



American Canyon 2040 General Plan Update

Draft Environmental Impact Report

SCH# 2022070038

prepared by

City of American Canyon
Community Development Department
4381 Broadway Street Suite 201
American Canyon, California 94503
Contact: Brent Cooper, Community Development Director

prepared with the assistance of

Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, California 94612

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Executive Summary

This document is an Environmental Impact Report (EIR) analyzing the environmental effects of the proposed City of American Canyon 2040 Technical General Plan Update (“project”). This executive summary summarizes the characteristics of the proposed project, EIR alternatives, and the environmental impacts and mitigation measures associated with implementation of the proposed project.

Project Synopsis

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Project Description

This EIR has been prepared to examine the potential environmental effects of the proposed project. The following is a summary of the full project description, which can be found in Chapter 2, *Project Description*.

The project is an update to the City’s current General Plan, which includes the following chapters: Introduction, Land Use Element, Housing Element, Economic Development Element, Circulation Element, Utilities Element, Public Services and Facilities Element, Parks and Recreation Element, Natural and Historic & Cultural Resources Element, Geology Element, Flood Hazards Element, and Noise Element. The project establishes the City’s vision for future development through the horizon year of 2040. The project will serve as the City’s primary guide for future land use and development decisions in a way that meets the community needs and priorities while serving as a key tool for influencing and improving the quality of life for residents and businesses. As such, it serves as the “blueprint” for future development and conservation of a community. The 2040 General Plan Update will help the City plan for important community issues, such as community growth; health, housing, mobility, and infrastructure needs; climate change; and environmental protection. It will also set the stage for future social, physical, and economic development of the city.

Project Objectives

The Technical 2040 General Plan will serve as a long-term framework for future growth and development, represents the community’s view of its future, and contains the goals and policies upon which the City Council, Planning Commission, and the entire community will base land use and resource decisions. The Technical 2040 General Plan will provide a contemporary plan that will guide American Canyon through the next 20 years. The primary objective of this project is to update the existing American Canyon General Plan in order for it to be compliant with State law.

The Technical 2040 General Plan would implement the vision of the existing General Plan. The City identifies the following three fundamental roles of the City:

1. The City should be home for a residential population, internally accommodating a sufficient range of uses to support the needs of residents (including a mix of housing types, commercial services, entertainment, employment, recreation, education, health, religious, cultural facilities, transportation services, and open space). At the present time, many of these uses are located outside the City, which necessitates extensive travel by residents to access these services.
2. The City should be a center of employment and commerce for regional, as well as local residents. This will provide an opportunity to capitalize upon (1) the cluster of uses which have developed in the Green Island Industrial Park; (2) the proximity of the City to the Napa County Airport and Southern Pacific railroad, and (3) the relationship of the City to the agricultural and vineyard industries of Napa County.
3. The City can capture visitors to the Napa Valley by providing uses which capitalize on the unique environmental setting of the foothills, river valleys, and agriculture. Environmental educational facilities, such as wetlands interpretative centers, overnight camping and recreational vehicle facilities, river recreational facilities such as boating, golf courses, and hotel/motels and restaurants are representative of the range of uses which may be considered.

Alternatives

As required by the California Environmental Quality Act (CEQA), this EIR examines alternatives to the proposed plan. Studied alternatives include the following three alternatives. Based on the alternatives analysis, Alternative 3 was determined to be the environmentally superior alternative.

- Alternative 1: No Project Alternative
- Alternative 2: Watson Ranch Natural Alternative
- Alternative 3: Limited Growth

Refer to Chapter 6, *Alternatives*, for the complete EIR alternatives analysis.

Areas of Known Controversy

The EIR scoping process did not identify areas of known controversy for the proposed plan. Public responses to the Notice of Preparation of a Draft EIR as well as public input received at the EIR scoping meeting held by the City are summarized in Chapter 1.0, *Introduction*.

Issues to be Resolved

There are no CEQA-related issues to be resolved at this time.

Issues Not Studied in Detail in the EIR

Impacts related to Agriculture and Forestry Resources, Energy, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, and Mineral Resources were found to be less than significant. Discussion of these impacts is included in Chapter 4.15, *Effects Found Not to be Significant*, of the EIR.

