or precontact archaeological sites. Two previously recorded built environment resources (CA-SBA-3620H and P-42-41756) were observed in the same condition as previously recorded.

4.3.2.8 Paleontological Resources Background

Paleontological resources include both fossils and the sedimentary or other geological units that contain the fossils. Because paleontological resources are considered a non-renewable resource used to understand rich evolutionary record of life on Earth, they are protected by regulations at various levels. Unlike cultural resources, paleontological resources are more difficult to predict as they are typically not exposed at the surface, but need to be predicted based on the age, environmental context or 'facies', and geometric distribution of the geological formations. Resource assessment relies primarily on published geological maps, often accentuated by analysis of aerial photography or lidar imagery and, when necessary, field surveys. After the geological context is defined, the assessment turns to the published literature, unpublished theses and reports, and museum records to construct the potential for geological units to host scientifically significant paleontological resources.

As noted previously, there are five distinct geological intervals captured within the footprint of the program area, and each has its own paleontological potential. The summary below relies primarily on the records search from the Natural History Museum of Los Angeles County (NHMLA; Bell 2024) with additional references as necessary.

The late Jurassic to early Cretaceous forearc deposits are known to only contain sparse invertebrates and very rare vertebrate fossils throughout coastal California (Coast Ranges and Peninsular Ranges) and the foothills of the Sierra Nevada though none have been reported in the Project region. Conversely, the Eocene through early Pliocene marine deposits are well known to locally host abundant invertebrate fossils and critical vertebrate fossils. While the latter generally encompasses marine vertebrates such as whales, desmostylids, sharks, and fish, terrestrial vertebrate remains have also been recognized. Within the Project footprints in the Priority Areas, the NHMLA report records both baleen whale (*Mysticeti*) and toothed whales (*Odontoceti*), megalodon and mackerel shark (*Isurus*), and various fish from the Monterey Formation. The Sisquoc Formation has also produced whale fossils in the Project area.

Similarly, the marine-terrestrial transitional interval has produced significant vertebrate fossils as well as invertebrate remains. These fossils have allowed scientists to track the complex interplay of tectonics and sea level fluctuations as the fossils pinpoint both time increments and changing environments. Specific to the project footprint, the NHMLA records a Gomphothere in the Careaga Formation and abundant

invertebrates from the Foxen Mudstone and Careaga Formation. An additional search of the online records of the University of California Museum of Paleontology (UCMP) produced similar results and included sharks and baleen whales as well as diverse invertebrates.

Finally, the older interval of the Quaternary (Pleistocene-Holcene) alluvial record has also produced significant fossils from both uplifted nearshore deposits as well as the valley bottoms. While the NHMLA report is focused primarily on diverse invertebrates, remains of Ice Age mammals have been recovered elsewhere in the valley bottoms. A search of the UCMP records reveals 30 specimens from the Pleistocene of Santa Barbara County including fish and sharks as well as terrestrial vertebrates such as horse, mammoth, and bison.

4.3.3 Regulatory Setting

This section includes a discussion of the applicable laws, ordinances, regulations, and standards governing cultural resources.

Federal

National Register of Historic Places

The NRHP was established by the National Historic Preservation Act of 1966 as "an authoritative guide to be used by Federal, state, and local governments, private groups and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment" (36 Code of Federal Regulations 60.2). The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, and association. A property is eligible for the NRHP if it meets any one of the following criteria:

> **Criterion A:** Are associated with events that have made a significant contribution to the broad patterns of our history
>
> **Criterion B:** Are associated with the lives of persons significant in our past
>
> **Criterion C:** Embody the distinctive characteristics of a type, period, or method of installation, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction
>
> **Criterion D:** Have yielded, or may be likely to yield, information important in prehistory or history

In addition to meeting at least one of the above designation criteria, resources must also retain integrity. The National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven qualities, defined in the following manner:

> **Location:** The place where the historic property was constructed or the place where the historic event occurred

Design: The combination of elements that create the form, plan, space, structure, and style of a property

Setting: The physical environment of a historic property

Materials: Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property

Workmanship: The physical evidence of the crafts of a particular culture or people during any given period in history or prehistory

Feeling: A property's expression of the aesthetic or historic sense of a particular period of time

Association: The direct link between an important historic event or person and a historic property

State

California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires that a lead agency determine whether a project could have a significant effect on historical resources and tribal cultural resources (Public Resources Code [PRC] Section 21074 [a][1][A]-[B]). A historical resource is a resource listed in or determined to be eligible for listing in the CRHR (Section 21084.1), a resource included in a local register of historical resources (Section 15064.5[a][2]), or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (Section 15064.5[a][3]).

PRC Section 5024.1 requires an evaluation of historical resources to determine their eligibility for listing in the CRHR. The purpose of the register is to maintain listings of the state's historical resources and to indicate which properties are to be protected from substantial adverse change. The criteria for listing resources in the CRHR were expressly developed to be in accordance with previously established criteria developed for listing in the NRHP, as enumerated according to CEQA and quoted below.

15064.5(a)(3) […] Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (PRC, § 5024.1, Title 14 California Code of Regulations, Section 4852) including the following:

1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
2) Is associated with the lives of persons important in our past
3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
4) Has yielded, or may be likely to yield, information important in prehistory or history

15064.5(a)(4) The fact that a resource is not listed in or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the PRC), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the PRC) does not preclude a lead agency from determining that the resource may be an historical resource as defined in PRC sections 5020.1(j) or 5024.1.

15064.5(b) 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.

In addition, if a project can be demonstrated to cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC, Section 21083.2[a], [b], and [c]).

PRC Section 21083.2(g) defines a unique archaeological resource as an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it does one or more of the following:

a. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information
b. Has a special and particular quality such as being the oldest of its type or the best available example of its type
c. Is directly associated with a scientifically recognized important prehistoric or historic event or person

Impacts to significant cultural resources that affect the characteristics of any resource that qualify it for the NRHP or adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered a significant effect on the environment. These impacts could result from 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 (State CEQA Guidelines Section 15064.5 [b][1]). Material impairment is defined as demolition or alteration in an adverse manner [of] those characteristics of an historical resource that convey its historical significance and that justify its inclusion or eligibility for inclusion in the CRHR (State CEQA Guidelines Section 15064.5[b][2][A]).

Codes Governing Human Remains

The disposition of human remains is governed by Health and Safety Code Section 7050.5 and PRC Sections 5097.94 and 5097.98 and falls within the jurisdiction of the NAHC. If human remains are discovered, the County Coroner must be notified within 48 hours and there should be no further disturbance to the site where the remains were found. If the remains are determined by the coroner to be Native American, the coroner is responsible for contacting the NAHC within 24 hours. The NAHC, pursuant to PRC Section 5097.98, will immediately notify those persons it believes to be most likely descended from the deceased Native Americans so they can inspect the burial site and make recommendations for treatment or disposal.

The State CEQA Guidelines (Title 14, Chapter 3 of the California Code of Regulations, Section 15000 *et seq*.), define the procedures, types of activities, individuals, and public agencies required to comply with CEQA. As part of CEQA the lead agency must determine whether the proposed project directly or indirectly would destroy a unique paleontological resource or site or unique geologic feature (State CEQA Guidelines, Appendix G, Section VII, Part f).

The loss of a significant paleontological resources which includes any identifiable fossil that is unique, unusual, rare, uncommon, diagnostically or stratigraphically important, and/or those that add to an existing body of knowledge in specific areas – stratigraphically, taxonomically, and/or regionally, would be a significant environmental impact. Direct impacts to paleontological resources primarily concern the potential destruction of nonrenewable paleontological resources and the loss of information associated with these resources. This includes the unauthorized collection of fossil remains. If potentially fossiliferous bedrock or surficial sediments are disturbed, the disturbance could result in the destruction of paleontological resources and subsequent loss of information.

The CEQA threshold of significance for a significant impact to paleontological resources is reached when a project is determined to "directly or indirectly destroy a significant paleontological resource or unique geologic feature" (State CEQA Guidelines Appendix G, Section VII, Part f). In general, for project sites that are underlain by paleontologically sensitive geologic units, the greater the amount of ground disturbance, the higher the potential for significant impacts to paleontological resources.

Public Resources Code Section 5097.5 and Section 30244

Other state requirements for paleontological resource management are included in PRC Section 5097.5 and Section 30244. These statutes prohibit the removal of any paleontological site or feature from public lands without permission of the jurisdictional agency, define the removal of paleontological sites or features as a misdemeanor, and require reasonable mitigation of adverse impacts to paleontological resources from developments on public (state, county, city, district) lands.

Local

County of Santa Barbara Comprehensive Plan Conservation Element

The County of Santa Barbara Comprehensive Plan Conservation Element, adopted in 1979 and amended in 2010, recommends ways in which archaeological studies may be incorporated into projects. They are:

- Archaeological sites may be incorporated into parks or landscaped area in such a way that no damage will be done to the archaeological materials. Areas with archaeological sites may also be designated as limited use areas where they can be protected from vandalism. For either of these first two alternatives, a preliminary survey and surface collection by a competent archaeologist must be carried out prior to any action. Buffer zones adjacent to these sites may be necessary, but the extent of such a zone must be determined for each site.
- Outdoor museums are a feasible alternative to destruction when the nature of the archaeological remains is such that their careful excavation and preservation by professionals would prove attractive to the public. This alternative would be of value to the public relations of many private firms and would serve to increase the awareness of the County's prehistory among both residents and tourists. A museum of this sort might consist of a simple tin roof and fence protecting ongoing or completed excavations and appropriate displays of artifacts. Painted Cave is an example of how this approach has been implemented in Santa Barbara County.
- One method of preserving sites for future archaeological investigation is through the use of extensive land fill. If sites scheduled for possibly damaging use could be covered with sufficient clean fill to avoid damage, such sites would be preserved.
- Salvage excavation is a last resort in the "preservation" of archaeological information. Such short notice excavations destroy relevant information which might be more effectively excavated with

future improved archaeological methods and techniques. In salvage archaeology, 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 archaeological sites.

Other recommended approaches include:

- Public purchase and protection of representative sites from each topographic class (King, Moratto, and Leonard n.d.).
- Granting of tax relief to private owners protecting archaeological resources (King, Moratto, and Leonard n.d.). Protection should include no alteration of the ground surface of any archaeological site, and no surface or subsurface collecting by private owners or the public. If this approach is implemented, specific guidelines for private protection of sites can be obtained from archaeologists at the University of California, Santa Barbara.
- Action by the County to preserve and protect known historic cemetery sites (less than 200 years old). Such a policy has been legislated by the State, but initiative taken by County officials would ensure enforcement of the law.
- Designation of high-density archaeological resource areas as Historical Monuments. Applications for placing such areas on the National Register of Historic Places presently are pending in Santa Barbara County.
- Development of public education programs which would include general information on the prehistory of Santa Barbara County, with emphasis on the importance of archaeological sites as a data base for further understanding of the aboriginal inhabitants. Such a program might decrease the rate at which archaeological resources are destroyed by vandalism.

The County's Land Use and Development Code implements the Comprehensive Plan Conservation Element.

County Landmarks and Places of Historic Merit Lists

In addition to the CRHR, a resource listed in or eligible for listing in a local register also qualifies as a significant historical resource. CEQA Statute Section 21074(a)(1)(B) and CEQA Guidelines Section 15064.5(a)(2) indicate that resources included in a local register of historical resources are presumed to be significant historical resources.

Santa Barbara County has two such local registers: the Santa Barbara County Landmarks list, and Places of Historic Merit list. Both are maintained by the Historic Landmarks Advisory Commission (HLAC). Any resource listed in one of these registers is presumed to be a significant historical resource pursuant to CEQA. The review process for a property to become a County Landmark includes different criteria and reporting requirements for landmark designation than those used in CEQA review. A Landmark is any place, site, building, structure, or object having historical, aesthetic or other special character or interest and designated as a Landmark under the provisions of County Code Chapter 18A. A place, site, building, structure, or object is eligible for designation as a County Landmark if any of the following criteria are met:

a. It exemplifies or reflects special elements of the County's cultural, social, economic, political, archaeological, aesthetic, engineering, architectural or natural history;

b. It is identified with persons or events significant in local, state or national history;

c. It embodies distinctive characteristics of a style, type, period or method of construction or is a valuable example of the use of indigenous materials or craftsmanship;

d. It is representative of the work of a notable builder, designer, or architect;

e. It contributes to the significance of a historic area, being a geographically definable area possessing a concentration of historic, prehistoric, archaeological, or scenic properties, or thematically related grouping of properties, which contribute to each other and are unified aesthetically by plan or physical development;

f. It has a location with unique physical characteristics or is a view or vista representing an established and familiar visual feature of a neighborhood, community, or the County of Santa Barbara;

g. It embodies elements of architectural design, detail, materials, or craftsmanship that represent a significant structural or architectural achievement or innovation;

h. It reflects significant geographical patterns, including those associated with different eras of settlement and growth, particularly transportation modes or distinctive examples of park or community planning;

i. It is one of the few remaining examples in the County, region, state, or nation possessing distinguishing characteristics of an architectural or historical type or specimen.

A designated County Landmark is preserved and protected by conditions restricting its demolition, removal, alteration, or use. The specific conditions for each landmarked property are spelled out in the Board Resolution which finalized the property's Landmark status. Plans for alterations to Landmarks are required to be reviewed by the HLAC for approval. Designation as a Place of Historic Merit officially recognizes the building or site as having historic, aesthetic or cultural value. A Place of Historic Merit, as opposed to a Landmark, is not protected by restrictions as to demolition, removal, alteration or use, but it would usually qualify as a historical resource in the context of CEQA environmental review. Designation as a Landmark recognizes the building or site at a higher level of historic, aesthetic, or cultural significance.

Paleontological Resources Significance Criteria

The SVP Guidelines (SVP 2010) outline professional protocols and practices for conducting paleontological resource assessments and surveys, monitoring and mitigation, data and fossil recovery, sampling procedures, specimen preparation, identification, analysis, and curation. Most practicing professional vertebrate paleontologists adhere closely to the SVP's assessment, mitigation, and monitoring requirements as specifically provided in its standard guidelines. Most state regulatory agencies with paleontological resource-specific Laws, Ordinances, Regulations, and Standards (LORS) accept and use the professional standards set forth by the SVP.

As defined by the SVP (2010:11), significant nonrenewable paleontological resources are:

> *Fossils and fossiliferous deposits, here defined as consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years).*

Numerous paleontological studies have further developed criteria for the assessment of significance for fossil discoveries (e.g., Eisenstraut and Cooper 2002; Murphey and Daitch 2007; Scott and Springer 2003, etc.). In general, these studies assess fossils as significant if one or more of the following criteria apply:

1. The fossils provide information on the evolutionary relationships and developmental trends among organisms, living or extinct;
2. The fossils provide data useful in determining the age(s) of the rock unit or sedimentary stratum, including data important in determining the depositional history of the region and the timing of geologic events therein;
3. The fossils provide data regarding the development of biological communities or interaction between paleobotanical and paleozoological biotas;
4. The fossils demonstrate unusual or spectacular circumstances in the history of life; or
5. The fossils are in short supply and/or in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation, and are not found in other geographic locations.

In summary, significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, uncommon, or diagnostically important (Eisenstraut and Cooper 2002; Murphey and Daitch 2007; Scott and Springer 2003). Significant fossils can include remains of large to very small aquatic and terrestrial vertebrates or remains of plants and animals previously not represented in certain portions of the stratigraphy. Assemblages of fossils that might aid stratigraphic correlation, particularly those offering data for the interpretation of tectonic events, geomorphologic evolution, and paleoclimatology are also critically important (Scott and Springer 2003; Scott et al. 2004).

Paleontological Potential

Paleontological potential is defined as the potential for a geologic unit to produce scientifically significant fossils. This is determined by rock type, the past history of the geologic unit in producing significant fossils, and the fossil localities recorded from that unit. Paleontological potential is derived from the known fossil data collected from the entire geologic unit and not just from one specific survey. In its "Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources," the SVP (2010) defines four categories of paleontological sensitivity (potential) for rock units: high, low, undetermined, and no potential.

- **High Potential.** Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered are considered to have a high potential for containing additional significant paleontological resources. Rocks units classified as having high potential for producing

paleontological resources include, but are not limited to, sedimentary formations and some volcaniclastic formations (e. g., ashes or tephras), and some low-grade metamorphic rocks which contain significant paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils (e. g., middle Holocene and older, fine-grained fluvial sandstones, argillaceous and carbonate-rich paleosols, cross-bedded point bar sandstones, fine-grained marine sandstones, etc.).

- **Low Potential.** Reports in the paleontological literature or field surveys by a qualified professional paleontologist may allow determination that some rock units have low potential for yielding significant fossils. Such rock units will be poorly represented by fossil specimens in institutional collections, or based on general scientific consensus only preserve fossils in rare circumstances and the presence of fossils is the exception not the rule, e. g. basalt flows or Recent colluvium. Rock units with low potential typically will not require impact mitigation measures to protect fossils.
- **Undetermined Potential.** Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment are considered to have undetermined potential. Further study is necessary to determine if these rock units have high or low potential to contain significant paleontological resources. A field survey by a qualified professional paleontologist to specifically determine the paleontological resource potential of these rock units is required before a paleontological resource impact mitigation program can be developed. In cases where no subsurface data are available, paleontological potential can sometimes be determined by strategically located excavations into subsurface stratigraphy.
- **No Potential.** Some rock units have no potential to contain significant paleontological resources, for instance high-grade metamorphic rocks (such as gneisses and schists) and plutonic igneous rocks (such as granites and diorites). Rock units with no potential require no protection nor impact mitigation measures relative to paleontological resources. [SVP 2010; 1-2].

For geologic units with high potential, full-time monitoring is generally recommended during any project-related ground disturbance. For geologic units with low potential, monitoring will not generally be required. For geologic units with undetermined potential, field surveys by a qualified vertebrate paleontologist should be conducted to specifically determine the paleontological potential of the rock units present within the study area.

4.3.4 Analysis, Impacts and Mitigation

Methodology and Significant Thresholds

For the purpose of this discussion, the term cultural resource broadly includes historical and archaeological. The significance of a cultural resource impact is determined by whether that resource meets the criteria discussed above. Where the significance of a site is unknown, it is presumed to be a significant resource for the purpose of identifying potential areas of disturbance associated with construction projects or development in urban infill areas near high-quality transportation corridors as outlined in the Project.

Appendix G of the State CEQA Guidelines identifies the following criteria for determining whether implementation of the Project would have a significant impact on cultural and historic resources:

a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5;
b. Cause a substantial adverse change in the significant of an archaeological resource pursuant to §15064.5;
c. Disturb any human remains, including those interred outside of formal cemeteries.
d. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Impacts and Mitigation Measures

The following section presents a programmatic-level discussion of the potential for impacts to sensitive cultural resources and paleontological resources resulting from implementation of the Project. Impacts and associated mitigation measures would apply in Santa Barbara County and all cities within the County.

Cultural Resources

Threshold 1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Impact Statement 1: The Project would not cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5.

Priority Area Projects

As previously mentioned under the *Identification of Cultural Resources* section above, a total of 86 historic resources were identified within the Priority Areas, including 77 of which are either listed historic resources or potentially eligible historic resources, and nine (9) of which were determined to be ineligible as historic resources. Of these identified built environment resources, seven (7) resources with Primary numbers appear in both the CCIC and County database/BERD/NRHP records search (P-42-040927, P-42-040925, P-42-040926, P-42-0409257, P-42-040479, P-42-040733 [which includes 5 resources], and P-42-040751).

The following are the results of the CCIC and County database/BERD/NRHP historic resources records search: one (1) NRHP-listed resource (1S status code), three (3) properties determined to be NRHP eligible by consensus with the Section 106 process (2S2 status codes), seven (7) Santa Barbara County Landmarks (two of which are listed twice), 64 potential historic resources (without assigned status codes), five (5) resources which are ineligible for the National Register (6Y status codes), two (2) resources that are ineligible for NRHP, CRHP, and local designation (6Z status codes), three (3) resources identified as significant (of these one [1] is eligible as a Santa Barbara County Structure of Merit, while two [2] were noted as ineligible for listing), one (1) resource that was determined ineligible and did not have an assigned status code. Additionally, three potential historic district groupings were recorded (P-42-0040731/Town of Cuyama, P-42-040729/Town of Guadalupe, and P-42-040733/Town of Los Alamos), which do not have assigned status codes.

Future Broadband Facilities

The majority of the projects and future projects will involve subterranean fiberoptic cable which would not have a direct or indirect impact on historical resources. However, the projects do include above ground components and aerial cables, and cable attachments. Fourteen listed or potentially eligible

historic resources intersect (one of which is a duplicate entry, P-42-070733) with the proposed fiber optic cable alignments. Of these, two previously recorded built environment resources (CA-SBA-003620H and P-42-041756) which intersect with the proposed fiber optic cable alignments were observed in the same condition as previously recorded. As identified historic resources within the Priority Areas intersect with the proposed fiber optic cable alignments, Mitigation Measure CR-1 is recommended to minimize effects to identified historic resources and potentially eligible historic resources that are 45 years of age or older.

Mitigation Measures

Mitigation Measure CR-1: Historical Resources Impact Minimization

Prior to individual permit issuance, the implementing agency of the Last-Mile Broadband Project shall prepare a map defining a proposed fiber optic cable alignment involving ground and aerial disturbance for fiberoptic cable. This map will help to determine whether known historical resources and/or potential historic districts are located within the proposed fiber optic cable alignment. If a structure greater than 45 years in age is within the identified proposed fiber optic cable alignment, study recommendations shall be implemented, which may include, but would not be limited to, the following:

- At the program level, realign or redesign projects to avoid impacts on known historic resources where possible. Project shall be designed in such a way that ground disturbance, and physical connections to the building will be minimally intrusive to historic resources. When possible, new fiberoptic cables should utilize existing mechanical housing to avoid visual intrusion at the property. New mechanical housing should be affixed to historic resources in such that will not damage or destroy historic fabric and will be minimally intrusive.
- At the program level, if avoidance of a significant architectural/built environment resource is not feasible, additional mitigation options include, but are not limited to, specific design plans for historic districts, or plans for alteration or adaptive re-use of a historical resource that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitation, Restoring and Reconstructing Historic Buildings.
- At the project level, if a structure and/or property greater than 45 years that has not yet been formally evaluated for historic significance is located within a proposed fiber optic cable alignment, a survey and historic resources evaluation of the structure and/or property would be conducted to determine eligibility for listing on State, federal, or local historic registers. The evaluation shall be prepared by a qualified architectural historian, or historical architect meeting the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation, Professional Qualification Standards. The evaluation shall comply with CEQA Guidelines section 15064.5(b). Structures and/or properties potentially eligible for significance as historic resources would follow the above guidance for program level avoidance and/or plan review to ensure that the proposed project is designed in such a way that it avoids potential impacts to historical resources.
- Comply with existing local regulations and policies that exceed or reasonably replace any of the above measures that protect historic resources.

Threshold 2: Would the project cause a substantial adverse change in the significance of an archaeological or unique archaeological resource pursuant to §15064.5?

Impact Statement 1: Implementation of the Proposed Project could cause a substantial adverse change in the significance of an archaeological resource pursuant to§15064.5.

This section discusses archaeological resources that are potentially historical resources according to *State CEQA Guidelines* Section 15064.5, as well as unique archaeological resources defined in PRC Section 21083.2(g).

Priority Area Projects

As previously mentioned under the *Identification of Cultural Resources* section above, a total of seven precontact sites, one historic-period site, two multicomponent resources, and two historic districts (known as the Anza Trail and Lompoc Oil Field Historic District) intersect or are directly adjacent to the proposed fiber optic cable alignment. The precontact sites include eligible sites, village sites, and sites known to have evidence of human remains. Therefore, the archaeological site density and archaeological sensitivity of the service area is very high. The NAHC was contacted on July 26, 2024, to request a search of the SLF. The NAHC responded to the request in a letter dated August 16, 2024 with a positive result. A total of eight previously recorded resources from the CCIC results that intersect with fiber lines within the Priority Areas were visited. The survey did not yield surface indications of the known historic-period or precontact archaeological sites.

There are 12 previously recorded CCIC cultural resources located within the proposed fiber optic cable alignments. In order to properly mitigate known archaeological sites within the proposed fiber optic cable alignment which have already been determined significant or have not yet been evaluated, avoidance, or data recovery and evaluation, must be conducted before project implementation in order to mitigate significant and unavoidable impacts to archaeological resources. The majority of these resources are all indicative of precontact habitation and food preparation. They could be indicative of larger buried village or camp sites, or unique archaeological resources, that could extend into the proposed fiber optic cable alignment and be encountered during ground disturbance for these projects. Due to the high sensitivity of the entire service area and the requirements of CEQA and to determine potential impacts to significant sites that could be impacted by the projects, Mitigation Measures CR-2 through 5 are recommended in order to reduce potential impacts to archaeological resources to less than significant levels under CEQA.

Future Broadband Facilities

Due to the high sensitivity of the entire service area and the requirements of CEQA to determine potential impacts to significant sites that could be impacted by future projects, Mitigation Measures CR-2 through 5 are recommended in order to reduce potential impacts to archaeological resources to less than significant levels under CEQA.

Mitigation Measures

Mitigation Measure CR-2: Archaeological Resources Impact Minimization

The implementing agency shall retain a Qualified Archaeologist under the Secretary of the Interior Standards to carry out all mitigation related to archaeological resources as required for each project. Prior to the start of ground-disturbing activities, the Qualified Archaeologist or their designee shall conduct construction worker archaeological resources sensitivity training for all

construction personnel. Construction personnel shall be informed on how to identify the types of precontact and historic archaeological resources that may be encountered, the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources, and safety precautions to be taken when working with archaeological monitors. The Implementing agency shall ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance. In addition, a cultural resource impact mitigation program (CRIMP) shall be filed with the County prior to site grading. The CRIMP shall specify the steps to be taken to mitigate impacts to cultural resources and shall include all of the program area projects and be amended if necessary at a project level.

The CRIMP will also outline protocols to follow for unanticipated discoveries**.** Impacts to known archaeological resources that are within or directly adjacent to project CEQA significance evaluation and mitigation for avoidance or when avoidance is not possible, controlled archaeological data recovery.

Within the planned projects there are 10 archaeological sites which have been determined to be within or directly adjacent to known archaeological sites and two districts. All 12 sites and districts have been determined to be eligible, potentially eligible, or have not been evaluated. As such they need to be mitigated under CEQA with evaluation and data recovery once the alignments and various components of the known projects are planned. Project planning should include design to avoid these sites whenever possible. When avoidance is not possible, testing and data recovery must be completed in advance of construction. The qualified Archaeologist shall coordinate with the implementing agency to develop a formal testing and data recovery plan which specifies all necessary notification and final reporting of the findings will be prepared and would serve to reduce impacts to the resources once the final design is available. To minimize disturbance to these sites, testing and data recovery should be planned within the planned alignment. For locations where directional boring will be conducted, data recovery should focus on entrance and exit pit locations.

Mitigation Measure CR-3: The qualified Archaeologist shall oversee an archaeological monitor who shall be present during construction activities on the projects deemed by the qualified Archaeologist to have the potential for encountering archaeological resources, such as demolition, excavation of boring entrance and exist pits, clearing/grubbing, drilling/auguring, grading, trenching, excavation, or other ground disturbing activity associated with the project where the ground disturbance can be observed. The archaeological monitor shall have the authority to direct the pace of construction equipment activity in areas of higher sensitivity and to temporarily divert, redirect or halt ground disturbance activities to allow identification, evaluation, and potential recovery of archaeological resources in coordination with the qualified Archaeologist. Full-time monitoring may be reduced to part-time inspections, or ceased entirely, if determined appropriate by the qualified Archaeologist.

In the event that historic-period (e.g., bottles, foundations, early infrastructure, refuse dumps/privies, railroads, etc.) or precontact (e.g., hearths, burials, stone tools, shell and faunal bone remains, etc.) archaeological resources are unearthed, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. A 50-foot buffer shall be established by the qualified Archaeologist around the find where construction activities shall not be allowed to continue. Work may continue outside of the buffer area. All archaeological resources unearthed by project construction activities shall be evaluated by the qualified Archaeologist. If a resource is determined by the qualified Archaeologist to constitute a "historical resource" pursuant to CEQA Guidelines Section 15064.5(a) or a "unique archaeological resource" pursuant to Public Resources Code Section 21083.2(g), the Qualified

Archaeologist shall coordinate with the implementing agency to develop a formal treatment plan that would serve to reduce impacts to the resources. If any precontact archaeological sites are encountered within the Project area, consultation with consulting Native American tribes will be conducted to apprise them of any such findings and solicit any comments they may have regarding appropriate treatment and disposition of the resources.

The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and Public Resources Code Sections 21083.2(b) for unique archaeological resources. Preservation in place (i.e., avoidance) is the preferred manner of treatment and shall be explored to see if project activities can avoid archaeological resources, such as: if the archaeological site can be deeded into a permanent conservation easement, if the resources can be capped with chemically stable soil or if the resource can be incorporated within open space.

If, in coordination with the implementing agency, it is determined that preservation in place is not feasible, and in order to mitigate potential impacts to significant resources pursuant to Section 15064.5 of CEQA, data recovery is feasible. Appropriate treatment of the resource shall be developed by the qualified Archaeologist in coordination with the implementing agency and a data recovery plan shall be implemented. A data recovery plan will make provision for adequately recovering the scientifically consequential information from and about the historical resources. and may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing, analysis, reporting, and commemoration in the form of signage or other public education and awareness. This process will be in accordance with and further outlined in the CRIMP.

Precontact or tribal cultural resources will be offered to consulting tribes after analysis is complete to be curated or reburied if the tribes wish to accept the material. Any archaeological material collected not returned to the tribes, shall be curated after analysis is complete, at a public, non-profit institution with a research interest in the materials, if such an institution agrees to accept the material. If no institution accepts the archaeological material, they shall be donated to a local school or historical society in the area for educational purposes.

Mitigation Measure CR-4: At the conclusion of the archaeological monitoring, the qualified Archaeologist shall prepare a technical report that follows the format and content guidelines provided in California Office of Historic Preservation's Archaeological Resource Management Reports (ARMR). The technical report shall include a description of resources unearthed, if any, treatment of the resources, results of the artifact processing, analysis, and research, and evaluation of the resources with respect to the California Register of Historical Resources and CEQA. Appropriate California Department of Parks and Recreation Site Forms (Site Forms) shall also be prepared and provided in an appendix to the report. The technical report shall be prepared under the supervision of the qualified Archaeologist and submitted to the implementing agency within 150 days of completion of the monitoring. The final draft of the report shall be submitted to the CCIC.

Mitigation Measure CR-5: Should any future projects be planned within the program area, or if any of the currently planned projects move location, the qualified archaeologist shall assess construction plans and geotechnical reports, as well as reviewing record search data (which should be updated every 2 to 3 years as applicable) and they or their designee shall survey the new project alignment as well as a buffer, for the Project to determine whether any archaeological sites could be impacted by the Project, and to make recommendations for testing and/or

monitoring. The archaeologist will amend the CRIMP as appropriate and prepare a treatment plan as described in Mitigation Measure CR-2.

Cumulative Impacts

For the purposes of this analysis of cumulative impacts to cultural resources, the geographic area of consideration (i.e., the cumulative impacts study area) consists of the 17 installation sites within the nine Priority Areas, and more specifically the proposed fiber optic conduit alignments, as well as those of future yet-to-be-defined broadband installation sites in the County. This geographic scope of analysis is appropriate for the analysis of cultural resources because the types of resources within this area are similar in nature and origin and share a common heritage.

Threshold 1: Would the project when combined with other past, present, or reasonably foreseeable projects, cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Threshold 2: Would the project when combined with other past, present, or reasonably foreseeable projects, cause a substantial adverse change in the significance of an archaeological or unique archaeological resource pursuant to §15064.5?

Priority Area Projects and Future Broadband Installations

As demonstrated above, prior to mitigation, the program would have a potentially significant impact on cultural resources. This significant impact finding is due to the potential to impact historical built environment directly or indirectly, and to encounter archaeological resources at depth during construction. This potential exists due to the existence of both known built environment resources and known archaeological sites within the Priority Area projects as well as future broadband installation projects within the County. In addition, future yet-to-be-identified broadband projects to be proposed under the Broadband Program would also have the potential to intersect cultural resources during construction. Similarly, as with the Project, each related project would also be required to identify any cultural resources that could potentially be impacted by the related project and to address potentially significant impacts, if identified. The related projects may require mitigation similar to that applicable to the program, especially if those related projects are in areas of heightened sensitivity similar to the Broadband Program area.

Accordingly, in light of the program mitigation measures and similar anticipated mitigation requirements for Projects in areas of heightened sensitivity, the Project would not result in a cumulatively considerable contribution to cultural resource impacts with the implementation of Mitigation Measures CR-1 through CR-5

Mitigation Measure

None required.

Human Remains

Threshold 3: Would the project disturb any human remains, including those interred outside of formal cemeteries?

Impact Statement 1: Implementation of the Proposed Project could potentially disturb human remains; and cause a significant impact.

Priority Area Projects and Future Broadband Installations

The records search through the CCIC indicates that two resources (CA-SBA-001189 and CA-SBA-003625) intersect with fiber lines within the Priority Areas and these have yielded the identification of human bone, or human burials. Since the Project would involve ground-disturbing activities, it is possible that such actions could unearth, expose, or disturb human remains. As a result, Mitigation Measure CR-6 would be implemented to reduce potential construction-related impacts to unknown human remains to less than significant levels.

Mitigation Measures

CR-6: Inadvertent Discovery of Human Remains. If human skeletal remains are uncovered during ground disturbance the implementing agency shall immediately halt work, contact the Santa Barbara County coroner to determine whether the remains are human, and follow the procedures and protocols outlined in the CRIMP (see CUL-MM-1 through 5) and those set forth in Section 15064.5 (e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, they shall contact the Native American Heritage Commission (NAHC), in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code Section (PRC) 5097.98 (as amended by AB 2641). The NAHC shall then identify the person(s) thought to be the Most Likely Descendant (MLD) of the deceased Native American, who will then help determine what course of action should be taken in dealing with the remains. Per PRC 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section (PRC 5097.98), with the MLD regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.

Cumulative Impacts

As indicated in the analysis above, Project impacts on human remains, if they were to occur, would be addressed and reduced to a less than significant level through implementation of Mitigation Measure CR-6. In addition, in the event human remains are encountered with development of cumulative projects, California PRC Section 5097.98, as amended, would apply which includes procedures in the event of discovery during project implementation. Therefore, in light of the Project's mitigation measure to address inadvertent discover of human remains, and applicability of PRC Section 5097.98 to cumulative projects, the Project's contribution to cumulative impacts would not be cumulatively considerable, and cumulative impacts would be less than significant.

Mitigation Measure

None required.

Paleontological Resources

Threshold 4: Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Impact Statement 1: Implementation of the Project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature causing a significant impact.

Priority Area Projects and Future Broadband Installations

Based on the analysis of the museum records and literature presented herein, it is clear that significant paleontological resources may be encountered in the Eocene-Pliocene marine units, the Pliocene-Pleistocene transitional units, and the older Pleistocene alluvium (Appendix D). Any excavation in these units as part of the proposed project may encountered and indirectly destroy unique resources. At the scale presented herein, it is not possible to be specific as to individual elements. Therefore, a detailed mitigation plan would further identify specific Project-related activities that would cross the CEQA threshold.

The paleontological records search conducted through NHMLA as well as the online search of the UCMP records indicates that some geologic units in the proposed project have produced paleontological resources. In order to best mitigate against the loss of scientifically significant paleontological resources, the following mitigation measures have been proposed for the Eocene-Pliocene marine units, the Pliocene-Pleistocene transitional units, and the Pleistocene alluvium. Other geological units such as the Jurassic-Cretaceous Espada Formation, the Tranquillon Volcanics, and younger alluvium do not require mitigation. The proposed mitigation measures would reduce Project-related impacts to less than significant.

Mitigation Measures

Mitigation Measure PALEO-1: The Implementing agency shall retain a paleontologist who meets the Society of Vertebrate Paleontology's (SVP 2010) definition for Qualified Professional Paleontologist (Qualified Paleontologist) to carry out all mitigation related to paleontological resources as required for each project. The Qualified Paleontologist will implement a paleontological monitoring program for construction excavations that would encounter the potentially fossiliferous Eocene-Pliocene marine units, the Pliocene-Pleistocene transitional units, and the older Pleistocene alluvium prior to the start of ground-disturbing activities, the Qualified Paleontologist or their designee shall conduct construction worker paleontological resources sensitivity training for all construction personnel. Construction personnel shall be informed on how to identify the types of paleontological resources that may be encountered, the proper procedures to be enacted in the event of an inadvertent discovery of paleontological resources, and safety precautions to be taken when working with paleontological monitors. The Implementing agency shall ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance.

Mitigation Measure PALEO-2: Paleontological monitoring shall be conducted as specified in the monitoring program developed per Mitigation Measure PALEO-1. Monitoring shall be conducted by a qualified paleontological monitor (SVP 2010) working under the direct supervision of the Qualified Paleontologist. Monitoring shall consist of visually inspecting fresh exposures of rock for larger fossil remains and, where appropriate, collecting sediment samples to wet or dry screen to test promising horizons for smaller fossil remains. If the Qualified Paleontologist determines that full-time monitoring is no longer warranted, based on the specific

geologic conditions at the surface or at depth, the Qualified Paleontologist may recommend that monitoring be reduced to periodic spot-checking or cease entirely.

Mitigation Measure PALEO-3: If a potential fossil is found, the paleontological monitor shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation of the discovery. An appropriate buffer area shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. At the monitor's discretion, and to reduce any construction delay, the grading and excavation contractor shall assist in removing rock/sediment samples for initial processing and evaluation. If a fossil is determined to be significant, the Qualified Paleontologist shall implement a paleontological salvage program to remove the resources from their location, following the guidelines of the SVP (2010). Any fossils encountered and recovered shall be prepared to the point of identification, catalogued, and curated at an accredited repository.

If construction personnel discover any potential fossils during construction while the paleontological monitor is not present, regardless of the depth of work or location, work at the discovery location shall cease in a 25-foot radius of the discovery until the Qualified Paleontologist has assessed the discovery and recommended and implemented appropriate treatment as described in this measure.

Mitigation Measure PALEO-4: At the conclusion of paleontological monitoring, the Qualified Paleontologist shall prepare a report summarizing the results of the monitoring and any salvage efforts, the methodology used in these efforts, as well as a description of the fossils collected and their significance. The report shall be submitted by the Qualified Paleontologist to the Natural History Museum of Los Angeles County, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the proposed project and required mitigation measures.

Mitigation Measure PALEO-5: If fossils are found on a project/formation that does not require monitoring, the qualified paleontologist will be contacted for evaluation and recommendations for salvage. The paleontologist shall prepare a report summarizing the results of the monitoring program including methods of fossil recovery and curation, and a description of the fossils collected and their significance. A copy of the report shall be provided to the Implementing agency. The fossils and a copy of the report shall be deposited in an accredited curation facility such as the Los Angeles Natural History Museum.

Cumulative Impacts

For the purposes of this analysis of cumulative impacts to paleontological resources, the geographic area of consideration (i.e., the cumulative impacts study area) consists of the nine identified Priority Areas and future yet-to-be-determined broadband installation sites, and more specifically the proposed fiber optic cable alignments. This geographic scope of analysis is appropriate for the analysis of paleontological resources because the types of resources within this area are similar in nature. Activities associated with the Project that excavate into geological formations with high potential to host significant paleontological resources will cause an impact. Similar projects would also continue to impact paleontological resources but would be subject to analysis of the resources under CEQA. The proposed mitigation measures would reduce these cumulative impacts to a less than significant level under CEQA.

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4.4 Energy

This section discusses the energy impacts of implementing the Santa Barbara County Last-Mile Broadband Program ("Broadband Program" or "Project"), following the guidance for evaluation of energy impacts in Section 15126.2(b) and Appendix G of the CEQA Guidelines. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

4.4.1 Environmental Setting

Energy relates directly to environmental quality. Energy use can adversely affect air quality and other natural resources. The vast majority of California's air pollution is caused by burning fossil fuels. Consumption of fossil fuels, transportation energy, is linked to changes in global climate and depletion of stratospheric ozone. The Project would primarily consume fossil fuels, gasoline and diesel, during construction and operation for equipment and/or worker vehicles. Operation of the Broadband Program would generally occur passively, with only occasional maintenance typically consisting of weed abatement and periodic accessing of hand holes and splice cases from the ground surface along a given alignment. Thus, operation would require minimal employees and maintenance vehicles.

Electricity

Electricity, a consumptive utility, is a human-made resource. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. The delivery of electricity involves a number of system components, for distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid.

Energy capacity, or electrical power, is generally measured in watts (W) while energy use is measured in watt-hours (Wh). For example, if a light bulb has a capacity rating of 100 W, the energy required to keep the bulb on for 1 hour would be 100 watt-hours. If ten 100 W bulbs were on for 1 hour, the energy required would be 1,000 Wh or 1 kilowatt-hour (kWh). On a utility scale, a generator's capacity is typically rated in megawatts (MW), which is 1 million watts, while energy usage is measured in megawatt-hours (MWh) or gigawatt-hours (GWh), which is 1 billion Wh.

Southern California Edison

Southern California Edison (SCE) provides electrical services to approximately 15 million people, 15 counties (including Santa Barbara County), 180 incorporated cities, throughout its 50,000-square-mile service area, across central, coastal and southern California, an area bounded by Mono County to the north, Ventura County to the west, San Bernardino County to the east, and Orange County to the south (SCE 2024a). SCE produces and purchases energy from a mix of conventional and renewable generating sources. In Santa Barbara County (County), SCE serves Carpinteria, Gaviota, Goleta, Isla Vista, Montecito, Santa Barbara, and Summerland (SCE 2024b).

SCE generates power from a variety of energy sources, including large hydropower (greater than 30 MW), coal, gas, nuclear sources, and renewable resources, such as wind, solar, small hydropower (less than 30 MW), and geothermal sources. In 2023, the SCE power system experienced a peak demand of 21,254 MW (the most recent year for which data are available) (SCE 2024c). Approximately 52 percent of the SCE 2023 electricity purchases were from renewable sources, which is higher than the approximate 36 percent statewide percentage of electricity purchases from renewable sources in 2022 (the latest data available) (SCE 2024d, CEC 2023a). The annual electricity sale to customers in 2023 was approximately 79,256 GWh (SCE 2024c).

Pacific Gas & Electric Company

Pacific Gas & Electric Corporation (PG&E) provides natural gas and electrical services to approximately 16 million people throughout a 70,000 square mile service area in northern and central California. PG&E's services area stretches from Eureka in the north to Bakersfield in the south, and from the Pacific Ocean to the Sierra Nevada in the east (PG&E 2024a). In Santa Barbara County, PG&E services the communities of Ballard, Buellton, Casmalia, Cuyama, Gaviota, Goleta, Guadalupe, Lompoc, Los Alamos, Los Olivos, New Cuyama, Orcutt, Santa Barbara, Santa Maria, Sanya Ynez, and Solvang (PG&E 2017).

PG&E generates power from a variety of energy sources, including nuclear, large hydropower (greater than 30 MW), coal, gas, and renewable resources, such as wind, solar, small hydropower (less than 30 MW), and geothermal sources. Approximately 37 percent of the PG&E 2023 electricity purchases were from renewable sources, which is higher than the approximate 36 percent statewide percentage of electricity purchases from renewable sources in 2022 (the latest data available) (PG&E 2024b, CEC 2023a). The annual electricity sale to customers in 2023 was approximately 72,933 GWh (PG&E 2024b).

City of Lompoc Electric Division

The City of Lompoc Electric Division is a community-owned electric utility that provides electric service to the residents and businesses within the city of Lompoc, California.[1] Electricity is supplied from a mix of sources including renewable energy and also from SCE and PG&E. In 2022, approximately 27 percent of electricity purchases were from renewable sources, compared to the approximate 36 percent statewide percentage of electricity purchases from renewable sources (CEC 2022a).

Central Coast Community Energy

Central Coast Community Energy (3CE) is a Community Choice Aggregator, which is a public agency that sources renewable electricity. 3CE serves Santa Barbara County, which includes Carpinteria, Goleta, Santa Barbara, Santa Maria, and unincorporated areas. 3CE assumes responsibility for electric power procurement (electric generation services) and purchases renewable electricity for homes and businesses. However, the local utility provider is responsible for electricity delivery. Customers can opt out of 3CE and return to the investor-owned utility (e.g., SCE, PG&E, or local utility) electricity service at any time.

[1] The western areas of the Highway 246 Corridor Priority Area (see Figure 2-8 in Chapter 2, *Project Description*) are located near the City of Lompoc. The City of Lompoc Electric Division service area includes residents and businesses within the City. Thus, it is not anticipated that the City of Lompoc Electric Division will service the Priority Areas; however, it is included in this section for informational purposes in the event that service is provided.

Natural Gas

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs but relies upon out-of-state imports for nearly 90 percent of its natural gas supply (CEC 2024a). A majority of natural gas consumed in California is for electricity generation, along with the industrial, residential, and commercial sections (CEC 2024a). Among energy commodities consumed in California, natural gas accounts for approximately 31 percent of total energy consumption (CEC 2024b). Natural gas is typically measured in terms of cubic feet (cf) or British thermal units (BTU).

Southern California Gas (SoCalGas) is the principal distributor of natural gas in Southern California, serving residential, commercial, and industrial markets. SoCalGas serves approximately 21.1 million customers in more than 500 communities encompassing approximately 24,000 square miles throughout Central and Southern California, from the city of Visalia to the Mexican border (SoCalGas 2024). In Santa Barbara County, SoCalGas serves Ballard, Betteravia, Buellton, Carpinteria, Casmalia, Cuyama, Ellwood, Goleta, Guadalupe, Isla Vista, Las Cruces, Lompoc, Los Alamos, Los Olivos, Montecito, New Cuyama, Orcutt, Santa Barbara, Santa Maria, Santa Ynez, Sisquoc, Solvang, Summerland, Vandenberg AFB, and Vandenberg Village (SoCalGas 2009).

SoCalGas receives gas supplies from several sedimentary basins in the western U.S. and Canada, including supply basins located in New Mexico (San Juan Basin), West Texas (Permian Basin), the Rocky Mountains, and Western Canada as well as local California supplies (CGEU 2023). The traditional, southwestern U.S. sources of natural gas will continue to supply most of SoCalGas' natural gas demand. The Rocky Mountain supply is available but is used as an alternative supplementary supply source, and the use of Canadian sources provide only a small share of SoCalGas supplies due to the high cost of transport (CGEU 2023). The annual natural gas sale to customers in 2022 was approximately 897,170 million cf (CGEU 2023).[2]

Transportation Energy

According to the California Energy Commission (CEC), fossil gas accounted for approximately 31 percent of California's total energy consumption in 2021 based on a carbon dioxide equivalent basis (CEC 2024b). In 2022 (the most recent year for which data are available), California consumed 13.6 billion gallons of gasoline and 3.6 billion gallons of diesel fuel (CEC 2023b)[3]. Petroleum-based fuels account for 89 percent of California's transportation fuel use (CEC 2021). California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and greenhouse gases (GHGs) from the transportation sector, and reduce vehicle miles traveled (VMT). Additionally, California is transitioning to zero-carbon, renewable sources of power while rapidly electrifying large segments of the economy. The CEC predicts that the demand for gasoline and transportation fossil fuels in general will continue to decline as the sales of electric vehicles increases. New zero-emission vehicle sales grew from less than 8 percent in 2020 to

[2] Daily natural gas usage in 2022 was 2,458 million cf; annual value derived by multiplying daily values by 365 days.

[3] Non-Retail diesel sales, which comprise approximately 36.4% of all diesel sales, are not reported in this data. The California Energy Commission including all diesel blend, biodiesel, and renewable diesel as diesel product starting reporting year 2022. Non-Retail sales accounted for 1,310 million gallons and retail sales accounted for 2,290 million gallons. All diesel sales were approximately 1,310 + 2,290 = 3,600 million gallons or 3.6 billion gallons.

more than 25 percent in the third quarter of 2023 (CEC 2024b). According to fuel sales data from the CEC, fuel consumption in Santa Barbara County was approximately 170 million gallons in 2022 (CEC 2023b).

4.4.2 Regulatory Setting

Federal

Energy Policy Act of 2005

The Energy Policy Act of 2005 includes provisions for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy. The Renewable Fuel Standard (RFS) program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act, enacted by Congress in 2007, is designed to improve vehicle fuel economy and help reduce U.S. dependence on foreign oil. It expands the production of renewable fuels, reducing dependence on oil, and confronting global climate change. Specifically, it does the following:

- Increases the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard, requiring fuel producers to use at least 36 billion gallons of biofuel in 2022, which represents a nearly five-fold increase over current levels.
- Reduces U.S. demand for oil by setting a national fuel economy standard of 35 miles per gallon by 2020 – an increase in fuel economy standards of 40 percent.

Energy Policy and Conservation Act

The Energy Policy and Conservation Act of 1975 (EPCA) is a United States Act of Congress that responded to the 1973 oil crisis by creating a comprehensive approach to federal energy policy. The primary goals of EPCA are to increase energy production and supply, reduce energy demand, provide energy efficiency, and give the executive branch additional powers to respond to disruptions in energy supply. Most notably, EPCA established the Strategic Petroleum Reserve, the Energy Conservation Program for Consumer Products, and Corporate Average Fuel Economy (CAFE) regulations.

United States Department of Transportation, United States Department of Energy, United States Environmental Protection Agency, and National Highway Traffic Safety Administration (NHTSA)

On the federal level, the United States Department of Transportation (USDOT), United States Department of Energy (USDOE), and United States Environmental Protection Agency (USEPA) are three agencies with substantial influence over energy policies related to transportation fuels consumption. Generally, federal agencies influence transportation energy consumption through establishment and enforcement of fuel economy standards for automobiles and light trucks through funding energy-related research and development projects, and through funding for transportation infrastructure projects.

Established by the U.S. Congress in 1975, the CAFE Standards (49 CFR Parts 531 and 533) reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and USEPA jointly administer the CAFE standards. When these standards are raised, automakers respond by creating a more fuel-efficient fleet.

In March 2020, USDOT and USEPA issued the final Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, which amended the CAFE standards and tailpipe carbon dioxide emissions standards for passenger cars and light trucks and establishes new standards covering model years 2021 through 2026 (USEPA 2020). On January 20, 2021, the President issued Executive Order 13990 ‘‘Protecting Public Health and the Environment and Restoring Science To Tackle the Climate Crisis’’ directing USEPA to consider whether to propose suspending, revising, or rescinding the standards previously revised under the SAFE Vehicles Rule for Model Years 2021–2026. In February 2022, USEPA issued the Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards, which revises the GHG standards beginning for vehicles in model year 2023 through model year 2026 and establishes the most stringent GHG standards ever set for the light-duty vehicle sector that are expected to result in average fuel economy label values of 40 mpg, while the standards they replace (the SAFE rule standards) would achieve only 32 mpg in model year 2026 vehicles (USEPA 2020).

On June 7, 2024, the NHTSA announced the Final Rule for CAFE Standards for Model Years 2027 – 2031 and Heavy-Duty Pickup Trucks and Vans (HDPUV) Fuel Efficiency Standards for Model Years 2030 – 2035. The final rule establishes standards that would require an industry-wide fleet average of approximately 50.4 mpg in MY 2031 for passenger cars and light trucks, and an industry fleet-wide average for HDPUVs of roughly 2.851 gallons per 100 miles in MY 2035 (NHTSA 2024). The final CAFE standards increase at a rate of 2 percent per year for passenger cars in MYs 2027 - 2031 and 2 percent per year for light trucks in model years 2029 – 2031 (NHTSA 2024). The final HDPUV fuel efficiency standards increase at a rate of 10 percent per year in MYs 2030 - 2032 and 8 percent per year in MYs 2033 – 2035 (NHTSA 2024).

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011 USEPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. Building on the first phase of standards, in August 2016, USEPA and NHTSA finalized Phase 2 standards for medium and heavy-duty vehicles through model year 2027 that will improve fuel efficiency, a 5 to 25 percent reduction over 2017 baseline, and cut carbon pollution. The Phase 2 standards are expected to lower CO_2 emissions by approximately 1.1 billion metric tons (USEPA 2016).

State

California Building Standards Code (Title 24, Parts 6 and 11)

The California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations [CCR], Title 24, Part 6) were adopted to ensure that building construction and system design and installation achieve energy efficiency and preserve outdoor and indoor environmental quality. The current California Building Energy Efficiency Standards (Title 24 standards) are the 2022 Title 24 standards, which became effective January 1, 2023. The 2022 Title 24 standards include efficiency improvements to the residential standards for attics, walls, water heating, and lighting; and efficiency improvements to the non-residential standards include alignment with the

American Society of Heating and Air-Conditioning Engineers (ASHRAE) 90.1-2019 national standards (CEC 2022b).

The California Green Building Standards Code (CCR, Title 24, Part 11), commonly referred to as the CALGreen Code, became effective in 2023. The 2022 CALGreen Code includes mandatory measures for non-residential development related to site development, energy efficiency, water efficiency and conservation; material conservation and resource efficiency; and environmental quality (CBSC 2022). For example, the 2022 standards encourage efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards, and more.

Renewables Portfolio Standard

The State has adopted regulations to increase the proportion of electricity from renewable sources. SB 350 (Chapter 547, Statues of 2015) set the Renewables Portfolio Standard (RPS) to 50 percent by 2030, including interim targets of 40 percent by 2024 and 45 percent by 2027. In 2018, SB 100 further increased California's RPS and requires retail sellers and local POUs to procure eligible renewable electricity for 44 percent of retail sales by the end of 2024, 52 percent by the end of 2027, and 60 percent by the end of 2030; and requires that CARB should plan for 100 percent eligible renewable energy resources and zero-carbon resources by the end of 2045.

The California Public Utilities Commission (CPUC) and the CEC jointly implement the RPS program. The CPUC's responsibilities include: (1) determining annual procurement targets and enforcing compliance; (2) reviewing and approving each investor-owned utility's renewable energy procurement plan; (3) reviewing contracts for RPS-eligible energy; and (4) establishing the standard terms and conditions used in contracts for eligible renewable energy.

Senate Bill 1389

SB 1389 (Public Resources Code Sections 25300–25323; SB 1389) requires the CEC to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the State's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the State's economy; and protect public health and safety (Public Resources Code Section 25301(a)). The Integrated Energy Policy Report provides the results of the CEC's assessments related to energy sector trends, building decarbonization and energy efficiency, zero-emissions vehicles, energy equity, climate change adaptation, electricity reliability in the Southern California region, natural gas assessment, and electricity, natural gas, and transportation energy demand forecasts.

Greenhouse Gas Emissions Legislation

In 2006, the California State Legislature adopted AB 32 (codified in the California Health and Safety Code [HSC], Division 25.5 – California Global Warming Solutions Act of 2006), which focuses on reducing GHG emissions in California to 1990 levels by 2020. In 2016, the California State Legislature adopted SB 32 and its companion bill, AB 197, which amended HSC Division 25.5 and established a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and included provisions to ensure that the benefits of state climate policies reach into disadvantaged communities. The Legislature enacted Assembly Bill (AB) 1279, The California Climate Crisis Act, on September 16, 2022 (CLI 2022).

AB 1279 establishes the policy of the State of California to achieve net zero GHG emissions as soon as possible but no later than 2045, and to achieve and maintain net negative GHG emissions thereafter. Additionally, AB 1279 mandates that by 2045, statewide anthropogenic GHG emissions are to be reduced at least 85 percent below 1990 levels. SB 350, signed October 7, 2015, is the Clean Energy and Pollution Reduction Act of 2015. SB 350 established California's 2030 GHG reduction target of 40 percent below 1990 levels and requires the State to double statewide energy efficiency savings in electricity and natural gas end uses by 2030

While these legislative bills focus on reducing statewide GHG emissions, they have co-benefits of improving energy and transportation fuel efficiency and reducing energy and fuel demands. Refer to **Section 4.5**, *Greenhouse Gas Emissions and Global Climate Change*, for additional information regarding these legislative bills.

Mobile Sources

Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

In 2004, CARB adopted an Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling in order to reduce public exposure to diesel particulate matter emissions (Title 13 CCR Section 2485 and Title 17 CCR Section 93115). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at any given location. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from unnecessary idling.

In-Use Off-Road Diesel-Fueled Fleets Regulation

In 2007, CARB approved the "In-Use Off-Road Diesel Fueled Fleets Regulation" to reduce emissions from existing (in-use) off-road diesel vehicles that are used in construction and other industries. Under this regulation, equipment fleets must demonstrate that it has either met the fleet average target for each compliance year or has completed the Best Available Control Technology requirements (BACT). Large fleets have compliance deadlines each year from 2014 through 2023, medium fleets each year from 2017 through 2023, and small fleets each year from 2019 through 2028. While the goal of this regulation is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from the use of more fuel-efficient engines.

Truck and Bus Regulation

In 2008, CARB approved the Truck and Bus regulation to reduce particulate matter and nitrogen oxide emissions from existing diesel vehicles operating in California (13 CCR, Section 2025, subsection (h)). The regulation aims to reduce emissions by installation of diesel soot filters, and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models. While these regulations primarily target reductions in criteria air pollutant emission, they have co-benefits of minimizing transportation fuel consumption due to improved engine efficiencies.

CARB's Advanced Clean Car Program

The Advanced Clean Cars emissions-control program was approved by CARB in 2012 (CARB 2024a). The program requires a greater number of zero-emission vehicle models for years 2015 through 2025 to control smog, soot and GHG emissions. This program includes the Low-Emissions Vehicle (LEV) regulations to reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles; and the zero-emission vehicle (ZEV) regulations to require manufacturers to produce an increasing number of pure ZEVs (meaning battery and fuel cell electric vehicles) with the provision to produce plug-in hybrid electric vehicles (PHEV) between 2018 and 2025.

In addition, Governor Gavin Newsom signed an executive order (Executive Order No. N-79-20) on September 23, 2020, that would phase out sales of new gas-powered passenger cars by 2035 in California with an additional 10-year transition period for heavy vehicles.

The primary mechanism for achieving the ZEV target for passenger cars and light trucks is CARB's Advanced Clean Cars II (ACC II) Program. The ACC II regulations focus on post-2025 model year light-duty vehicles, as requirements are already in place for new vehicles through the 2025 model year. A rulemaking package was presented to the Board in June 2022 and was adopted on November 30, 2022. Implementation of the ZEV and PHEV regulations reduce transportation fuel consumption by increasing the number of vehicles that are partially or fully electric-powered.

CARB's Advanced Clean Trucks Program

The Advanced Clean Trucks (ACT) regulations were approved on June 25, 2020, and require that manufacturers sell zero-emissions or near-zero-emissions trucks as an increasing percentage of their annual California sales beginning in 2024. The goal of this proposed strategy is to achieve nitrogen oxide (NOx) and GHG emission reductions through advanced clean technology, and to increase the penetration of the first wave of zero-emissions heavy-duty technology into applications that are well suited to its use (CARB 2024b). The percentage of zero-emissions truck sales is required to increase every year until 2035 when sales would need to be 55 percent of Classes 2b–3 (light/medium- and medium-duty trucks) truck sales, 75 percent of Classes 4–8 (medium- to heavy-duty trucks) straight truck sales, and 40 percent of truck tractor (heavy-duty trucks weighing 33,001 pounds or greater) sales. Additionally, large fleet operators (of 50 or more trucks) would be required to report information about shipments and services and their existing fleet operations.

Land Use and Transportation Planning

SB 375 (Chapter 728, Statutes of 2008), which establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG, was adopted by the state on September 30, 2008. In March 2018, CARB adopted per capita GHG emissions reduction targets of 13 percent by 2020 and 17 percent by 2035 relative to 2005 GHG emissions for the Santa Barbara County Association of Governments (SBCAG), which is the Metropolitan Planning Organization (MPO) for the region in which the Project is located (CARB 2018). While SB 375 focuses on per capita GHG emissions reductions, it would also reduce per capita transportation fuel demand. Under SB 375, the reduction target must be incorporated within each region's Regional Transportation Plan (RTP), which is used for long-term transportation planning, in a Sustainable Communities Strategy (SCS). Certain transportation planning and programming activities would then need to be consistent with the SCS; however, SB 375 expressly provides that the SCS does not regulate the use of land, and further provides that local land use plans and

policies (e.g., general plans and zoning codes) are not required to be consistent with either the RTP or SCS. See detailed discussion of SBCAG's latest RTP/SCS below.

Regional

SBCAG serves as the MPO for Santa Barbara County as is responsible for developing and maintaining a long-range transportation plan for the region. In general, the SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled from automobiles and light duty trucks and thereby reduce GHG emissions from these sources. For the SBCAG region, Connected 2050, adopted in August 2021, is the current RTP/SCS. Connected 2050 focuses on the continued efforts of the previous RTP/SCS plans for an integrated approach in transportation and land use strategies in development of the SBCAG region through horizon year 2050. Connected 2050 projects that the SBCAG region will meet the GHG per capita reduction targets established for the SBCAG region of 17 percent by 2035.

Local

County of Santa Barbara General Plan

The County of Santa Barbara General Plan Energy Element (County of Santa Barbara 2015) was adopted in 1994 and republished June 2015 and is applicable to the unincorporated communities of the Project, such as Cuyama/New Cuyama, Casmalia, Jonata Park, Refugio Canyon, the Highway 246 Corridor (five neighborhoods between Lompoc and Buellton), and the communities East of Santa Maria (Garey, Sisquoc, and Tepusquet Road communities). The Energy Element contains the following goals and policies that address energy consumption that may apply to the Broadband Program:

Goal 3: Transportation and Land Use – Provide a composition of land-uses and transportation programs that reduces dependency on automobiles.

Policy 3.2: Teleconferencing Telecommuting/Electronic Communication. The County should continue to research and support opportunities for telecommunication and computer-based communication that reduce the need for travel.

Goal 4: Water Use and Solid Waste – Increase the efficiency of water and resource use to reduce energy consumption associated with various phases of using resources (pumping, distribution, treatment, heating, etc.).

Policy 4.1: Construction. Encourage recycling and reuse of construction waste to reduce energy consumption associated with extracting and manufacturing virgin materials.

Policy 4.3: Reuse of Asphalt. Promote reuse of asphalt removed from roads and paved structures within the county and use of recycled materials in roadway and paved surface construction.

County of Santa Barbara Energy and Climate Action Plan (ECAP)

The County's current 2015 Energy & Climate Action Plan (County of Santa Barbara 2020) sunset in 2020. The goal of the ECAP was to reduce GHG emissions by 15 percent (below 2007 levels by 2020 through the implementation of 53 measures. Results of the ECAP were that 41 out of 53 measures were

either initiated or completed by 2020, five measures were not started, and seven measures were discontinued (County of Santa Barbara 2020). An estimated 100, 754 out of 226,760 (44 percent) metric tons of carbon dioxide equivalent ($MTCO_2e$) were reduced or avoided from ECAP implementation (County of Santa Barbara 2020). Additional measures from two other programs (Community Choice Energy and Tajiguas Landfill ReSource Center) achieved an estimated reduction of 156,768 $MTCO_2e$ (County of Santa Barbara 2020). The total of all reductions equated to the County of Santa Barbara meeting 69 percent of the ECAP's reduction target, which represents a three percent decrease from 2016, the County of Santa Barbara was still 11 percent over 2007 baseline levels (County of Santa Barbara 2020). The reduction of GHG emissions generally has co-benefits of increasing energy and fuel efficiency and reducing energy and fuel consumption.

County of Santa Barbara 2030 Climate Action Plan (CAP)

The 2030 CAP (County of Santa Barbara 2023) has set a goal to achieve a 50% reduction of communitywide greenhouse gas emissions from 2018 levels by 2030. The CAP's six focus areas are: 1) Housing and Transportation; 2) Clean Energy; 3) Waste, Water, and Wastewater; 4) Nature-Based Solutions; 5) Low-Carbon Economy; and 6) Municipal Operations (County of Santa Barbara 2023). General measures that may apply to the Project include Transportation Measure TR-2, which would help implement programs and strategies to reduce countywide vehicle miles traveled. Specifically, the proposed Project is related to Action TR-2.12, Broadband Accessibility, which directs the County to work with SBCAG to increase internet access and speed to support telecommuting, remote workforce participation and wireless (i.e., wi-fi) enabled demand response programs, especially in rural areas of the County. Additionally, Action TR-2.10, Employer Trip Reduction Requirements & Programs, is aimed to help achieve a 50-80 percent telework participation rate for large employers within the unincorporated County. The Draft 2030 CAP was adopted by the County Board of Supervisors on August 27, 2024.

Santa Barbara County Code

Santa Barbara County Code Article VI adopts the California Energy Code, 2022 Edition as the Primary Energy Code of the County. The California Energy Code has specific requirements for building design to reduce energy consumption, including the use of certain building materials to ensure a greater degree of energy efficiency during building operation and construction and energy efficiency standards for appliances, lighting amenities, and water fixtures, among other project components.

Los Alamos Community Plan

The Los Alamos Community Plan, adopted February 15, 2011, includes an Air Quality Element which contains the following goals and policies related to energy reduction applicable to the Project:

Goal AQ-LA-1: Maintain Healthful Air Quality in the Los Alamos Valley.

Policy AQ-LA-1.4: The County, when reviewing discretionary projects, shall require the use of techniques designed to conserve energy and minimize pollution.

Dev Std AQ-LA.1.4.6: Upon application for grading permits for discretionary projects, the applicant shall submit grading plans, the proposed rate of material movement and a construction equipment schedule to the APCD. In addition, the applicant shall implement the following measures where feasible to mitigate equipment emissions:

- All construction equipment and portable engines shall be properly maintained and tuned according to manufacturer's specifications;
- All off-road and portable diesel powered equipment, including but not limited to bulldozers, graders, cranes, loaders, scrapers, backhoes, generator sets, compressors, auxiliary power units, shall be fueled exclusively with CARB-certified motor vehicle diesel fuel;
- The applicant shall, at a minimum, use diesel construction equipment meeting the California Air Resources Board's Tier 1 emission standards for off-road heavy-duty diesel engines. Equipment meeting Tier 2 or higher emission standards should be used to the maximum extent feasible.
- All on and off-road diesel equipment shall not be allowed to idle for more than 5 minutes. Signs shall be posted in the designated queuing areas to remind drivers and operators of the 5 minute idling limit;
- The applicant shall electrify equipment where feasible;
- The applicant shall substitute gasoline-powered for diesel powered equipment where feasible;
- The applicant shall use alternatively fueled construction equipment, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel, where feasible; and
- The applicant shall apply Best Available Control Technology (CBACT) as determined by the APCD.
- Recycle/Reuse demolished construction material.

Dev Std AQ-LA.1.4.9: The County shall require, unless economically infeasible, all future projects to incorporate the following Green House Gas reduction measures to the maximum extent feasible:

- Recycle/Reuse demolished construction material. Use locally made building materials for construction of the project and associated infrastructure.

Santa Ynez Community Plan

The Santa Ynez Valley Community Plan, adopted October 6, 2009, covers Los Olivos, and contains a Land Use Element which has the following energy reduction policies applicable to the Project:

Policy LUG-SYV-8: The public shall be protected from air emissions and odors that could jeopardize health and welfare.

DevStd LUG-SYV-8.3: Specific limits on idling time for commercial vehicles, including delivery and construction vehicles, shall be set for projects proposing new commercial development.

DevStd LUG-SYV-8.9: The County shall require, unless economically infeasible, all future projects to incorporate the following Green House Gas reduction measures to the maximum extent feasible:

- Recycle/Reuse demolished construction material. Use locally made building materials for construction of the project and associated infrastructure.

City of Guadelupe General Plan

The City of Guadelupe 2042 General Plan (City of Guadalupe 2022), adopted November 22, 2022, includes the Conservation and Open Space Element which contains the following goals and policies that address energy resources:

> **Goal COS-3:** To reduce greenhouse gas production and energy use and increase production and use of renewable energy.
>
> > **Policy COS-1.14:** Until such time as the City adopts a qualified action plan consistent with mitigation measure GHG-1, individual development projects shall be constructed to use no natural gas and to meet California Green Building Standards Code Tier 2 requirements for electric vehicle charging infrastructure. Where such projects also generate less than 110 vehicle trips per day or produce less than 1,100 metric tons per year of carbon dioxide equivalent, no further action is required. Where such projects do not meet either the daily trip volume or mass emissions criteria, a VMT analysis must be conducted. If the VMT impact is less than significant, no further action is required. If the proposed project cannot meet one or more of the three required best management practices (no natural gas, electric vehicle support infrastructure, and less-than-significant VMT impact), the project applicant shall: 1) identify and implement other GHG reduction measures, with a priority on on-site measures; and/or 2) purchase and retire carbon offsets from a qualified registry that are real, permanent, quantifiable, verifiable, enforceable, and additional. The emission reductions and/or offsets must be equivalent to reductions that would otherwise be realized from the best management practice(s) that cannot be implemented.

4.4.3 Analysis, Impacts and Mitigation

Significance Thresholds

Pursuant to the *CEQA Guidelines*, potentially significant energy impacts to would result if the project would:

a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation
b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency

Methodology

Energy consumption is analyzed herein in terms of construction and operational energy. Construction of the Project would result in energy consumption from the use of heavy-duty construction equipment, on-road trucks, and construction workers commuting to and from the Project Areas. Natural gas is not anticipated to be used during construction activities. Electricity may be consumed during construction activities for some of the equipment, or from the conveyance of water used for dust control, if required.

As discussed in Chapter 2, *Project Description*, a total of nine communities in the County have already been identified as "Priority Areas" under the Broadband Program. However, funding has not been secured for all Priority Areas and it is unknown if all locations will be funded. Nonetheless, for the purposes of

this EIR and to provide for a conservative and environmentally protective analysis, energy impacts for all of the nine Priority Areas are analyzed.

Heavy-duty construction equipment would be primarily diesel-fueled. The assumption that diesel fuel would be used for most equipment represents the most conservative scenario for maximum potential energy use during construction. The California Emissions Estimator Model (CalEEMod), which was used for the Project's air quality and GHG emissions analyses, was used to determine energy consumption from equipment. On-road fuel consumption was calculated based on CARB's on-road vehicle emissions model, EMFAC2021 (which is a model that also incorporated into CalEEMod). The number of construction workers, haul trucks and vendor trucks that would be required would vary based on the phase of construction and activity taking place. This analysis takes into consideration the equipment and processes employed during construction of the Project to quantitatively determine whether energy consumed during construction would be wasteful, inefficient, or unnecessary.

Once constructed, the Project's broadband network components would generally operate passively, with only occasional maintenance typically consisting of weed abatement and periodic accessing of hand holes and splice cases from the ground surface along a given alignment. Operational activities that would generate mobile source emissions for any given fiber optic line and associated facilities constructed under the program would be limited to routine maintenance checks. It was assumed that the program would induce no more than a few vehicles per month. The program would not induce any new electrical demand or generate solid water or wastewater beyond existing conditions. Thus, operational energy is analyzed qualitatively.

Impacts and Mitigation Measures

This section describes generalized energy impacts associated with the Broadband Program. The five near-term Priority Area projects analyzed in this Program EIR would be representative of future broadband projects of similar size and scale located in other areas of the County. In general, implementation of future broadband projects envisioned by the Broadband Program could result in energy impacts as described in the following sections.

Threshold 1: Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Impact Statement 1: Implementation of the Project could result in a potentially significant environmental impact if energy (electricity, natural gas, or transportation) used during construction or operation results in the wasteful, inefficient, or unnecessary consumption of energy resources.

Priority Area Projects

Construction

Construction of the Project would result in energy consumption primarily from the use of heavy-duty construction equipment, on-road trucks, and construction workers commuting to and from the Project sites. Natural gas is not anticipated to be used during construction activities. The number of construction workers, haul trucks and vendor trucks that would be required would vary based on the phase of construction and activity taking place. While funding has not been secured for all Priority Areas, for the purposes of this analysis and to provide for a conservative and environmentally protective analysis, it is

assumed that construction of five near-term Priority Area project would occur. The estimated total energy consumed during construction for the five near-term Priority Area projects is shown in **Table 4.4-1**, *Summary of Energy Use During Project Construction for the Five Near-Term Priority Area Projects*. Calculation details are provided in Appendix E of this Draft PEIR. For comparison purposes only, and not for the purpose of determining significance, the annual average fuel usage would represent approximately 0.0024 percent of the 2022 annual on-road gasoline-related energy consumption and 0.87 percent of the 2022 annual diesel fuel-related energy consumption in Santa Barbara County.

Construction of the proposed Project would utilize fuel-efficient trucks and equipment consistent with federal and State regulations, such as fuel efficiency regulations in accordance with CARB's Advanced Clean Cars I and II standards, the anti-idling regulation in accordance with CCR, Title 13, Section 2485, and fuel requirements in accordance with CCR, Title 17, Section 93115, as well as the In-Use Off-Road Diesel-Fueled Fleets regulation (CARB 2024c). As such, the Broadband Program would comply with State measures to reduce the inefficient, wasteful, and unnecessary consumption of energy, such as petroleum-based transportation fuels. While these regulations are intended to reduce construction emissions, compliance with the anti-idling and emissions regulations discussed above would also result in fuel savings from the use of more fuel-efficient engines. Diversion of construction debris would reduce truck trips to landfills and increase the amount of waste recovered (e.g., recycled, reused, etc.) at material recovery facilities, thereby further reducing transportation fuel consumption.

During construction of the Project, electricity would be used for the construction office (lights, electronic equipment, and heating and cooling), water conveyance for dust control during earthmoving activities associated with trenching and installation phase, and other construction activities. Electricity would be primarily delivered to the Project Site by PG&E, but at some Priority Area projects, SCE may be the electricity delivery provider. As shown in Table 4.4-1, annual average construction electricity usage would be approximately 298 MWh over the approximately two-year construction duration for the five near-term Priority Area projects. The electricity demand would be within the supply and infrastructure capabilities of both SCE (which reported 79,256 GWh of total energy sales in 2023) and PG&E (which reported 72,933 GWh of total energy sales in 2023). The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed and would cease upon completion of construction. Electricity use from construction would be short-term, limited to working hours, and used for necessary construction-related activities.

Energy would be consumed in the form of gasoline and diesel fuel to power construction equipment and worker commute vehicles. However, this energy use would be inherently short-term and not substantial and would be a necessary energy expenditure to facilitate the expansion of Santa Barbara County's broadband network, which could ultimately result in a decrease in gasoline consumption as rural workers are provided better telecommuting opportunities. Since the Broadband Program would not induce new energy demand and would support better internet for telecommuting, resulting in a reduction in VMT countywide, energy impacts from Project implementation would be less than significant. Therefore, the Project would not result in wasteful, inefficient, and unnecessary consumption of energy use for construction.

TABLE 4.4-1
SUMMARY OF ENERGY USE DURING PROJECT CONSTRUCTION FOR THE FIVE NEAR-TERM PRIORITY AREA PROJECTS

Energy Type	Total Quantity	Annual Average Quantity During Construction
Electricity		
Construction Office	81,760 kWh	40,936 kWh
Electricity from Water (Dust Control)	513,274 kWh	256,989 kWh
Total Electricity	**595,034 kWh**	**297,925 kWh**
Gasoline		
On-Road Construction workers	8,078 gallons	4,044 gallons
Total Gasoline	**8,078 gallons**	**4,044 gallons**
Diesel		
On-Road Construction Equipment	108,257 gallons	54,203 gallons
Off-Road Construction Equipment	496,353 gallons	248,517 gallons
Total Diesel	**604,610 gallons**	**302,370 gallons**

NOTES: kWh = kilowatt-hours

[a] Detailed calculations are provided in Appendix E of this PEIR.

SOURCE: ESA, 2024.

Operation

Broadband facilities installed under the Broadband Program would generally operate passively, with only occasional maintenance typically consisting of weed abatement and periodic accessing of hand holes and splice cases from the ground surface along a given alignment. Thus, operation would require minimal employees and maintenance vehicles. Project operation would not utilize natural gas. The Project would require periodic maintenance activities which would involve a few trucks or vehicles per month and fuel consumption from these vehicles would result in minimal energy use. Additionally, the Project would support better internet for telecommuting in rural areas which would result in a reduction in VMT countywide, lowering the county-wide demand for transportation fuels and energy consumption.

The Project would install approximately 52.57 miles of underground fiber conduit. This would provide reliable high-speed broadband internet service to residents and businesses within the County. Fiber optic conduit cables are more energy-efficient compared to copper cables, requiring less energy to transmit data over distances. Therefore, the Project would expand the services of energy-efficient fiber optic cables and would replace any copper cabling that currently serve the area. Thus, since operation of the Project would only use the necessary fuel to provide maintenance activities and would not induce new energy demand, the Project would not result in the wasteful, inefficient, and unnecessary use of energy. Therefore, Projects impacts would be less than significant.

Future Broadband Projects

Construction

It is anticipated that future broadband projects, located in other areas of the County, would be of similar size and scale, with a comparable construction effort in terms of overall intensity, would employ a similar mix of construction methods and equipment, and would result in similar construction durations as those

assumed for the five near-term Priority Area projects. Thus, future broadband projects would be expected to use approximately the same amount of energy for construction as the installations within the near-term Priority Areas. The Broadband Program would install broadband services in a total of nine different areas, with the expectation that up to five of these near-term Priority Area projects may be constructed simultaneously. The remaining four Priority Area installations, as well as future yet-to-be-determined broadband installation projects would also consume construction-related energy; however, the linear mileage for these future broadband projects is not known. Therefore, energy consumption has been estimated for the future broadband projects based on the assumption that the per project mileage for the future broadband projects is roughly equivalent to the per project mileage for the five near-term Priority areas. Based on these assumptions, it is expected that the future broadband projects would result in construction energy demand of approximately 476 MWh of electricity, gasoline usage of approximately 6,462 gallons, and diesel usage of approximately 483,688 gallons over the course of construction. Assuming construction of the future broadband projects would require a similar construction timeframe as the five near-term Priority Area projects of approximately 2 years, the future broadband projects would require an average annual energy consumption of approximately 238 MWh of electricity, 3,231 gallons of gasoline, and 241,844 gallons of diesel.

Energy use associated with the future broadband project construction would be inherently short-term and not substantial and would be a necessary energy expenditure to facilitate the expansion of Santa Barbara County's broadband network. Additionally, the expansion of broadband services could ultimately result in a decrease in gasoline consumption as rural workers are provided better telecommuting opportunities. Since the Broadband Program would not induce new energy demand and would support better internet for telecommuting, resulting in a reduction in VMT countywide, energy impacts from the Future Broadband Project's implementation would be less than significant. Therefore, construction of future broadband projects would not result in wasteful, inefficient, and unnecessary consumption of energy.

Operation

Similar to the operation of the five near-term Priority Area projects, operation of future broadband projects would generally operate passively, with only occasional maintenance typically consisting of weed abatement and periodic accessing of hand holes and splice cases from the ground surface along a given alignment like the five near-term Priority Area projects. Therefore, energy use of future broadband projects would only use the necessary fuel to provide maintenance activities and would not induce new energy demand. As previously mentioned, the project would expand the use of energy-efficient fiber optic cable, replacing any less energy-efficient copper cables that serve the area. Thus, operation of future broadband projects would not result in the wasteful, inefficient, and unnecessary use of energy and impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Cumulative Impacts

Implementation of the Proposed Project, in combination with other development, would contribute to cumulative significant environmental impacts if energy (electricity, natural gas, or transportation) used during construction or operation results in the wasteful, inefficient, or unnecessary consumption of energy resources.

As discussed above, construction and operation of the Broadband Program would not induce new energy demand. All past, present, and future projects would also comply with CARB and/or the USEPA mandated mobile source emissions regulations related to on-road vehicle emissions standards, off-road equipment fleet standards, and fuel sulfur standards. Thus, the Project along with past, present, and future projects would not result in the wasteful, inefficient, and unnecessary use of energy and impacts would be less than significant.