Summary of Impacts and Mitigation Measures

Table ES-1 summarizes the environmental impacts, mitigation measures, and residual impacts (the impact after application of mitigation, if required) associated with implementation of the proposed project. Impacts are categorized 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 proposed plan is approved pursuant to Section 15093 of the 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 plan would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

Table ES-1 Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact Statement	Mitigation Measure(s)	Residual Impact
Aesthetics		
Impact AES-1. The project would not have a substantial adverse effect on a scenic vista, including views of hills, and impacts would be less than significant.	No mitigation is required	Less than Significant
Impact AES-2. The city of American Canyon does not have a designated state scenic highway and the project would not damage scenic resources within a state scenic highway. No impact would occur.	No mitigation is required	No Impact
Impact AES-3. The project would implement policies that would require development of objective design standards for future development. The project would not conflict with applicable zoning and other regulations governing scenic quality and this impact would be less than significant.	No mitigation is required	Less than Significant
Impact AES-4. Construction and operation of future development facilitated by the project could create new sources of light or glare that could adversely affect the visual environment. Impacts would be less than significant with mitigation.	<p>AES-1 Construction Lighting Plan. Prior to nighttime construction, if needed for a particular project, project applicants shall submit a construction lighting plan to the City for review and approval. The construction lighting plan shall ensure that the minimum amount of lighting is used to meet safety requirements and ensure no spillover occurs to nearby sensitive uses. All lighting shall be directed downward and away from surrounding land uses.</p> <p>AES-2 Operational Lighting Plan. Prior to discretionary project approval, the project applicant shall prepare and submit a photometric plan to the City for review and approval which demonstrates that all exterior light fixtures will be directed downward or employ full cut-off fixtures to prevent light spillage. The approved plan shall be incorporated into project design plans.</p>	Less than Significant with Mitigation
Air Quality		
Impact AQ-1. The project would be consistent with the BAAQMD's 2017 Clean Air Plan. Impacts would be less than significant.	No mitigation is required	Less than Significant
Impact AQ-2. The project would not result in a cumulatively considerable net increase of criteria pollutants during construction or operations. Impacts would be less than significant.	No mitigation is required	Less than Significant

Impact Statement	Mitigation Measure(s)	Residual Impact
<p>Impact AQ-3. Construction activities for projects lasting longer than two months or located within 1,000 feet of sensitive receptors could expose sensitive receptors to substantial pollutant concentrations. Implementation of the project may also expose sensitive receptors to operational sources of toxic air contaminants. Impacts would be less than significant with mitigation.</p>	<p>AQ-1 Conduct Construction Health Risk Assessment. Prior to issuance of a grading or building permit, whichever occurs first, the applicant shall submit to the City a construction health risk assessment (HRA) in accordance with BAAQMD recommendations for any development project that has at least one the following characteristics:</p> <ul style="list-style-type: none"> ▪ The project is located within 1,000 feet of sensitive receptors. ▪ Project construction would last longer than two months. ▪ Project construction would not utilize equipment rated USEPA Tier 4 (for equipment of 50 horsepower or more); construction equipment fitted with Level 3 Diesel Particulate Filters (for all equipment of 50 horsepower or more); or alternative fuel construction equipment. <p>If the HRA determines that construction will exceed BAAQMD significance thresholds, the HRA shall provide mitigation measures to reduce the impact to less than significant, including but not limited to requiring the use of Tier 4 engines, Level 3 Diesel Particulate Filters, and/or alternative fuel construction equipment.</p> <p>AQ-2 Reduce Operational Toxic Air Contaminants Near Sensitive Receptors. For new sensitive receptors proposed within 500 feet of a major sources of TAC (high-volume roadways with 10,000 vehicles or more per day), the project applicant shall prepare an operational health risk assessment for the City's review and approval. If TAC exposure at new sensitive receptor sites would exceed BAAQMD health risk thresholds, require the project applicant include mechanical air filtration or other measures to reduce health risk exposure to acceptable levels.</p> <p>AQ-3 Conduct Operational Health Risk Assessment. Prior to permit approval for industrial, warehousing, or commercial land uses that would generate at least 100 diesel trucks per day or 40 or more trucks with diesel-powered transport refrigeration units per day, the applicant shall submit an operational health risk assessment (HRA) or submit proof that an HRA is not required in accordance with BAAQMD thresholds to the City for review and approval. If required by the City, the operational HRA shall be prepared in accordance with the Office of Environmental Health Hazard Assessment and BAAQMD requirements, and mitigated to an acceptable level. Typical measures to reduce risk impacts may include, but are not limited to:</p> <ul style="list-style-type: none"> ▪ Restricting idling on-site beyond Air Toxic Control Measures idling restrictions, as feasible. ▪ Electrifying warehousing docks. ▪ Truck Electric Vehicle (EV) Capable trailer spaces. ▪ Requiring use of newer equipment and/or vehicles. ▪ Restricting off-site truck travel through the creation of truck routes. 	<p>Less than Significant with Mitigation</p>

Impact Statement	Mitigation Measure(s)	Residual Impact
	The operational HRA shall be provided to the City for review and concurrence prior to project approval.	
Impact AQ-4. The project would not create objectionable odors that could adversely affect a substantial number of people. Impacts related to odors would be less than significant with mitigation.	<p>AQ-4 Reduce Operational Odor Impacts. Prior to discretionary approval by the City, if it is determined by the City that a development project has the potential to emit nuisance odors beyond the property line, the project applicant shall prepare an odor management plan and submit it to the City for review and approval. Facilities that have the potential to generate nuisance odors include, but are not limited to:</p> <ul style="list-style-type: none"> ▪ Wastewater treatment plants ▪ Composting, green waste, or recycling facilities ▪ Fiberglass manufacturing facilities ▪ Painting/coating operations ▪ Large-capacity coffee roasters ▪ Food-processing facilities <p>The odor management plan shall demonstrate compliance with the latest BAAQMD screening distances and guidelines. The odor management plan shall identify the best available control technologies for toxics (T-BACTs) that will be utilized to reduce potential odors to acceptable levels, including appropriate enforcement mechanisms. T-BACTs may include but are not limited to scrubbers (i.e., air pollution control devices) at the industrial facility. T-BACTs identified in the odor management plan shall be identified as mitigation measures in the documents prepared for the development project and/or incorporated into the project's site plan.</p>	Less than Significant with Mitigation
Biological Resources		
Impact BIO-1. The project could have the potential to have an adverse impact on special status species. Implementation of federal, state, and local regulations and policies, as well as mitigation measures bio-1 and bio-2, would ensure development facilitated by the project would not have a substantial adverse effect on candidate, sensitive, or special status species. This impact would be less than significant with mitigation.	<p>BIO-1 Biological Resources Screening and Assessment. For projects proposed within undeveloped parcels, the City shall require project applicants to engage a qualified biologist (having the appropriate education and experience level) to perform a baseline Biological Resources Screening and Assessment to determine whether projects proposed within undeveloped parcels have any potential to impact special-status biological resources, inclusive of special-status plants and animals, sensitive vegetation communities (including vernal pools and other wetlands), and critical habitat. If it is determined that the project has no potential to impact biological resources, no further action is required. If the project would have the potential to impact biological resources, prior to construction, a qualified biologist shall conduct a project-specific biological analysis to document the existing biological resources within a project footprint plus a minimum buffer of 500 feet around the project footprint, as is feasible, and to determine the potential impacts to those resources. The project-specific biological analysis shall evaluate the potential for impacts to all biological resources including, but not limited to special-status species, nesting birds,</p>	Less than Significant with Mitigation