Threshold 2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Impact Statement 2: Implementation of the Proposed Project could conflict with or obstruct a state or local plan for renewable energy or energy efficiency if during construction or operation the Project doesn't comply with applicable rules or regulations, resulting in a significant impact.

Priority Area Projects

Construction

Construction equipment would be required to comply with federal, state, and regional requirements where applicable. With respect to truck fleet operators, USEPA and NHSTA have adopted fuel-efficiency standards for medium- and heavy-duty trucks that will be phased in over time. Phase 2 heavy-duty truck standards, which cover model years 2021 through 2027 and require the phase-in of a 5 to 25 percent reduction in fuel consumption over the 2017 baseline depending on the compliance year and vehicle type (USEPA 2023). These regulations would have an overall beneficial effect on reducing fuel consumption from trucks over time as older trucks are replaced with newer models that meet the standards.

In addition, construction equipment and trucks are required to comply with CARB regulations regarding heavy-duty truck idling limits of five minutes at a location. Additionally, off-road emissions standards will increase equipment efficiencies as they are phased-in over time and less-efficient equipment is phased out of construction fleets. These limitations would result in an increase in energy savings in the form of reduced fuel consumption from more fuel-efficient engines. Although these requirements are intended to reduce criteria pollutant emissions, compliance with the anti-idling and emissions regulations would also result in the efficient use of construction-related energy. Thus, based on the information above, construction of the proposed Project would comply with existing energy standards.

The Project's construction equipment used would be consistent with the energy standards applicable to construction equipment including limiting idling fuel consumption and using contractors that comply with applicable CARB regulatory standards that affect energy efficiency. Thus, the proposed Project would comply with existing energy standards and would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, Project construction impacts would be less than significant**.**

Operation

The Project would be designed in a manner that is consistent with relevant energy conservation plans designed to encourage development that results in the efficient use of energy resources. The expansion of the proposed fiber optic cabling would provide high-speed broadband internet services to the area, and promote a more energy-efficient internet service option compared to the existing copper cables. With respect to operational transportation-related fuel usage, the Project would support statewide efforts to improve transportation energy efficiency and reduce transportation energy consumption with respect to private automobiles. The proposed Project would comply with the Advanced Clean Cars I and II Standards, which are designed to result in more efficient use of transportation fuels. The proposed Project would only require occasional trips for maintenance activities and would not induce growth.

The Broadband Project would support better internet access and availability in rural areas, which would support telecommuting within these communities, and would result in an overall reduction in VMT countywide. Thus, the Broadband Project supports the 2030 Climate Action Plan action TR-2.10, Employer Trip Reduction Requirements & Programs, to help achieve a 50-80 percent telework participation rate for large employer within the unincorporated County. Additionally, the Broadband Projects would directly work to achieve the 2030 CAP action TR-2.12, Broadband Accessibility, which aims to increase internet access in rural parts of the County in order to further support a remote workforce and telecommuting efforts (County of Santa Barbara 2023). These actions have been identified by the County as methods to help reduce the VMT within the County. It would also support SBCAG's Connected 2050 RTP/SCS which estimates that if people were able to work remotely, 50-80 percent would, assuming they work remotely 2-4 days per week, the VMT reduction would be between 450,000-750,000 per day (SBCAG 2021). Although this is a Countywide estimate that would include both incorporated cities and unincorporated cities, the areas affected by the Project's expansion of services would still experience VMT reductions and the associated vehicle fuel consumption reductions. Additionally, it supports Policy 3.2 in the County of Santa Barbara General Plan to research and support opportunities for telecommunication and computer-based communication that reduce the need for travel.

Thus, operation of the Broadband Project would comply with existing energy standards and would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, Project operation impacts would be less than significant**.**

Future Broadband Projects

Construction

It is anticipated that future broadband projects, located in other areas of the County, would be of similar size and scale, with a comparable construction effort in terms of overall intensity, would employ a similar mix of construction methods and equipment, and would result in similar construction durations as those assumed for the five Priority Area projects. Thus, future broadband projects would be expected to use approximately the same amount of energy for construction. Therefore, construction of future broadband projects would comply with existing energy standards and would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, Project construction impacts would be less than significant**.**

Operation

Similarly, operation of future broadband projects would generally occur passively, with only occasional vehicle trips maintenance activities. The Broadband Project would support better internet for telecommuting in rural areas which would result in a reduction in VMT countywide, which supports various Countywide policy documents and associated measures. Therefore, operation of future broadband projects would comply with existing energy standards and would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, Project operational impacts would be less than significant**.**

Mitigation Measures

No mitigation is required.

Cumulative Impacts

Implementation of the Proposed Project, in combination with other development, could conflict with or obstruct a state or local plan for renewable energy or energy efficiency if during construction or operation the Project doesn't comply with applicable rules or regulations, resulting in a cumulative impact.

As discussed above, construction and operation of the Broadband Program would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency during construction or operation. All past, present, and future projects would also comply with CARB and/or the USEPA mandated mobile source emissions regulations related to on-road vehicle emissions standards, off-road equipment fleet standards, and fuel sulfur standards. Additionally, all past, present, and future projects would have to comply with rules and regulations for renewable energy and energy efficiency. Therefore, construction and operation of the Project along with past, present, and future projects would comply with existing energy standards and would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency and impacts would be less than significant.

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4.5 Greenhouse Gas Emissions and Global Climate Change

This section discusses potential impacts related to greenhouse gas emissions and climate change related to the Santa Barbara County Last-Mile Broadband Program ("Broadband Program" or "Project"). This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment. Air quality impacts are discussed in Section 4.1, *Air Quality.*

4.5.1 Environmental Setting

Climate Change and Greenhouse Gases

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period. The term "climate change" is often used interchangeably with the term "global warming," but climate change is preferred because it conveys that other changes are happening in addition to rising temperatures. One identified cause of global warming is an increase of Greenhouse Gases (GHGs) in the atmosphere. GHGs are those compounds in Earth's atmosphere that play a critical role in determining Earth's surface temperature.

When energy from the sun reaches the Earth, the planet absorbs some of this energy and radiates the rest back to space as heat. The Earth's surface temperature depends on this balance between incoming and outgoing energy. Average conditions tend to remain stable unless the Earth experiences a force that shifts the energy balance. A shift in the energy balance causes the Earth's average temperature to become warmer or cooler. Earth's natural warming process is known as the "greenhouse effect." It is called the greenhouse effect because Earth and the atmosphere surrounding it are similar to a greenhouse with glass panes in that the glass allows solar radiation (sunlight) into Earth's atmosphere but prevents radiative heat from escaping, thus warming Earth's atmosphere. However, as GHG from human activities increase, they build up in the atmosphere and warm the climate, leading to many other changes around the world - in the atmosphere, on land, and in the oceans, with associated adverse climatic and ecological consequences (USEPA 2024a). Scientists studying the particularly rapid rise in global temperatures have determined that human activity has resulted in increased emissions of GHGs, primarily from the burning of fossil fuels (from motor vehicle travel, electricity generation, consumption of natural gas, industrial activity, manufacturing, etc.), deforestation, agricultural activity, and the decomposition of solid waste.

Gases that absorb and re-emit infrared radiation in the atmosphere are called GHGs. GHGs are emitted by natural processes and human activities. The gases widely seen as the principal contributors to human-induced climate change are shown in **Table 4.5-1**, *Description of Identified GHGs*, and include carbon dioxide (CO_2), methane (CH_4), nitrous oxides (N_2O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere, and natural processes, such as oceanic evaporation, largely determine its atmospheric concentrations. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are usually by-products of fossil fuel combustion, and CH_4 results from off-gassing associated with agricultural

practices. Human-made GHGs, many of which have greater heat-absorption potential than CO_2, include fluorinated gases, SF_6, and NF_3 (USEPA 2024a).

TABLE 4.5-1
DESCRIPTION OF IDENTIFIED GHGS

GHG	General Description
Carbon Dioxide (CO_2)	An odorless, colorless GHG, which has both natural and anthropocentric sources. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic (human-caused) sources of CO_2 are burning coal, oil, natural gas, and wood.
Methane (CH_4)	A flammable gas and the main component of natural gas. When one molecule of CH_4 is burned in the presence of oxygen, one molecule of CO_2 and two molecules of water are released. A natural source of CH_4 is the anaerobic decay of organic matter. Geological deposits, known as natural gas fields, also contain CH_4, which is extracted for fuel. Other sources are from landfills, fermentation of manure, and cattle.
Nitrous Oxide (N_2O)	A colorless GHG. High concentrations can cause dizziness, euphoria, and sometimes slight hallucinations. N_2O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used in rocket engines, race cars, and as an aerosol spray propellant.
Hydrofluorocarbons (HFCs)	Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in CH_4 or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are non-toxic, non-flammable, insoluble, and chemically unreactive in the troposphere (the level of air at Earth's surface). CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. Because they destroy stratospheric ozone, the production of CFCs was stopped as required by the Montreal Protocol in 1987. HFCs are synthetic man-made chemicals that are used as a substitute for CFCs as refrigerants. HFCs deplete stratospheric ozone, but to a much lesser extent than CFCs.
Perfluorocarbons (PFCs)	PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above Earth's surface are able to destroy the compounds. PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane and hexafluoroethane. The two main sources of PFCs are primary aluminum production and semi-conductor manufacturing.
Sulfur Hexafluoride (SF_6)	An inorganic, odorless, colorless, non-toxic, and non-flammable gas. SF_6 is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semi-conductor manufacturing, and as a tracer gas for leak detection.
Nitrogen Trifluoride (NF_3)	An inorganic, non-toxic, colorless, odorless, non-flammable gas. NF_3 is used in the manufacture of semi-conductors, as an oxidizer of high energy fuels, for the preparation of tetrafluorohydrazine, as an etchant gas in the electronic industry, and as a fluorine source in high power chemical lasers.

NOTE: GHGs identified in this table are ones identified in the Kyoto Protocol and other synthetic gases recently added to the IPCC's Fifth Assessment Report.

SOURCES: Association of Environmental Professionals, 2007. Alternative Approaches to Analyze Greenhouse Gas Emissions and Global Climate Change in CEQA Documents, Final, June 29, 2007. https://www.counties.org/sites/main/files/file-attachments/aep_global_climate_change_june_29_final1.pdf. Accessed June 2024.

USEPA, 2009. Acute Exposure Guideline Levels (AEGLs) for Nitrogen Trifluoride Interim; September. https://www.epa.gov/sites/default/files/2014-09/documents/nitrogentrifluoride_interim_ornl_sep09_c.pdf. Accessed June 2024.

Not all GHGs possess the same ability to induce climate change. CO_2 is the most abundant GHG in Earth's atmosphere. Other GHGs are less abundant but have higher global warming potential (GWP) than CO_2. Thus, emissions of other GHGs are commonly quantified in the units of equivalent mass of carbon

dioxide (CO_2e). Mass emissions are calculated by converting pollutant-specific emissions to CO_2e emissions by applying the proper global warming potential (GWP) value. The larger the GWP, the more that a given gas warms the Earth compared to CO_2 over that time.[1] These GWP ratios are available from the Intergovernmental Panel on Climate Change (IPCC). Historically, GHG emission inventories have been calculated using the GWPs from the IPCC's Second Assessment Report (SAR) (IPCC 1995). GWP is based on several factors, including the radiative efficiency (heat-absorbing ability) of each gas relative to that of CO_2, as well as the decay rate of each gas (the amount removed from the atmosphere over a given number of years otherwise referred to as atmospheric lifetime) relative to that of CO_2. The IPCC updated the GWP values based on the science in its Fourth Assessment Report (AR4) (IPCC 2007). The California Air Resources Board (CARB) reports GHG emission inventories for California using the GWP values from the IPCC AR4, which is consistent with international reporting standards. By applying the GWP ratios, Project-related CO_2e emissions can be tabulated in metric tons of carbon dioxide equivalents ($MTCO_2e$) per year. Typically, the GWP ratio corresponding to the warming potential of CO_2 over a 100-year period is used as a baseline. The GWP and atmospheric lifetimes for key regulated GHGs are provided in **Table 4.5-2**, *Atmospheric Lifetimes and GWP*.

TABLE 4.5-2
ATMOSPHERIC LIFETIMES AND GWPS

Gas	Atmospheric Lifetime (Years)	GWP (100-YearTime Horizon)
Carbon Dioxide (CO_2)	50-200	1
Methane (CH_4)	12 (+/-3)	25
Nitrous Oxide (N_2O)	114	298
HFC-23: Fluoroform (CHF_3)	270	14,800
HFC-134a: 1,1,1,2-Tetrafluoroethane (CH_2FCF_3)	14	1,430
HFC-152a: 1,1-Difluoroethane ($C_2H_4F_2$)	1.4	124
PFC-14: Tetrafluoromethane (CF_4)	50,000	7,390
PFC-116: Hexafluoroethane (C_2F_6)	10,000	12,200
Sulfur Hexafluoride (SF_6)	3,200	22,800
Nitrogen Trifluoride (NF_3)	740	17,200

SOURCE: IPCC, 2007.

Greenhouse Gas Emissions Inventories

Global Emissions Inventory

Global GHG emissions due to human activities have grown since pre-industrial times. As reported by the United States Environmental Protection Agency (USEPA), global carbon emissions from human activities increased by about 43 percent between 1990 and 2015 with CO_2 emissions (which account for

[1] GWPs and associated CO_2e values were developed by the Intergovernmental Panel on Climate Change (IPCC) and published in its Second Assessment Report (SAR) in 1996. Historically, GHG emission inventories have been calculated using the GWPs from the IPCC's SAR. The IPCC updated the GWP values based on the Fourth Assessment Report (AR4). CARB reports GHG emission inventories for California using the GWP values from the IPCC AR4.

about three-fourths of total global GHG emissions) increasing approximately 51 percent over this same period (USEPA 2024a). In addition, in the Global Carbon Budget 2023 report, published in December 2023, atmospheric CO_2 concentrations in 2022 were found to be approximately 51 percent above the concentration at the start of the Industrial Revolution (P. Friedlingstein et. al. 2023). Historical measurements show that the current global atmospheric concentrations of carbon dioxide, methane, and nitrous oxide are unprecedented compared with the past 800,000 years (USEPA 2023). Global increases in CO_2 concentrations are due primarily to fossil fuel use, with land use change providing another significant but smaller contribution. Regarding emissions of non-CO_2 GHGs, these have also increased significantly since 1990 (USEPA 2023). Studies have concluded that it is very likely that the observed increase in methane (CH_4) concentration is predominantly due to agriculture and fossil fuel use (USEPA 2023).

Worldwide anthropogenic emissions of GHGs were approximately 59,000 million metric tons (MMT) of CO_2e in 2019 (IPCC 2023). In 2019, approximately 79 percent of global GHG emissions came from the sectors of energy, industry, transport, and buildings together and 22 percent from agriculture, forestry, and other land use (IPCC 2023).

United States Emissions Inventory

Total United States (U.S.) GHG emissions in 2022 were 6,343 $MMTCO_2e$ and 5,489 $MMTCO_2e$ after accounting for sequestration from the land sector (USEPA 2024b). Emissions increased in 2022 by 1 percent (after accounting for sequestration from the land sector) compared to the previous year driven largely by an increase in CO_2 emissions from fossil fuel combustion (USEPA 2024c). In 2022, GHG emissions were 17 percent below 2005 levels after accounting for sequestration from the land sector (USEPA 2024c). In 2022, the transportation and industrial end-use sectors accounted for 29 percent and 30 percent, respectively, of nationwide GHG emissions while the residential and commercial end-use sectors accounted for 31 percent of nationwide GHG emissions, and agriculture accounted for 10 percent of nationwide GHG emissions with electricity emissions distributed among the various sectors (USEPA 2024c).

California Emissions Inventory

Based on the CARB's California Greenhouse Gas Inventory for 2000-2021, California produced 381.3 MMT of CO_2e in 2021. The major source of GHG emissions in California is the transportation sector, which comprises 39 percent of the state's total GHG emissions. The industrial sector is the second largest source, comprising 22 percent of the state's GHG emissions while electric power accounts for approximately 11 percent (CARB 2024a). The magnitude of California's total GHG emissions is due in part to its large size and large population compared to other states. However, a factor that reduces California's per capita fuel use and GHG emissions as compared to other states is its relatively mild climate. In 2016, the State of California achieved its 2020 GHG emission reduction target of reducing emissions to 1990 levels as emissions fell below 431 $MMTCO_2e$ (CARB 2023). The 2030 statewide target emissions level is 260 $MMTCO_2e$ (CARB 2017).

Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources though potential impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. Each of the past three decades has been warmer than all the previous decades in the instrumental record, and the decade from 2000 through 2010 has been the warmest. The observed global mean surface temperature (GMST) from 2011 to 2020 was approximately 1.1 degree Celsius (°C) higher than the average GMST over the period from 1850 to 1900, with larger increases over land (1.59°C) than over the ocean (0.88°C) (IPCC 2023). In addition to these findings, there are identifiable signs that global warming is currently taking place, including observed changes in extremes such as heatwaves, heavy precipitation, droughts, and tropical cyclones. Human influence was very likely the main driver of these increases since at least 1971 (IPCC 2023).

According to *California's Fourth Climate Change Assessment*, statewide temperatures from 1986 to 2016 were approximately 0.6 to 1.1°C higher than those recorded from 1901 to 1960. Potential impacts of climate change in California may include reduced water supply from snowpack, sea level rise, more extreme heat days per year, more large forest fires, and more drought years (State of California 2019). In addition to statewide projections, *California's Fourth Climate Change Assessment* includes regional reports that summarize climate impacts and adaptation solutions for nine regions of the state and regionally specific climate change case studies (State of California 2019). However, while there is growing scientific consensus about the possible effects of climate change at a global and statewide level, current scientific modeling tools are unable to predict what local impacts may occur with a similar degree of accuracy. A summary follows of some of the potential effects that could be experienced in California and the Santa Barbara County region as a result of climate change.

The California Energy Commission (CEC) has a geospatial data tool (Cal-Adapt) that provides a view of how the state could be impacted by climate change. Below is a summary of some of the potential climate change effects and relevant Cal-Adapt data, reported by an array of studies that could be experienced in California as a result of global warming and climate change.

Hydrology and Sea Level Rise

Climate change could affect the intensity and frequency of storms and flooding (State of California 2019). Furthermore, climate change could induce substantial sea level rise in the coming century. Rising sea level increases the likelihood of and risk from flooding. Sea levels are rising faster now than in the previous two millennia, and the rise will probably accelerate, even with robust GHG emission control measures. Global mean sea level increased by 0.20 meters (m) between 1901 and 2018 (IPCC 2023). The average rate of sea level rise was 1.3 millimeters per year (mm/yr) between 1901 and 1971, increasing to 1.9 mm/yr between 1971 and 2006, and further increasing to 3.7 mm/yr between 2006 and 2018 (IPCC 2023). The most recent IPCC report predicts a mean sea level rise of 0.25 to 0.94 meter by 2100 (IPCC 2018). A rise in sea levels could erode 31 to 67 percent of southern California beaches and cause flooding of approximately 370 miles of coastal highways during 100-year storm events. This would also jeopardize California's water supply due to saltwater intrusion and induce groundwater flooding and/or exposure of buried infrastructure (State of California 2019). Furthermore, increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

Sea level rise is defined as the rising of the level of the sea as a result of global warming. Erosion is a natural process which alters existing geomorphic features. Erosion can occur due to a number of factors, including winter storms, tidal action, wind-generated high surf, wave action, and rising sea levels. The Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan (County of Santa Barbara 2023a) identifies high-hazard areas within the County related to flood and coastal surge vulnerability. Storm waves that coincide with very high tides will continue to be a threat to the Santa Barbara County coastline, including the Cities of Goleta, Santa Barbara, and Carpinteria, in the next several decades. The impacts of sea-level rise will likely begin to increase and become more noticeable during the second half of the twenty-first century than they have been in the recent past, particularly when combined with large El Niño-driven storm waves and high tides. A continuing rise in sea level will produce a range of hazards and impacts, including increasingly frequent coastal flooding, gradual inundation of low-lying beach and shoreline areas, continued and likely increased erosion of coastal cliffs and bluffs, and flooding at stream mouths, with associated damage to development.

Air Quality

Scientists project that the annual average maximum daily temperatures in California could rise by 2.4 to 3.2°C in the next 50 years and by 3.1 to 4.9°C in the next century (State of California 2019). Higher temperatures are conducive to air pollution formation, and rising temperatures could therefore result in worsened air quality in California. As a result, climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. In addition, as temperatures have increased in recent years, the area burned by wildfires throughout the state has increased, and wildfires have occurred at higher elevations in the Sierra Nevada Mountains (State of California 2019). If higher temperatures continue to be accompanied by an increase in the incidence and extent of large wildfires, air quality could worsen. Severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state. However, if higher temperatures are accompanied by wetter, rather than drier, conditions, the rains could tend to temporarily clear the air of particulate pollution, which would effectively reduce the number of large wildfires and thereby ameliorate the pollution associated with them, although it would not eliminate all effects of increased temperatures (CNRA 2009).

According to the Cal-Adapt website's "Local Climate Change Snapshot" database, the County of Santa Barbara could see an average annual increase in maximum temperature to 71.9 to 72.7°F in the mid-century (2035–2064) and 72.9 to 75.6°F at the end of the century (2070–2099) compared to 68.7°F for the baseline period (1961–1990) (CalAdapt 2024). The average annual number of extreme heat days also could increase to 10 to 13 days in the mid-century (2035–2064) and 14 to 26 days at the end of the century (2070–2099) compared to 3 days for the baseline period (1961–1990) (CalAdapt 2024).

Water Supply

Analysis of paleoclimatic data (such as tree-ring reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the west, including a pattern of recurring and extended droughts. Uncertainty remains with respect to the overall impact of climate change on future precipitation trends and water supplies in California. With warmer temperatures and lower precipitation volumes, drought conditions continue in the state. Year-to-year variability in statewide precipitation levels has increased since 1980, meaning that wet and dry

precipitation extremes have become more common (CDWR 2022). The years 2000 to 2021 have been the driest 22-year period in the last millennium in California and the rest of the southwestern United States (CDWR 2022). This uncertainty regarding future precipitation trends complicates the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood. In recent years, the fraction of precipitation that falls as rain instead of snow has increased in the Sierra Nevada and Southern Cascades, reducing the water stored in the snowpack that provides most of California's water supply (CDWR 2022). California has also seen a change in the timing of precipitation consistent with climate change projections. A comparison of historical and current precipitation (1960–1989 vs 1990–2019) averaged over the entire state shows a change in the monthly distribution of precipitation; a progressively delayed and shorter, sharper rainy season in California (CDWR 2022). Warming temperatures and their influence on a rising snowline (the altitude above which snow remains on the ground) make winter precipitation more likely to fall as rain instead of snow and run off into the ocean instead of being stored in reservoirs (CDWR 2022). Projections indicate that average spring snowpack in the Sierra Nevada and other mountain catchments in central and northern California will decline by approximately 66 percent from its historical average by 2050 (State of California 2018).

Santa Barbara County's water supply has diversified sources, including the Santa Ynez River watershed, State Water Project, groundwater, and recycled water, along with a strong water conservation program. Future temperature and weather pattern changes could result in more variable or reduced supplies from the Santa Ynez River watershed and State Water Project, and potentially more saltwater intrusion issues for groundwater. Studies and planning to address water supply issues, including climate change effects, are ongoing by the State (Department of Water Resources), regional agencies (e.g., Cachuma Operation and Maintenance Board, Santa Barbara County's Integrated Regional Water Management Program), and local agencies.

According to the Cal-Adapt website's "Local Climate Change Snapshot" database, the County of Santa Barbara could see an average annual length of dry spells of 154 to 155 days in the mid-century (2035–2064) and 154 to 162 days at the end of the century (2070–2099), compared to 146 days for the baseline period (1961–1990). The average annual precipitation could decrease to 18.3 to 18.4 inches in the mid-century (2035–2064) and potentially increase to 18.7 to 18.8 inches at the end of the century (2070–2099), compared to 18.6 inches for the baseline period (1961–1990) (CalAdapt 2024).

Agriculture

California has an over $59 billion annual agricultural industry that produces over a third of the country's vegetables and three-quarters of the country's fruits and nuts (CDFA 2024). Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. When plant water demand exceeds the amount available in the soil, vegetation becomes stressed, and more easily succumbs to attacks by pests and pathogens. Hot and dry conditions increase the water deficit and make dead vegetation easier to burn, heightening wildfire risk (CDWR 2022). In parts of the Central Valley, certain fruits and nuts are maturing more quickly with warming temperatures, leading to earlier harvests (CDWR 2022). Shorter maturation times generally lead to smaller fruits and nuts. Additionally, the risk of crop damage has increased as certain insects multiply faster with warmer temperatures. Temperature increases could also change the time of year certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality.

Ecosystems and Wildlife

Climate change and the potential resultant changes in weather patterns could have ecological effects on the global and local scales. Soil moisture is likely to decline in many regions as a result of higher temperatures, and intense rainstorms are likely to become more frequent. Rising temperatures and precipitation change could impact ecosystems and wildlife by causing population declines, shifting in their geographic distributions or ranges to track suitable climates, and facilitating the spread of invasive species, pest, pathogens, and diseases. According to studies, certain birds and mammals are found at different elevations in the Sierra Nevada compared to a century ago. Range shifts were observed in almost 75 percent of small mammal species and over 80 percent of bird species surveyed (CDWR 2022). In the Mojave Desert, which became warmer and dryer, widespread collapse of bird communities occurred due to dehydration (CDWR 2022). Additionally, climate-influenced changes in freshwater and ocean conditions are threatening the survival of Chinook salmon in Northern California rivers (CDWR 2022). Due to changing ocean conditions, fewer California sea lion pup births, higher pup mortality, and poor pup conditions at San Miguel Island off Santa Barbara County occurred during years when sea surface temperatures are unusually warm in their breeding area (CDWR 2022). In these years, the fish they feed on are less abundant and the nursing mothers must either travel farther to obtain food or eat less nutritious prey.

Wildfire

Wildfires in California over the past two decades are shown to be increasing in size, severity, and adverse impacts (CARB 2020a). Warming temperatures as a result of climate change influences the length of both the fire and growing seasons and consequently affects the amount of time and intensity fires burn at and the amount of available fuels. Higher temperatures lead to drought, which decreases the fuel moisture and increases the likelihood of ignitions. The lack of moisture available to plants has also been associated with changes in the structure and composition of California's forests and woodlands—changes that have been accelerated by wildfires (CDWR 2022). Dead or dying vegetation increases the risk of wildfires: for example, the unusually high tree mortality seen during the 2012-2016 drought, which was caused by water stress, created a massive fuel load (CDWR 2022). The total area burned annually since 1950 ranged from a low in 1963 of 32,000 acres to a record high in 2020 of 4.2 million acres – more than 4 percent of the state's roughly 100 million acres of land (CDWR 2022).

According to the Cal-Adapt website's "Local Climate Change Snapshot" database, the County of Santa Barbara could see an average annual area burned of approximately 24,189.7 to 17,681.5 acres in the mid-century (2035–2064) to 24,189.7 to 24,330.4 acres by the end of the century (2070–2099), compared to 17,791.6 to 17,681.5 acres for the baseline period (1961–1990) (CalAdapt 2024). Increased wildfire activity leads to more GHG emissions from sources that would otherwise be carbon sinks (CARB 2020a). Between 2000 and 2019, emissions from wildfires ranged from a low of 1.2 $MMTCO_2e$ in 2010 to a high of 39 MMTCO2e in 2018, with an annual average of 14 $MMTCO_2e$ (CARB 2020a). Further, CARB estimates that wildfire emissions increased dramatically in 2020, totaling 112 $MMTCO_2e$ (CARB 2020a).

Humans

Humans are better able to adapt to a changing climate than plants and animals in natural ecosystems. Nevertheless, climate change poses direct and indirect risks to public health, as people will experience earlier death and worsening illnesses. Heat causes the most weather-related deaths in the United States (CDWR 2022). Hospitalizations and deaths spike in years with especially high summertime temperatures.

Additionally, indicators of the impacts of climate change on human health show that warming temperatures and changes in precipitation can affect vector-borne pathogen transmission and disease patterns in California.

4.5.2 Regulatory Setting

Federal

The U.S. Supreme Court determined in *Massachusetts v. EPA* (2007) 549 U.S. 497that the USEPA has the authority to regulate motor-vehicle GHG emissions under the federal Clean Air Act. The USEPA issued a Final Rule for mandatory reporting of GHG emissions in October 2009. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and vehicle engines and requires annual reporting of emissions. In 2012, the USEPA issued a Final Rule that established the GHG permitting thresholds that determine when Clean Air Act permits under the New Source Review Prevention of Significant Deterioration (PSD) and Title V Operating Permit programs are required for new and existing industrial facilities.

In *Utility Air Regulatory Group v. Environmental Protection Agency* (134 S. Ct. 2427 [2014]), the U.S. Supreme Court held the USEPA may not treat GHGs as an air pollutant for purposes of determining whether a source can be considered a major source required to obtain a PSD or Title V permit. The Court also held that PSD permits otherwise required based on emissions of other pollutants, may continue to require limitations on GHG emissions based on the application of Best Available Control Technology.

The Federal Government administers a wide array of public-private partnerships to reduce the GHG intensity generated in the United States. These programs focus on energy efficiency, renewable energy, CH_4 and other non-CO_2 gases, agricultural practices, and implementation of technologies to achieve GHG reductions. The USEPA implements numerous voluntary programs that contribute to the reduction of GHG emissions. These programs (e.g., the ENERGY STAR labeling system for energy-efficient products) play a significant role in encouraging voluntary reductions from large corporations, consumers, industrial and commercial buildings, and many major industrial sectors.

Safer Affordable Fuel-Efficient Vehicles Rule and Corporate Average Fuel-Economy Rule

On September 27, 2019, the USEPA and the National Highway Traffic Safety Administration (NHTSA) published the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program. The SAFE Rule Part One revokes California's authority to set its own GHG emissions standards and to adopt its own zero-emission vehicle mandates. On April 30, 2020, the USEPA and the NHTSA published Part Two of the SAFE Vehicles Rule, which revised corporate average fuel economy and CO2 emissions standards for model years 2021-2026 passenger cars and trucks such that the standards increase by approximately 1.5 percent each year through model year 2026 as compared to the 2012 standards which required an approximately five percent annual increase (NHTSA 2020). To account for the effects of the Part Two Rule, CARB released off-model adjustment factors on June 26, 2020, to adjust GHG emissions outputs from the EMFAC model (CARB 2020b).

In February 2022, the USEPA issued the Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards (USEPA 2021). This final rule revises current GHG standards beginning for vehicles in model year 2023 and through model year 2026 and establishes the most stringent GHG standards ever set for the light-duty vehicle sector that are expected to result in average fuel economy label values of 40 mpg, while the standards they replace (the SAFE rule standards) would achieve only 32 mpg in model year 2026 vehicles (USEPA 2021).

On June 7, 2024, NHTSA announced the Final Rule for Corporate Average Fuel Economy (CAFE) Standards for Model Years 2027-2031 and Heavy-Duty Pickup Trucks and Vans (HDPUV) Fuel Efficiency Standards for Model Years 2030-2035 (NHTSA, 2024). The CAFE standards for passenger cars and light trucks increase at a rate of two percent per year for passenger cars in model years 2027-2031, zero percent per year for light trucks in model years 2027-2028 and two percent per year for light trucks in model years 2029-2031 (NHTSA 2024). The HDPUVs standards increase at a rate of 10 percent per year for model years 2030-2032 that and increase at a rate of 8 percent per year for model years 2033-2035 (NHTSA 2024).

State

California has promulgated a series of executive orders, laws, and regulations aimed at reducing both the level of GHGs in the atmosphere and emissions of GHGs from commercial and private activities within the state.

Executive Order S-3-05

EO S-3-05 set forth the following targets for progressively reducing statewide GHG emissions (Office of the Governor 2005):

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The executive order created the California Climate Action Team (CAT) to reduce GHG emissions to the target levels. The CAT produces biannual reports describing the progress made toward the emissions targets, the impacts of global climate change on California's resources, and mitigation and adaptation plans to combat these impacts. The first CAT Report to the Governor and the Legislature in 2006 contained recommendations and strategies to help meet the targets in EO S-3-05. The most recent 2022 State Agency Greenhouse Gas Reduction Report Card documents the effectiveness of measures to reduce GHG emissions in California and GHG emissions from state agencies' operations. This report card documents reductions of 1.157 $MMTCO_2e$ that occurred in 2021 (CalEPA 2023). In 2016, GHG emissions were 429 $MMTCO_2e$, showing that California reached its 2020 emissions target (431 $MMTCO_2e$) four years early and emissions are continuing to decline.

Executive Order B-30-15

In 2015, EO B-30-15 promulgated the following targets and measures (Office of the Governor 2015):

- Established a new interim statewide reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030.
- Ordered all state agencies with jurisdiction over sources of GHG emissions to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 reduction targets.
- Directed CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent.

Executive Order B-55-18

In 2018, EO B-55-18 established a statewide policy to achieve carbon neutrality by 2045 and maintain net negative emissions thereafter. As per EO B-55-18, CARB is directed to work with relevant state agencies to develop a framework for implementation and accounting that tracks progress toward this goal and to ensure future Climate Change Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. California is making progress towards the 2045 goal, however the pathway to carbon neutrality is still under development. According to CARB, there will be a strong reliance on energy efficiency, electrification, low carbon fuels (including low-carbon electricity), and CO_2 removal in future policies and strategies for reaching the ambitious goal. The path to carbon neutrality lies in striving for zero emissions from all new sources and maximum sequestration to offset existing sources.

Assembly Bill 32 – California Global Warming Solutions Act of 2006

In 2006, the California Legislature adopted Assembly Bill (AB) 32 (Health and Safety Code Division 25.5), also known as the California Global Warming Solutions Act of 2006, with a focus on reducing GHG emissions in California to 1990 levels by 2020. This act defines GHGs as CO_2, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride and represents the first enforceable statewide program to limit emissions of these GHGs from all major industries with penalties for noncompliance. The California Global Warming Solutions Act assigned CARB the primary responsibility for reducing GHG emissions, by adopting rules and regulations directing state actions to achieve the GHG emissions reductions equivalent to 1990 statewide level set at 431 $MMTCO_2e$ by 2020. In 2008, CARB adopted the Climate Change Scoping Plan, which outlines the State's strategy to achieve the 2020 GHG emissions limit. In 2014, CARB adopted the first update to the Climate Change Scoping Plan, which builds on the strategies from the first plan. In 2016, the State of California achieved its 2020 GHG emission reduction target of reducing emissions to 1990 levels as emissions fell below 431 $MMTCO_2e$ (CARB 2023).

Senate Bill 32 and Assembly Bill 197

In 2016, the California Legislature adopted Senate Bill (SB) 32 and its companion bill AB 197. SB 32 and AB 197 amended Health and Safety Code Division 25.5 and established a new climate pollution reduction target of 40 percent below 1990 levels by 2030, with provisions included to ensure that the benefits of state climate policies reach into vulnerable communities. In response to the 2030 GHG reduction target, CARB adopted the 2017 Scoping Plan (CARB 2017). The 2017 Scoping Plan outlines the strategies the state will implement to achieve the 2030 GHG emissions reduction target, which build on the Cap-and-Trade Program; the Low Carbon Fuel Standard; improved vehicle, truck, and freight

movement emissions standards; increasing renewable energy; and strategies to reduce methane emissions from agricultural and other wastes by using it to meet California's energy needs. The 2017 Scoping Plan also comprehensively addresses GHG emissions from natural and working lands of California, including the agriculture and forestry sectors. The adopted 2017 Scoping Plan includes ongoing and statutorily required programs and the continuation of the Cap-and-Trade Program. The 2017 Scoping Plan also discusses the role of local governments in meeting the state's GHG reductions goals because local governments have jurisdiction and land use authority related to community-scale planning and permitting processes, local codes and actions, outreach and education programs, and municipal operations (CARB 2017).

Assembly Bill 1279 and 2022 Scoping Plan

The Legislature enacted AB 1279, The California Climate Crisis Act, on September 16, 2022 (CLI 2022). AB 1279 establishes the policy of the State of California to achieve net zero GHG emissions as soon as possible but no later than 2045, and to achieve and maintain net negative GHG emissions thereafter. Additionally, AB 1279 mandates that by 2045, statewide anthropogenic GHG emissions are to be reduced at least 85 percent below 1990 levels. AB 1279 also requires CARB to ensure that the Scoping Plan identifies and recommends measures to achieve carbon neutrality, and to identify and implement policies and strategies for CO_2 removal solutions and carbon capture, utilization, and storage technologies. It also requires CARB to submit an annual report on progress in achieving the Scoping Plan's goals.

In December 2022, CARB adopted the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan), which expands on prior scoping plans to include technologically feasible, cost-effective, and equity-focused pathways to achieve the state's climate target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045, while also assessing the progress California is making toward the 40 percent below 1990 levels by 2030, and achieving carbon neutrality[2] by 2045 or earlier (CARB 2022a). The 2030 target is an interim but important stepping stone along the critical path to the broader goal of deep decarbonization by 2045. The 2022 Scoping Plan outlines the strategies the state will implement to achieve carbon neutrality by reducing GHG emissions to meet the anthropogenic target, and by expanding actions to capture and store carbon through the state's natural and working lands and using a variety of mechanical approaches. A summary of the GHG emissions reductions and targets set forth under the 2022 Scoping Plan is provided in **Table 4.5-3**, *Estimated Statewide Greenhouse Gas Emissions Reductions in the 2022 Scoping Plan*.

The 2022 Scoping Plan reflects existing and recent direction in the Governor's Executive Orders and State Statutes, which identify policies, strategies, and regulations in support of and implementation of the Scoping Plan. Among these include Executive Order B-55-18 and AB 1279 (The California Climate Crisis Act), which identify the 2045 carbon neutrality and GHG reduction targets required for the Scoping Plan. **Table 4.5-4**, *Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping*

[2] *Carbon neutrality* means "net zero" emissions of GHGs. In other words, it means that GHG emissions generated by sources such as transportation, power plants, and industrial processes must be less than or equal to the amount of CO_2 that is stored, both in natural sinks and through mechanical sequestration. AB 1279 uses the terminology "net zero" and the 2022 Scoping Plan uses the terminology "carbon neutrality" or "carbon neutral." For purposes of this PEIR, these terms mean the same thing and are used interchangeably.

Plan, provides a summary of major climate legislation and executive orders issued since the adoption of the 2017 Scoping Plan.

The 2022 Scoping Plan identifies the need to accelerate AB32's 2030 target, from 40 percent to 48 percent below 1990 levels. Cap-and-Trade regulation continues to play a large factor in the reduction of near-term emissions for meeting the 2030 reduction target. Every sector of the economy will need to begin to transition in this decade to meet these GHG reduction goals and achieve carbon neutrality no later than 2045. The 2022 Scoping Plan approaches decarbonization from two perspectives, managing a phasedown of existing energy sources and technologies, as well as increasing, developing, and deploying alternative clean energy sources and technology.

TABLE 4.5-3
ESTIMATED STATEWIDE GREENHOUSE GAS EMISSIONS REDUCTIONS IN THE 2022 SCOPING PLAN

Emissions Scenario	GHG Emissions ($MMTCO_2e$)
2019	
2019 State GHG Emissions	404
2030	
2030 BAU Forecast	312
2030 GHG Emissions without Carbon Removal and Capture	233
2030 GHG Emissions with Carbon Removal and Capture	226
2030 Emissions Target Set by AB 32 (i.e., 1990 level by 2030)	260
Reduction below Business-As-Usual necessary to achieve 1990 levels by 2030	52 (16.7%)[a]
2045	
2045 BAU Forecast	266
2045 GHG Emissions without Carbon Removal and Capture	72
2045 GHG Emissions with Carbon Removal and Capture	(3)

$MMTCO_2e$ = million metric tons of carbon dioxide equivalents; parenthetical numbers represent negative values.

[a] 312 – 260 = 52 /312 = 16.7%

SOURCE: CARB, 2022.

TABLE 4.5-4
MAJOR CLIMATE LEGISLATION AND EXECUTIVE ORDERS ENACTED SINCE THE 2017 SCOPING PLAN

Bill/Executive Order	Summary
Assembly Bill 1279 (AB 1279) (Muratsuchi, Chapter 337, Statutes of 2022) *The California Climate Crisis Act*	AB 1279 establishes the policy of the state to achieve carbon neutrality as soon as possible, but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by 2045 statewide anthropogenic GHG emissions are reduced at least 85 percent below 1990 levels. The bill requires CARB to ensure that Scoping Plan updates identify and recommend measures to achieve carbon neutrality, and to identify and implement policies and strategies that enable CO_2 removal solutions and carbon capture, utilization, and storage (CCUS) technologies. This bill is reflected directly in 2022 Scoping Plan.
Senate Bill 905 (SB 905) (Caballero, Chapter 359, Statutes of 2022) *Carbon Capture, Removal, Utilization, and Storage Program*	SB 905 requires CARB to create the Carbon Capture, Removal, Utilization, and Storage Program to evaluate, demonstrate, and regulate CCUS and carbon dioxide removal (CDR) projects and technology. The bill requires CARB, on or before January 1, 2025, to adopt regulations creating a unified state permitting application for approval of CCUS and CDR projects. The bill also requires the Secretary of the Natural Resources Agency to publish a framework for governing agreements for two or more tracts of land overlying the same geologic storage reservoir for the purposes of a carbon sequestration project. The 2022 Scoping Plan modeling reflects both CCUS and CDR contributions to achieve carbon neutrality.
Senate Bill 846 (SB 846) (Dodd, Chapter 239, Statutes of 2022) *Diablo Canyon Powerplant: Extension of Operations*	SB 846 extends the Diablo Canyon Power Plant's sunset date by up to five additional years for each of its two units and seeks to make the nuclear power plant eligible for federal loans. The bill requires that the CPUC not include and disallow a load-serving entity from including in their adopted resource plan, the energy, capacity, or any attribute from the Diablo Canyon power plant. The 2022 Scoping Plan explains the emissions impact of this legislation.
Senate Bill (SB 1020) (Laird, Chapter 361, Statutes of 2022) *Clean Energy, Jobs, and Affordability Act of 2022*	SB 1020 adds interim renewable energy and zero carbon energy retail sales of electricity targets to California end-use customers set at 90 percent in 2035 and 95 percent in 2040. It accelerates the timeline required to have 100 percent renewable energy and zero carbon energy procured to serve state agencies from the original target year of 2045 to 2035. This bill requires each state agency to individually achieve the 100 percent goal by 2035 with specified requirements. This bill requires the CPUC, CEC, and CARB, on or before December 1, 2023, and annually thereafter, to issue a joint reliability progress report that reviews system and local reliability. The bill also modifies the requirement for CARB to hold a portion of its Scoping Plan workshops in regions of the state with the most significant exposure to air pollutants by further specifying that this includes communities with minority populations or low-income communities in areas designated as being in extreme federal non-attainment. The 2022 Scoping Plan describes the implications of this legislation on emissions.
Senate Bill 1137 (SB 1137) (Gonzales, Chapter 365, Statutes of 2022) *Oil & Gas Operations: Location Restrictions: Notice of Intention: Health protection zone: Sensitive receptors*	SB 1137 prohibits the development of new oil and gas wells or infrastructure in health protection zones, as defined, except for purposes of public health and safety or other limited exceptions. The bill requires operators of existing oil and gas wells or infrastructure within health protection zones to undertake specified monitoring, public notice, and nuisance requirements. The bill requires CARB to consult and concur with the California Geologic Energy Management Division (CalGEM) on leak detection and repair plans for these facilities, adopt regulations as necessary to implement emission detection system standards, and collaborate with CalGEM on public access to emissions detection data.

Bill/Executive Order	Summary
Senate Bill 1075 (SB 1075) (Skinner, Chapter 363, Statutes of 2022) *Hydrogen: Green Hydrogen: Emissions of Greenhouse Gases*	SB 1075 requires CARB, by June 1, 2024, to prepare an evaluation that includes: policy recommendations regarding the use of hydrogen, and specifically the use of green hydrogen, in California; a description of strategies supporting hydrogen infrastructure, including identifying policies that promote the reduction of GHGs and short-lived climate pollutants; a description of other forms of hydrogen to achieve emission reductions; an analysis of curtailed electricity; an estimate of GHG and emission reductions that could be achieved through deployment of green hydrogen through a variety of scenarios; an analysis of the potential for opportunities to integrate hydrogen production and applications with drinking water supply treatment needs; policy recommendations for regulatory and permitting processes associated with transmitting and distributing hydrogen from production sites to end uses; an analysis of the life-cycle GHG emissions from various forms of hydrogen production; and an analysis of air pollution and other environmental impacts from hydrogen distribution and end uses. This bill would inform the production of hydrogen at the scale called for in the 2022 Scoping Plan.
Assembly Bill 1757 (AB 1757) (Garcia, Chapter 341, Statutes of 2022) *California Global Warming Solutions Act of 2006: Climate Goal: Natural and Working Lands*	AB 1757 requires the California Natural Resources Agency (CNRA), in collaboration with CARB, other state agencies, and an expert advisory committee, to determine a range of targets for natural carbon sequestration, and for nature-based climate solutions, that reduce GHG emissions in 2030, 2038, and 2045 by January 1, 2024. These targets must support state goals to achieve carbon neutrality and foster climate adaptation and resilience. This bill also requires CARB to develop standard methods for state agencies to consistently track GHG emissions and reductions, carbon sequestration, and additional benefits from natural and working lands over time. These methods will account for GHG emissions reductions of CO_2, methane, and nitrous oxide related to natural and working lands and the potential impacts of climate change on the ability to reduce GHG emissions and sequester carbon from natural and working lands, where feasible. This 2022 Scoping Plan describes the next steps and implications of this legislation for the natural and working lands sector.
Senate Bill 1206 (SB 1206) (Skinner, Chapter 884, Statutes of 2022) *Hydrofluorocarbon gases: sale or distribution*	SB 1206 mandates a stepped sales prohibition on newly produced high- global warming potential (GWP) hydrofluorocarbons (HFCs) to transition California's economy toward recycled and reclaimed HFCs for servicing existing HFC-based equipment. Additionally, SB 1206 also requires CARB to develop regulations to increase the adoption of very low-, i.e., GWP < 10, and no-GWP technologies in sectors that currently rely on higher-GWP HFCs.
Senate Bill 27 (SB 27) (Skinner, Chapter 237, Statutes of 2021) *Carbon Sequestration: State Goals: Natural and Working Lands: Registry of Projects*	SB 27 requires CNRA, in coordination with other state agencies, to establish the Natural and Working Lands Climate Smart Strategy by July 1, 2023. This bill also requires CARB to establish specified CO_2 removal targets for 2030 and beyond as part of its Scoping Plan. Under SB 27, CNRA is to establish and maintain a registry to identify projects in the state that drive climate action on natural and working lands and are seeking funding. CNRA also must track carbon removal and GHG emission reduction benefits derived from projects funded through the registry. This bill is reflected directly in 2022 Scoping Plan as CO_2 removal targets for 2030 and 2045 in support of carbon neutrality.

Bill/Executive Order	Summary
Senate Bill 596 (SB 596) (Becker, Chapter 246, Statutes of 2021) *Greenhouse Gases: Cement Sector: Net-Zero Emissions Strategy*	SB 596 requires CARB, by July 1, 2023, to develop a comprehensive strategy for the state's cement sector to achieve net-zero emissions of GHGs associated with cement used within the state as soon as possible, but no later than December 31, 2045. The bill establishes an interim target of 40 percent below the 2019 average GHG intensity of cement by December 31, 2035. Under SB 596, CARB must: Define a metric for GHG intensity and establish a baseline from which to measure GHG intensity reductions. • Evaluate the feasibility of the 2035 interim target (40 percent reduction in GHG intensity) by July 1, 2028. • Coordinate and consult with other state agencies. • Prioritize actions that leverage state and federal incentives. • Evaluate measures to support market demand and financial incentives to encourage the production and use of cement with low GHG intensity. The 2022 Scoping Plan modeling is designed to achieve these outcomes.
Executive Order N-82-20	Executive Order N-82-20 (October 2020) combat the climate and biodiversity crises by setting a statewide goal to conserve at least 30 percent of California's land and coastal waters by 2030. The Executive Order also instructed the CNRA, in consultation with other state agencies, to develop a Natural and Working Lands Climate Smart Strategy that serves as a framework to advance the state's carbon neutrality goal and build climate resilience. In addition to setting a statewide conservation goal, the Executive Order directed CARB to update the target for natural and working lands in support of carbon neutrality as part of this Scoping Plan, and to take into consideration the NWL Climate Smart Strategy. CO_2 Executive Order N-82-20 also calls on the CNRA, in consultation with other state agencies, to establish the California Biodiversity Collaborative (Collaborative). The Collaborative shall be made up of governmental partners, California Native American tribes, experts, business and community leaders, and other stakeholders from across the state. State agencies will consult the Collaborative on efforts to: • Establish a baseline assessment of California's biodiversity that builds upon existing data and can be updated over time. • Analyze and project the impact of climate change and other stressors in California's biodiversity. • Inventory current biodiversity efforts across all sectors and highlight opportunities for additional action to preserve and enhance biodiversity. CNRA also is tasked with advancing efforts to conserve biodiversity through various actions, such as streamlining the state's process to approve and facilitate projects related to environmental restoration and land management. The California Department of Food and Agriculture (CDFA) is directed to advance efforts to conserve biodiversity through measures such as reinvigorating populations of pollinator insects, which restore biodiversity and improve agricultural production. The Natural and Working Lands Climate Smart Strategy informs 2022 Scoping Plan.
Executive Order N-79-20	Executive Order N-79-20 (September 2020) establishes targets for the transportation sector to support the state in its goal to achieve carbon neutrality by 2045. The targets established in this Executive Order are: • 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035. • 100 percent of medium- and heavy-duty vehicles will be zero-emission by 2045 for all operations where feasible, and by 2035 for drayage trucks. • 100 percent of off-road vehicles and equipment will be zero-emission by 2035 where feasible. The Executive Order also tasked CARB to develop and propose regulations that require increasing volumes of zero- electric passenger vehicles, medium- and heavy-duty vehicles,

Bill/Executive Order	Summary
	drayage trucks, and off-road vehicles toward their corresponding targets of 100 percent zero-emission by 2035 or 2045, as listed above. The 2022 Scoping Plan modeling reflects achieving these targets.
Executive Order N-19-19	Executive Order N-19-19 (September 2019) directs state government to redouble its efforts to reduce GHG emissions and mitigate the impacts of climate change while building a sustainable, inclusive economy. This Executive Order instructs the Department of Finance to create a Climate Investment Framework that: • Includes a proactive strategy for the state's pension funds that reflects the increased risks to the economy and physical environment due to climate change. • Provides a timeline and criteria to shift investments to companies and industry sectors with greater growth potential based on their focus of reducing carbon emissions and adapting to the impacts of climate change. • Aligns with the fiduciary responsibilities of the California Public Employees' Retirement System, California State Teachers' Retirement System, and the University of California Retirement Program. Executive Order N-19-19 directs the State Transportation Agency to leverage more than $5 billion in annual state transportation spending to help reverse the trend of increased fuel consumption and reduce GHG emissions associated with the transportation sector. It also calls on the Department of General Services to leverage its management and ownership of the state's 19 million square feet in managed buildings, 51,000 vehicles, and other physical assets and goods to minimize state government's carbon footprint. Finally, it tasks CARB with accelerating progress toward California's goal of five million ZEV sales by 2030 by: • Developing new criteria for clean vehicle incentive programs to encourage manufacturers to produce clean, affordable cars. • Proposing new strategies to increase demand in the primary and secondary markets for ZEVs. • Considering strengthening existing regulations or adopting new ones to achieve the necessary GHG reductions from within the transportation sector. The 2022 Scoping Plan modeling reflects efforts to accelerate ZEV deployment.
Senate Bill 576 (SB 576) (Umberg, Chapter 374, Statutes of 2019) *Coastal Resources: Climate Ready Program and Coastal Climate Change Adaptation, Infrastructure and Readiness Program*	Sea level rise, combined with storm-driven waves, poses a direct risk to the state's coastal resources, including public and private real property and infrastructure. Rising marine waters threaten sensitive coastal areas, habitats, the survival of threatened and endangered species, beaches, other recreation areas, and urban waterfronts. SB 576 mandates that the Ocean Protection Council develop and implement a coastal climate adaptation, infrastructure, and readiness program to improve the climate change resiliency of California's coastal communities, infrastructure, and habitat. This bill also instructs the State Coastal Conservancy to administer the Climate Ready Program, which addresses the impacts and potential impacts of climate change on resources within the conservancy's jurisdiction.
Assembly Bill 65 (AB 65) (Petrie-Norris, Chapter 347, Statutes of 2019) *Coastal Protection: Climate Adaption: Project Prioritization: Natural Infrastructure: Local General Plans*	This bill requires the State Coastal Conservancy, when it allocates any funding appropriated pursuant to the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018, to prioritize projects that use natural infrastructure in coastal communities to help adapt to climate change. The bill requires the conservancy to provide information to the Office of Planning and Research on any projects funded pursuant to the above provision to be considered for inclusion into the clearinghouse for climate adaption information. The bill authorizes the conservancy to provide technical assistance to coastal communities to better assist them with their projects that use natural infrastructure.
Executive Order B-55-18	Governor Brown signed Executive Order B-55-18 in September 2018 to establish a statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and to achieve and maintain net negative emissions thereafter. Policies and programs undertaken to achieve this goal shall:

Bill/Executive Order	Summary
	• Seek to improve air quality and support the health and economic resiliency of urban and rural communities, particularly low-income and disadvantaged communities. • Be implemented in a manner that supports climate adaptation and biodiversity, including protection of the state's water supply, water quality, and native plants and animals. This Executive Order also calls for CARB to: • Develop a framework for implementation and accounting that tracks progress toward this goal. • Ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The 2022 Scoping Plan is designed to achieve carbon neutrality no later than 2045 and the modeling includes technology and fuel transitions to achieve that outcome.
Senate Bill 100 (SB 100) (De León, Chapter 312, Statutes of 2018) *California Renewables Portfolio Standard Program: emissions of greenhouse gases*	Under SB 100, the CPUC, CEC, and CARB shall use programs under existing laws to achieve 100 percent clean electricity. The statute requires these agencies to issue a joint policy report on SB 100 every four years. The first of these reports was issued in 2021. The 2022 Scoping Plan reflects the SB 100 Core Scenario resource mix with a few minor updates.
Assembly Bill 2127 (AB 2127) (Ting, Chapter 365, Statutes of 2018) *Electric Vehicle Charging Infrastructure: Assessment*	This bill requires the CEC, working with CARB and the CPUC, to prepare and biennially update a statewide assessment of the electric vehicle charging infrastructure needed to support the levels of electric vehicle adoption required for the state to meet its goals of putting at least 5 million zero-emission vehicles on California roads by 2030 and of reducing emissions of GHGs to 40 percent below 1990 levels by 2030. The bill requires the CEC to regularly seek data and input from stakeholders relating to electric vehicle charging infrastructure. This bill supports the deployment of ZEVs as modeled in 2022 Scoping Plan.
Senate Bill 30 (SB 30) (Lara, Chapter 614, Statutes of 2018) *Insurance: Climate Change*	This bill requires the Insurance Commissioner to convene a working group to identify, assess, and recommend risk transfer market mechanisms that, among other things, promote investment in natural infrastructure to reduce the risks of climate change related to catastrophic events, create incentives for investment in natural infrastructure to reduce risks to communities, and provide mitigation incentives for private investment in natural lands to lessen exposure and reduce climate risks to public safety, property, utilities, and infrastructure. The bill requires the policies recommended to address specified questions.
Assembly Bill 2061 (AB 2061) (Frazier, Chapter 580, Statutes of 2018) *Near-Zero-Emission and Zero-Emission Vehicles*	Existing state and federal law sets specified limits on the total gross weight imposed on the highway by a vehicle with any group of two or more consecutive axles. Under existing federal law, the maximum gross vehicle weight of that vehicle may not exceed 82,000 pounds. AB 2061 authorizes a near-zero- emission vehicle or a zero-emission vehicle to exceed the weight limits on the power unit by up to 2,000 pounds. This bill supports the deployment of cleaner trucks as modeled in this 2022 Scoping Plan.

SOURCE: CARB, 2022.

The 2022 Scoping Plan strategies are broadly summarized in Table 2-1 starting on page 72 of the Scoping Plan (CARB 2022a). It includes references to relevant statutes and Executive Orders, although it is not comprehensive of all existing new authorities for directing or supporting the actions described. Table 2-1 identifies actions related to a variety of sectors such as: smart growth and reductions in Vehicle Miles Traveled (VMT); light-duty vehicles (LDV) and zero-emission vehicles (ZEV); truck ZEVs; reduce fossil energy, emissions, and GHGs for aviation, ocean-going vessels, port operations, freight and passenger rail, oil and gas extraction; and petroleum refining; improvements in electricity generation; electrical appliances in new and existing residential and commercial buildings; electrification and emission

reductions across industries such as the for food products, construction equipment, chemicals and allied products, pulp and paper, stone/clay/glass/cement, other industrial manufacturing, and agriculture; retiring of combined heat and power facilities; low carbon fuels for transportation, business, and industry; improvements in non-combustion methane emissions, and introduction of low GWP refrigerants.

Achieving the targets described in the 2022 Scoping Plan requires continued commitment to and successful implementation of existing policies and programs, and identification of new policy tools and technical solutions to go further, faster. California's Legislature and state agencies will continue to collaborate to achieve the state's climate, clean air, equity, and broader economic and environmental protection goals. It will be necessary to maintain and strengthen this collaborative effort, and to draw upon the assistance of the federal government, regional and local governments, tribes, communities, academic institutions, and the private sector to achieve the state's near-term and longer-term emission reduction goals and a more equitable future for all Californians. The Scoping Plan acknowledges that the path forward is not dependent on one agency, one state, or even one country. However, the State can lead by engaging Californians and demonstrating how actions at the state, regional, and local levels of governments, as well as action at community and individual levels, can contribute to addressing the challenge.

Appendix D, Local Actions, of the 2022 Scoping Plan includes "recommendations intended to build momentum for local government actions that align with the State's climate goals, with a focus on local GHG reduction strategies (commonly referred to as climate action planning) and approval of new land use development projects, including through environmental review under the California Environmental Quality Act (CEQA)." Appendix D is intended to provide clarification on challenges local jurisdictions face when implementing GHG reduction strategies or approving much-needed housing projects.[3] Aligning local jurisdiction action with state-level priorities to tackle climate change and the outcomes called for in the 2022 Scoping Plan is critical to achieving the statutory targets for 2030 and 2045. The 2022 Scoping Plan discusses the role of local governments in meeting the State's GHG reductions goals. Local governments have the primary authority to plan, zone, approve, and permit how and where land is developed to accommodate population growth, economic growth, and the changing needs of their jurisdictions. They also make critical decisions on how and when to deploy transportation infrastructure, and can choose to support transit, walking, bicycling, and neighborhoods that do not force people into cars. Local governments also have the option to adopt building ordinances that exceed statewide building code requirements and play a critical role in facilitating the rollout of ZEV infrastructure. As a result, local government decisions play a critical role in supporting state-level measures to contain the growth of GHG emissions associated with the transportation system and the built environment—the two largest GHG emissions sectors over which local governments have authority. The County has taken the initiative in combating climate change by addressing it in the County of Santa Barbara General Plan and 2030 Climate Action Plan, which is discussed below under the *Local* subheading

Cap-and-Trade Program

The Climate Change Scoping Plan identifies a Cap-and-Trade Program as one of the strategies California would employ to reduce GHG emissions. CARB asserts that this program will help put California on the

[3] CARB, 2022. Final 2022 Climate Change Scoping Plan – Appendix D: Local Actions, November. https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf. Accessed January 2024.

path to meet its goal of ultimately achieving an 80 percent reduction from 1990 levels by 2050. Pursuant to its authority under AB 32, CARB designed and adopted the California Cap-and-Trade Program to reduce GHG emissions from major sources (deemed "covered entities") by setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve AB 32's emissions reduction mandate of returning to 1990 levels of emissions by 2020 (17 CCR Sections 95800–96023).

The Cap-and-Trade Program establishes an overall limit for GHG emissions from capped sectors (e.g., electricity generation, petroleum refining, cement production, and large industrial facilities that emit more than 25,000 $MTCO_2e$ per year) and declines over time, and facilities subject to the cap may trade permits to emit GHGs. The statewide cap for GHG emissions from the capped sectors commenced in 2013 and declines over time, achieving GHG emissions reductions throughout the program's duration (17 CCR Sections 95811 and 9512). On July 17, 2017, the California Legislature enacted AB 398, extending the Cap-and-Trade Program through 2030.

The Cap-and-Trade Regulation provides a firm cap, ensuring that the statewide emission limits will not be exceeded. An inherent feature of the Cap-and-Trade Program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are only guaranteed on an accumulative basis. In other words, because climate change is a global occurrence and the impacts of GHG emissions are considered cumulative, a focus on aggregate GHG emissions reductions, rather than source-specific reductions, is warranted.

Mobile Sources

Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

In 2004, CARB adopted an Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other toxic air contaminants (13 CCR, Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure generally does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at any given location with certain exemptions for equipment in which idling is a necessary function such as concrete trucks. While this measure primarily targets diesel particulate matter emissions, it has co-benefits of minimizing GHG emissions from unnecessary truck idling.

Low Carbon Fuel Standard

In 2007, Executive Order S-01-07 mandated the following: establish a statewide goal to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020; and adopt a low-carbon fuel standard (LCFS) for transportation fuels in California. CARB identified the LCFS as one of the nine discrete early actions in the 2008 Climate Change Scoping Plan. In September 2018, the standards were amended by CARB to require a 20 percent reduction in carbon intensity by 2030, aligning with California's 2030 targets set by SB 32 (CARB 2018).

In-Use Off-Road Diesel-Fueled Fleets Regulation

In 2007, CARB promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower such as bulldozers, loaders, backhoes, and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation aims to reduce emissions by installation of diesel soot

filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models.

CARB approved amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulation in November of 2022 (CARB 2022b). The amendment will require fleets to phase-out use of the oldest and highest polluting off-road diesel vehicles, prohibit the addition of high-emitting vehicles to a fleet, and require the use of R99 or R100 renewable diesel in off-road diesel vehicles. The amendments phase-in starting in 2024 through the end of 2046 and include changes to enhance enforceability and encourage the adoption of zero-emission technologies. These amendments aim to further reduce emissions from the off-road sector.

Truck and Bus Regulation

In 2008, CARB approved the Truck and Bus regulation to reduce particulate matter and nitrogen oxide emissions from existing diesel vehicles operating in California (13 CCR, Section 2025, subsection (h)). CARB has also promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower, such as, bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation aims to reduce emissions by installation of diesel soot filters, and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models. While these regulations primarily target reductions in criteria air pollutant emission, they have co-benefits of minimizing GHG emissions due to improved engine efficiencies.

Advanced Clean Car Program

In 2012, CARB adopted the Advanced Clean Cars (ACC) emissions-control program, which is closely associated with the emissions standards for passenger vehicles and light-duty trucks discussed above (CARB 2024b). The program requires an increase in the number of zero-emissions vehicle models for years 2015 through 2025 to control smog, soot and GHG emissions. By 2025, ZEVs must be 22 percent of large volume manufacturers overall production (CARB 2024c). This program includes the Low-Emissions Vehicle (LEV) regulations to reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles; and ZEV regulations to require manufacturers to produce an increasing number of pure ZEVs (meaning battery and fuel cell electric vehicles) with the provision to produce plug-in hybrid electric vehicles (PHEV) between 2018 and 2025.

Executive Order No. N-79-20 September 2020) phases out the sales of new gasoline-fueled passenger cars by 2035 in California with an additional 10-year transition period for heavy vehicles. The State would not restrict used car sales, nor forbid residents from owning gas-powered vehicles. In accordance with the Executive Order, CARB is developing a 2020 Mobile Source Strategy, a comprehensive analysis that presents scenarios for possible strategies to reduce the carbon, toxic and unhealthy pollution from cars, trucks, equipment, and ships. The strategies will provide important information for numerous regulations and incentive programs going forward by conveying what is necessary to address the aggressive emission reduction requirements.

The primary mechanism for achieving the ZEV target for passenger cars and light trucks is CARB's Advanced Clean Cars II (ACC II) Program (CARB 2024d). The ACC II regulations will rapidly scale down light-duty passenger car, pickup truck and SUV emissions starting with the 2026 model year through 2035. The ACC II regulation amends the Zero-emission Vehicle Regulation to require an

increasing number of zero-emission vehicles, and relies on currently available advanced vehicle technologies, including battery-electric, hydrogen fuel cell electric and plug-in hybrid electric-vehicles, to meet air quality and climate change emissions standards which supports Executive Order N-79-20 that requires all new passenger vehicles sold in California to be zero emissions by 2035. Additionally, the ACC II regulation amends the Low-emission Vehicle Regulations to include increasingly stringent standards for gasoline cars and heavier passenger trucks to continue to reduce smog-forming emissions.

Advanced Clean Trucks Program

The Advanced Clean Trucks regulations were approved on June 25, 2020, and require that manufacturers sell zero-emissions or near-zero-emissions trucks as an increasing percentage of their annual California sales beginning in 2024. The goal of this proposed strategy is to achieve nitrogen oxide (NOx) and GHG emission reductions through advanced clean technology, and to increase the penetration of the first wave of zero-emissions heavy-duty technology into applications that are well suited to its use. According to CARB, "Promoting the development and use of advanced clean trucks will help CARB achieve its emission reduction strategies as outlined in the SIP, Sustainable Freight Action Plan, SB 350, and AB 32" (CARB 2024e). The percentage of zero-emissions truck sales is required to increase every year until 2035 when sales would need to be 55 percent of Classes 2b–3 (light/medium- and medium-duty trucks) truck sales, 75 percent of Classes 4–8 (medium- to heavy-duty trucks) straight truck sales, and 40 percent of truck tractor (heavy-duty trucks weighing 33,001 pounds or greater) sales. Additionally, large fleet operators (of 50 or more trucks) would be required to report information about shipments and services and their existing fleet operations.

Land Use and Transportation Planning

In 2008, SB 375 (Chapter 728, Statutes of 2008) established mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions. Under SB 375, CARB is required, in consultation with the State's metropolitan planning organizations (MPOs), to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035 (CARB 2024f). The proposed reduction targets explicitly exclude emission reductions expected from the AB 1493 and the LCFS regulations.

Under SB 375, the regional GHG reduction target must be incorporated within the applicable MPO's Regional Transportation Plan (RTP), which is used for long-term transportation planning, in a Sustainable Communities Strategy (SCS). In 2011, CARB adopted GHG emissions reduction targets for the Santa Barbara County Association of Governments (SBCAG), the MPO for the region. In 2018, CARB updated the SB 375 targets to require a 13 percent reduction by 2020 and a 17 percent reduction by 2035 in per capita passenger vehicle GHG emissions (CARB 2024g).

Energy Sector

The California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR, Title 24, Part 6) were adopted to ensure that building construction and system design and installation achieve energy efficiency and preserve outdoor and indoor environmental quality. The CEC first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and non-residential

buildings subject to the standard. The standards are updated periodically (typically every three years) to allow for the consideration and inclusion of new energy efficiency technologies and methods.

The current California Building Energy Efficiency Standards (Title 24 standards) are the 2022 Title 24 standards, which became effective January 1, 2023. The 2022 Title 24 standards encourage efficient electric heat pumps, establish electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards, and more. Buildings whose permit applications are applied for on or after January 1, 2023, must comply with the 2022 standards (CEC 2022).

The California Green Building Standards Code (CCR, Title 24, Part 11), commonly referred to as the CALGreen Code, with the most current version being the 2022 version which became effective January 1, 2023. The purpose of the CALGreen Building Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality" (CBSC 2010). The CALGreen Building Code is not intended to substitute for or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission. The CALGreen Building Code establishes mandatory measures for new residential and non-residential buildings. The CALGreen Code includes mandatory measures for non-residential development related to site development, energy efficiency, water efficiency and conservation; material conservation and resource efficiency; and environmental quality. The 2022 CALGreen Code: revises standards for electric vehicle charging for new construction, primarily multi-family dwellings and hotels/motels, including increased requirements for EV parking spaces and EVSE Level 2 chargers, establishes heat pumps as a baseline technology, strengthens ventilation standards, establishes electric-ready requirements for new homes, and sets minimum solar photovoltaic and battery energy storage capacity for high-rise multifamily and commercial buildings, including office buildings, grocery stores, and schools, and more.

The 2012 Appliance Efficiency Regulations (CCR, Title 20, Sections 1601 through 1608) took effect February 13, 2013. The regulations include standards for both federally regulated appliances and non-federally regulated appliances.

The State has adopted regulations to increase the proportion of electricity from renewable sources. SB 350 (Chapter 547, Statues of 2015) set the Renewables Portfolio Standard (RPS) to 50 percent by 2030, including interim targets of 40 percent by 2024 and 45 percent by 2027. In 2018, SB 100 further increased California's RPS and requires retail sellers and local publicly-owned electric utilities to procure eligible renewable electricity for 44 percent of retail sales by the end of 2024, 52 percent by the end of 2027, and 60 percent by the end of 2030; and requires that CARB should plan for 100 percent eligible renewable energy resources and zero-carbon resources by the end of 2045.

The California Public Utilities Commission (CPUC) and the CEC jointly implement the RPS program. The CPUC's responsibilities include: (1) determining annual procurement targets and enforcing compliance; (2) reviewing and approving each investor-owned utility's renewable energy procurement

plan; (3) reviewing contracts for RPS-eligible energy; and (4) establishing the standard terms and conditions used in contracts for eligible renewable energy.

Regional

Santa Barbara County Association of Governments

SBCAG serves as the MPO for Santa Barbara County as is responsible for developing and maintaining a long-range transportation plan for the region. In general, the SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled from automobiles and light duty trucks and thereby reduce GHG emissions from these sources. For the SBCAG region, Connected 2050 RTP/SCS, adopted in August 2021, is the current RTP/SCS. Connected 2050 RTP/SCS focuses on the continued efforts of the previous RTP/SCS plans for an integrated approach in transportation and land use strategies in development of the SBCAG region through horizon year 2050. Connected 2050 RTP/SCS projects that the SBCAG region will meet the GHG per capita reduction targets established for the SBCAG region of 17 percent by 2035.

Santa Barbara County Air Pollution Control District

As discussed in Section 4.1, *Air Quality*, of this PEIR, the Santa Barbara County Air Pollution Control District (SBCAPCD) is responsible for air quality planning in the South Central Coast Air Basin (where the Project is located) and developing rules and regulations to bring the Air Basin into attainment of the ambient air quality standards. The SBCAPCD has adopted Environmental Review Guidelines (2015) in which it has adopted a GHG thresholds. The Guidelines state that a stationary source proposed project would not have a significant adverse environmental impact if operation of the project would:

1. Emit less than the screening significance level of 10,000 $MTCO_2e$ per year, or
2. Show compliance with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions (sources subject to the AB 32 Cap-and-Trade requirements pursuant to Title 17, Article 5 (California Cap on Greenhouse Gas Emissions and Market-based Compliance Mechanisms) would meet the criteria), or
3. Show consistency with the AB 32 Scoping Plan GHG emission reduction goals by reducing project emissions 15.3% below Business As Usual (BAU).

Additionally, the SBCAPCD has promoted a number of programs to promote energy conservation, low-carbon fuel technologies (natural gas vehicles; electric-hybrids, hydraulic-hybrids, and battery-electric vehicles), renewable energy, VMT reduction programs, and market incentive programs which would reduce GHG emissions.

Local

Santa Barbara County Environmental Thresholds and Guidelines Manual

The Santa Barbara County Environmental Thresholds and Guidelines Manual was revised and republished in August 2024. The purpose of this document is to assist with the use and application of environmental impact thresholds. The County has established the procedure for determining the significance of impacts from project-related GHG emissions. In general, a project may be evaluated with respect to the County's adopted industrial stationary source threshold, consistency with applicable GHG

strategies in the 2030 CAP, and/or the non-industrial stationary source thresholds. The non-industrial GHG thresholds, as well as the evaluation of consistency with applicable GHG strategies in the 2030 CAP may be applicable to the Project.

County of Santa Barbara General Plan

The County of Santa Barbara General Plan Energy Element (County of Santa Barbara 2015) was adopted in 1994 and republished June 2015 and amended in August 2024, and is applicable to the unincorporated communities of the Project, such as Cuyama/New Cuyama, Casmalia, Jonata Park, Refugio Canyon, the Highway 246 Corridor (five neighborhoods between Lompoc and Buellton), and the communities East of Santa Maria (Garey, Sisquoc, and Tepusquet Road communities). The Energy Element contains the following goals and policies that address GHGs that apply to the Broadband Program:

Goal 3: Transportation and Land Use – Provide a composition of land-uses and transportation programs that reduces dependency on automobiles.

Policy 3.2: Teleconferencing Telecommuting/Electronic Communication. The County should continue to research and support opportunities for telecommunication and computer-based communication that reduce the need for travel.

Goal 4: Water Use and Solid Waste – Increase the efficiency of water and resource use to reduce energy consumption associated with various phases of using resources (pumping, distribution, treatment, heating, etc.).

Policy 4.1: Construction. Encourage recycling and reuse of construction waste to reduce energy consumption associated with extracting and manufacturing virgin materials.

Policy 4.3: Reuse of Asphalt. Promote reuse of asphalt removed from roads and paved structures within the county and use of recycled materials in roadway and paved surface construction.

County of Santa Barbara Energy and Climate Action Plan (ECAP)

The County's current 2015 Energy & Climate Action Plan (County of Santa Barbara 2020) sunset in 2020. The goal of the ECAP was to reduce GHG emissions by 15 percent (below 2007 levels by 2020 through the implementation of 53 measures. Results of the ECAP were that 41 out of 53 measures were either initiated or completed by 2020, five measures were not started, and seven measures were discontinued (County of Santa Barbara 2020). An estimated 100, 754 out of 226,760 (44 percent) metric tons of CO2e (MTCO2e) were reduced or avoided from ECAP implementation (County of Santa Barbara 2020). Additional measures from two other programs (Community Choice Energy and Tajiguas Landfill ReSource Center) achieved an estimated reduction of 156,768 $MTCO_2e$ (County of Santa Barbara 2020). The total of all reductions equated to the County of Santa Barbara meeting 69 percent of the ECAP's reduction target, which represents a three percent decrease from 2016, the County of Santa Barbara was still 11 percent over 2007 baseline levels (County of Santa Barbara 2020).

County of Santa Barbara 2030 Climate Action Plan (CAP)

The 2030 CAP (County of Santa Barbara 2023b) has set a goal to achieve a 50% reduction of communitywide greenhouse gas emissions from 2018 levels by 2030. The measures laid out in the 2030 CAP provide a foundation that aligns with the State of California's goals to reduce GHG emissions to

40% below 1990 levels and achieve carbon neutrality by 2045. The CAP's six focus areas are: 1) Housing and Transportation; 2) Clean Energy; 3) Waste, Water, and Wastewater; 4) Nature-Based Solutions; 5) Low-Carbon Economy; and 6) Municipal Operations (County of Santa Barbara 2023b). General measures that may apply to the Project include Transportation Measure TR-2, which would help implement programs and strategies to reduce countywide vehicle miles traveled. Specifically, the proposed Project is related to Action TR-2.12, Broadband Accessibility, which directs the County to work with SBCAG to increase internet access and speed to support telecommuting, remote workforce participation and wireless (i.e., wi-fi) enabled demand response programs, especially in rural areas of the County. Additionally, Action TR-2.10, Employer Trip Reduction Requirements & Programs, is aimed to help achieve a 50-80 percent telework participation rate for large employers within the unincorporated County. The Draft 2030 CAP was adopted by the County Board of Supervisors on August 27, 2024.

Santa Barbara County Code

Santa Barbara County Code Article VI adopts the California Energy Code, 2022 Edition as the Primary Energy Code of the County. The California Energy Code has specific requirements for building design to reduce energy consumption, including the use of certain building materials to ensure a greater degree of energy efficiency during building operation and construction and energy efficiency standards for appliances, lighting amenities, and water fixtures, among other project components.

Los Alamos Community Plan

The Los Alamos Community Plan, adopted February 15, 2011, includes an Air Quality Element which contains the following goals and policies related to GHG reduction applicable to the Project:

Goal AQ-LA-1: Maintain Healthful Air Quality in the Los Alamos Valley.

Policy AQ-LA-1.2: The County shall strive for consistency of all land use planning with the Clean Air Plan.

Policy AQ-LA-1.3: The County shall implement those land use patterns and transportation programs which will serve to reduce vehicle trips and total vehicle miles traveled. This includes-but is not limited to the following, as additional measures are encouraged.

- Include design features to encourage alternate transportation modes.
- Allow onsite services as by right to reduce the need for travel outside the Plan Area.

Policy AQ-LA-1.4: The County, when reviewing discretionary projects, shall require the use of techniques designed to conserve energy and minimize pollution.

Dev Std AQ-LA.1.4.6: Upon application for grading permits for discretionary projects, the applicant shall submit grading plans, the proposed rate of material movement and a construction equipment schedule to the APCD. In addition, the applicant shall implement the following measures where feasible to mitigate equipment emissions:

- All construction equipment and portable engines shall be properly maintained and tuned according to manufacturer's specifications;
- All off-road and portable diesel powered equipment, including but not limited to bulldozers, graders, cranes, loaders, scrapers, backhoes, generator sets, compressors,

auxiliary power units, shall be fueled exclusively with CARB-certified motor vehicle diesel fuel;

- The applicant shall, at a minimum, use diesel construction equipment meeting the California Air Resources Board's Tier 1 emission standards for off-road heavy-duty diesel engines. Equipment meeting Tier 2 or higher emission standards should be used to the maximum extent feasible.
- All on and off-road diesel equipment shall not be allowed to idle for more than 5 minutes. Signs shall be posted in the designated queuing areas to remind drivers and operators of the 5 minute idling limit;
- The applicant shall electrify equipment where feasible;
- The applicant shall substitute gasoline-powered for diesel powered equipment where feasible;
- The applicant shall use alternatively fueled construction equipment, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel, where feasible; and
- The applicant shall apply Best Available Control Technology (BACT) as determined by the APCD.
- Recycle/Reuse demolished construction material.

Dev Std AQ-LA.1.4.9: The County shall require, unless economically infeasible, all future projects to incorporate the following Green House Gas reduction measures to the maximum extent feasible:

- Recycle/Reuse demolished construction material. Use locally made building materials for construction of the project and associated infrastructure.

Santa Ynez Community Plan

The Santa Ynez Valley Community Plan, adopted October 6, 2009, covers Los Olivos, and contains a Land Use Element which has the following GHG reduction policies applicable to the Project:

Policy LUG-SYV-8: The public shall be protected from air emissions and odors that could jeopardize health and welfare.

Action LUG-SYV-8.3: Specific limits on idling time for commercial vehicles, including delivery and construction vehicles, shall be set for projects proposing new commercial development.

Dev Std LUG-SYV-8.9: The County shall require, unless economically infeasible, all future projects to incorporate the following Green House Gas reduction measures to the maximum extent feasible:

- Recycle/Reuse demolished construction material. Use locally made building materials for construction of the project and associated infrastructure.

City of Guadalupe General Plan

The City of Guadalupe 2042 General Plan (City of Guadalupe 2022), adopted November 22, 2022, includes the Conservation and Open Space, Air Quality and Safety, and Environmental Justice Elements which contains the following goals and policies that address GHGs:

Conservation and Open Space

Goal COS-3: To reduce greenhouse gas production and energy use and increase production and use of renewable energy.