Impact Statement	Mitigation Measure(s)	Residual Impact
	<p>wildlife movement, sensitive plant communities, critical habitats, and other resources judged to be sensitive by local, state, and/or federal agencies. If the project would have the potential to impact these resources, the following mitigation measures (mitigation measures BIO-2 through BIO-8) shall be incorporated, as applicable, to reduce impacts to a less than significant level. Pending the results of the project-specific biological analysis, design alterations, further technical studies (e.g., protocol surveys) and consultations with the USFWS, CDFW, and/or other local, state, and federal agencies may be required. Note that specific surveys described in the mitigation measures below may be completed as part of the project-specific biological analysis where suitable habitat is present.</p> <p>BIO-2 Special-status Plant Species Surveys. If the project-specific Biological Resources Screening and Assessment (Mitigation Measure BIO-1) determines that there is potential for significant impacts to federally or state-listed plants or regional population level impacts to species with a CRPR of 1B or 2B from project development, a qualified biologist shall complete surveys for special-status plants prior to any vegetation removal, grubbing, or other construction activity (including staging and mobilization). The surveys shall be floristic in nature and shall be seasonally timed to coincide with the target species. All plant surveys shall be conducted by a qualified biologist during the blooming season prior to development permit approval. All special-status plant species identified on site shall be mapped onto a site-specific aerial photograph or topographic map with the use of Global Positioning System unit. Surveys shall be conducted in accordance with the most current protocols established by the CDFW, USFWS, and the local jurisdictions if said protocols exist. A report of the survey results shall be submitted to the City, and the CDFW and/or USFWS, as appropriate, for review and/or approval.</p> <p>BIO-3 Special-status Plant Species Avoidance, Minimization, and Mitigation. If federally and/or state-listed or CRPR 1B or 2 species are found during special-status plant surveys (pursuant to Mitigation Measure BIO-2), and would be directly impacted, or there would be a population-level impact to non-listed sensitive species, then the project shall be re-designed to avoid impacting those plant species, where feasible. Rare and listed plant occurrences that are not within the immediate disturbance footprint but are located within 50 feet of disturbance limits shall have bright orange protective fencing installed at least 30 feet beyond their extent, or other distance as approved by a qualified biologist, to protect them from harm.</p> <p>BIO-4 Habitat Restoration Plan. If federally or state-listed plants or non-listed special-status CRPR 1B and 2 plant populations identified during special status plant surveys (pursuant to Mitigation Measure BIO-2), cannot be avoided, and will be impacted by development, all impacts shall be mitigated by the applicant at a ratio not lower than 1:1 per acre of impact (and 1:1 per tree), and to be determined by the City (in coordination with CDFW and USFWS as and if applicable) for each species as a component of habitat</p>	

Impact Statement	Mitigation Measure(s)	Residual Impact
	<p>restoration. A qualified biologist shall prepare and submit a restoration plan to the City for review and approval prior to City approval of project plans. (Note: if a federally and/or state-listed plant species will be impacted, the restoration plan shall be submitted to the USFWS and/or CDFW for review, and federal and/or state take authorization may be required by these agencies.) The restoration plan shall include, at a minimum, the following components:</p> <ol style="list-style-type: none"> 1. Description of the project/impact site (i.e., location, responsible parties, areas to be impacted by habitat type). 2. Goal(s) of the compensatory mitigation project (type[s] and area[s]) of habitat to be established, restored, enhanced, and/or preserved; specific functions and values of habitat type[s] to be established, restored, enhanced, and/or preserved). 3. Description of the proposed compensatory mitigation site (location and size, ownership status, existing functions, and values). 4. Implementation plan for the compensatory mitigation site (rationale for expecting implementation success, responsible parties, schedule, site preparation, planting plan). 5. Maintenance activities during the monitoring period, including weed removal as appropriate (activities, responsible parties, schedule). 6. Monitoring plan for the compensatory mitigation site, including no less than quarterly monitoring for the first year (performance standards, target functions and values, target acreages to be established, restored, enhanced, and/or preserved, annual monitoring reports). 7. Success criteria based on the goals and measurable objectives; said criteria to be, at a minimum, at least 80 percent survival of container plants and 30 percent relative cover by vegetation type or other industry standards as determined by a qualified restoration specialist. 8. An adaptive management program and remedial measures to address any shortcomings in meeting success criteria. 9. Notification of completion of compensatory mitigation and agency confirmation. 10. Contingency measures (initiating procedures, alternative locations for contingency compensatory mitigation, funding mechanism). 11. All nursery plants used in restoration shall be inspected for sudden oak death. <p>BIO-5 Endangered/Threatened Special-status Species Habitat Assessments and Protocol Surveys. If the results of the project-specific biological analysis (Mitigation Measure BIO-1) determine that suitable habitat may be present for federal or state listed, candidate, or proposed species, protocol habitat assessments/surveys shall be completed in accordance with current CDFW and/or USFWS protocols prior to issuance of any construction permits.</p>	