> **Policy COS-1.14:** Until such time as the City adopts a qualified action plan consistent with mitigation measure GHG-1, individual development projects shall be constructed to use no natural gas and to meet California Green Building Standards Code Tier 2 requirements for electric vehicle charging infrastructure. Where such projects also generate less than 110 vehicle trips per day or produce less than 1,100 metric tons per year of carbon dioxide equivalent, no further action is required. Where such projects do not meet either the daily trip volume or mass emissions criteria, a VMT analysis must be conducted. If the VMT impact is less than significant, no further action is required. If the proposed project cannot meet one or more of the three required best management practices (no natural gas, electric vehicle support infrastructure, and less-than-significant VMT impact), the project applicant shall: 1) identify and implement other GHG reduction measures, with a priority on on-site measures; and/or 2) purchase and retire carbon offsets from a qualified registry that are real, permanent, quantifiable, verifiable, enforceable, and additional. The emission reductions and/or offsets must be equivalent to reductions that would otherwise be realized from the best management practice(s) that cannot be implemented.

Air Quality and Safety

Goal S-1: To achieve and maintain clean, healthy air for the residents of Guadalupe and to reduce greenhouse gases consistent with state efforts to address climate change.

> **Policy S-1.4:** The City will support continuing regional efforts to mitigate the effects of climate change through the multi-jurisdictional hazard mitigation planning process administered by the County of Santa Barbara.

Goal S-2: To make Guadalupe a resilient community with minimized damage from climate-change-induced hazards.

Environmental Justice

> **Policy EJ-1.1:** The City will prepare a climate action plan to identify ways to reduce citywide greenhouse gas emissions and minimize the impacts of climate change on Guadalupe residents. The climate action plan will incorporate the goals of reducing emissions within the city to 40 percent below 1990 levels by 2030 and achieve carbon neutrality by 2045.

4.5.3 Analysis, Impacts and Mitigation

Methodology

Construction

The proposed Project would generate GHG from construction equipment and construction worker vehicles and heavy-duty trucks during construction of the Project. Construction emissions are forecasted by assuming a conservative estimate of construction activities from each phase of the Project. Construction emissions are estimated using CalEEMod software (Version 2022.1). Consistent with calculations in Section 4.1, *Air Quality*, construction emissions were forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest

feasible date) and applying the mobile source emissions factors. As discussed in Chapter 2, *Project Description*, a total of nine communities in the County have already been identified as "Priority Areas" under the Broadband Program. However, funding has not been secured for all Priority Areas and it is unknown if all locations will be funded. Nonetheless, for the purposes of this EIR and to provide for a conservative and environmentally protective analysis, GHG emission impacts for all of the nine Priority Areas are analyzed. The input values used in this analysis were adjusted to be Project-specific based on equipment types and the construction schedule. These values were then applied to the same construction phasing assumptions used in the criteria pollutant analysis in Section 4.1, *Air Quality*, to generate GHG emissions values for the proposed Project. In addition, construction-related GHG emissions would occur from energy consumption from electricity used for the construction office (lights, electronic equipment, and heating and cooling) and water conveyance for dust control.

As per County of Santa Barbara guidelines, see Significance Thresholds below, construction GHG emissions should be amortized over a 30-year project lifetime, so that construction emissions are included as part of the operational GHG life cycle. In accordance with the County's guidelines, GHG emissions from construction have been amortized over the 30-year lifetime of the project and are discussed as a part of the qualitative operational discussion in order to the determination of significance.

Operations

Once constructed, the broadband network components would generally operate passively, with only occasional maintenance typically consisting of weed abatement and periodic accessing of hand holes and splice cases from the ground surface along a given alignment. Operational activities would generate minimal GHG emissions associated with the limited maintenance checks. It was assumed that the ongoing operation of the various broadband installations would induce no more than a few vehicles per month, which would not result in a substantial source of GHG emissions. The Project would not induce any new electrical demand or generate solid waste or wastewater beyond existing conditions.

Consistency with GHG Reduction Plans

Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the project (14 CCR § 15064(h)(3)). To qualify, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency (14 CCR § 15064(h)(3)). Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plan, [and] plans or regulations for the reduction of greenhouse gas emissions" (14 CCR § 15064(h)(3)). Thus, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of non-significance for GHG emissions if a project complies with a program and/or other regulatory schemes to reduce GHG emissions.

Significance Thresholds

This analysis follows the guidance and methodologies recommended in the CEQA Appendix G thresholds, SBCAPCD's *Scope and Content of Air Quality Sections in Environmental Documents* (2022b), and the County of Santa Barbara *Environmental Thresholds and Guidelines Manual* (2024). While there is some overlap in the thresholds from these three sources, each has been individually listed below because thresholds from these sources may be applicable to individual projects under the Broadband Program.

CEQA Appendix G Significance Thresholds

Pursuant to Appendix G of the State CEQA Guidelines, GHG impacts related to the proposed project would be significant if the project would:

a) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The issue of climate change typically involves an analysis of whether a project's contribution towards an impact is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15355).

SBCAPCD Significance Thresholds

According to the SBCAPCD *Scope and Content of Air Quality Sections in Environmental Documents* (2022), a proposed stationary source[4] project would have a significant climate change and greenhouse gases impact on the environment if operation of the project would:

- Emit more than the screening significance level of 10,000 $MTCO_2e$ per year, or
- Does not show compliance with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions (sources subject to the AB 32 Cap-and-Trade requirements pursuant to Title 17, Article 5 (California Cap on Greenhouse Gas Emissions and Market-based Compliance Mechanisms) would meet the criteria), or
- Does not show consistency with the AB 32 Scoping Plan GHG emission reduction goals by reducing project emissions 15.3% below Business As Usual (BAU).

If annual emissions of GHGs exceed these threshold levels, the proposed project would result in a cumulatively considerable contribution of GHG emissions and a cumulatively significant adverse environmental impact.

The SBCAPCD does not currently have quantitative thresholds of significance in place for short-term or construction GHG emissions.

[4] A stationary source is any building, structure, facility, or installation which emits or may emit an air pollutant directly or as fugitive emissions.

County of Santa Barbara Significance Thresholds

Consistent with CEQA Guidelines Section 15064.7, Thresholds of Significance, the County of Santa Barbara developed and adopted thresholds of significance for determining the significance of a project's GHG emissions. According to the County's Environmental Thresholds and Guidelines Manual (2024), the County has developed thresholds for project-related GHG emissions, and a significant adverse GHG impact may occur when a project, individually or cumulatively, exceeds the significance thresholds.

Any project that does not demonstrate consistency with the 2030 CAP (i.e., the project or plan is not complying with the 2030 CAP measures) cannot be tiered off of the 2030 CAP PEIR, and must be reviewed subject to the quantitative thresholds. The quantitative threshold for non-industrial projects applies to both direct and indirect emissions of GHGs. Direct emissions encompass the project's complete operations, including GHGs emitted from all on-site (e.g., natural gas combustion in appliances) and mobile sources, involved in the operation, including off-road equipment, as well as the removal of trees and other vegetation. Indirect emissions encompass GHGs that are emitted to provide the project with electricity (including generation and transmission) and supply the project with water (including water treatment and conveyance). The interim thresholds apply to emissions from the transportation and treatment of solid and liquid waste produced from the project's operations and water for the project's operations, and transportation and processing of solid waste. Construction related GHG emissions are to be amortized across the lifetime of the project (i.e., dividing total construction GHG emissions by the number of years the project is expected to be operated) if know, or a default lifetime of 30 years.

The County's thresholds are separated into three categories - residential, non-residential, and mixed-use. A project's total estimated GHG emissions calculated using CalEEMod would be divided by the total number of residents, jobs, or service persons created by the project or plan. The efficiency thresholds established by the County are 2.68 MT CO_2e per resident for residential projects, 2.63 MT CO_2e per employee for non-residential projects, and 2.67 MT CO_2e per service person for mixed-use projects.

Impacts and Mitigation Measures

This section describes generalized GHG and climate change impacts associated with the Broadband Program. The concurrent construction of the five near-term Priority Area projects analyzed in this Program EIR would be representative of future broadband projects of similar size and scale located in other areas of the County. In general, implementation of future broadband projects envisioned by the Broadband Program could result in GHG and climate change impacts as described in the following sections.

Threshold 1: Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Impact Statement 1: Implementation of the Broadband Program could generate GHG emissions, directly or indirectly, that exceed the County of Santa Barbara or SBCAPCD screening thresholds or significance thresholds resulting in a significant impact on the environment.

Priority Area Projects

Construction

Construction of the Project has the potential to generate GHG emissions through the use of heavy-duty construction equipment, such as backhoes, loaders, drill rigs, trenchers, and other equipment; and through vehicle trips generated by workers, haul trucks, and vendor trucks traveling to and from the Project Site. Mobile source GHG emissions would result from the use of construction equipment and worker vehicles and trucks. In accordance with County guidance, GHG emissions from construction have been amortized over the 30-year lifetime of the five near-term Priority Area projects and are added to the operational emissions discussion for the determination of significance (see discussion below under Operation for impact conclusion). While funding has not been secured for all Priority Areas, for the purposes of this analysis and to provide for a conservative and environmentally protective analysis, it is assumed that construction of five near-term Priority Area projects would occur simultaneously over a period of approximately 24 months beginning as early as in Spring 2025. Project construction emissions are shown in **Table 4.5-5**, *Construction GHG Emissions for the Five Near-Term Priority Area Projects***.** Refer to Appendix F for construction assumptions and detailed input parameters and results.

TABLE 4.5-5
CONSTRUCTION GHG EMISSIONS FOR THE FIVE NEAR-TERM PRIORITY AREA PROJECTS

Construction Year[a]	CO_2e (Metric Tons/year)[b]
Year 1	1,859
Year 2	4,136
Year 3	206
Total Construction Emissions	**6,202**
Amortized Construction Emissions (30-years)	207

[a] Construction of the five near-term Priority Area projects would last for approximately 24 months. For emissions modeling purposes, construction was assumed to begin in early-2025, corresponding to Year 1 and end in early 2027, corresponding to Year 3.

[b] Totals may not add up exactly due to rounding in the modeling calculations Detailed emissions calculations are provided in Appendix F.

SOURCE: ESA, 2024.

Future Broadband Project Construction

It is anticipated that future broadband projects, located in other areas of the County, would be of similar size and scale, with a comparable construction effort in terms of overall intensity, would employ a similar mix of construction methods and equipment, and would result in similar construction durations as those assumed for the initial five near-term Priority Area projects. Thus, they would generate approximately the same GHG emissions during construction. The Broadband Program would install broadband services in a

total of nine different areas, with the expectation that these five near-term Priority Area projects may be constructed simultaneously. The remaining four areas that would occur as future broadband projects would also generate construction-related GHG emissions; however, the linear mileage for the future broadband projects is not known. Therefore, GHG emissions have been estimated for the future broadband projects based on the assumption that the per project mileage for the future broadband projects is roughly equivalent to the per project mileage for the five near-term Priority areas. Based on these assumptions, it is expected that the construction of the future broadband projects would result in GHG emissions of approximately 4,962 $MTCO_2e$ over the course of construction with an amortized construction GHG emission of approximately 166 $MTCO_2e$. The amortized construction GHG emissions from the future broadband projects are considered in the context of operational GHG emissions below.

Operation

Operation of the initial five near-term Priority Area projects would generally operate passively, with only occasional maintenance typically consisting of weed abatement and periodic accessing of hand holes and splice cases from the ground surface along a given alignment. The Project's limited maintenance operations would include a few vehicles per month and would result in minimal GHG emissions. According to the Santa Barbara County Environmental Thresholds and Guidelines Manual, projects that do not demonstrate consistency with the 2030 CAP and its measures must be analyzed subject to the County's established quantitative thresholds. As discussed in depth below, the Project would be consistent with several measures within the CAP. However, the CAP's consistency checklist would not be applicable to the Proposed Project. Step 2 of the Checklist Applicability contained within the Compliance Checklist Table notes that projects that involve the preparation of a CEQA document but do not include new buildings, substantial redevelopment, or additions of more than 2,000 square feet of floor area to existing building would not be applicable for compliance analysis under the checklist and that no further GHG analysis is required. Due the fact that the proposed Project is not a typical land use project, for which the CAP checklist was primarily prepared for, the project is not required to utilize the checklist for consistency. Nevertheless, the Project would adhere to several measures contained within the CAP, including TR-2.10 and TR-2.12. Furthermore, because the CAP checklist notes that no further GHG analysis is necessary, the efficiency thresholds established by the County would not be applicable, nor suitable for the Broadband Program, because the Project does not involve the construction and operation of a traditional land use, such as a residential or office building, with well-defined residential and employee populations.

Furthermore, the Project would not require additional employees to conduct maintenance; therefore, an increase in worker-related commuting vehicle emissions would not be anticipated. The Broadband Program would also not induce new electricity demand, nor would it result in solid waste or wastewater. The Project's amortized construction GHG emissions would result in approximately 207 $MTCO_2e$. The Project's operation would require minimal employees and maintenance vehicles and would result in negligible emissions over those of existing conditions. Additionally, the Project would expand access to broadband internet, which may introduce opportunities for telecommuting in rural areas. The Project's expansion of broadband services would likely result in a reduction in VMT countywide, lowering the GHG emissions associated with mobile vehicles. Although the County's 2030 CAP lists the expansion of Broadband services as a strategy to lower countywide vehicle miles traveled and the associated GHG

emissions, these reductions in GHG emissions were not quantified at this time. Nevertheless, the Project would have minimal operational emissions and therefore this impact is less than significant.

Future Broadband Project Operation

Similar to the operation of the five near-term Priority Area projects, operation of future yet-to-be-proposed broadband projects would generally operate passively, with only occasional vehicle maintenance trips. It is anticipated that the future broadband projects, which would be located in different areas of the County, would be of similar size and scale as these five near-term Priority Area projects. As with the operation of the five near-term Priority Area projects, the operation of the future broadband projects would not require additional employees to conduct maintenance, would not induce new electricity demand, nor would it result in solid waste or wastewater. The Project's operation would result in negligible emissions over those of existing conditions.

The Project's total amortized construction GHG emissions from both the five near term Priority Areas and other future broadband installation projects would result in a total approximately 373 $MTCO_2e$ (i.e., 207 + 166 $MTCO_2e$). The Project's total amortized construction GHG emissions estimate does not account for the reductions in GHG emissions that would occur as a result of Project implementation.

It is expected that the Broadband Program would directly contribute to achieving the 2030 CAP Action TR-2.12, Broadband Accessibility, which aims to expand internet access in rural parts of the County (County of Santa Barbara 2023b). The Project would help this expansion of broadband accessibility to support remote workforce and telecommuting efforts, which would reduce county-wide VMT levels, resulting in reduced GHG emissions from motor vehicles, primarily those associated with workforce commuting. Data provided by SBCAG's Connected 2050 RTP/SCS provides substantial evidence that the expansion of broadband accessibility would reduce county-wide VMT. As stated in SBCAG's Connected 2050 RTP/SCS, it is estimated that if people were able to work remotely, 50-80 percent would do so, and assuming they would work remotely 2 to 4 days per week, the VMT reduction would be between 450,000-750,000 per day (SBCAG 2021). Although this is a countywide estimate that would include both incorporated cities and unincorporated cities, the evidence demonstrates that those areas affected by the Project's expansion of services would experience VMT reductions and associated GHG emissions reductions. Thus, with these levels of reduction in VMT, it is expected that the reductions in VMT, and associated GHG emissions, as a result of the Project would offset the Project's total amortized construction GHG emissions. Therefore, it is expected that the Project's net GHG emissions would be minimal, and likely net negative. Therefore, GHG emission impacts would be less than significant.

Mitigation Measures

None required.

Cumulative Impacts

Implementation of the Broadband Program, in combination with other development, could contribute to the generation of cumulative GHG emissions, directly or indirectly, that exceed the County of Santa Barbara or SBCAPCD screening thresholds or significance thresholds resulting in a significant cumulative impact on the environment.

Analysis of GHG emissions is cumulative in nature because impacts are caused by cumulative global emissions and additionally, climate change impacts related to GHG emissions do not necessarily occur in the same area as a project is located. The emission of GHGs by a single development project into the atmosphere is not itself necessarily an adverse environmental effect. Rather, it is the increased accumulation of GHGs from more than one project and many sources in the atmosphere that may result in global climate change. The resultant consequences of climate change can cause adverse environmental effects. A project's GHG emissions typically would be very small in comparison to state or global GHG emissions and, consequently, they would, in isolation, have no significant direct impact on climate change.

As discussed above, the primary source of GHG emissions generated by implementation of the proposed Project would occur during construction, which would be temporary in nature. With the GHG reductions expected to result from the Project's implementation, the Project's would have minimal GHG emissions that would not conflict with any County of Santa Barbara or SBCAPCD significance thresholds and thus, would not result in a significant cumulative GHG impact. All past, present, and future projects would also have to meet the County's or SBCAPCD significance thresholds or mitigate impacts. Therefore, even when considered in conjunction with other development projects, the proposed Projects' impact would not be considered cumulatively significant since they are below the significance thresholds.

Mitigation Measures

None required.

Threshold 2: Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Impact Statement 2: Implementation of the Priority Area projects and future broadband projects could contribute to cumulative GHG impacts if it would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Priority Area Projects and Future Broadband Projects

In order to assess the Priority Area and future broadband projects' potential to conflict with the 2022 Climate Change Scoping Plan, SBCAG's 2050 Connected RTP/SCS, and the County of Santa Barbara General Plan and 2030 Climate Action Plan, this section analyzes the Priority Area and future broadband projects consistency with the strategies and policies set forth in these plans to meet GHG emission-reduction targets set by CARB. Generally, projects are considered to not conflict with applicable land use plans and regulations if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals.

CARB 2022 Scoping Plan

The CARB 2022 Scoping Plan was adopted in December 2022 and expands on prior Scoping Plans and recent legislations, such as AB 1279, by outlining a technologically feasible, cost-effective, and equity-focused path to achieve the state's climate target of reducing anthropogenic GHG emissions to 85 percent below 1990 levels and achieving carbon neutrality by 2045 or earlier (CARB 2022a). To achieve carbon neutrality by 2045, the 2022 Scoping Plan contains GHG reductions, technology, and clean energy mandated by statutes, reduction of short-lived climate pollutants, and mechanical carbon dioxide capture and sequestration actions. The 2022 Scoping Plan contains actions and strategies to meet GHG reduction goals. **Table 4.5-6,** *Consistency Analysis with Applicable 2022 Scoping Plan Actions and Strategies***,** contains a list of GHG emission reduction actions and strategies from the 2022 Scoping Plan and describes the Broadband Program Priority Area projects and future broadband projects consistency with them. As shown in Table 4.5-6, the Priority Area and future broadband projects would not conflict with the 2022 Scoping Plan and impacts would be less than significant.

TABLE 4.5-6
CONSISTENCY ANALYSIS WITH APPLICABLE 2022 SCOPING PLAN ACTIONS AND STRATEGIES

2022 Scoping Plan Action	Responsible Party(ies)	Consistency Analysis
Transportation Technology and Fuels Sector Achieve 100 percent ZEV sales of light duty vehicles by 2035 and medium heavy-duty vehicles by 2040. Accelerate the reduction and replacement of fossil fuel production and consumption in California.	State agencies and local agencies	**No Conflict.** The Priority Area and future broadband projects would not conflict with these actions but would benefit from them by reducing GHG emissions from maintenance vehicles during operation as fossil fueled vehicles are replaced with ZEV.
Vehicles Miles Traveled Sector Achieve a per capita VMT reduction of at least 25 percent below 2019 levels by 2030 and 30 percent below 2019 levels by 2045.	State agencies and local agencies	**No Conflict.** The Priority Area and future broadband projects would support better internet for telecommuting in rural areas. This would result in supporting the Scoping Plan's initiative to prioritize projects that would result in a reduction of VMT from greater availability to options for telecommuting and telehealth. The Project would support this initiative by expanding telecommuting options through improved wireless internet connectivity, and thus reducing countywide VMT. Overall, VMT reductions associated with the Priority Area and future broadband projects would exceed the minimal VMT generated from occasional inspection and maintenance activities. Additionally, the Priority Area and future broadband projects would not induce growth, so they would not affect VMT reduction efforts.
Clean Electricity Grid Sector Use long-term planning processes (Integrated Energy Policy Report, IRP, CAISO Transmission Planning Process, AB 32 Climate Change Scoping Plan) to support grid reliability and expansion of renewable and zero-carbon resource and infrastructure deployment.	State agencies and local agencies	**No Conflict.** Decarbonizing the electricity sector depends on both using energy more efficiently and replacing fossil-fueled generation with renewable and zero carbon resources, including solar, wind, energy storage, geothermal, biomass, and hydroelectric power. The Priority Area and future broadband projects would not result in additional electricity demand over current existing conditions, so this measure does not apply to the Priority Area and future broadband projects. As such, the Priority Area and future broadband projects would not conflict with actions in the clean electricity grid sector to reduce GHGs.

2022 Scoping Plan Action	Responsible Party(ies)	Consistency Analysis
Sustainable Manufacturing and Buildings Industry and Building Sectors Maximize air quality benefits using the best available control technologies for stationary sources in communities most in need, including frontline, low-income, disadvantaged, rural, and tribal communities. Achieve three million all-electric and electric-ready homes by 2030 and seven million by 2035 with six million heat pumps installed statewide by 2030.	State agencies and local agencies	**No Conflict.** The 2022 Scoping Plan reduces dependence on fossil gas in the industrial and building sectors by transitioning substantial energy demand to alternative fuels. The Project would not result in the construction of any buildings, and thus this measure does not apply to the Priority Area and future broadband projects. As such, the Priority Area and future broadband projects would not conflict with actions in the sustainable manufacturing and buildings industry and building sectors to reduce GHGs.
Carbon Dioxide Removal and Capture Sector Implement SB 905 by convening a multi-agency Carbon Capture and Sequestration Group to identify the current status, concerns, and outstanding questions concerning CCS, and develop a process to engage with communities to understand specific concerns and consider guardrails to ensure safe and effective deployment of CCS. Iteratively update the CARB CCS Protocol with the best available science and implementation experience.	State agencies and local agencies	**No Conflict.** The Priority Area and future broadband projects would not conflict with measures to increase carbon dioxide removal and capture. In general, the new fiber optic lines would be installed underground along existing public or private roadways with the intention to minimize or avoid disturbance of roadway surfaces wherever feasible. However, it is possible some fiber optic lines could be installed directly under roadways in areas with limited shoulder space or where existing conduit under the road may be used, thus avoiding new surface disturbance. Lateral alignments would typically follow other utility installations. Thus, the Priority Area and future broadband projects would avoid disturbing vegetation as much as possible. As such, the Priority Area and future broadband projects are consistent with measures in the carbon dioxide removal and capture sector to reduce GHG emissions.
Short-Lived Climate Pollutants (Non-Combustion Gases) Sectors Install state of the art anaerobic digesters that maximize air and water quality protection, maximize biomethane capture, and direct biomethane to sectors that are hard to decarbonize or as a feedstock for energy. Maximize existing infrastructure and expand it to reduce landfill disposal, with strategies including composting, anaerobic digestion, co-digestion at wastewater treatment plants, and other non-combustion conversion technologies. Mitigate emissions from leaks by regular leak detection and repair (LDAR) surveys at all facilities and replace high emitting equipment with zero emission alternatives wherever feasible. Expand the use of very low- or no-GWP technologies in all HFC end-use sectors, including emerging sectors, like heat pumps for applications other than space conditioning, to maximize the benefits of building decarbonization. Reduce fuel combustion commensurate with state's climate and air quality programs, particularly from reductions in transportation emissions and agricultural equipment emissions.	State agencies and local agencies	**No Conflict.** The Priority Area and future broadband projects would not conflict with SLCP dairy and livestock methane sector actions, SLCP landfill methane sector actions, SLCP upstream oil and gas methane sector action, SLCP upstream oil and gas methane sector actions, SLCP hydrofluorocarbons sector, or SLCP anthropogenic black carbon sector actions in the 2022 Scoping Plan. The Priority Area and future broadband projects do not include dairy or livestock.

2022 Scoping Plan Action	Responsible Party(ies)	Consistency Analysis
Natural and Working Lands: Strategies for Forest Shrublands and Chaparral, Grasslands, Croplands, Developed Lands, Vegetative Lands, and Wetlands NWL Implement AB 1757 and SB 27 and the Climate Smart Strategy. Accelerate the pace and scale of climate smart forest management to at least 2.3 million acres annually by 2025, in line with the climate smart management strategies identified in this Scoping Plan, the NWL Climate Smart Strategy, and the Wildfire and Forest Resilience Action Plan. Establish and expand mechanisms that ensure grasslands are protected from land conversion/parcelization and that support ongoing, rather than one-time, management actions that improve carbon sequestration. Accelerate the pace and scale of healthy soils practices to 80,000 acres annually by 2025, conserve at least 8,000 acres of annual crops annually, and increase organic agriculture to 20 percent of all cultivated acres by 2045. Increase urban forestry investment annually by 200 percent, relative to business as usual. Establish and expand mechanisms that ensure sparsely vegetated lands are protected from land conversion, prioritizing those areas most vulnerable to climate change and loss.	State agencies and local agencies	**No Conflict.** The Priority Area and future broadband projects would not conflict with NWL strategies for forest shrublands and chaparral, grasslands, croplands, developed lands, vegetative lands, and wetlands NWL actions under the 2022 Scoping Plan. The Priority Area and future broadband projects are a last-mile broadband program which would be installed along existing roadways and would minimize disturbance. The Projects would not include any construction activities on any forest, shrublands and chaparral, grasslands, croplands, developed lands, vegetative lands, and wetlands NWL.

SOURCE: ESA 2024.

SBCAG Connected 2050 RTP/SCS

The five near-term Priority Area projects and future broadband projects would support better internet for expanded telecommuting options in rural areas, which would result in a reduction in VMT countywide. The five near-term Priority Area projects and future broadband projects support SCAG's priority of reducing VMTs in the Connected 2050 RTP/SCS, which estimates that if people were able to work remotely, 50-80 percent would, and assuming they work remotely 2-4 days per week, the VMT reduction would be between 450,000-750,000 per day (SBCAG 2021). Overall, VMT reductions associated with five near-term Priority Area projects and future broadband projects would exceed the minimal amount of VMT generated from the Project's maintenance activities. Additionally, the Priority Area and future broadband projects are not growth inducing and would not result in an increase of VMT within the County. Thus, the Priority Area and future broadband projects would not conflict with the SBCAG Connected RTP/SCS and impacts would be less than significant.

Santa Barbara County Air Pollution Control District

The five near-term Priority Area projects and future broadband projects would not exceed the screening threshold of 10,000 $MTCO_2e$ per year, established in the SBCAPCD's Environmental Review Guidelines (2015). As previously discussed, the Project's operations would only consist of minimal vehicle trips for occasional maintenance, which would not be a major source of GHG emissions. Furthermore, as shown above, the Project would be consistent and not conflict with the GHG emissions reduction goals of

CARB's 2022 Scoping Plan, especially for local reductions in VMT. The Project would expand access to at-home internet access for communities in rural areas of Santa Barbara County, which would support remote-work, telecommuting, and telehealth opportunities. Furthermore, the Project would comply with the local approved plans for GHG emission reduction. As such, the Project would not conflict with the thresholds established by the SBCAPCD and therefore the impacts would be less than significant.

County of Santa Barbara General Plan

The five near-term Priority Area projects and future broadband projects would support Goal 3, Policy 3.2: Teleconferencing Telecommuting/Electronic Communication which states the County should research and support opportunities for telecommunication and computer-based communication that reduce the need for travel (County of Santa Barbara 2015). The Priority Area and future broadband projects would support better internet for telecommuting in rural areas which would result in a reduction in VMT countywide by reducing the need to travel. The Priority Area and future broadband projects would also comply with Goal 4, Policies 4.1, Construction, and 4.3, Reuse of Asphalt, by reusing and recycling construction waste to reduce energy consumption and by reusing asphalt where applicable. Thus, the Priority Area and future broadband projects would not conflict with the County of Santa Barbara General Plan and impacts would be less than significant.

County of Santa Barbara 2030 Climate Action Plan

The five near-term Priority Area projects and future broadband projects would support better internet for telecommuting in rural areas which would result in a reduction in VMT countywide. Thus, the Broadband Project supports the 2030 CAP action TR-2.10, Employer Trip Reduction Requirements & Programs, to help achieve a 50-80 percent telework participation rate for large employers within the unincorporated County (County of Santa Barbara 2023b). Additionally, the Priority Area projects and future broadband projects would directly contribute to achieving the 2030 CAP Action TR-2.12, Broadband Accessibility, which aims to increase internet access in rural parts of the County in order to further support a remote workforce and telecommuting efforts (County of Santa Barbara 2023b). These actions have been identified by the County as methods to help reduce the emission of GHGs within the County. Thus, the Priority Area and future broadband projects would not conflict with the County of Santa Barbara 2030 CAP and impacts would be less than significant.

GHG Reduction Plans, Policies and Regulations

Based on the information above, the five near-term Priority Area projects and future broadband projects would comply with plans, policies and regulations for reducing GHG emissions and this impact would be less than significant.

Mitigation Measures

None required.

Cumulative Impacts

Impact Statement: Implementation of the five near-term Priority Area projects and future broadband projects, in combination with other development, could contribute to cumulative GHG impacts if it would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

As discussed above, the primary source of GHG emissions generated by implementation of the five near-term Priority Area projects and future broadband projects would occur during construction, which would be temporary in nature. As previously mentioned, the Projects' temporary construction and minimal operational GHG emissions would not conflict with any applicable screening or significance threshold. Therefore, the five near-term Priority Area projects and future broadband projects would not contribute to a cumulative GHG impact. Furthermore, as analyzed above, the five near-term Priority Area projects and future broadband projects would not conflict with and applicable plan, policy, or regulation for the purposes of reducing the emissions of GHGs. Therefore, even when considered in conjunction with other development, the five near-term Priority Area projects and future broadband projects' impact would not be considered cumulatively significant.

Mitigation Measures

None required.

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4.6 Noise and Vibration

This section analyzes noise impacts from buildout of the Santa Barbara County Last-Mile Broadband Program ("Broadband Program" or "Project"). Impacts related to noise from construction, building operations, traffic, and flight operations are addressed. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

4.6.1 Environmental Setting

Overview of Noise and Vibration

The following discussion describes the characteristics of noise and vibration. These characteristics are used to assess potential impacts at sensitive land uses. Noise- and vibration-sensitive land uses include locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, senior facilities, schools, hospitals, guest lodging, libraries and some passive recreation areas are examples of typical noise- and vibration-sensitive land uses.

Noise

Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound power levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz). In addition to the actual instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress. One of the most frequently used noise metrics that considers both duration and sound power level is the equivalent noise level (Leq). The Leq is defined as the single steady A-weighted level that is equivalent to the same amount of energy as contained in fluctuating levels of sound over a period of time. Typically, Leq is summed over a one-hour period.

Sound pressure is measured on a logarithmic scale with the 0 dB level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound pressure level). Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dB and a sound that is 10 dB less than the ambient sound level has no effect on ambient noise. Because of the nature of the human ear, a sound must be about 10 dB greater than the reference sound to be judged as twice as loud. In general, a 3-dBA change in community noise levels is noticeable, while changes of 1 to 2 dBA generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40 to 50 dBA, while noise levels along arterial streets are generally in the 50 to 60+ dBA range. Normal conversational levels are in the 60-65 dBA range and ambient noise levels greater than that can interrupt conversations.

Noise levels typically attenuate at a rate of 6 dBA per doubling of distance from point sources such as industrial machinery. Noise from roads typically attenuates at a rate of about 4.5 dBA per doubling of distance over absorptive ground surfaces (e.g., grass). Noise from roads typically attenuates at about 3 dBA per doubling of distance over reflective ground surfaces (e.g., pavement).

The actual time period in which noise occurs is also important since noise that occurs at night tends to be more disturbing than that which occurs during the daytime. To evaluate community noise on a 24-hour basis, the day-night average sound level was developed (Ldn). Ldn is the time average of all A-weighted levels for a 24-hour period with a 10 dB upward adjustment added to those noise levels occurring between 10:00 p.m. and 7:00 a.m. to account for the general increased sensitivity of people to nighttime noise levels. The Community Noise Equivalent Level (CNEL) is identical to the Ldn with one exception. The CNEL adds 5 dB to evening noise levels (7:00 p.m. to 10:00 p.m.). Thus, both the Ldn and CNEL noise measures represent a 24-hour average of A-weighted noise levels with Ldn providing a nighttime adjustment and CNEL providing both an evening and nighttime adjustment.

Vibration

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration can be a serious concern, causing buildings to shake and rumbling sounds to be heard. In contrast to noise, 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.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings and is usually measured in inches per second. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (VdB) is commonly used to measure RMS. The decibel notation acts to compress the range of numbers required to describe vibration.

High levels of vibration may cause physical personal injury or damage to buildings. However, groundborne vibration levels rarely affect human health. Instead, most people consider groundborne vibration to be an annoyance that can affect concentration or disturb sleep. In addition, high levels of groundborne vibration can damage fragile buildings or interfere with equipment that is highly sensitive to groundborne vibration (e.g., electron microscopes).

In contrast to noise, groundborne vibration is not a phenomenon that most people experience every day. The background vibration velocity level in residential areas is usually 50 RMS or lower which is well below the threshold of perception for humans (human perception is around 65 RMS). Most perceptible indoor vibration is caused by sources within buildings, such as operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If the roadway is smooth, the vibration from traffic is rarely perceptible.

Noise and Vibration Sources

Ambient noise levels in Santa Barbara County vary widely depending upon proximity to noise generators, such as major roads, airports, and rail lines. The major noise sources in the County are described below.

Motor Vehicle Traffic

Motor vehicles, including cars/light trucks, buses, and various types of trucks, are the most substantial source of noise in most of Santa Barbara County. This can be attributed to the extensive network of major, primary, and secondary arterials located throughout the County, as well as the large number of vehicle trips that occur each day.

The primary roadway corridor noise source in the County is US 101, due to both the high traffic volumes experienced and the high speed of traffic. In 2017, daily traffic on US 101 averaged around 112,750 vehicles per day through the City of Santa Barbara and ranging from a low of 21,200 near SR 246, to a high of 139,000 at Mission Street in Santa Barbara (Caltrans 2017). As a result, noise levels along the entire US 101 corridor exceed 65 dBA CNEL near the freeway. Along the South Coast, existing land uses within approximately 400 feet of the freeway centerline may be exposed to noise levels over 65 dBA CNEL and in the North County, land uses within approximately 200 feet of the freeway centerline may be exposed to noise levels over 65 dBA CNEL. Noise-sensitive land uses in the vicinity of the freeway corridor therefore have the potential to be exposed to noise in excess of what the County normally considers acceptable.

Traffic on other major transportation corridors also generates noise in excess of 65 dBA CNEL within certain distances from centerline of the freeway/roadway. In the Santa Barbara area, noisy road corridors include portions of State Street and Hollister Avenue. Traffic on several roads in the Santa Maria area, including State Routes 135 and 166, also generates noise in excess of normally acceptable standards for noise sensitive uses.

Aircraft Operation

Both the Santa Barbara and Santa Maria airports have commercial and general aviation activities. Because of the level of activity at these airports, noise generated at these airports is audible in the surrounding communities. Therefore, land uses in the surrounding areas have been planned to ensure that noise levels remain at acceptable levels for the various uses.

The Lompoc and Santa Ynez airports are general aviation airports, with little commercial traffic and no jet operations. While these general aviation airports do not generate as much noise as Santa Barbara or Santa Maria, flight operations have also had impacts on the nearby residential areas because of their location.

In addition to the four active County airports, flight operations at Vandenberg Space Force Base, located near the City of Lompoc, generate aircraft noise. While these operations are limited, the resulting 60-65 dB contour extends into a portion of the City of Lompoc as shown in Figure 4-1 of the Vandenberg Space Force Base Land Use Compatibility Plan (SBCAG 2019). As a federal facility, Vandenberg Space Force Base is exempt from County and City noise controls. Nevertheless, the Air Force has developed measures to reduce noise impacts from flight operations in the areas surrounding the base.

In addition to airplanes, helicopter flights occur throughout the County. These flights typically follow major and primary arterials with the exception of police patrol activities. Other flight-related activities include tourist sightseeing, Coast Guard, Santa Barbara County Sheriff's Department for search and rescue operations, and Southern California Edison for power infrastructure work. Cottage Hospital in

Santa Barbara is verified as a Level II Trauma Center and provides helicopter emergency medical services. Helicopters traveling to Cottage Hospital follow the US 101 corridor until turning inland at Junipero Street toward the hospital. Although single-event noise exposure resulting from helicopter operations may be considered a nuisance, the relatively low frequency and short duration of these operations do not significantly affect average daily noise levels anywhere in the County.

Railroad Operations

Train operations on the Union Pacific Railroad and the Santa Maria Valley Railroad generate noise within proximity to the railroad lines. Noise is generated during rail operations by locomotives starting and stopping, trains braking, the connection and disconnection of cars, train whistles, and track noise (the trains' wheels running on the track). The Union Pacific Railroad right-of-way traverses the County through much of its coastal area, passing through the cities of Carpinteria, Santa Barbara, Goleta and Guadalupe. The Santa Maria Valley Railroad originates in the City of Santa Maria and travels westward through Santa Maria to connect with the Union Pacific railroad line in Guadalupe.

Amtrak provides the only commercial intercity passenger rail transportation available in Santa Barbara County. Its trains share the Union Pacific Railroad main line tracks. Two AMTRAK trains, the Pacific Surf liner has five daily round trips and the Coast Starlight has once a day round trips that serves Santa Barbara County.

Noise-sensitive land uses within approximately 800 feet of the tracks could be exposed to noise levels above 65 dBA (Santa Barbara County Comprehensive Plan, Noise Element, 2009). In the northern part of the County, much of the rail corridor is located in open areas. In the southern part of the County, train tracks are generally located much closer to residences.

4.6.2 Regulatory Setting

Various federal agencies have set standards for transportation-related noise and vibration sources that are closely linked to interstate commerce, such as aircraft, locomotives, and trucks. The State sets noise standards for those noise sources that are not preempted from regulation, such as automobiles, light trucks, and motorcycles. Noise and vibration sources associated with industrial, commercial, and construction activities are generally subject to local control through noise ordinances and general plan policies.

Federal

Relevant federal regulations include those established by the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Federal Aviation Administration (FAA), and Department of Housing and Urban Development (HUD).

Federal Highway Administration

Traffic Noise

Traffic noise impacts, as defined in 23 CFR § 772.5, occur when the predicted noise level in the design year approach or exceed the noise abatement criteria (NAC) specified in 23 CFR § 772, or a predicted noise level substantially exceeds the existing noise level (a "substantial" noise increase). A "substantial increase" is defined as an increase of 12 dB Leq during the peak hour of traffic. For sensitive uses, such

as residences, schools, churches, parks, and playgrounds, the NAC for interior and exterior spaces is 57 dB Leq and 66 dB leq, respectively, during the peak hour of traffic noise. **Table 4.6-1,** *Noise Abatement Criteria (NAC)*, summarizes NAC corresponding to various land use activity categories. Activity categories and related traffic noise impacts are determined based on the actual land use in a given area.

TABLE 4.6-1
NOISE ABATEMENT CRITERIA (NAC)

Activity Category	Hourly Leq	Hourly L10 [a]	Analysis Location	Description of Activity Category
A	57	60	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose
B	67	70	Exterior	Residential
C	67	70	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails and trail crossings
D	52	55	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools and television studios
E	72	75	Exterior	Hotels, motels, offices, restaurants/bars and other developed lands, properties or activities not included in A-D or F
F				Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical) and warehousing
G				Undeveloped lands that are not permitted

NOTES:

[a] L10 is the level of noise exceeded for 10% of the time

Source: Santa Barbara County Association of Governments (SBCAG), Connected 2050: Regional Transportation Plan & Sustainable Communities Strategy (RTP/SCS)

Federal regulations also establish noise limits for medium and heavy trucks (more than 4.5 tons, gross vehicle weight rating) under 40 CFR Part 205, Subpart B. The federal truck pass by noise standard is 80 dB at 15 meters from the vehicle pathway centerline. These controls are implemented through regulatory controls on truck manufacturers. The FHWA regulations for noise abatement apply to federal or federally-funded projects involving the construction of a new highway or significant modification of an existing freeway when the project would result in a substantial noise increase or when the predicted noise levels approach or exceed the NAC.