Impact Statement	Mitigation Measure(s)	Residual Impact
	<p>If, through consultation with the CDFW and/or USFWS, it is determined that protocol habitat assessments/surveys are not required, the applicant shall complete and document this consultation and submit it to the City prior to issuance of any construction permits. Each protocol has different survey and timing requirements. The applicant shall be responsible for ensuring they understand the protocol requirements and shall hire a qualified biologist to conduct protocol surveys. (Note: if a federally and/or state-listed wildlife species will be impacted, federal and/or state take authorization may be required by USFWS and CDFW.)</p> <p>BIO-6 Endangered/Threatened Animal Species Avoidance and Minimization. The following measures shall be applied to impacted aquatic and/or terrestrial animal species identified by the project-specific Biological Resources Screening and Assessment required under Mitigation Measure BIO-1.</p> <ol style="list-style-type: none"> 1. Ground disturbance shall be limited to the minimum necessary to complete the project. A qualified biologist shall flag the project limits of disturbance. Areas of special biological concern within or adjacent to the limits of disturbance shall have highly visible orange construction fencing installed between said area and the limits of disturbance. 2. All projects occurring within/adjacent to aquatic habitats (including riparian habitats and wetlands) shall be completed between April 1 and October 31, if feasible, to avoid impacts to sensitive aquatic species. Any work outside these dates would require project-specific approval from the City and may be subject to regulatory agency approval. 3. All projects occurring within or adjacent to sensitive habitats that may support federally and/or state-listed endangered/threatened species shall have a CDFW- and/or USFWS-approved biologist present during all initial ground disturbing/vegetation clearing activities. Once initial ground disturbing/vegetation clearing activities have been completed, said biologist shall conduct daily pre-activity clearance surveys for endangered/threatened species. Alternatively, and upon approval of the CDFW and/or USFWS, said biologist may conduct site inspections at a minimum of once per week to ensure all prescribed avoidance and minimization measures are fully implemented. 4. No endangered/threatened species shall be captured and relocated without express permission from the CDFW and/or USFWS. 5. If at any time during project construction an endangered/threatened species enters the construction site or otherwise may be impacted by the project, all project activities shall cease. A CDFW/USFWS-approved biologist shall document the occurrence and consult with the CDFW and USFWS, as appropriate, to determine whether it was safe for project activities to resume. 	

Impact Statement	Mitigation Measure(s)	Residual Impact
	<ol style="list-style-type: none"> 6. For all work occurring in areas where endangered/threatened species may be present and are at risk of entering the project site during construction, the applicant shall install exclusion fencing along the project boundaries prior to start of construction (including staging and mobilization). The placement of the fence shall be at the discretion of the CDFW/USFWS-approved biologist. This fence shall consist of solid silt fencing placed at a minimum of three feet above grade and two feet below grade and shall be attached to wooden stakes placed at intervals of not more than five feet. The applicant shall inspect the fence weekly and following rain events and high wind events and shall be maintained in good working condition until all construction activities are complete. 7. All vehicle maintenance/fueling/staging shall occur not less than 100 feet from any riparian habitat or water body, including seasonal wetland features. 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. 8. No equipment shall be permitted to enter wetted portions of any affected drainage channel or wetland. 9. At the end of each workday, excavations shall be secured with a cover or a ramp provided to prevent wildlife entrapment. 10. All trenches, pipes, culverts, or similar structures shall be inspected for animals prior to burying, capping, moving, or filling. 11. Considering the potential for the project to impact federally and state-listed species and their habitat, the City shall contact CDFW and USFWS to identify mitigation banks within Napa County during project development. If the results of the project-specific biological analysis (Mitigation Measure BIO-1) determine that impacts to federally and state threatened or endangered species habitat are expected, City and/or applicant shall explore species-appropriate mitigation bank(s) servicing the region for purchase of mitigation credits. 12. Prior to grading and construction in natural areas of containing suitable upland habitat, a qualified biologist shall conduct a preconstruction survey as determined necessary during the biological analysis (Mitigation Measure BIO-1) . The survey should include a transect survey over the entire project disturbance footprint (including access and staging areas), and mapping of suitable habitat features, such as burrows, that are potentially suitable for listed species. If any listed species are detected, no work shall be conducted until the individual(s) leaves the site of their own accord, unless federal and/or state “take” authorization has been issued for relocation. Typical preconstruction survey procedures, such as burrow scoping and burrow collapse, cannot be conducted without federal and state permits. If any life stage of listed species are found within the survey area, the City and/or applicant shall consult with the 	

Impact Statement	Mitigation Measure(s)	Residual Impact
	<p>USFWS and CDFW to determine the appropriate course of action to comply with the FESA and CESA, if permits are not already in place at the time of construction.</p> <p>BIO-7: Pre-Construction Bird Surveys, Avoidance, and Notification. For all future development under the 2040 General Plan, construction activities initiated during the bird nesting season (February 1 – September 15), involving removal of vegetation (e.g. trees and shrubs), abandoned structures, or other nesting bird habitat, a pre-construction nesting bird survey shall be conducted no more than 5 days prior to initiation of ground disturbance and vegetation removal. The nesting bird pre-construction survey shall be conducted on foot and shall include a buffer around the construction site at a distance determined by a qualified biologist, including staging and storage areas. The minimum survey radii surrounding the work area shall be the following: 250 feet for non-raptors and 1,000 feet for raptors. The survey shall be conducted by a qualified biologist familiar with the identification of avian species known to occur in the American Canyon region. If construction lapses for seven days or longer, the qualified biologist shall conduct another focused survey before project activities are reinitiated. If nests are found, an avoidance buffer shall be determined by the biologist dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site. The qualified biologist shall observe the active nest to establish a behavioral baseline of the adults and nestlings, if present. The qualified biologist shall continuously monitor the active nests to detect signs of disturbance and behavioral change as a result of construction impacts, such as noise, vibration, odors, or worker/equipment motion. If signs of disturbance and behavioral changes are observed, the qualified biologist shall cease work causing those changes and may contact CDFW or USFWS for guidance. The buffer shall be demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to demarcate the boundary. All construction personnel shall be notified of the buffer zone as an “Ecologically Sensitive Area” and to avoid entering the buffer zone during the nesting season. No ground disturbing activities shall occur within the buffer until the biologist has confirmed that breeding/nesting is completed and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist on the basis that the encroachment will not be detrimental to an active nest. A report summarizing the pre-construction survey(s) shall be prepared by a qualified biologist and shall be submitted to the City prior to the commencement of construction activities.</p> <p>Project site plans shall include a statement acknowledging compliance with the federal MBTA and California Fish and Game Code that includes avoidance of active bird nests and identification of Best Management Practices to avoid impacts to active nests, including checking for nests prior to construction activities during February 1 to September 15, and</p>	

Impact Statement	Mitigation Measure(s)	Residual Impact
	<p>what to do if an active nest is found so that the nest is not inadvertently impacted during grading or construction activities.</p> <p>BIO-8 Roosting Bat Surveys and Avoidance Prior to Removal. For all future development under the 2040 General Plan that will require the removal of large trees (greater than 20 inches in diameter at five feet from the ground), abandoned buildings, bridges, or other suitable roosting structure identified during the Biological Resources Screening and Assessment (Mitigation Measure BIO-1), prior to tree and/or structure removal, a qualified biologist shall conduct a focused survey of all trees and structures to be removed or impacted by construction activities to determine whether active roosts of special-status bats are present on site. Tree or structure removal shall be planned for either the spring or the fall, and timed to ensure both suitable conditions for the detection of bats and adequate time for tree and/or structure removal to occur during seasonal periods of bat activity exclusive of the breeding season, as described below. Trees and/or structures containing suitable potential bat roost habitat features shall be clearly marked or identified. If no bat roosts are found, the results of the survey will be documented and submitted to the City within 30 days of the survey, after which no further action will be required.</p> <p>If roosts are present, the biologist shall prepare a site-specific roosting bat protection plan to be implemented by the contractor following the City's approval. Additionally, the qualified biologist shall determine compensatory mitigation for temporary or permanent habitat loss due to tree removal, in conjunction with CDFW. The plan shall incorporate the following guidance as appropriate:</p> <ul style="list-style-type: none"> ▪ When possible, removal of trees/structures identified as suitable roosting habitat shall be conducted during seasonal periods of bat activity, including the following: <p>Between September 1 and about October 15, or before evening temperatures fall below 45 degrees Fahrenheit and/or more than 0.5 inch of rainfall within 24 hours occurs.</p> <p>Between March 1 and April 15, or after evening temperatures rise above 45 degrees Fahrenheit and/or no more than 0.5 inch of rainfall within 24 hours occurs.</p> <ul style="list-style-type: none"> ▪ If a tree/structure must be removed during the breeding season and is identified as potentially containing a colonial maternity roost, then a qualified biologist shall conduct acoustic emergence surveys or implement other appropriate methods to further evaluate if the roost is an active maternity roost. Under the biologist's guidance, the contractor shall implement measures similar to or exceeding the following: <p>If it is determined that the roost is not an active maternity roost, then the roost may be removed in accordance with the other requirements of this measure.</p>	