Railroad Noise

Federal regulations for railroad noise are contained in 40 CFR Part 201 and 49 CFR Part 210. The regulations set noise limits for locomotives and are implemented through regulatory controls on locomotive manufacturers.

Federal and Federal-Aid Highway Projects

Title 23 of the Code of Federal Regulations (23 CFR § 772) provides procedures for preparing operational and construction noise studies and evaluating noise abatement for federal and federal-aid highway projects. Under 23 CFR § 772.5, projects are categorized as Type I, II, or III projects.

FHWA defines Type I projects as the construction of a highway on a new location, the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment, or increases the number of through-traffic lanes. Type I projects include those that create a completely new noise source, increase the volume or speed of traffic, or move the traffic closer to a receiver. Type I projects include the addition of an interchange, ramp, auxiliary lane, or truck-climbing lane to an existing highway, or widening an existing ramp by a full lane width for its entire length. Under 23 CFR § 772.11, noise abatement must be considered for Type I projects if the project is predicted to result in a traffic noise impact. In such cases, 23 CFR § 772 requires that the project sponsor "consider" noise abatement before adoption of the environmental document. This process involves identification of noise abatement measures that are reasonable, feasible, and likely to be incorporated into the project as well as noise impacts for which no apparent solution is available

Type II projects implement noise abatement on an existing highway. For a Type II project to be eligible for Federal-aid funding, an agency must develop and implement a Type II program in accordance with section 772.7(e). Type II projects include installation of noise barriers or other noise abatement along an existing highway where noise levels have increased, or retrofitting existing noise abatement features that have been damaged or are not structurally sound.

Type III projects are Federal or Federal-aid highway projects that do not meet the classification of a Type I or Type II project. Noise analysis is not required for Type III projects. Projects unrelated to increased noise levels, such as striping, lighting, signing, and landscaping projects, are considered Type III projects.

Federal Aviation Administration

Aircraft operated in the U.S. are subject to federal requirements regarding noise emissions levels. These requirements are set forth in Title 14 CFR, Part 36. Part 36 establishes maximum acceptable noise levels for specific aircraft types, taking into account the model year, aircraft weight, and number of engines.

Federal Transit Administration

The FTA has developed guidance to evaluate noise impacts from operation of surface transportation modes (i.e. passenger cars, trucks, buses, and rail) in the 2006 FTA Transit Noise Impact and Vibration Assessment. All mass transit projects receiving federal funding must use these guidelines to predict and assess potential noise and vibration impacts. As ambient levels increase, smaller increments of change are allowed to minimize community annoyance related to transit operations.

The criteria for environmental impact from groundborne vibration are based on the maximum levels for a single event. **Table 4.6-2,** *Construction Vibration Damage Criteria*, lists the potential vibration damage criteria associated with construction activities, as suggested in the *Transit Noise and Vibration Impact Assessment* (FTA 2018).

TABLE 4.6-2
CONSTRUCTION VIBRATION DAMAGE CRITERIA

Building Category	PPV (inch/sec)	Approximate L_V[a]
Reinforced-concrete, steel or timber (no plaster)	0.50	102
Engineered concrete and masonry (no plaster)	0.30	98
Non-engineered timber and masonry buildings	0.20	94
Buildings extremely susceptible to vibration damage	0.12	90

NOTES:
PPV = peak particle velocity; LV = velocity in decibels; inch/sec = inches per second
[a] Root-mean-square velocity in decibels (VdB) re 1 microinch per second.
SOURCE: FTA 2018, *Table 7-5*

Federal Transit Administration (FTA) guidelines show that a vibration level of up to 102 VdB (equivalent to 0.5 inch/sec in Root Mean Square (RMS)) (FTA 2018) is considered safe for buildings consisting of reinforced concrete, steel, or timber (no plaster), and would not result in any construction vibration damage. For a non-engineered timber and masonry building, the construction vibration damage criterion is 94 VdB (0.2 inch/sec in RMS).

Based on Table 8-3 in the FTA's *Transit Noise and Vibration Impact Assessment* (FTA 2018), interpretation of vibration criteria for detailed analysis is 78 VdB for residential uses during daytime hours. During nighttime hours, the vibration criterion is 72 VdB. For office and office buildings, the FTA guidelines suggest that a vibration level of 84 VdB should be used for detailed analysis.

U.S. Department of Housing and Urban Development

The mission of HUD includes fostering "a decent, safe, and sanitary home and suitable living environment for every American." Accounting for acoustics is intrinsic to this mission as safety and comfort can be compromised by excessive noise. To facilitate the creation of suitable living environments, HUD has developed a standard for noise criteria. The basic foundation of the HUD noise program is set out in the noise regulation 24 CFR Part 51 Subpart B, Noise Abatement and Control.

HUD's noise policy requires noise attenuation measures be provided when proposed projects are to be located in high noise areas. Within the HUD Noise Assessment Guidelines, potential noise sources are examined for projects located within 15 miles of a military or civilian airport, 1,000 feet from a road or 3,000 feet from a railroad.

HUD exterior noise regulations state that 65 dBA Ldn noise levels or less are acceptable for residential land uses and noise levels exceeding 75 dBA Ldn are unacceptable. HUD's regulations do not contain standards for interior noise levels. The HUD regulations establish a goal of 45 decibels, and the attenuation requirements are focused on achieving that goal. The HUD guidelines assume that with standard construction methods and materials, any building will provide sufficient attenuation so that if the exterior level is 65 dBA Ldn or less, the interior level will be 45 dBA Ldn or less. Noise criteria are consistent with FHWA and related state requirements.

State

Relevant State noise regulations include those established by the California Department of Health Services and the California Department of Transportation (Caltrans), as well as standards in the California Code of Regulations. The Governor's Office of Planning and Research have also established guidelines regarding sound level and land use compatibility. There are no adopted State policies or standards for ground-borne vibration. However, Caltrans recommends that extreme care be taken when sustained pile driving occurs within 7.5 meters (25 feet) of any building, 15 to 30 meters (50 to 100 feet) of a historic building or near a building in poor condition.

State of California General Plan Guidelines

The Governor's Office of Planning and Research is required to adopt and periodically revise guidelines for the preparation and content of local general plans. The 2017 General Plan Guidelines (Governor's Office of Planning and Research, 2017) establish land use compatibility guidelines. Where a noise level range is denoted as "normally acceptable" for the given land use, the highest noise level in that range should be considered the maximum desirable for conventional construction that does not incorporate any special acoustic treatment. The acceptability of noise environments classified as "conditionally acceptable" or "normally unacceptable" will also depend on the anticipated amount of time that will normally be spent outside the structure and the acoustic treatment to be incorporated in structural design.

With regard to noise-sensitive residential uses, the recommended exterior noise limits are 60 dBA CNEL for single-family residences and 65 dBA CNEL for multi-family residences. The recommended maximum interior noise level is 45 dBA CNEL, which could normally be achieved using standard construction techniques if exterior noise levels are within the levels described above. The State of California Land Use Compatibility Matrix is shown below in **Table 4.6-3**.

TABLE 4.6-3

NOISE AND LAND USE COMPATIBILITY MATRIX - CALIFORNIA

	Community Noise Exposure CNEL (dBA)			
Land Use	**Normally Acceptable[a]**	**Conditionally Acceptable[b]**	**Normally Unacceptable[c]**	**Clearly Unacceptable[d]**
Residential – Low density, Single-Family, Duplex, Mobile Homes	50 – 60	55 – 70	70 – 75	75 – 85
Residential – Multiple Family	50 – 65	60 – 70	70 – 75	75 – 85
Transient Lodging – Motel, Hotels	50 – 65	60 – 70	70 – 75	75 – 85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 – 70	60 – 70	70 – 80	80 – 85
Auditoriums, Concert Halls, Amphitheaters	NA	50 – 70	NA	65-85
Sports Arenas, Outdoor Spectator Sports	NA	50 – 75	NA	70-85
Playgrounds, Neighborhood Parks	50 – 70	NA	67.5 – 75	72.5 – 85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 – 75	NA	70 – 80	80 – 85
Office Buildings, Business Commercial and Professional	50 – 70	67.5 – 77.5	75 – 85	NA
Industrial, Manufacturing, Utilities, Agriculture	50 – 75	70 – 80	75 – 85	NA

Land Use	Community Noise Exposure CNEL (dBA)			
	Normally Acceptable[a]	Conditionally Acceptable[b]	Normally Unacceptable[c]	Clearly Unacceptable[d]

NOTES:

[a] **Normally Acceptable –** Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

[b] **Conditionally Acceptable –** New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

[c] **Normally Unacceptable –** New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

[d] **Clearly Unacceptable** – New construction or development should generally not be undertaken.

NA: Not Applicable

SOURCE: Office of Planning and Research, State of California General Plan Guideline Appendix D, 2017

California Department of Transportation

The State of California establishes noise limits for vehicles licensed to operate on public roads. For heavy trucks, the State passby standard is consistent with the federal limit of 80 dB. The State passby standard for light trucks and passenger cars (less than 4.5 tons gross vehicle rating) is also 80 dB at 15 meters from the centerline.

Section 216 of the California Streets and Highways Code relates to the noise effects of a proposed freeway project on public and private elementary and secondary schools. Under this code, a noise impact occurs if, as a result of a proposed freeway project, noise levels exceed 52 dBA Leq in the interior of public or private elementary or secondary classrooms, libraries, multipurpose rooms, or spaces. If a project results in a noise impact under this code, noise abatement must be provided to reduce classroom noise to a level that is at or below 52 dBA Leq. If the noise levels generated from roadway sources exceed 52 dBA Leq prior to the construction of the proposed freeway project, then noise abatement must be provided to reduce the noise to the level that existed prior to construction of the project.

California's Airport Noise Standards

The State of California has the authority to establish regulations requiring airports to address aircraft noise impacts near airports. The State of California's Airport Noise Standards, found in Title 21 of the California Code of Regulations, identify a noise exposure level of 65 dB CNEL as the noise impact boundary around airports. Within the noise impact boundary, airport proprietors are required to ensure that all land uses are compatible with the aircraft noise environment or the airport proprietor must secure a variance from Caltrans.

California Noise Insulation Standards

The California Noise Insulation Standards found in Title 24 of the California Code of Regulations set requirements for new multi-family residential units, hotels, and motels that may be subject to relatively high levels of transportation-related noise. For exterior noise, the noise insulation standard is 45 dBA Ldn in any habitable room and requires an acoustical analysis demonstrating how dwelling units have been

designed to meet this interior standard where such units are proposed in areas subject to noise levels greater than 60 dBA Ldn.

California Aeronautics Act

The State Aeronautics Act (Public Utilities Code, Section 21670 et seq.) requires the establishment of Airport Land Use Commissions (ALUCs), which are responsible for developing airport land use compatibility plans (ALUCPs) for noise-compatible land uses in the immediate proximity of a commercial or public airport (Section 21675). ALUCs have two major roles: preparation and adoption of airport land use compatibility plans, which address policies for both noise and safety and review of certain local government land use actions and airport plans for consistency with the land use compatibility plan.

The ALUCP is the major tool for ALUC land use regulation. The intent of the ALUCP is to encourage compatibility between airports and the various land uses that surround them. ALUCPs typically include the development of noise contours to identify excessive airport-related noise levels and measures to reduce noise levels. For example, Monterey Regional Airport encourages noise abatement procedures related to quiet departure techniques.

The Aeronautics Division of the California Department of Transportation has published the *California Airport Land Use Planning Handbook* (Caltrans 2011). The purpose of the *California Airport Land Use Planning Handbook* is to provide guidance for conducting airport land use compatibility planning. This handbook includes a section related to noise and states, "The basic strategy for achieving noise compatibility in the vicinity of an airport is to prevent or limit development of land uses that are particularly sensitive to noise. Common land use strategies are ones that either involve few people (especially people engaged in noise-sensitive activities) or generate significant noise levels themselves (such as other transportation facilities or some industrial uses).".

Within the SBCAG region, SBCAG is serves as the ALUC and is responsible for protecting public health, safety and welfare by ensuring that vacant lands in the vicinity of airports are planned and zoned for uses compatible with airport operations. The Santa Barbara County Airport Land Use Plan was adopted in 1993 (SBCAG 1993).

Local

The nine Priority Areas in the County include: the City of Guadalupe and unincorporated areas or communities including portions of Cuyama/New Cuyama, Casmalia, Los Alamos, Los Olivos, Jonata Park, Refugio Canyon, Highway 246 Corridor (five neighborhoods between Lompoc and Buellton), and East of Santa Maria (including the Garey, Sisquoc, and Tepusquet Road communities).

County of Santa Barbara

County Code

Chapter 14 of the County Code, referred to as the Santa Barbara County Grading Code, regulates construction noise within the County. Chapter 14 does not establish noise level limits; however, Section 14-22 restricts grading activities to daytime hours, which is generally considered the least noise-sensitive time. Section 14-22 states:

No grading work (except for emergency operations), which requires a grading permit under the provisions of this chapter shall take place between the hours of 7:00 p.m. and 7:00 a.m. (or as required within the land use permit), unless the director finds that such operation is not likely to cause significant public nuisance or must, by necessity, be accomplished at other times and authorizes such night operations in writing.

Comprehensive Plan and Environmental Thresholds and Guidelines Manual

The County of Santa Barbara has adopted noise policies in its Comprehensive Plan Noise Element (adopted 1979, republished May 2009). The policies establish interior and exterior noise limits for noise compatibility, which are identified in the County of Santa Barbara Environmental Thresholds and Guidelines Manual (County 2020). The thresholds identify noise-sensitive land uses as:

1. Residential, including single- and multi-family dwellings, mobile home parks, dormitories, and similar uses.
2. Transient lodging, including hotels, motels, and similar uses.
3. Hospitals, nursing homes, convalescent hospitals, and other facilities for long-term medical care.
4. Public or primary educational facilities, libraries, churches, and places of public assembly.

The noise level standard for outdoor living areas of new noise-sensitive land uses is 65 dBA CNEL. Outdoor living areas generally include backyards of single-family residences and individual patios or common outdoor activity areas of multi-family developments. The maximum noise exposure for indoor living areas in new noise-sensitive land uses is 45 dBA CNEL. To reduce construction impacts, the County of Santa Barbara Environmental Thresholds and Guidelines Manual (County 2020) indicates that construction within 1,600 feet of sensitive receivers shall be limited to weekdays between the hours of 8:00 a.m. and 5:00 p.m., which is more restrictive than Section 14-22 of the County Code.

City of Guadalupe

The City of Guadalupe Noise Element of the General Plan includes Policy N-1.4, which requires construction contractors to implement construction noise reduction measures, such as restrict noise-generating activities at construction sites or in areas adjacent to construction sites to the hours between 7:00 a.m. and 6:00 p.m., Monday through Saturday. Construction shall be prohibited on Sundays and Federal holidays unless prior written approval is granted by the building official. Policy N-1.4 includes other noise reduction measures such as constructing temporary noise barriers between the noise source and receiver, where feasible and routing all construction traffic via designated truck routes where possible.

4.6.3 Analysis, Impacts and Mitigation

Methodology and Significance Thresholds

Pursuant to the *CEQA Guidelines*, potentially significant noise impacts would result if the project would:

a) Generate 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

b) Generate excessive groundborne vibration or groundborne noise levels

c) For a project 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, would the project expose people residing or working in the project area to excessive noise levels.

Thresholds a, b, and c are discussed further in this section. In addition to the *CEQA Guidelines*, the County of Santa Barbara *Environmental Thresholds and Guidelines Manual* (2020) contains criteria for determining the significance of noise impacts.

- If existing exterior noise levels, including at outdoor living areas, experienced by sensitive receptors is below 65 dBA CNEL, and if the proposed project will generate noise that will cause the existing noise levels experienced by the sensitive receptors to exceed 65 dBA CNEL – either individually or cumulatively when combined with other noise-generating sources – then the proposed project is presumed to have a significant impact.
- If existing exterior noise levels, including at outdoor living areas, experienced by sensitive receptors exceeds 65 dBA CNEL, and if the proposed project will generate noise that will cause the existing noise levels experienced by the sensitive receptors to increase by 3 dBA CNEL – either individually or cumulatively when combined with other noise-generating sources – then the proposed project is presumed to have a significant impact.
- If existing noise levels experienced by sensitive receptors in interior livings areas is below 45 dBA CNEL, and if the proposed project will generate noise that will cause the existing noise levels experienced by the sensitive receptors in interior living areas to exceed 45 dBA CNEL – either individually or cumulatively when combined with other noise-generating sources – then the proposed project is presumed to have a significant impact.
- If existing noise levels experienced by sensitive receptors in interior livings areas exceeds 45 dBA CNEL, and if the proposed project will generate noise that will cause the existing noise levels experienced by the sensitive receptors in interior living areas to increase by 3 dBA CNEL – either individually or cumulatively when combined with other noise-generating sources – then the proposed project is presumed to have a significant impact.
- Noise from grading and construction activity proposed occur within 1,600 feet of sensitive receivers, including schools, residential development, commercial lodging facilities, hospitals, or care facilities. This is based upon an assumed average construction noise level of 95 dBA at a distance of 50 feet from the source, which would result in a noise level of approximately 65 dBA at a distance of 1,600 feet. To mitigate this impact, construction within 1,600 feet of sensitive receptors shall be limited to weekdays between the hours of 8:00 a.m. to 5:00 p.m. only. Noise attenuation barriers and muffling of grading equipment may also be required. Construction equipment generating noise levels above 95 dBA may require additional mitigation.

The operational and construction noise limits used in this analysis are set at reasonable levels at which a substantial noise level increase as compared to ambient noise levels would occur. Because these noise limits are tailored to specific uses (e.g., exterior and interior areas), they account for typical ambient noise levels associated with each use such that an increase in ambient noise levels that exceeds these limits would be considered a substantial increase above ambient noise levels.

Impacts and Mitigation Measures

This section describes generalized noise and vibration impacts associated with the Broadband Program. The concurrent construction of the five near-term Priority Area projects analyzed in this Program EIR would be representative of future broadband projects of similar size and scale located in other areas of the

County. In general, implementation of future broadband projects envisioned by the Broadband Program could result in noise and vibration impacts as described in the following sections.

Threshold 1: Would the project generate 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?

Impact Statement 1: Implementation of the Project, in combination with other development, would contribute to cumulative less than significant impacts in regards to construction and operational noise for past, present, and future development.

Noise impacts from construction activities are generally a function of the noise generated by construction equipment, equipment locations, the sensitivity of nearby land uses, and the timing and duration of the noise-generating activities. As discussed in Chapter 2, *Project Description*, a total of nine communities in the County have already been identified as "Priority Areas" under the Broadband Program. However, funding has not been secured for all Priority Areas and it is unknown if all locations will be funded. Nonetheless, for the purposes of this EIR and to provide for a conservative and environmentally protective analysis, air quality impacts for all of the nine Priority Areas are analyzed. While the specific size and location of all potential future broadband projects under the Broadband Program have not yet been identified, it is assumed that the nature and intensity of such future installation projects would be similar in scope and scale to those identified for the five near-term Priority Area projects. As such, for the purposes of analysis in this CEQA document, construction activities and methods employed for the five near-term Priority Area projects have been quantitatively analyzed and would be comparable to those necessary for the installation of future broadband facilities in other portions of the County.

Priority Area Projects

The Project would include the installation of fiber optic cable in various locations throughout the County. For the five near-term Priority Area communities, high-level engineering designs that indicate the location of new broadband lines within each community have been prepared. In general, the new fiber optic lines would be installed underground following public or private roadways with the intention to minimize or avoid disturbance of roadway surfaces wherever feasible. However, it is possible some fiber optic lines could be installed directly under roadways in areas with limited shoulder space or where existing conduit under the road may be used, thus avoiding new surface disturbance. The Project also includes installation and construction activities within those areas where lateral lines are installed between public or private roadways and individual businesses or residences. Individual residence or business connections typically would be installed within previously disturbed and/or developed areas (e.g., adjacent to driveways or in landscaped areas), and generally would avoid drainages and sensitive habitats. Lateral alignments would typically follow other utility installations. Although not anticipated, where subsurface installation of fiber optic cable is infeasible, aerial installation along existing utility poles will be undertaken.

While funding has not been secured for all Priority Areas, for the purposes of this analysis and to provide for a conservative and environmentally protective analysis, it is assumed that construction of the five near-term Priority Area projects could occur simultaneously and in which case would occur over a period of approximately 24 months beginning in Spring 2025, inclusive of required permitting and construction of the new facilities. It is anticipated that future broadband projects of similar size and scale located in

other areas of the County would require a comparable construction effort in terms of overall construction intensity, would employ a similar mix of construction methods and equipment, and would result in similar construction durations as those assumed for the five near-term Priority Area projects.

Construction sequencing would include linear-grubbing and land clearing; drilling; trenching and installation; site preparation; and paving. Project construction would require the use of mobile heavy equipment with high noise-level characteristics. Individual pieces of construction equipment expected to be used during Project construction could produce maximum noise levels of 80 dBA to 90 dBA Lmax and 76 dBA to 83 dBA Leq at a reference distance of 50 feet from the noise source, as shown in **Table 4.6-4**, *Construction Equipment Noise Levels*. The maximum noise levels would occur when equipment is operating under full power conditions and the equivalent noise levels account for the estimated usage factors. The estimated usage factors for the equipment are also shown in Table 4.6-4. The usage factors are based on the FHWA's Roadway Construction Noise Model User's Guide.[1]

TABLE 4.6-4
CONSTRUCTION EQUIPMENT NOISE LEVELS

Equipment	Estimated Usage Factor, %	Maximum Noise Level at 50 feet from Equipment, dBA (Lmax)	Equivalent Noise Level at 50 feet from Equipment, dBA (Leq)
Air Compressor	40	80	76
Bore/Drill Rig	20	84	77
Concrete Saw	20	90	83
Dozer	40	85	81
Excavator	40	85	81
Paver	50	85	82
Paving Equipment	50	85	78
Roller	20	85	78
Tractor	40	84	80
Tractor/Loader/Backhoe	40	80	76

SOURCE: FHWA Roadway Construction Noise Model User's Guide, 2006.

A summary of construction noise impacts at existing nearest sensitive receptors is provided in **Table 4.6-5**, *Estimated Construction Noise Levels at Existing Off-Site Sensitive Receptors*, with supporting calculations provided in Appendix G of this Draft EIR. Calculations were based upon construction data consistent with the air quality and greenhouse gas (GHG) emissions analysis using the California Emissions Estimator Model (CalEEMod); however, it is important to note the noise analysis construction mix modeling is based upon a single Priority Area where the CalEEMod analysis accounts for all five near-term Priority Areas undergoing construction in different regions of the county simultaneously. Noise is a localized phenomenon and has the potential to adversely impact noise-sensitive receptors in a local area, whereas air pollutant and GHG emissions have the potential to adversely impact the County, the air

[1] Federal Highway Administration, Roadway Construction Noise Model User's Guide, 2006. https://www.gsweventcenter.com/Draft_SEIR_References/2006_01_Roadway_Construction_Noise_Model_User_Guide_FHWA.pdf

basin, and, in the case of GHG emissions, the global environment. Thus, it is appropriate to assess noise impacts based on the localized construction of a single priority area.

As shown in Table 4.6-5, exterior construction noise levels are estimated to reach a maximum of 89.0 dBA L_{eq} at off-site noise-sensitive receptor locations, which could at times be located as close as 25 feet away from a construction area in the City of Guadalupe and unincorporated areas of the County. Construction activities associated with the Priority Area projects, as well as for future broadband installation projects, would move and progress along the linear alignment such that any one specific noise-sensitive receptor location would not be exposed to the full duration of construction noise from the full extent of construction activities. For instance, while it is anticipated that simultaneous construction of the five near-term Priority Area projects could occur over a period of approximately 24 months, any one specific noise-sensitive receptor location would not be exposed to construction noise for the full 24-month duration, but rather only for several days or several weeks as construction progresses and the noise-generating activity moves along the alignment. Thus, construction noise would be a temporary and short-term occurrence to any one specific sensitive receptor location.

Project construction noise levels are not anticipated to exceed the Santa Barbara County noise threshold of 95 dBA L_{eq} at a distance of 50 feet from the source. Nonetheless, some portions of the alignments for the Priority Areas, as well as for future yet-to-be-proposed installation projects, would occur in proximity to residential uses or other noise-sensitive land uses, which could at times be located within 1,600 feet. As per the County of Santa Barbara *Environmental Thresholds and Guidelines Manual* (2020), construction activity within 1,600 feet of a sensitive receptor shall be limited to between the hours of 8:00 a.m. and 5:00 p.m. Mondays through Fridays. Therefore, Mitigation Measure 4.6-1 is included to require the Project to comply with the construction hour requirements in the County of Santa Barbara *Environmental Thresholds and Guidelines Manual* (2020) that avoids noise-sensitive times of day for noise-generating construction activities within 1,600 feet of noise-sensitive land uses. Thus, based on the temporary and short-term nature of the construction noise levels affecting any sensitive receptor location and based on compliance with the construction hour requirements in Mitigation Measure 4.6-1, construction noise impacts from on-site construction activities would be mitigated to **less than significant**.

TABLE 4.6-5
ESTIMATED CONSTRUCTION NOISE LEVELS AT EXISTING OFF-SITE SENSITIVE RECEPTORS

Receptor and Representative Distances to Project Site	Maximum Equivalent Construction Noise Level,[a] (Exterior) Hourly L_{eq} at 25 feet / at 50 feet from Equipment (dBA)	Exceeds 95 dBA L_{eq} at 50 Feet?[b]	Located Within 1,600 Feet of a Sensitive Receptor[b]
Noise-Sensitive Receptor Location (at 25 feet from construction area)	96 / 90	No	Yes (some portions of the alignments)
Noise-Sensitive Receptor Location (at 50 feet from construction area)	90 / 84	No	Yes (some portions of the alignments)
Noise-Sensitive Receptor Location (at 100 feet from construction area)	84 / 78	No	Yes (some portions of the alignments)

Receptor and Representative Distances to Project Site	Maximum Equivalent Construction Noise Level,[a] (Exterior) Hourly L_{eq} at 25 feet / at 50 feet from Equipment (dBA)	Exceeds 95 dBA L_{eq} at 50 Feet?[b]	Located Within 1,600 Feet of a Sensitive Receptor[b]
Noise-Sensitive Receptor Location (at 200 feet from construction area)	78 / 72	No	Yes (some portions of the alignments)
Noise-Sensitive Receptor Location (at 400 feet from construction area)	72 / 66	No	Yes (some portions of the alignments)
Noise-Sensitive Receptor Location (at 800 feet from construction area)	66 / 60	No	Yes (some portions of the alignments)

[a] Estimated construction noise levels represent the worst-case condition when noise generators are located closest to noise-sensitive receptor locations.

[b] If yes is listed - a potentially significant impact would occur and mitigation would be required based on the Santa Barabara County Environmental Thresholds and Guidelines Manual (2020).

SOURCE: ESA, 2024.

Off-Site Construction Noise

Delivery and haul truck trips would occur throughout the construction period. It is anticipated that construction for each Priority Area would require approximately 10 worker round trips, 10 vendor truck round trips, and 10 haul truck round trips per day. This would result in an average daily vehicle trip increase along local roadways within each Priority Area vicinity of approximately 30 round trips or 60 one-way trips (i.e., 30 inbound and 30 outbound trips), of which approximately 20 one-way trips would be from worker commute vehicles and approximately 40 one-way trips would be from vendor and haul trucks. A doubling of traffic volumes along a given local roadway is required to generate a traffic-related noise level increase of approximately 3 dBA, which is a barely perceptible change in noise. Given that some portions of the Priority Areas are located in residential neighborhoods and other portions are located between major roadways, an increase of 60 one-way trips per day along local roadways would not result in an overall doubling of traffic volumes. As such, while the Priority Areas and future yet-to-be-proposed installation sites are located in different regions of the County, the individual Priority Area projects would not be anticipated to result in a doubling of roadway traffic volumes on local roadways along the proposed alignments. Therefore, the Project would not generate a noise level increase of 3 dBA or more and off-site noise impacts from construction vehicle and truck trips would be **less than significant**.

Operation

Project operations that would not result in ongoing long-term increases in noise. Project operations would not include any stationary noise sources, and would generate only periodic noise from occasional inspection and maintenance vehicle trips and associated maintenance activities. Inspection and maintenance trips from workers would occur infrequently and would not contribute to an increase in daily vehicle trips. As a result, Project operations would result in a minimal increase in traffic trips, and therefore, operational vehicle trip increases would not generate a substantial increase in noise along local roadways. Impacts would be **less than significant**.

Future Broadband Projects

It is anticipated that future broadband projects, located in other areas of the County, would be of similar size and scale, with a comparable construction effort in terms of overall intensity, would employ a similar mix of construction methods and equipment, and would result in similar construction durations as those assumed for the Priority Area projects. Therefore, impacts would be potentially significant in terms of construction noise but would be less than significant in terms of project operations and off-site construction mobile noise. With the implementation of Mitigation Measure 4.6-1 potentially significant impacts associated with future broadband projects would be reduced to **less than significant**.

Mitigation Measures

> **Mitigation Measure 4.6-1:** The applicant, including all contractors and subcontractors, shall limit construction activity, including equipment maintenance and site preparation, to the hours between 8:00 a.m. and 5:00 p.m. Monday through Friday. No construction shall occur on weekends or State holidays.

Significance After Mitigation: With implementation of the mitigation measure above, construction noise impacts would be reduced to a **less than significant** impact.

Cumulative Impacts

As discussed above, the Broadband Program Project may require, at times, noise-generating construction activity within 1,600 feet of a noise-sensitive receptor. Related projects may also result in noise-generating construction activity within 1,600 feet of a noise-sensitive receptor. Thus, the Project could result in a cumulatively considerable contribution to cumulative noise impacts. The Project would be required to implement Mitigation Measure 4.6-1, which would reduce the Project's noise impacts to less than significant. Related projects would also be required to comply with the County of Santa Barbara *Environmental Thresholds and Regulation Guidelines*, specifically ensuring that if noise-generating construction activities would occur within 1,600 feet of a noise-sensitive receptor, such activities would only be permitted to occur during the hours of 8:00 a.m. and 5:00 p.m. Monday through Friday so long as construction noise does not exceed 95 dBA L_{eq} at 50 feet from the source. Should any related project within the vicinity exceed 95 dBA L_{eq} at 50 feet, such projects would be required to implement additional mitigation measures such as sound barriers, enhanced equipment mufflers, and other noise-reducing measures so as not to create excessive construction noise. Thus, the Project along with past, present, and reasonably probable future projects would not result in other noise emissions, such as construction noise, adversely affecting a substantial number of people and cumulative impacts would be mitigated to **less than significant**.

Threshold 2: Generate excessive groundborne vibration or groundborne noise levels.

Impact Statement 2: Implementation of the Proposed Project, in combination with other development, would contribute to cumulative less than significant impacts in regards to ground-vibration damage to structures and human annoyance from construction and operation of past, present, and future projects.

Priority Area Projects

Structural Damage

Construction

Construction activities can generate varying degrees of groundborne vibration, depending on the construction procedures and the construction equipment used. The operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site varies depending on soil type, ground strata, and construction characteristics of the receptor buildings. The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibration from construction activities rarely reaches levels that damage structures. The Caltrans guidance manual incorporates FTA standard vibration velocities for construction equipment operations (Table 18 of the Caltrans guidance manual). The PPV vibration velocities for the types of construction equipment that can generate perceptible vibration levels and that would be used for the Project are listed in **Table 4.6-6**, *Vibration Source Levels for Construction Equipment*.

Because vibration level in RMS is best for characterizing human response to building vibration and vibration level in PPV is best used to characterize potential for damage, this construction vibration impact analysis assessed the potential for building damages using vibration levels in PPV (inch/sec). Potential human annoyance is assessed in the next subsection using vibration levels in VdB.

TABLE 4.6-6
VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

	Approximate PPV (in/sec)					Approximate RMS (VdB)				
Equipment	25 Feet	50 Feet	60 Feet	75 Feet	100 Feet	25 Feet	50 Feet	60 Feet	75 Feet	100 Feet
Large Bulldozer	0.089	0.031	0.024	0.017	0.011	87	78	76	73	69
Loaded Trucks	0.076	0.027	0.020	0.015	0.010	86	77	75	72	68
Wheel Loader	0.076	0.027	0.020	0.015	0.010	86	77	75	72	68
Fork Lift	0.047	0.016	0.013	0.009	0.006	81	72	70	67	63
Jackhammer	0.035	0.012	0.009	0.007	0.004	79	70	68	65	61
Small Bulldozer	0.003	0.001	0.0008	0.0006	0.0004	58	49	47	44	40

SOURCE: FTA, Transit Noise and Vibration Impact Assessment, September 2018; ESA, 2024.

Because vibration impacts occur normally at or within buildings, the distance to the nearest sensitive uses, for vibration impact analysis purposes, is measured between the nearest off-site sensitive use buildings and the Project construction equipment area near the Project boundary. As shown in Table 4.6-6, drill rigs generate approximately 0.089 in/sec PPV when measured at 25 feet. FTA guidelines indicate that a vibration level of 0.5 inch/sec PPV is considered safe for buildings consisting of reinforced concrete, steel, or timber (no plaster), and would not result in any construction vibration damage. For a non-engineered timber and masonry building, the construction vibration damage criterion is 0.2 inch/sec PPV. As a conservative analysis, the FTA 0.2 PPV (in/sec) is used as a threshold of significance.

Based on the vibration data provided in Table 4.6-6, vibration velocities from construction equipment would range from approximately 0.003 to 0.089 inches per second PPV at 25 feet from the source of activity. The nearest off-site buildings to the Project Site that could be subjected to Project-related vibration structural damage include residential buildings at a distance of approximately 50 feet as measured from the Project Site boundary (i.e., the construction area for the proposed installation of fiber optic cable and associated broadband components) to the nearest residential building in both the City of Guadalupe and unincorporated areas of the County. Pile driving would not be used at the Project Site boundary and other vibration-generating equipment would normally operate at least 50 feet or more from the nearest off-site buildings. Thus, based on the vibration data provided in Table 4.6-6, the nearest off-site buildings would not be exposed to vibration levels that would cause structural damage and impacts would be **less than significant**.

Operation

The Project's operations would include typical commercial-grade stationary electrical equipment which would not produce vibration. In addition, the primary sources of transient vibration would include passenger and worker vehicle circulation within the proposed installation areas for periodic inspection and maintenance activities. Groundborne vibration generated by each of the above-mentioned activities would generate approximately up to 0.005 in/sec PPV adjacent to the Project Site.[2] The potential vibration levels from all Project operational sources at the closest existing sensitive receptor locations would be less than the significance threshold of 0.2 in/sec PPV significance threshold for potential residential building damage. As such, vibration impacts associated with operation of the Project would be below the significance threshold and impacts would be **less than significant** and mitigation measures would not be required.

Human Annoyance

Construction

The CEQA Thresholds Guide identifies residences, schools, motels and hotels, libraries, religious institutions, hospitals, nursing homes, and parks as sensitive uses. Off-site non-residential uses such as retail and commercial uses are not considered vibration sensitive receptors for human annoyance under CEQA. Groundborne noise specifically refers to the rumbling noise emanating from the motion of building room surfaces due to vibration of floors and walls and is perceptible only inside buildings.[3] For typical buildings, groundborne vibration results in groundborne noise levels approximately 25 to 40

[2] This vibration estimate is based on data presented in the USDOT Federal Transit Administration, 2018; which is included in Appendix G of this Draft EIR.

[3] Federal Transit Administration, Noise and Vibration Manual, 2018, Page 112,

decibels lower than the velocity level.[4] According the FTA *Noise and Vibration Manual*, most of the studies of groundborne vibration in this country have focused on urban rail transit and the problems with groundborne vibration and noise that are common when there is less than 50 feet between a subway structure and building foundations. Project construction would not create on-going and continuous groundborne vibration and noise like that of an urban rail transit system. Groundborne noise impacts would also be **less than significant**.

Nearby vibration-sensitive uses for potential human annoyance in the Project vicinity include residences approximately 50 feet from the Project Site (i.e., the construction area for the proposed installation of fiber optic cable and associated broadband components), with other residential structures at greater distances. At a distance of 50 feet or more, the maximum vibration level would be attenuated to groundborne vibration levels of 49 VdB to 78 VdB or less.

The Project would generate transient-linear vibrations from construction and not generate continuous vibrations. Vibration noise would not occur at 50 feet from a single residence while construction occurs. Thus, Project construction would not exceed the FTA's 78 VdB threshold for daytime events at the nearest noise-sensitive receiver locations (residences). In addition, construction vibration-generation activities would not occur during the nighttime hours when people normally sleep. Impacts would be **less than significant** and mitigation measures would not be required.

Operation

Post-construction on-site activities would include limited worker vehicle trips that would not be anticipated to generate excessive groundborne noise or vibration. Project operational vibration levels would be substantially less than during construction. As such, groundborne vibration and noise impact to human annoyance associated with the long-term operation of project would be **less than significant** and mitigation measures would not be required.

Future Broadband Projects

It is anticipated that Future Broadband Projects, located in other areas of the County, would be of similar size and scale, with a comparable construction effort in terms of overall intensity, would employ a similar mix of construction methods and equipment, and would result in similar construction durations as those assumed for the five Priority Area projects. Therefore, impacts from vibration in relation to building damage, human annoyance, and post-construction operation would be **less than significant**.

Mitigation Measures

None required.

Cumulative Impacts

As discussed above, the Broadband Program is not expected to result in ground-borne vibration damage or human annoyance during construction or once operational. Ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Man-made vibration issues are, therefore, usually confined to short distances from the source (i.e., 50 feet or less). Due to the rapid attenuation characteristics of ground-borne vibration, there is no expected potential for cumulative

[4] Federal Transit Administration, Noise and Vibration Manual, 2018, Page 119.

construction- or operational-period impacts with respect to ground-borne vibration from All past, present, and reasonably future projects. Therefore, cumulative vibration impacts would be **less than significant**.

Threshold 3: For a project 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, would the Project expose people residing or working in the Project area to excessive noise levels?

Impact Statement 3: Implementation of the Proposed Project would not result in the Project being located within the vicinity of a private airstrip or airport land use plan. Therefore, the Airport operations would result in a less than significant impact.

The Project is located within 2 miles of New Cuyama Airport (L88), which is a privately owned airstrip which is open to the public for use. This airstrip is located in the New Cuyama/Cuyama Priority Area and is located approximately 850 feet to the south of the nearest proposed fiber optic cable. Noise contours for the proposed airport are unavailable; however, based on public online resources provided by New Cuyama, the primary usage of the airport is to provide rapid response services such as emergency airlifts to hospitals to the residents of Cuyama. In addition, it is used by small aircrafts, such as private planes and heliopters, visiting the region or stopping over, but does not include infrastructure for commercial flights.. The layout of the airstrip is directed in a manner that would not result in the generation of excessive noise levels where workers would be active within the New Cuyama/Cuyama Priority Area. Given this information, noise from the New Cuyama Airport may result in occasional aircraft activity in the areas workers may be active; however, it would be barely perceptible and intermittent. The next nearest airport and airfield in proximity to the Project Site is the Lompoc City Airport (LPC) approximately 2.1 miles to the west of the River Park priority area. The River Park priority area is located outside of the 60 dBA CNEL contour from the airport as shown in Exhibit A-5 in the Santa Barbara County Airport Land Use Commission. Therefore, construction or operation of the Project would not expose people to excessive airport related noise levels. Impacts would be **less than significant** and mitigation measures would not be required.

Mitigation Measures

None required.

Cumulative Impacts

The Proposed Project along with all other past, present, or reasonably foreseeable future projects located within the County's ALUP Planning Area/AIA are required to be consistent with the ALUP policies. In addition to the Proposed Project, future projects would be potentially located within 2 miles from the Lompoc City Airport and New Cuyama Airport or within their sphere of influence.

The ALUP Land Use Compatibility Table 4.6-3 identifies land use by category, including residential, commercial, and industrial land use. The elements of the Proposed Project generally fall within the commercial land use compatibility categories. Almost all the cumulative projects are residential or commercial in nature. The compatibility criteria provided in the Land Use Compatibility Table advises review of noise insulation needs for residential, commercial, and recreational land uses in areas exposed to CNEL 65 dB–70 dB within the ALUP CNEL Contour. The same criteria apply to commercial land

uses in areas exposed to exposed to CNEL 70 dB–75 dB within the ALUP CNEL Contour. While the ALUP advises avoiding development of residential uses, reduction of interior noise levels to acceptable levels is typically achieved through standard residential and commercial building construction practices, and thus is reasonably foreseeable that no significant noise impacts would occur within the cumulative projects. As such, people residing or working in the cumulative projects that would occur within the Lompoc City Airport or New Cuyama Airport would not be exposed to excessive noise from airport operations. Impacts would be **less than significant**.

4.6.4 References

California Department of Transportation (Caltrans). 1998. *Technical Noise Supplement (TeNS), A Technical Supplement to the Traffic Noise Analysis Protocol. October 1998*. Available at: http://www.dot.ca.gov/hq/env/noise/pub/Technical%20Noise%20Supplement.pdf. Accessed on August 23, 2024.

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Santa Barbara County Planning and Development. 2020. *Environmental Thresholds and Guidelines Manual.* Available at: https://www.sblafco.org/files/f2915ea5d/Information_Item_No_1___Attachment_B_Environmental_Thresholds_Amended_January_2021.pdf. accessed on August 23, 2024

4.7 Tribal Cultural Resources

This section analyzes the impacts of the implementation of the Santa Barbara County Last-Mile Broadband Program ("Broadband Program" or "Project") on tribal cultural resources. Tribal cultural resources are those resources identified by California Native American tribes in consultation with lead agencies during tribal consultation (also referred to as Assembly Bill (AB) 52 consultation. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment. Relevant tribal correspondence is included in Appendix H of this Draft PEIR.

4.7.1 Environmental Setting

The Project is located in the County of Santa Barbara (County). It is bordered by San Luis Obispo County to the north, the Pacific Ocean to the south and the west, Ventura County to the east, and Kern County to the northeast. Approximately one-half of the undeveloped land in the County falls within the Los Padres National Forest and Vandenberg Air Force Base. The County is diverse and is made up of built and natural environment. Urban communities are bounded and separated by rural lands. The inland North County areas consist of "rural open spaces of chaparral hillsides, oak woodlands, grassland meadows, and agricultural and pastoral landscapes containing farmlands, vineyards, and ranch-style development surrounding distinct urban communities", while the South Coast includes "an undisturbed natural environment on the periphery of urban areas in the foothills and along the coastline" (County of Santa Barbara 2023). Lastly, the coastline contains "dunes, sandy beaches, sea cliffs, and views of the surrounding mountains, Channel Islands, and Pacific Ocean" (County of Santa Barbara 2023).

Ethnographic Setting

The SBCAG region is located within the territorial boundary of the Chumash. Chumash territory extended from the existing city of Malibu, north passed San Luis Obispo, and approximately 68 kilometers (42 miles) inland (Glassow 1996). The Chumash also occupied the northern Channel Islands: Santa Cruz, Santa Rosa, San Miguel, and Anacapa. The Chumash spoke six languages, and were and are, divided into two broad groups: Northern and Southern Chumash. The Northern Chumash group spoke the Obispeño language, while the Southern Chumash group spoke Purisimeño, Ineseño, Barbareño, Ventureño, and Island Chumash languages (Mithun 1999). The Chumash are divided into three main geological groupings: Interior, Coastal, and Northern Channel Islands Chumash" (Grant 1978).

In the precontact era, the Chumash subsistence model was that of a hunter gatherer society and they lived in permanent villages. The size of Chumash villages ranged considerably from the coastal areas to the inland areas with many villages on the coast having several hundred occupants, whereas villages inland were significantly smaller, sometimes containing only a couple dozen inhabitants. Chumash villages were most abundantly located along the coast and were often situated on high ground adjacent to a river or stream that flowed into the ocean or along the borders of sloughs or wetlands (Grant 1978).

Chumash subsistence included both terrestrial and maritime resources. Amongst terrestrial plant resources, the acorn, collected mainly from the California live oak, was the most important. Additional plant resources included pine nuts, wild cherry, cattail, California laurel berries, and chia sage seeds. Mule deer, coyote, and fox were hunted using the bow and arrow, and smaller game was taken using

deadfalls and snares. Migratory birds such as ducks and geese were also hunted. In addition to terrestrial resources, the Chumash utilized an array of maritime resources including shellfish, sea mammals, and pelagic and schooling fish. Large fish and sea mammals such as seals, sea otters, and porpoises were hunted with harpoons. Dip nets, seines, and line and hook were used for smaller fish (Grant 1978).

Chumash villages were composed of a patrilineal descent group and usually had at least one chief, known as the *wot* or *wocha*, whose position was inherited but was subject to village approval. Chumash dwellings were hemispherical structures constructed by driving pliable wooden poles into the ground, bending them towards the center of the dwelling, and tying them together. The wooden pole frame was then covered with interwoven grass mats. While accompanying the Portola expedition, Father Juan Crespi noted that Chumash dwellings could be up to 50 feet in diameter and hold up to 70 people. Most villages contained one or more sweat houses that were semi subterranean and consisted of a wooden pole frame covered with earth. Additional village structures included store houses and ceremonial enclosures (Grant 1978).

Not much is known of the religion practiced by the Chumash. Father Olbés of the Santa Barbara mission noted a Chumash deity called *sup*, and, although the Chumash had no figures or idols of the deity, they made offerings of seeds and feathers to show their acknowledgement and gratitude for the blessings given them. Additionally, Chumash rock art sites, such as Painted Cave of San Marcos Pass located near the City of Santa Barbara and Burro Flats Painted Cave located in the northwestern portion of the San Fernando Valley, may have represented shrines or sacred areas. Many of the pictographs present at rock art sites consist of geometric figures as well as animal figures and are painted in vibrant colors that may have been painted while under the influence of the hallucinogenic ceremonial drink, toloache, which is associated with the *Chinigchinich* religion of the Gabrielino-Tongva (Grant 1978). The Chumash buried their dead with the body being bound in a flexed position (Kroeber 1925). The graves of prominent individuals were marked with planks containing images or from which the possessions of the deceased were hung.

The Chumash were one of the first native Californian groups met by Juan Rodriguez Cabrillo when he sailed into the Santa Barbara Channel Island region in 1542-43 (Kroeber 1925). The Gaspar de Portola expedition passed through Chumash territory on its way to Monterey Bay in 1769. Between 1772 and 1804, five missions, including Missions San Luis Obispo (1772), San Buenaventura (1782), Santa Barbara (1786), La Purisima Concepcion (1787), and Santa Ynez (1804) were established in Chumash territory. The establishment of the missions fractured the traditional culture of the Chumash, and by 1834, when the missions were secularized, the Chumash population had declined dramatically as a result of European diseases and treatment at the hands of the colonialists (Grant 1978).

Identification of Tribal Cultural Resources

Records Search

A records search for the Project was conducted by staff through the CCIC on August 5, 2024. The records search included a review of all cultural resources studies and previously recorded cultural resources (archaeological and built environment) within the 17 identified installation sites comprising the nine Priority Areas for the Project. The records search results indicate that a total of 354 studies have been previously conducted within the nine Priority Areas. The results of the records search indicate that a total

of 133 cultural resources are found within the nine Priority Areas. Specifically, a total of 13 resources were found within Canyon Center; four within the Canyon East; nine within Canyon West; seven within Casmalia; three within Center; 25 within Center-East; three within Cuyama/New Cuyama; one within East; one within Garey; seven within Guadalupe; six within Jonata Park W 101; three within Los Alamos; four within Los Olivos E 154; 22 within Promises Ranch; five within River Park; and 10 within Tepusquet Road.

Of the 133 total cultural resources identified in the CCIC records search, 19 resources intersect or are adjacent to the proposed Distribution Fiber Right-of-Way (ROW). The 19 resources include seven precontact sites (CA-SBA-87, -108, -236, -1189, -1490, -2687, and -3500); one historic-period site (P-42-1431); two multicomponent resources (CA-SBA-1976 (adjacent) and -3625); four built environment resources (CA-SBA-3620, P-42-40751, -41219, and -41756); and five historic districts (P-42-40731, -40729, -40733, -3865 and -003804).

Seven precontact sites, one historic-period site, two multicomponent resources, and two historic districts (known as the Anza Trail and Lompoc Oil Field Historic District) intersect or are directly adjacent to the Distribution Fiber ROW. The precontact sites include eligible sites, village sites, and sites known to have evidence of human remains. The majority of these resources are all indicative of precontact habitation and food preparation. These resources could be indicative of larger buried villages or camp sites that could extend with the ROW and be encountered during ground disturbance for these projects.

Sacred Lands File Search

A Sacred Lands File (SLF) search was requested from the Native American Heritage Commission (NAHC) on July 26, 2024. The SLF search results prepared by the NAHC on August 16, 2024 and they indicated that the SLF results were positive.

Native American Consultation

On June 1, 2024, the SBCAG submitted a notification and request to consult letter to the Santa Ynez Band of Chumash Indians (Tribe) pursuant to AB 52. The Tribe replied via letter on June 14, 2024 requesting formal consultation and asking to contact Cultural Resource Archaeologist Dr. Wendy Teeter to schedule the consultation call (see Appendix H of this Draft PEIR). On August 14, 2024, the SBCAG and Dr. Teeter met to discuss the Project. The Tribe indicated that the Project is culturally sensitive due to the existence of many previously recorded archaeological resources within the Project and requested to be provided with the results of the cultural resources records search conducted by the CCIC. This information was provided to Dr. Teeter for her review. Consultation between SBCAG and the Tribe is still ongoing.

4.7.2 Regulatory Setting

State

Native American Heritage Commission

Public Resources Code (PRC) Section 5097.91 established the Native American Heritage Commission (NAHC), the duties of which include inventorying places of religious or social significance to Native Americans and identifying known graves and cemeteries of Native Americans on private lands. PRC

Section 5097.98 specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner.

Assembly Bill 52 of 2014

AB 52 expanded CEQA by defining a new resource category, "tribal cultural resources." AB 52 establishes that "a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (Public Resources Code [PRC] Section 21084.2). AB 52 further states when feasible, the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource (PRC Section 21084.3). PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe," and meets either of the following criteria:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k).

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

In recognition of California Native American tribal sovereignty and the unique relationship of California local governments and public agencies with California Native American tribal governments and with respect to the interests and roles of project proponents, it is the intent AB 52 to accomplish all of the following:

1. Recognize that California Native American prehistoric, historic, archaeological, cultural, and sacred places are essential elements in tribal cultural traditions, heritages, and identities.
2. Establish a new category of resources in CEQA called "tribal cultural resources" that considers the tribal cultural values in addition to the scientific and archaeological values when determining impacts and mitigation.
3. Establish examples of mitigation measures for tribal cultural resources that uphold the existing mitigation preference for historical and archaeological resources of preservation in place, if feasible.
4. Recognize that California Native American tribes may have expertise with regard to their tribal history and practices, which concern the tribal cultural resources with which they are traditionally and culturally affiliated (because CEQA calls for a sufficient degree of analysis, tribal knowledge about the land and tribal cultural resources at issue should be included in environmental assessments for projects that may have a significant impact on those resources).
5. In recognition of their governmental status, establish a meaningful consultation process between California Native American tribal governments and lead agencies, respecting the interests and roles of all California Native American tribes and project proponents, and the level of required confidentiality concerning tribal cultural resources, early in the CEQA environmental review process, so that tribal cultural resources can be identified, and culturally appropriate mitigation and mitigation monitoring programs can be considered by the decision-making body of the lead agency.
6. Recognize the unique history of California Native American tribes and uphold existing rights of all California Native American tribes to participate in, and contribute their knowledge to, the environmental review process pursuant to CEQA.

7. Ensure that local and tribal governments, public agencies, and project proponents have information available, early in CEQA environmental review process, for purposes of identifying and addressing potential adverse impacts to tribal cultural resources and to reduce the potential for delay and conflicts in the environmental review process.
8. Enable California Native American tribes to manage and accept conveyances of, and act as caretakers of, tribal cultural resources.
9. Establish that a substantial adverse change to a tribal cultural resource has a significant effect on the environment.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified or adopted. AB 52 requires that lead agencies "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those that have requested notice of projects proposed in the jurisdiction of the lead agency.

Local

County of Santa Barbara Cultural Resource Guidelines

The Santa Barbara County *Environmental Thresholds and Guidelines Manual* (2021) includes Cultural Resources Guidelines, Archaeological Historical, and Ethnic Elements that provide local criteria for determining the significance of archaeological resources. Under County criteria, an "important archaeological resource" can be defined by one of several factors. A resource is considered significant for the purposes of CEQA if it demonstrates one or more of the following:

- Is associated with an event or person of recognized significance in California or American history or recognized scientific importance in prehistory;
- Can provide information that is of demonstrable public interest and is useful in addressing scientifically consequential and reasonable research questions;
- Has a special or particular quality such as oldest, best example, largest or last surviving example of its kind;
- Is at least 100 years old and possesses substantial stratigraphic integrity; or
- Involves important research questions that historical research has shown can be answered only with archaeological methods.

4.7.3 Analysis, Impacts and Mitigation

Methodology and Significance Thresholds

According to Appendix G of the State CEQA Guidelines, an impact on Tribal Cultural Resources from the proposed project would be significant if the following applies:

1) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

2) Result in a cumulatively considerable impact to tribal cultural resources.

Impacts and Mitigation Measures

The following section presents a programmatic-level discussion of the potential for impacts to tribal cultural resources from implementation of the Project. Impacts and associated mitigation measures would apply in Santa Barbara County and all cities within the County.

Threshold 1: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe

Impact Statement 1: The Project would not cause a substantial adverse change in the significance of a tribal cultural resource pursuant to PRC section 21074.

Priority Area Projects and Future Broadband Installations

Due to the high sensitivity, the Project could result in significant impacts to sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe qualifying as tribal cultural resources. Thus, there would be a significant impact to tribal cultural resources. However, implementation of mitigation measures **TCR-1** through **TCR-3** would reduce impacts to less than significant levels. For archaeological resources that could also meet the definition of tribal cultural resources, mitigation measures **CR-2** through **CR-5** (found in Section 4.3, *Cultural Resources*, of this Draft PEIR) would be implemented to further reduce impacts.

Mitigation Measures

Mitigation Measure TCR-1: The implementing agency shall retain a Native American monitor from the Santa Ynez Band of Chumash Indians (Tribe) to carry out all mitigation related to tribal cultural resources as required for each project. Prior to the commencement of ground disturbing activities, a Tribal Cultural Resources Sensitivity Training session shall be held for those construction personnel who will be directly involved in the ground disturbing activities. The training session shall be carried out by the Native American Monitor and shall focus on how to identify tribal cultural resources that may be encountered during ground disturbing activities and the procedures to be followed in such an event.

Within the planned projects there are 10 archaeological sites (which have been determined to be within or directly adjacent to known archaeological sites) and two districts. All 12 sites and districts have been determined to be eligible, potentially eligible, or have not been evaluated. Project planning should include design to avoid these sites whenever possible. When avoidance is not possible, testing and data recovery must be completed in advance of construction by a Qualified Archaeologist identified in Mitigation Measure CR-2. The Tribe shall provide a Native American monitor who shall be present during testing/data recovery, and construction activities

on the projects deemed by the qualified Archaeologist and the consulting tribe to have the potential for encountering archaeological resources, that could be considered tribal cultural resources by the Tribe and under CEQA, such as demolition, excavation of boring entrance and exist pits, clearing/grubbing, drilling/auguring, grading, trenching, excavation, or other ground disturbing activity associated with the project where the ground disturbance can be observed. Full-time monitoring may be reduced to part-time inspections, or ceased entirely, if determined appropriate by the Qualified Archaeologist and the Tribe.

Mitigation Measure TCR-2: The Native American Monitor shall complete daily monitoring logs that provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs shall identify and describe any discovered tribal cultural resources, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs shall be provided to the implementing agency upon written request to the Tribe.

Mitigation Measure TCR-3: In the event of a discovery of potential tribal cultural resources, the Qualified Archaeologist identified in Mitigation Measure CR-2 [after consultation with the Native American Monitor] shall have the authority to temporarily divert, redirect, or halt ground-disturbance activities to allow identification, evaluation, and potential recovery of such potential resources. After consulting with the Native American Monitor and the implementing agency, the Qualified Archaeologist shall establish an appropriate buffer area in accordance with industry standards, reasonable assumptions regarding the potential for additional discoveries in the vicinity, and safety considerations for those making an evaluation and potential recovery of the discovery. This buffer area shall be established around the find where ground-disturbing activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area.

Within three (3) business days of such discovery, a meeting shall take place between the Qualified Archaeologist, the Tribe, and the implementing agency to discuss the significance of the find and whether it qualifies as a tribal cultural resource pursuant to Public Resources Code Section 21074(a). If, as a result of the meeting and after consultation with the Tribe and the Qualified Archaeologist, the implementing agency determines, based on substantial evidence, that the resource is in fact a tribal cultural resource, the Qualified Archaeologist shall develop a reasonable and feasible treatment plan, with input from the Tribe as necessary, and with the concurrence of the implementing agency. The treatment measures in the treatment plan shall be in compliance with any applicable federal, State, or local laws, rules or regulations. The treatment plan shall also include measures regarding the curation of the recovered resources.

The lead agency may recommence ground disturbance activities inside of the specified radius of the discovery site only after it has complied with all of the recommendations developed and approved pursuant to the process set forth in the above paragraphs.

The recovered tribal cultural resources may be placed in the custody of the Tribe, who may choose to use them for their educational purposes or they may be curated at a public, non-profit institution with a research interest in the materials. If neither the Tribe nor an institution accepts the resources, they may be donated to a local school or historical society in the area for educational purposes.

Notwithstanding the above paragraph, any information determined to be confidential in nature by the implementing agency, shall be excluded from submission to the CCIC or the general public under the applicable provisions of the California Public Records Act, Sections 7927.000 and 7929.005.

Cumulative Impacts

For the purposes of this analysis of cumulative impacts to tribal cultural resources, the geographic area of consideration (i.e., the cumulative impacts study area) consists of the 17 installation sites within the nine Priority Areas, and more specifically the proposed fiber optic conduit alignments, as well as those of future yet-to-be-defined broadband installation sites in the County. This geographic scope of analysis is appropriate for the analysis of tribal cultural resources because the types of resources within this area are similar in nature and origin and share a common heritage.

Threshold 1: Would the Project when combined with other past, present, or reasonably foreseeable projects, cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is:

i) Listed or eligible for listing in the California Register, or in a local register of historical resources as defined in Public Resources Code § 5020.1(k); or

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code § 5024.1(c). In applying the criteria set forth in Public Resources Code § 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe?

Priority Area Projects and Future Broadband Installations

As demonstrated above, prior to mitigation, the Project would have a potentially significant impact on tribal cultural resources. This significant impact finding is due to the potential to encounter tribal cultural resources at depth during construction. This potential exists due to the existence of 10 archaeological sites and two districts within the identified Priority Areas. In addition, future yet-to-be-identified broadband projects to be proposed under the Broadband Program would also have the potential to intersect tribal cultural resources during construction. Similarly, as with the Project, each related project would also be required to engage in AB 52 consultation with Native American tribes in order to identify any tribal cultural resources that could potentially be impacted by the related project and to address potentially significant impacts, if identified. The related projects may require mitigation similar to that applicable to the Project, especially if those related projects are in areas of heightened sensitivity similar to the Project Site.

Accordingly, in light of the Project mitigation measures and similar anticipated mitigation requirements for Projects in areas of heightened sensitivity, the Project would not result in a cumulatively considerable contribution to tribal cultural resource impacts with the implementation of Mitigation Measures TCR-MM-1 through TCR-MM-3.

Mitigation Measure

None required.

4.7.4 References

County of Santa Barbara. 2023. Draft Program Environmental Impact Report (EIR) for the 2023-2031 Housing Element Update. Volume I, County EIR No. 23EIR-00004, State Clearinghouse No.2022070490. December 2023.

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Kroeber, A. L., Handbook of Indians of California. Dover Publications, Inc., New York, 1925.

Mithun, Marianne. 1999. The Languages of Native North America. New York: Cambridge University Press.

4.8 Utilities and Service Systems – Telecommunication Facilities

This section identifies and evaluates issues related to utilities and service systems to determine whether implementation of the Project could result in a significant impact related to telecommunication facilities. This section describes the physical environmental and regulatory setting, the criteria and thresholds used to evaluate the significance of impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

4.8.1 Environmental Setting

Existing Conditions

The proposed alignments for the Project broadband installations are located along Santa Barbara County roads, many of which accommodate existing utility easements with aerial electrical distribution and telecommunications (telephone and cable television/data) lines, and buried stormwater, telecommunications, natural gas, and water and sewer pipelines.

Telecommunication Services

Fiber optic telecommunication services are lacking while wireless cable and other telecommunication services are in place in the Project's Priority Areas as well as other underserved communities identified in the Broadband Strategic Plan (BSP). Telecommunication services are provided by numerous internet service providers (ISPs) within the County including, but not limited to, the following:

- Frontier Communications
- Comcast Cable Communications Management, LLC
- Cox Communications
- Starlink
- Xfinity Communications
- T-Mobile Home Internet
- HughesNet
- Advanced Wireless
- Viasat
- Spectrum
- Astound Broadband
- Earthlink
- Verizon
- Surfnet Communications
- Impulse Internet Services
- City of Lompoc (LompocNet)

- Ranch Wifi
- GeoLinks
- Others

4.8.2 Regulatory Setting

Federal

There are no federal regulations applicable to the proposed Project with respect to utilities and service systems.

State

California Green Building Standards Code (Title 24, California Code of Regulations, Part 11)

Section 5.408 of the 2013 California Green Building Standards Code (Title 24, California Code of Regulations, Part 11) requires that at least 50 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

California Public Utilities Code

The California Public Utilities Code has broad regulatory authority over public utilities in California, which include electrical utilities, municipal water companies, private energy producers, telephone corporations, and railroad corporations. The California Public Utilities Commission (CPUC) is the government body that administers the California Public Utilities Code. CPUC's Communications Division is responsible for licensing registration, and processing tariffs of local exchange carriers, competitive local carriers, and non-dominant interexchange carriers. It is also responsible for registration of wireless service providers and franchising of video service providers. The Communications Division tracks compliance with commission decisions and monitors consumer protection and service issues and CPUC reliability standards for safe and adequate service.

Senate Bill 822 (SB 822)

SB 822 was signed into law in September 2018 as California's net neutrality law. SB 822 would ban internet providers from the following: blocking or throttling legal apps and websites; offering paid prioritization of content, or zero-rating (offering free data for specific apps). Shortly after SB 822 was signed, the U.S. Department of Justice filed suit against California over SB 822 on preemption grounds; California later agreed to hold off on enforcing its new net neutrality law until the U.S. Court of Appeals for the D.C. Circuit determines whether the FCC lawfully revoked its net neutrality regulations. In February 2021, the Department of Justice dropped the lawsuit and a preliminary injunction brought against SB 822 by the telecom industry was declined. As a result, SB 822 was allowed to go into effect.

Local

The Santa Barbara County Comprehensive Plan Energy Element, which was originally adopted in 1994 but republished in 2015, contains long-range planning guidelines and strategies to encourage energy efficiency and alternative energy sources in Santa Barbara County. However, it does not include requirements applicable to individual development projects. Energy Element policies relevant to the proposed Broadband Program include the following:

Santa Barbara County Comprehensive Plan – Energy Element

Policy 4.1: Construction - Encourage recycling and reuse of construction waste to reduce energy consumption associated with extracting and manufacturing virgin materials.

Public Service 4.1.1: The County will serve as a source of information regarding current markets and collection services for recycling and reuse of construction- generated waste.

Policy 3.2: Teleconferencing Telecommuting/Electronic Communication - The County should continue to research and support opportunities for telecommunication and computer-based communication that reduce the need for travel.

Public Service 3.2.1: The County should assist local businesses and interested organizations to examine county-wide telecommuting needs and opportunities related with discretionary (non-commute) trips.

Public Service 3.2.2: The County should continue to evaluate the possibility of providing the ability for people to meet in different locations without traveling (e.g., expanding Probation's teleconferencing project).

Internal Action 3.2.1: The County should strive to develop guidelines for County employees to work off-site (telecommute), and investigate and implement appropriate telecommuting opportunities to reduce vehicle trips.

Policy 3.3: Voluntary Preparation of a Trip Reduction Plan - Reduce vehicular miles traveled and peak traffic trips by encouraging employers to voluntarily prepare and implement a Transportation Demand Management Program for their employees. (This policy is focused at areas not governed by Tier 3 of the TDM Ordinance.)

Public Service 3.3.1: The County shall encourage new commercial and industrial developments that will employ over 20 people, to voluntarily develop a Trip Reduction Plan (TRP) for their employees by providing the developer with an informational package on potential cost savings for the employer and employee if a TRP is implemented. These projects would coordinate with the county's Congestion Management Plan and 1991 Air Quality requirements and receive assistance from the Santa Barbara County Association of Governments.

(a) Trip Reduction Plan employer-based programs can include: work schedule changes, ridesharing, walking and bicycling, telecommuting using mass transit, etc.

(b) Incentives to employees for implementation of these programs can include: transportation allowances, guarantee ride home, mass transit use subsidization, preferential parking for ridesharers, cashing out, and commuter check.

Public Service 3.3.2: The County should coordinate with Santa Barbara County Association of Governments to inform businesses of the potential benefits of encouraging employees to use alternative transportation, such as the cost savings of bicycle racks and lockers versus the cost of vehicle parking spaces.

Regulatory Incentive 3.3.1: As an incentive, the County should reduce parking requirements for commercial and industrial uses that implement policies and actions to reduce vehicular miles or trips, as long as it does not pose any significant parking impacts (e.g., redirects parking along nearby residential streets). [Cross-reference: Energy Element, Regulatory Incentive 6.1.4.]

4.8.3 Analysis, Impacts and Mitigation

Significance Criteria

- Would the project require or result in the relocation or construction of new or expanded telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Methodology and Assumptions

The thresholds that were scoped out during the NOP scoping period include:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, or natural gas facilities, the construction of which could cause significant environmental effects.
- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.
- Result in a determination by the wastewater treatment provided which serves or may serve the project that is has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.
- Comply with federal, state, and local management and reduction statues and regulations related to solid waste.

The impact analysis below identifies and describes the proposed Project's potential impacts to telecommunications systems within the proposed Project area. Potential impacts were evaluated according to significance criterion based on the checklist items presented in Appendix G of the CEQA Guidelines. Both the construction and maintenance/operations phases were considered; however, because the construction phase could result in physical changes to the environment, analysis of construction phase effects warranted a detailed evaluation.

Impacts and Mitigation Measures

Threshold 1: Would the Project require or result in the relocation or construction of new or expanded telecommunication facilities, the construction or relocation of which could cause significant environmental effects?

Impact Statement 1: Implementation of the Proposed Project would not result in relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, or natural gas facilities. The Proposed Project would result in less than significant impacts to expanded electric power or telecommunication facilities.

Priority Area Broadband Projects

The Project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electrical power and natural gas facilities. As such, no direct impacts to such facilities would occur under the Project. However, as the Project would implement future broadband infrastructure installations in various communities throughout the County, it would

necessarily require or result in the relocation or construction of new or expanded telecommunication facilities. As mentioned in the Project Description, the proposed installations located within the nine identified Priority Areas would require construction efforts in terms of providing additional telecommunication services. Under the proposed Project, the proposed fiber optic lines would be installed underground following public or private roadways up to 10 feet from the edge of the road. Additionally, some fiber optic lines could be installed directly under roadways in areas with limited shoulder space or where existing conduit under the road may be used, thus avoiding new surface disturbance.

Various underground and aboveground utility lines (e.g., water, wastewater, electricity, natural gas) are located at various depths throughout the Priority Areas. The individual fiber sites would be surveyed for the presence of utilities and marked for avoidance during construction activities. For construction of underground fiber optic lines, construction activities would maintain minimum clearances from all utilities running parallel to the fiber optic lines, which would require existing utilities to remain buried and unaffected by construction activity. However, there may be locations where construction activities would intersect with existing stormwater, wastewater, water, natural gas, and electrical lines. In such instances, the contractor would be required to coordinate with the respective utility owners/operators to design and construct facilities to avoid existing infrastructure. However, if substantial conflicts were to exist, the proposed broadband alignment would either be relocated to avoid the conflicts, or alternatively, installation via aerial stringing on existing utility poles or other construction methods would be considered. Given the limited size of the proposed fiber optic lines and associated conduit, it is not anticipated that substantial conflicts with existing facilities would occur such that existing facilities would be adversely affected or services limited by future broadband installations.

Each individual Priority Area fiber project final plan set would identify the locations of any utilities that cross or are adjacent to the fiber optic line and identify minimum vertical clearances and any adjustments in the vertical alignment of the fiber optic line or conduit to avoid the existing utility. Final plans would be required to be reviewed and approved by the County and/or cities, as appropriate, before construction permits are issued by the applicable jurisdiction. The final plans would be prepared consistent with the design and construction standards of the applicable jurisdiction, including identification of all existing utilities within the individual project site. In addition, the project contractor would be required to notify Underground Service Alert in advance of beginning any excavation work. Because future individual broadband projects would be designed to avoid conflicts with existing utility infrastructure by complying with County or City design and construction standards, as applicable, it would not require or result in the relocation or construction of new or expanded water, recycled water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

Future Broadband Projects (Countywide)

The nature of the proposed Project itself would be an expansion of telecommunication facilities within Santa Barbara County and is analyzed within this PEIR. The proposed Project components would not include construction of residential, commercial, or other land uses that would directly increase population or otherwise result in the need for new or expanded water, wastewater, stormwater, or energy facilities. The physical impacts of future broadband installations, similar to those of the Priority Area projects, would be associated with construction of the fiber optic network and related boring, trenching, and other installation activities. The impacts of the Project with regard to construction are addressed other sections

of this Draft PEIR, including Section 4.1, *Air Quality*, Section 4.2, *Biological Resources*, Section 4.3, *Cultural Resources*, Section 4.4, *Energy*, Section 4.5, *Greenhouse Gas Emissions*, Section 4.6, *Noise*, and Section 4.7, *Tribal Cultural Resources*. As noted therein, the impacts associated with construction of the proposed broadband facilities would be considered less than significant, either with or without the implementation of applicable mitigation measures.

Operation and maintenance associated with the proposed Project would require few personnel. Occasional visits by technicians to the Priority sites as well as future sites would be required in order to check on equipment and connect or disconnect customers but would not require access to municipal services during a site visit. The Project components would not increase land use intensities, as the proposed broadband installations are only proposed to serve existing underserved communities and thus would have no effect on land use planning or the allocation of development intensity in long-range planning documents; therefore, would not require the installation of storm water drainage facilities, construction of new water or wastewater treatment facilities, or construction or extension of electric power or natural gas facilities.

Similar to the projects within the identified Priority Areas, final plans for future projects in yet-to-be-identified communities would be required to be reviewed and approved by the County or incorporated cities before construction permits would be issued by the applicable jurisdiction. The final plans would be prepared consistent with the design and construction standards of the applicable jurisdiction, including identification of all existing utilities in the individual project site. Accordingly, the impact would be less than significant under this criterion.

Mitigation Measures

None required.

Cumulative Impacts

With regard to telecommunications infrastructure, cumulative impacts would generally be associated with construction activities of other related projects in the County occurring at the same time and in proximity to Project-related construction, thus resulting in the potential for additive, though temporary, effects. As noted in the discussion above, the installation of telecommunications infrastructure under the Project would primarily involve trenchless boring installation methods along with limited instances of microtrenching in order to place telecommunications lines below the surface and/or complete connections to existing infrastructure. This excavation, boring, and trenching activity, and the associated installation of fiber optic infrastructure, would typically occur within existing street rights-of-way or adjacent disturbed areas, and thus impacts associated with broadband installations would be limited in areal extent and would be temporary in nature. As summarized in **Table 3-1**, *Cumulative Project List*, and shown in **Figure 3-1**, *Cumulative Project Map*, in Chapter 3, *Environmental Setting*, of this Draft PEIR, several related projects would occur within the identified Priority Areas, and thus some of the construction activities associated with those projects could have the potential to overlap with those of the broadband installations proposed under the Project. However, while there is a limited potential for construction activities of the Priority Area projects and those of the related projects to intersect, given the nature of broadband construction, the construction impacts of one project would have very little potential to exacerbate or cumulatively contribute to adverse effects of the other. This is because broadband installations proceed in a linear fashion along the proposed alignment with a rate of approximately 200

feet per day. Accordingly, the localized effects of construction (typically traffic detours, exhaust emissions, noise/vibration, and other effects) are typically only experienced while construction activities are occurring in close proximity to a given location. Therefore, although a given broadband installation project may potentially cross paths with another construction project, including those identified in Table 3-1, the additive effects of the construction activities would only occur for a matter of a few days at most while the broadband installation is occurring in proximity to the related project construction.

In addition, prior to any ground disturbance, contractors for Project-related broadband installations and for other related projects would be required to coordinate with the applicable local jurisdiction and utility company to identify the locations and depth of all buried facilities and the lead agency and utility company(ies) would be notified in advance of proposed ground disturbance activities to avoid other existing utility lines and disruption of utility service. Further, a Construction Traffic Management Plan for each related project would be prepared in order to minimize disruptions to traffic flow, which would consider any related project-related utility improvements, as necessary. Lastly, any impacts associated with the construction of such infrastructure would be accounted for in the impact analysis for the Project and related projects in other sections of their respective CEQA documents (e.g., Air Quality, Noise, Transportation, etc.).

As such, while there would be a potential for temporary cumulative construction impacts to occur, such impacts would not be considered significant and the Project's contribution to those impacts would not be considerable.

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CHAPTER 5
Alternatives

5.1 Overview

The California Code of Regulations (CCR) Section 15126.6(a) (State CEQA Guidelines) requires EIRs to describe "… a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather, it must consider a range of potentially feasible alternatives that will avoid or substantially lessen the significant adverse impacts of a project, and foster informed decision making and public participation. An EIR is not required to consider alternatives that are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason." This section of the State CEQA Guidelines also provides guidance regarding what the alternatives analysis should consider. Subsection (b) further states the purpose of the alternatives analysis is as follows:

> *Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code [PRC] Section 21002.1), 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 to some degree the attainment of the project objectives, or would be more costly.*

The State CEQA Guidelines require that the EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the Project. If an alternative would cause one or more significant effects in addition to those that would be caused by the program as proposed, the significant effects of the alternative must be discussed, but in less detail than the significant effects of the program as proposed (CCR Section 15126.6[d]).

The State CEQA Guidelines further require that the "no project" alternative be considered (CCR Section 15126.6[e]). The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving a proposed project with the impacts of not approving the proposed project. If the no project alternative is the environmentally superior alternative, CEQA requires that the EIR "…shall also identify an environmentally superior alternative among the other alternatives." (CCR Section 15126.6[e][2]).

In defining "feasibility" (e.g., "… feasibly attain most of the basic objectives of the project …"), CCR Section 15126.6(f)(1) states, in part:

> *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). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.*

In determining what alternatives should be considered in the EIR, it is important to consider the objectives of the project, the project's significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of "potentially feasible" alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by the lead agency's decision-making body, Santa Barbara County (County) (See PRC Sections 21081.5, 21081[a][3].)

5.2 Factors in the Selection of Alternatives

The State CEQA Guidelines Section 15126.6(c) provides the following guidance in selecting a range of reasonable alternatives for the Project. The range of potential alternatives to the Project must include those that could feasibly accomplish most of the basic objectives of the Project and avoid or substantially lessen one or more of the significant effects of the Project. It is important to note, however, that this EIR did not identify any significant unavoidable impacts of the Project; all impacts are mitigable to less-than-significant levels. Therefore, discussions of a given alternative's ability to reduce impacts should be considered in that context—certain impacts may be somewhat reduced by an alternative, but not from significant levels to less-than-significant levels.

5.2.1 Project Objectives

The objectives of the Project are to evaluate the reasonableness and feasibility of each alternative. As presented in Chapter 2, Project Description, the objectives of the Program are as follows:

1. Provide reliable high-speed broadband internet service to residents and businesses located in the identified Priority Areas and any additional unserved and underserved communities in Santa Barbara County in order to improve communication capabilities throughout the County;
2. Provide upgradable and expandable high-speed broadband capacity in the service areas with minimum speeds of 25 megabits per second (Mbps) for downloads and 5 Mbps for uploads, consistent with the federal definition of "adequate service" for broadband and California's definition of broadband;
3. Enable an increase in telecommuting, telehealth services, and distance learning, with a commensurate decrease in vehicle miles traveled, barriers to medical provider access, and digital/educational inequities;
4. Provide broadband infrastructure to support the regional public safety network, including providing network redundancy and resiliency to improve disaster preparation and emergency response;

5. Identify and facilitate funding opportunities for future broadband infrastructure installations under the Program;
6. Reduce the potential environmental effects of broadband installation projects by utilizing minimally impactful construction techniques and equipment and avoiding construction within or near sensitive environmental resources to the extent feasible;
7. Provide a reliable foundation of data and acceptable methodology to assess impacts for future broadband deployment projects, and streamline the environmental review process for individual broadband projects that are implemented in both incorporated and unincorporated areas of Santa Barbara County; and
8. To implement resources most efficiently within the County, incorporated cities, and broadband project applicants. This will result in the overall reduction in the amount of County and member agency staff time required to review broadband projects and avoiding duplication of applicant costs.

5.2.2 Significant Effects of the Proposed Project

Sections 4.1 through 4.8 of this Draft EIR address the environmental impacts of implementation of the Project. Potentially feasible alternatives were developed with consideration of avoiding or lessening the significant, and potentially significant, adverse impacts of the Project, as identified in Chapter 4 of this Draft EIR and summarized in Table ES-1 in the "Executive Summary" chapter. As described in Table ES-1 and Sections 4.1 through 4.8, for the following resource areas the Project could result in significant or potentially significant impacts that would be reduced to less-than-significant levels with the incorporation of mitigation:

- Air Quality:
- Biological Resources;
- Cultural Resources;
- Noise and Vibration; and
- Tribal Cultural Resources

No significant and unavoidable environmental impacts resulting from the program were identified.

5.3 Alternatives Considered but Dismissed from Further Evaluation

In accordance with CEQA Guidelines Section 15126.6(c), determining what alternatives should be addressed in the PEIR, the County considered alternatives that would involve expansion of Wifi/5G capabilities, and an alternative that would solely utilize existing infrastructure (conduit and utility poles), which would minimize construction impacts. These alternatives, described in more detail below, were determined to be infeasible and were rejected for further consideration in the PEIR.

5.3.1 Wifi/5G

This alternative would not install broadband infrastructure and would instead increase the wireless internet capacity and 5G capabilities within the underserved areas throughout the County. This alternative would involve providers of mobile networks expanding mobile services to areas that do not have access to broadband technology. The 5G capability is considered a mid-band technology and requires mid-band ranges in spectrum to allow data to travel long distances. This type of technology does not meet most of the project objectives as it does not focus on fiber optic broadband infrastructure installation, which is a more reliable technology and is not subject to disruption and interference to the extent that wireless technologies are. Therefore, this alternative is not selected for detailed analysis.

5.3.2 Use Existing Infrastructure Only

This alternative would include only projects that install fiber optic line in existing conduit or along existing utility poles, with no new conduit or utility pole installations proposed. This alternative was considered because it would reduce the extent of potentially significant impacts reduced to a less than significant level with mitigation associated with installation of new conduit and utility pole infrastructure. However, it would not meet most of the basic objectives of the program because it would not provide for the expansion of broadband infrastructure into portions of the service area that do not already include sufficient conduit, utility poles, and supporting infrastructure. Therefore, this alternative is not selected for detailed analysis.

5.4 Analysis Format

In accordance with CEQA Guidelines Section 15126.6(d), three feasible alternatives to the Project are evaluated in sufficient detail to determine whether the overall environmental impacts would be less than, similar to, or greater than the corresponding impacts of the Project. The evaluation of each of the alternatives follows the format described below:

- A description of the alternative.
- The environmental impacts of the alternative before and after implementation of reasonable mitigation measures for each environmental issue area analyzed in the EIR are described. Where applicable, the evaluation is divided between temporary impacts that would occur during the Project's construction phase and impacts that would occur during the Project's operational phase.
- Environmental impacts of the alternative and the Project are compared for each environmental issue area evaluated in Chapter 4, *Environmental Impacts and Mitigation Measures*, the Draft EIR. Where the impact of the alternative would be less adverse than the impact of the Project, the comparative impact is said to be "less." Where the alternative's net impact would be more adverse than the Project, the comparative impact is said to be "greater." Where the impacts of the alternative and Project would be roughly equivalent, the comparative impact is said to be "similar." The evaluation also documents whether compared to the Project, an impact would be entirely avoided, or whether a significant impact under the Project could be reduced to a less-than-significant level in the alternative.
- The comparative analysis of the impacts is followed by a general discussion of the extent to which the underlying purpose and Project Objectives would be attained by the alternative.

At the end of the section, pursuant to CEQA Guidelines Section 15126.6(e)(2) an Environmentally Superior Alternative is identified. The comparative impacts of the Project and the alternatives are summarized in Table 5-1 below.

5.5 Alternatives Selected for Further Consideration

The following alternatives are evaluated in this Draft EIR:

- Alternative 1: No Project Alternative. This alternative assumes no additional broadband infrastructure would be installed and broadband capacity would be unchanged from existing conditions.
- Alternative 2: Reduced Area/Priority Areas Only Alternative
- Alternative 3: Existing Infrastructure Alternative

Further details on these alternatives, and an evaluation of environmental impacts relative to the Project are provided below.

5.5.1 Alternative 1: No Project Alternative

As required by CEQA, the No Project Alternative is evaluated in this Draft EIR. Under the No Project Alternative, no activities would take place in order to expand the broadband availability and the service area would remain unchanged from current conditions. Although it is acknowledged that, with the No Project Alternative, there would be no discretionary action by SBCAG, and thus no impact, for purposes of comparison with the other action alternatives, conclusions for each technical area are characterized as "impacts" that are greater, similar, or less, to describe conditions that are worse than, similar to, or better than those of the proposed Project.

Air Quality

Under the No Project Alternative, no construction or operation of additional broadband infrastructure would occur. As a result, there would be no construction-related air emissions, and no air emissions would occur from operating new broadband infrastructure. Thus, there would be no impact to air quality. Thus, air quality impacts would be less under Alternative 1 than the Project.

Biological Resources

Because no construction, excavation, or ground disturbance would occur under the No Project Alternative, there would be no effects on biological resources. The No Project Alternative would not affect special-status species or habitat, USFWS-designated critical habitat for 14 species (arroyo toad, California condor, California red-legged frog, California tiger salamander, Gaviota tarplant, La Graciosa thistle, least Bell's vireo, Lompoc yerba santa, southwestern willow flycatcher, tidewater goby, Vandenberg monkeyflower, Ventura marsh milk-vetch, vernal pool fairy shrimp, and western snowy plover), or riparian habitat or other sensitive natural communities. The No Project Alternative also would not degrade wetlands, interfere with wildlife movement corridors or nursery sites, or conflict with local ordinances or policies. For these reasons, the No Project Alternative would have no impact on biological resources. Thus, biological resources impacts would be less under the No Project Alternative than the Project.

Cultural Resources

No construction, excavation, or ground disturbance would occur under the No Project Alternative. Therefore, no effects on historic resources or unique archeological resources would occur. Since no construction would occur under the No Project Alternative, there would also be no risk of disturbing human remains. For these reasons, the No Project Alternative would have no impact on historical or archaeological resources. Thus, cultural resources impacts would be less under the No Project Alternative than the Project.

Energy

Under the No Project Alternative, no construction or operation of additional broadband infrastructure would occur. As a result, there would be no construction-related energy usage, and no operations of new broadband infrastructure would be built that would consume energy. Thus, there would be no impact to energy usage or supplies. Thus, energy impacts would be less under the No Project Alternative than the Project.

Greenhouse Gas Emissions and Global Climate Change

Under the No Project Alternative, no construction or operation of additional broadband infrastructure would occur. As a result, there would be no construction-related GHG emissions, and no GHG emissions would occur from operating new broadband infrastructure. Thus, there would be no impact to global climate change. Thus, GHG impacts would be less under the No Project Alternative than the Project.

Noise and Vibration

Under the No Project Alternative, no construction or operation of additional broadband infrastructure would occur. As a result, there would be no construction or operational noise. Thus, there would be no impact related to noise. Thus, noise and vibration impacts would be less under the No Project Alternative than the Project.

Tribal Cultural Resources

No construction, excavation, or ground disturbance would occur under the No Project Alternative. Therefore, there would be no impacts on tribal cultural resources. For these reasons, the No Project Alternative would have no impact on tribal cultural resources. Thus, tribal cultural resources impacts would be less under the No Project Alternative than the Project.

Utilities

Under the No Project Alternative, no expansion of broadband infrastructure would occur. As a result, no impact related to utilities would occur. Thus, utilities impacts would be less under the No Project Alternative than the Project.

Relationship to Project Objectives

As described above, under the No Project Alternative, no activities would take place in order to expand the broadband availability and the service area would remain unchanged from current conditions. Thus, the No Project Alternative would not meet any of the nine Project objectives, which are listed above.

5.5.2 Alternative 2: Reduced Area/Priority Areas Only Alternative

The Reduced Area/Priority Areas Only Alternative would focus on providing rural broadband infrastructure in the identified Priority Areas. It would include: the City of Guadalupe and unincorporated communities including portions of Cuyama/New Cuyama, Casmalia, Los Alamos, Los Olivos, Jonata Park, Refugio Canyon, Highway 246 Corridor (five neighborhoods between Lompoc and Buellton), and East of Santa Maria (including the Garey, Sisquoc, and Tepusquet Road communities). The Reduced Area/Priority Areas Only Alternative would not allow additional broadband installations beyond these identified communities. This alternative would reduce the total amount of construction that would occur under the Project and would avoid all effects related to the construction or operation of broadband infrastructure within the other yet-to-be identified unserved and underserved communities in the County. In all other respects, this alternative would be the same as the Project. It would include the same connections to existing facilities, new facilities, and construction methods as the Project (See Chapter 2, *Project Description*, of this Draft EIR), except these activities would occur only in the identified Priority Areas. This alternative is intended to reduce the extent of the Project's less than significant impacts after mitigation.

Air Quality

Under the Reduced Area/Priority Areas Only Alternative, less construction and operation of additional broadband infrastructure would occur. The Reduced Area/Priority Areas Only Alternative would implement the same construction-related mitigation measure regarding Valley Fever during construction activities as the Project, when needed. With a reduced scale of construction and operational activities, there would be less construction- and operational related air emissions from the new broadband infrastructure. Therefore, impacts related to air quality under the Reduced Area/Priority Areas Only Alternative would be less than the Project.

Biological Resources

Because less construction, excavation, and ground disturbance would occur under the Reduced Area/Priority Areas Only Alternative, there would be less effects on biological resources than the Project. Most of the USFWS-designated critical habitat for sensitive species is outside of the Priority areas, although there is critical habitat for California red-legged frog, La Graciosa thistle, Vandenberg monkeyflower, and California tiger salamander present within the Priority Areas. Nonetheless, without construction outside of the Priority areas, less impacts would occur to critical habitat under the Reduced Area/Priority Areas Only Alternative. Although the Project would focus construction along roadways and would be designed to generally avoid drainages/wetlands and sensitive habitats, it is possible that the construction of future broadband facilities could result in modification or conversion of sensitive natural communities and/or riparian habitat. Without construction outside of the Priority areas, less impacts to drainages/wetlands and sensitive habitats would occur under the Reduced Area/Priority Areas Only Alternative. Construction of the Project could 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. Again, without construction outside of the Priority areas, less impacts to migratory species and wildlife corridors would occur under the Reduced Area/Priority Areas Only Alternative. The Reduced Area/Priority Areas Only Alternative would implement the same construction-related mitigation measure during construction activities as the Project,

when needed. In general, with a reduced scale of construction activities, there would be less construction-related impacts to biological resources from the new broadband infrastructure under the Reduced Area/Priority Areas Only Alternative.

Finally, both the Project and the Reduced Area/Priority Areas Only Alternative, could include the construction of future broadband facilities that could conflict with local policies for ordinances protecting biological resources. However, both would implement the same mitigation measures to avoid, reduce and minimize, and/or mitigate potential impacts to biological communities, and would be required to comply with local plans, policies, ordinances, and applicable permitting procedures related to the protection of biological resources. For this reason, the Reduced Area/Priority Areas Only Alternative's impacts regarding potential conflicts with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, would be less than significant with mitigation and similar to the Project.

With regard to operational activities for any individual project implemented under the Project, there would be limited routine maintenance activities, with corresponding operational impacts being minimal and less than significant. The Reduced Area/Priority Areas Only Alternative would involve similar limited operational activities, and thus, operational impacts to biological resources would be less than significant and similar to the Project.

Overall, because of its less construction-related impacts, impacts related to biological resources under the Reduced Area/Priority Areas Only Alternative would be less than the Project.

Cultural Resources

The Reduced Area/Priority Areas Only Alternative would result in less construction, excavation, and ground disturbance than the Project because it would not involve broadband infrastructure outside of the Priority Areas. Construction activities as part of the Reduced Area/Priority Areas Only Alternative would implement the same mitigation measures as the Project resulting in a less than significant impact. However, impacts to historic resources, archaeological resources, and human remains would be less than the Project because the Reduced Area/Priority Areas Only Alternative would include fewer ground disturbing construction activities within a smaller program area.

Energy

Neither the Reduced Area/Priority Areas Only Area Alternative or the Project, would result in wasteful, inefficient, or unnecessary consumption of energy resources. Furthermore, neither would conflict with or obstruct a state or local plan for renewable energy or energy efficiency. As such, energy impacts under the Reduced Area/Priority Areas Only Alternative and the Project would be less than significant. However, under the Reduced Area/Priority Areas Only Alternative, less construction and operation activities associated with additional broadband infrastructure would occur. As a result, there would be less energy demand from the operation and maintenance of new broadband infrastructure under the Reduced Area/Priority Areas Only Alternative when compared to the Project. Therefore, impacts related to energy under the Reduced Area/Priority Areas Only Alternative would be less than the Project.

Greenhouse Gas Emissions and Global Climate Change

Neither the Reduced Area/Priority Areas Only Area Alternative nor the Project, would directly or indirectly, generate GHG emissions that exceed the County of Santa Barbara or SBCAPCD screening thresholds or significance thresholds resulting in a significant impact on the environment. Furthermore, neither would contribute to cumulative GHG impacts due to conflicts with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. As such, GHG impacts under the Reduced Area/Priority Areas Only Alternative and the Project would be less than significant. However, under the Reduced Area/Priority Areas Only Alternative, less construction and operation activities associated with additional broadband infrastructure would occur. As a result, there would be less construction-related GHG emissions and GHG emissions from the operation and maintenance of new broadband infrastructure under the Reduced Area/Priority Areas Only Alternative when compared to the Project. Therefore, impacts related to GHG emissions and climate change under the Reduced Area/Priority Areas Only Alternative would be less than the Project.

Noise and Vibration

Under the Reduced Area/Priority Areas Only Alternative and the Project, the same construction methods would be used and the same mitigation measures would be implemented, resulting in less than significant construction-related noise impacts after mitigation at sites near sensitive noise receptors. Operation of either the Project or the Reduced Area/Priority Areas Only Alternative would include minimal routine maintenance activities with resulting less than significant and similar noise impacts. However, there would be less construction and operational activities of broadband infrastructure under the Reduced Area/Priority Areas Only Alternative when compared to the Project. Because less construction and operational activities associated with additional broadband infrastructure would occur under the Reduced Area/Priority Areas Only Alternative, there would be less impacts related to noise when compared to the Project.

Tribal Cultural Resources

The Reduced Area/Priority Areas Only Alternative would result in less construction, excavation, and ground disturbance than the Project because it would not involve broadband infrastructure outside of the Priority Areas. Construction activities as part of the Reduced Area/Priority Areas Only Alternative would implement the same mitigation measures as the Project resulting in a less than significant impact. However, impacts to tribal cultural resources would be less than the Project because the Reduced Area/Priority Areas Only Alternative would include fewer construction activities within a smaller program area.

Utilities

Under the Reduced Area/Priority Areas Only Alternative, less construction and operation of additional broadband infrastructure would occur. The Reduced Area/Priority Areas Only Alternative would implement the same construction-related mitigation measures (non-utility mitigation measures) during construction activities as the Project, when needed. With a reduced scale of construction and operational activities under the Reduced Area/Priority Areas Only Alternative, there would be less construction- and operational related impacts from the new broadband infrastructure. Therefore, impacts related to utilities under the Reduced Area/Priority Areas Only Alternative would be less than the Project.

Relationship to Project Objectives

The Reduced Area/Priority Areas Only Alternative would not provide expanded broadband infrastructure outside of the Priority Areas. As such, it would only partially meet Project Objective 1 since it would not provide high-speed broadband internet service to residents and businesses within additional unserved and underserved communities in Santa Barbara County in order to improve communication capabilities throughout the County. The Reduced Area/Priority Areas Only Alternative would also achieve Project Objectives 2 to 4 by providing the Priority Areas with new broadband infrastructure, but to a lesser extent such infrastructure would be made available in a smaller program area. Despite its smaller service, the Reduced Area/Priority Areas Only Alternative and the Project would both similarly identify and facilitate funding opportunities for future broadband infrastructure installations under the Program (Project Objective No. 5). For any given infrastructure improvement, both the Reduced Area/Priority Areas Only Alternative and the Project would similarly seek to reduce the potential environmental effects of broadband installation projects by utilizing minimally impactful construction techniques and equipment and avoiding construction within or near sensitive environmental resources to the extent feasible (Project Objective No. 6). Finally, both the Reduced Area/Priority Areas Only Alternative and the Project would similarly provide a reliable foundation of data and acceptable methodology to assess impacts for future broadband deployment projects, and streamline the environmental review process for individual broadband projects (Project Objective No. 7) and allocate resources to efficiently process broadband projects and avoiding duplication of applicant costs (Project Objective No. 8).

5.5.3 Alternative 3: Existing Infrastructure Alternative

The Existing Infrastructure Alternative would seek to minimize construction-related impacts by prioritizing the use of existing utility poles or underground conduit wherever it exists. New underground conduit would only be installed in areas where no existing aboveground or belowground infrastructure exists. In all other respects, this alternative would be the same as the Project. It would include the same types of connections to Middle-Mile facilities, construction of new buried facilities, and construction methods as Project (See Chapter 2, *Project Description*, of this Draft EIR), except these activities would occur only when no existing infrastructure is present, thereby limiting the physical footprint of construction while achieving comparable levels of service to the affected communities. This alternative would result in less construction activity and new infrastructure than the Project. It would also result in more aboveground fiber optic line because much of the line would be attached to existing utility poles, rather than being placed in new underground conduit as would occur under the Project. The Existing Infrastructure Alternative is intended to reduce the extent of the Project's less than significant impacts after mitigation.

Air Quality

Under the Existing Infrastructure Alternative, less construction of new broadband infrastructure would occur, including less excavation, drilling, and installation of new underground conduit. The Existing Infrastructure Alternative would implement the same construction-related mitigation measure regarding Valley Fever during construction activities as the Project, when needed. With a reduced scale of ground-disturbing construction, there would be less construction-related air emissions from the new broadband infrastructure. With regard to operational activities for any individual project implemented under the Project, there would be limited routine maintenance activities, with corresponding operational impacts

being minimal and less than significant. As the Existing Infrastructure Alternative would involve similar limited operational activities as the Project, operational impacts related to air quality would be similar to the Project.

Overall, because of its less construction-related impacts, impacts related to air quality under the Existing Infrastructure Alternative would be less than the Project.

Biological Resources

Because less ground disturbing construction and excavation would occur under the Existing Infrastructure Alternative, there would be less effects on biological resources than the Project. Although the Project would focus construction along roadways and would be designed to generally avoid drainages/wetlands and sensitive habitats, it is possible that the construction of future broadband facilities could result in modification or conversion of sensitive natural communities and/or riparian habitat. By limiting ground disturbing infrastructure improvements, less impacts to drainages/wetlands and sensitive habitats would occur under the Existing Infrastructure Alternative. Construction of the Project could 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. By limiting the amount of ground disturbance and vegetation disturbance or removal that could support wildlife movement, less impacts to migratory species and wildlife corridors would occur under the Existing Infrastructure Alternative. The Existing Infrastructure Alternative would implement the same construction-related mitigation measure during construction activities as the Project, when needed. In general, with a reduced scale of ground disturbing construction activities, there would be less construction-related impacts to biological resources from the new broadband infrastructure under the Existing Infrastructure Alternative.

Finally, both the Project and the Existing Infrastructure Alternative, could include the construction of future broadband facilities that could conflict with local policies for ordinances protecting biological resources. However, both would implement the same mitigation measures to avoid, reduce and minimize, and/or mitigate potential impacts to biological communities, and would be required to comply with local plans, policies, ordinances, and applicable permitting procedures related to the protection of biological resources. For this reason, the Existing Infrastructure Alternative's impacts regarding potential conflicts with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, would be less than significant with mitigation and similar to the Project.

With regard to operational activities for any individual project implemented under the Project, there would be limited routine maintenance activities, with corresponding operational impacts being minimal and less than significant. The Existing Infrastructure Alternative would involve similar limited operational activities, and thus, operational impacts to biological resources would be less than significant and similar to the Project.

Overall, because of its less construction-related impacts, impacts related to biological resources under the Existing Infrastructure Alternative would be less than the Project.

Cultural Resources

The Existing Infrastructure Alternative would result in less in-ground construction and excavation than the Project because it would involve less new underground infrastructure. Construction activities as part of the Existing Infrastructure Alternative would implement the same mitigation measures as the Project resulting in a less than significant impact. However, impacts to historic resources, archaeological resources, and human remains would be less than the Project because the Existing Infrastructure Alternative would include fewer ground disturbing construction activities within a smaller program area.

Energy

Neither the Existing Infrastructure Alternative nor the Project, would result in wasteful, inefficient, or unnecessary consumption of energy resources. Furthermore, neither would conflict with or obstruct a state or local plan for renewable energy or energy efficiency. As such, energy impacts under the Existing Infrastructure Alternative and the Project would be less than significant. However, there would likely be less energy demand during construction activities as larger construction equipment for excavation/trenching would not be required in some individual infrastructure installation projects. The long-term energy demand from the operation and maintenance of new broadband infrastructure would be generally similar under the Existing Infrastructure Alternative when compared to the Project.

Overall, because of its less construction-related impacts, impacts related to energy under the Existing Infrastructure Alternative would be less than the Project.

Greenhouse Gas Emissions and Global Climate Change

Neither the Existing Infrastructure Alternative nor the Project, would directly or indirectly, generate GHG emissions that exceed the County of Santa Barbara or SBCAPCD screening thresholds or significance thresholds resulting in a significant impact on the environment. Furthermore, neither would contribute to cumulative GHG impacts due to conflicts with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. As such, GHG impacts under the Existing Infrastructure Alternative and the Project would be less than significant. However, under the Existing Infrastructure Alternative, less construction activities associated with additional broadband infrastructure would occur. As a result, there would be less construction-related GHG emissions from the installation of new broadband infrastructure under the Existing Infrastructure Alternative when compared to the Project. With regard to operational activities for any individual project implemented under the Project, there would be limited routine maintenance activities, with corresponding operational impacts being minimal and less than significant. As the Existing Infrastructure Alternative would involve similar limited operational activities as the Project, operational impacts related to GHG emissions would be similar to the Project.

Overall, because of its less construction-related impacts, impacts related to GHG emissions under the Existing Infrastructure Alternative would be less than the Project.

Noise and Vibration

Under the Existing Infrastructure Alternative and the Project, the same construction methods would be used and the same mitigation measures would be implemented, resulting in less than significant construction-related noise impacts after mitigation at sites near sensitive noise receptors. While there would be less in-ground activities under the Existing Infrastructure Alternative when compared to the Project, the resulting mitigated noise levels from these activities would not generate substantially greater noise levels than allowed by existing applicable noise regulations. Compared to the Project's construction activities, the resulting noise levels at sensitive receptors would be incrementally less for most individual infrastructure improvement projects where in-ground construction would occur. Operation of either the Project or the Existing Infrastructure Alternative would include minimal routine maintenance activities with resulting less than significant and similar noise impacts.

Overall, because of its less construction-related impacts, noise impacts under the Existing Infrastructure Alternative would be less than the Project.

Tribal Cultural Resources

The Existing Infrastructure Alternative would result in less in-ground construction and excavation than the Project because it would involve less new underground infrastructure. Construction activities as part of the Existing Infrastructure Alternative would implement the same mitigation measures as the Project resulting in a less than significant impact. However, impacts to tribal cultural resources would be less than the Project because the Existing Infrastructure Alternative would include fewer ground disturbing construction activities than the Project.

Utilities

Under the Existing Infrastructure Alternative, less construction activities would occur when compared to the Project, while operational activities would generally be similar. The Existing Infrastructure Alternative would implement the same construction-related mitigation measures (non-utility mitigation measures) during construction activities as the Project, when needed. With a reduced scale of construction, there would be less construction-related impacts from the new broadband infrastructure. Therefore, impacts related to utilities under the Existing Infrastructure Alternative would be less than the Project.

Relationship to Project Objectives

The Existing Infrastructure Alternative would result in the same long-term expanded broadband capabilities and infrastructure as the Project. As such, it would Project Objective Nos. 1-5, 7 and 8 to a similar extent as the Project. However, with regard to Project Objective No. 6, the Existing Infrastructure Alternative would result in less ground disturbing construction and as such, for any given infrastructure improvement, both the Existing Infrastructure Alternative would reduce the potential environmental effects during construction activities with less impactful construction techniques when compared to the Project, although all of the resulting construction impacts would be less significant after mitigation similar to the Project.

5.6 Environmentally Superior Alternative

Because the No Project Alternative (described above in Section 5.4.1) would avoid all of the Project's impacts resulting from construction and operation of the proposed program analyzed in Chapter 3, it is the environmentally superior alternative. However, the No Project Alternative would not meet the Project Objectives of the program as presented above in Section 5.2.1.

When the environmentally superior alternative is the No Project Alternative, the State CEQA Guidelines (Section 15126[d][2]) require selection of an environmentally superior alternative from among the other action alternatives evaluated. As illustrated in Table 5-1, both Alternatives 2 and 3 would reduce the impacts of the environmental issues analyzed for the Project.

The Reduced Area/Priority Areas Only Alternative (Alternative 2) would result in less overall construction and operation of broadband infrastructure by avoiding all activities outside of the Priority Areas. This would result in incrementally reduced impacts to all resource areas. While this alternative is feasible and would achieve most of the basic Project Objectives, it would achieve the Project Objectives to a lesser degree than the Project because it would not improve broadband availability or reliability outside of the Priority Areas.

The Existing Infrastructure Alternative would result in less overall ground disturbing construction activities of broadband infrastructure than the Project, but greater ground disturbing activities than the Reduced Area/Priority Areas Only Alternative since it would not include constriction activities outside of the Priority Areas. This alternative would result in more fiber optic line installed aboveground on existing utility poles. While Existing Infrastructure Alternative would result in less construction-related environmental impacts, it would result in a less reliable broadband network due to the increased prevalence of aboveground fiber optic line that could be affected by human interference or natural disasters, such as wildfires. This potential for disruption would achieve Project Objectives Nos. 1 and 7 to a lesser degree than the Project.

As described above, both the Reduced Area/Priority Areas Only Alternative and the Existing Infrastructure Alternative would offer different environmental benefits when compared to the Project. Both of these alternatives are potentially feasible and would achieve most of the basic Project Objectives, although Project Objectives would be achieved to a lesser degree than under the Project. Alternative 2, the Reduced Area/Priority Areas Only Alternative, is the environmentally superior alternative because it would reduce both construction and operational impacts compared to the Project given its smaller scale of construction activities within a smaller program area.

TABLE 5-1
COMPARISON OF IMPACTS ASSOCIATED WITH THE ALTERNATIVES AND THE PROJECT

Use or Feature	Project	Alternative 1: No Project/No Build Alternative	Alternative 2: Reduce Area/Priority Areas Only Alternative	Alternative 3: Existing Infrastructure Alternative
Air Quality	Less than Significant with Mitigation	Less (No Impact)	Less (Less than Significant with Mitigation)	Less (Less than Significant with Mitigation)
Biological Resources	Less than Significant with Mitigation	Less (No Impact)	Less (Less than Significant with Mitigation)	Less (Less than Significant with Mitigation)
Cultural Resources	Less than Significant with Mitigation	Less (No Impact)	Less (Less than Significant with Mitigation)	Less (Less than Significant with Mitigation)
Energy	Less than Significant	Less (No Impact)	Less (Less than Significant)	Less (Less than Significant)
Greenhouse Gas Emissions and Global Climate Change	Less than Significant	Less (No Impact)	Less (Less than Significant with Mitigation)	Less (Less than Significant with Mitigation)
Noise and Vibration	Less than Significant with Mitigation	Less (No Impact)	Less (Less than Significant with Mitigation)	Less (Less than Significant with Mitigation)
Tribal Cultural Resources	Less than Significant with Mitigation	Less (No Impact)	Less (Less than Significant with Mitigation)	Less (Less than Significant with Mitigation)
Utilities	Less than Significant	Less (No Impact)	Less (Less than Significant)	Less (Less than Significant)

SOURCE: ESA. 2024

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CHAPTER 6
Other CEQA Considerations

6.1 Introduction

This section discusses significant and unavoidable impacts, irreversible environmental impacts, and growth-inducing impacts that would be caused from implementation of the Broadband Program.

6.2 Significant and Unavoidable Adverse Impacts

Section 15126.2(b) of the State CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided, including those that can be mitigated with feasible mitigation measures but not reduced to a less-than-significant level. The environmental effects of the proposed project on various aspects of the environment are discussed in detail in Chapter 4, *Environmental Impacts and Mitigation Measures*, of this Draft PEIR. Both Project-specific (in the Priority Areas and County-wide) and cumulative impacts are discussed. The analysis concludes that the proposed Project would not result in significant unavoidable impacts, either at the project-level or cumulatively.

6.3 Significant and Irreversible Environmental Changes

Under CEQA, an EIR must analyze the extent to which a project's primary and secondary effects would generally commit future generations to the allocation of nonrenewable resources and to irreversible environmental damage (State CEQA Guidelines section 15126.2(c); 15127). Section 15126.2(c) states:

> *Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible, since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.*

Generally, a project would result in significant irreversible environmental changes if:

- The primary and secondary impacts would generally commit future generations to similar uses;
- The project would involve a large commitment of nonrenewable resources;
- The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project; or

- The proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

The proposed Broadband Program would result in the installation of fiber optic lines throughout the County to provide acceptable levels of service to unserved and underserved communities. Once installed, the fiber optic networks would operate passively, and would not have any material effect on land use or the potential for future development in the surrounding area. As such, implementation of the Project would not have any potential to generally commit future generations to any particular type of land use or development pattern.

The individual fiber projects implemented under the Project would result in the irreversible and irretrievable commitment of energy and materials during construction and operation. Energy would be expended in the form of electricity, gasoline, diesel fuel, and oil for equipment and vehicles that would be needed for Project construction, but to a much lesser extent, for operation and maintenance activities. Materials used during fiber optic line installation could include rocks, wood, concrete, and steel. The use of these nonrenewable resources would account for a minimal portion of the region's resources and would not affect the availability of these resources for other needs within the region. Construction contractors for individual fiber projects would use best available engineering techniques, construction and design practices, and equipment operating procedures. Moreover, the overall Project would not require new, permanent dedicated staff in comparison to existing conditions, which would not contribute to a considerable increase in vehicle trips in the region. Therefore, implementing the Project would not result in inefficient use of energy.

The State CEQA Guidelines also require a discussion of the potential for irreversible environmental damage caused by an accident associated with either of the proposed projects. While the proposed projects could result in the limited use, transport, storage, and disposal of hazardous wastes during construction, all activities would comply with applicable state and federal laws related to hazardous materials, which significantly reduce the likelihood and severity of accidents that could result in irreversible environmental damage. Ongoing operation of the proposed broadband facilities would occur passively, and would not require the use, transport, storage, or disposal of hazardous materials or wastes.

Implementation of the Project would result in the long-term commitment of resources to urban development. The most notable significant irreversible impacts are increased generation of pollutants from vehicle travel and stationary operations, and the short-term commitment of non-renewable and/or slowly renewable natural and energy resources, such as water resources during construction activities. The unavoidable consequences of the proposed project are described in the appropriate sections in Chapter 4, Environmental Setting, Impacts, and Mitigation Measures, for both the Priority Areas and future County-wide projects.

Resources that would be permanently and potentially continually consumed by implementation of each of the proposed broadband installation projects include water, electricity, natural gas, and fossil fuels (either directly during construction activities or indirectly during long-term operation); however, the amount and rate of consumption of these resources would not result in the unnecessary, inefficient, or wasteful use of resources. With respect to operational activities, the long-term operation of the broadband facilities, including any necessary maintenance activities, would occur passively in general with only incidental site visits for inspections, vegetation management, additional connections, and other as-needed activities.

Collectively, the construction activities and limited operational activities related to each of the proposed broadband installation projects would result in the irretrievable commitment of relatively limited amounts of nonrenewable energy resources, primarily in the form of fossil fuels (including fuel oil), natural gas, and gasoline for automobiles and construction equipment.

Over the past decade our understanding of global climate change and the role that communities can play in addressing it has grown significantly. There is scientific consensus that recent increases in global temperatures are associated with corresponding increases of greenhouse gases (GHGs). This temperature increase is beginning to affect regional climates and is expected result in impacts to our region and the world. Climate change has profound implications for the availability of the natural resources on which economic prosperity and human development depend. Because climate change is inherently a cumulative effect, the relative contribution from the proposed project to global warming is not currently possible to determine. This issue is discussed in Section 4.5, *Global Climate Change*, of this Draft PEIR.

6.4 Growth-Inducing Effects

California Environmental Quality Act (CEQA) Section 21100(b)(5) specifies that the growth-inducing impacts of a project must be addressed in an environmental impact report (EIR). Section 15126.2(d) of the State CEQA Guidelines provides the following guidance for assessing growth-inducing impacts of a project. Also, the EIR must discuss the characteristics of the project that could encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. Growth can be induced in a number of ways, such as through the elimination of obstacles to growth, through the stimulation of economic activity within the region, or through the establishment of policies or other precedents that directly or indirectly encourage additional growth. The purpose of this section is to evaluate the potential growth-inducing effects resulting from the implementation of the proposed broadband installations in the identified Priority Areas and other yet-to-be identified unserved and underserved communities throughout the County.

A project can induce growth directly, indirectly, or both directly and indirectly. Direct growth inducement would result if a project involved construction of new housing. In general, a project may foster spatial, economic, or population growth in a geographic area if the project removes an impediment to growth (e.g., the establishment of an essential public service; the provision of new physical or transportation access to an area; a change in zoning or general plan amendment approval); or economic expansion or growth occurs in an area in response to the project (e.g., changes in revenue base, employment expansion). These circumstances are further described below:

- **Elimination of Obstacles to Growth:** This refers to the extent to which a proposed project removes infrastructure limitations or provides infrastructure capacity, or removes regulatory constraints that could result in growth unforeseen at the time of project approval.
- **Economic Effects:** This refers to the extent to which a proposed project could cause increased activity in the local or regional economy. Economic effects can include such effects as the Multiplier Effect. A “multiplier” is an economic term used to describe inter-relationships among various sectors of the economy. The multiplier effect provides a quantitative description of the direct employment effect of a project, as well as indirect and induced employment growth. The multiplier effect acknowledges that the onsite employment and population growth of each project is not the complete picture of growth caused by the project.

Growth inducement itself is not an environmental effect but may foreseeably lead to environmental effects. If substantial growth inducement occurs, it can result in secondary environmental effects, such as increased demand for housing, demand for other community and public services and infrastructure capacity, increased traffic and noise, degradation of air or water quality, degradation or loss of plant or animal habitats, conversion of agricultural and open-space land to urban uses, and other effects.

The effect of the proposed Project and other telecommunication projects on growth-inducing impacts is difficult to distinguish from other factors that cause people to move to an area. The availability of high-speed, high-volume communications is one factor among many in the decision by people and businesses to move to an area. The proposed Project would not create a significant number of jobs, promote the construction of homes, or remove any obstacle that impedes growth in Santa Barbara County. However, the Santa Barbara County Broadband Program would not directly induce growth for the following reasons:

- As described in Chapter 2, "Project Description," Project implementation (i.e., construction of individual projects in Priority Areas as well as throughout the County) is expected to occur over many years, with 1 mile of underground fiber optic conduit construction taking approximately 18-20 days to install the conduit in a trench and 10 days to install the conduit via bore. An average of 3 to 5 construction workers would be anticipated at each individual fiber optic Project site for the duration of construction and it is assumed that up to 5 individual projects could be implemented concurrently. Operation and maintenance of the on-site and off-site facilities would be fulfilled by existing employees of the broadband providers. The Project would not generate a sufficient number of jobs, either temporarily during construction or during operation and maintenance, to attract appreciable economic or population growth to Santa Barbara County. In addition, the unemployment rate for Santa Barbara County (4.7 percent in December 2023 and 4.2 percent as of May 2024[1]) suggests an available labor pool for construction of the proposed Project.
- The proposed Project would not involve the construction of any new residential units that could bring new residents to Santa Barbara County.
- Operation of the proposed Project would provide and expand the availability of high-speed internet access to existing rural residents, businesses, and schools in Santa Barbara County. Implementation of the last-mile projects would be expected to contribute to the retention of existing residents and businesses, which could indirectly contribute to a limited amount of future growth. The introduction of improved internet access would not be expected to create an influx of residents or businesses; thus, the proposed Project would not likely result in removal of a substantial obstacle that impedes growth in Santa Barbara County.

6.4.1 Elimination of Obstacles to Growth

The elimination of physical obstacles to growth is considered a growth-inducing effect. Growth within the County as a whole is affected by the capacity of utility systems serving the County and incorporated cities including the wastewater and drainage, water supply, and electrical systems. Growth within the County is also affected by the roadway circulation system, public transit infrastructure and services and bikeway/pedestrian facilities. The proposed Project would provide high-speed internet service to existing

[1] Bureau of Labor Statistics. Economy at a Glance - Santa Barbara – Santa Maria – Goleta, CA. Accessed June 26, 2024 at https://www.bls.gov/eag/eag.ca_santabarbara_msa.htm

underserved and unserved communities in the County, and would not eliminate obstacles to growth or otherwise foster additional growth, whether unplanned or otherwise, in the County.

6.4.2 Economic Effects

The Project would provide additional high-speed internet service and infrastructure to serve existing County residents and businesses, which could enhance the ability of residents to find additional or improved employment opportunities through remote work options, as well as improve the potential for internet-based commercial activities for businesses. The provision of high-quality broadband internet services in these areas would likely result in increased employment opportunities and enhanced online retail and service revenue potential, which would offer a financial benefit the established communities served by the Project, but would not be expected to trigger substantial growth and associated physical environmental effects.

6.4.3 Environmental Effects of Induced Growth

While economic and employment growth in the County is one potential indirect but intended consequence of the proposed Project, growth induced directly and indirectly by the Project could also affect the greater Central Coast region. Potential effects caused by induced growth in the region could include: increased traffic congestion; increased air pollutant emissions; loss of agricultural land and open space; loss of habitat and associated flora and fauna; increased demand on public utilities and services, such as fire and police protection, water, recycled water, wastewater, solid waste, energy, and natural gas; and increased demand for housing.

While the Project could contribute to indirect induced growth in the region through improved employment options for residents and potentially increased internet-based commercial activity, it is not anticipated that growth induced by the Project would be of sufficient size to substantially increase demand for development in the region, to the extent that such demand would lead to significant environmental effects. For these reasons, this impact would be considered less than significant.

6.5 Potential Secondary Effects of Mitigation Measures

Section 15126.4(a)(1)(D) of the CEQA Guidelines requires mitigation measures to be discussed in less detail than the significant effects of the proposed Project if the mitigation measure(s) would cause one or more significant effects in addition to those that would be caused by the Project as proposed. The analysis of Project impacts in Chapter IV, Environmental Impact Analysis, of this Draft EIR resulted in recommended mitigation measures for several environmental topics, including Air Quality, Biological Resources, Cultural Resources (including Paleontological Resources), Noise, and Tribal Cultural Resources. Air Quality measures include dust suppression and worker protection for Valley Fever, to limit exposure to spores by watering exposed soil and provided personal protective equipment (PPE) for construction staff. Biological Resources measures involve various site surveys by qualified biologists, construction worker training, monitoring of construction activities, invasive plant control (herbicides and physical removal), site revegetation with native species, jurisdictional delineations to identify the presence of wetlands and other sensitive natural communities, implementation of construction Best Management Practices (BMPs), and avoidance of sensitive resources. Cultural Resources and Tribal Cultural Resources mitigation consists primarily of monitoring of ground-disturbing and excavation

activities in sensitive areas, construction worker training, protocols for treatment of discovered resources, additional site investigations and report preparation. Noise mitigation requires compliance with applicable construction hours for work within the various jurisdictions in the County. While implementation of a limited number of the identified mitigation measures would result in temporary physical effects within the various broadband installation sites, none of the measures would have the potential to result in significant adverse effects on the environment, as the activities associated with these measures are limited in scale and intensity and are intended to minimize or avoid the adverse effects of the Project itself in discrete locations. Overall, implementation of the various mitigation measures for the Project would not itself result in any substantial adverse environmental effects, and therefore such secondary impacts would be less than significant.

6.6 Effects Found Not to Be Significant

Section 15128 of the CEQA Guidelines states that an EIR shall contain a brief statement indicating reasons that various possible significant effects of a project were determined not to be significant and not discussed in detail in the Draft EIR. An Initial Study was prepared for the Project and is included in Appendix A of this Draft PEIR. Pursuant to Section 15128, such a statement may be contained in an attached copy of an Initial Study.

The Initial Study provides a detailed discussion of the potential environmental impact areas and the reasons that each topical area is or is not analyzed further in the Draft PEIR. The Initial Study determined that the Project would not result in potentially significant impacts related to Aesthetics, Agriculture and Forestry Resources, Geology and Soils (except Paleontological Resources); Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use and Planning; Mineral Resources; Population and Housing; Public Services; Recreation; Transportation; Utilities and Service Systems (water supply, wastewater treatment capacity, and solid waste); and Wildfire.

CHAPTER 7
References

1 Introduction

No sources are cited in this section.

2 Project Description

No sources are cited in this section.

3 Environmental Setting

No sources are cited in this section.

4 Environmental Impacts and Mitigation Measures

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4.8 Utilities and Service Systems - Telecommunication Facilities

No sources are cited in this section.

4.9 Alternatives

No sources are cited in this section.

4.10 Other CEQA Considerations

No sources are cited in this section.

CHAPTER 8
List of Preparers and Persons Consulted

8.1.1 Lead Agency

The Santa Barbara County Association of Governments (SBCAG) is the CEQA lead agency for preparation of this EIR.

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