Impact Statement	Mitigation Measure(s)	Residual Impact
	<p>If it is found that an active maternity roost of a colonial roosting species is present, the roost shall not be disturbed during the breeding season (April 15 to August 31).</p> <ul style="list-style-type: none"> Tree removal procedures shall be implemented using a two-step tree removal process. This method is conducted over two consecutive days and works by creating noise and vibration by cutting non-habitat branches and limbs from habitat trees using chainsaws only (no excavators or other heavy machinery) on day one. The noise and vibration disturbance, together with the visible alteration of the tree, is very effective in causing bats that emerge nightly to feed to not return to the roost that night. The remainder of the tree is removed on day two. Prior to the demolition of vacant structures within the project site, a qualified biologist shall conduct a focused habitat assessment of all structures to be demolished. The habitat assessment shall be conducted enough in advance to ensure the commencement of building demolition can be scheduled during seasonal periods of bat activity (see above), if required. If no signs of day roosting activity are observed, no further actions will be required. If bats or signs of day roosting by bats are observed, a qualified biologist will prepare specific recommendations such as partial dismantling to cause bats to abandon the roost, or humane eviction, both to be conducted during seasonal periods of bat activity, if required. If the qualified biologist determines a roost is 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 consultation with 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. <p>BIO-9 Conduct Pre-construction Crotch's Bumblebee surveys and Implement Avoidance Measures. If the results of the project-specific biological analysis (Mitigation Measure BIO-1) determine that suitable habitat may be present for Crotch's bumble bee, a habitat assessment shall be performed by a qualified biologist knowledgeable and experienced with Crotch's bumblebee and the habitat in which they occur. If the biologist determines that suitable habitat for Crotch's bumblebee is present, a focused survey shall be performed during the species' active flight period for Crotch's bumblebee and peak blooming period of nectar and pollen sources (May 1 through July 31). The Crotch's bumblebee survey shall be conducted on foot and shall encompass the entirety of a project site and focus on areas that allow for the highest probability of detection, such as high abundance nectar or pollen sources and rodent burrows that may be used for breeding and nesting. If Crotch's bumblebee is determined to be present, the project proponent shall</p>	

Impact Statement	Mitigation Measure(s)	Residual Impact
	map the locations of the observed bumblebee, areas of abundant nectar or pollen sources, and any active nesting sites. A report summarizing the results of the habitat assessment and focused survey (if required) shall be prepared by the qualified biologist and shall be submitted to the City prior to the commencement of construction activities. Further, consultation with the CDFW will be necessary in the event Crotch's bumblebee was observed within a project site and an Incidental Take Permit, in accordance with the California Endangered Species Act, may be required prior to initiating any ground disturbance on the site. If Crotch's bumble are not listed and no longer candidates for listing at the time of project implementation, this mitigation measure would not be required.	
Impact BIO-2. Development and mobility improvements facilitated by the project would be subject to adopted city regulations to minimize impacts to riparian habitat, sensitive natural communities, and wetlands. Compliance with the NPDES construction general permit, ms4 storm water permit, American Canyon municipal code, and proposed policies in the 2040 general plan would ensure potential impacts to riparian habitat, sensitive natural communities, and wetlands would be less than significant.	No mitigation is required.	Less than Significant
Impact BIO-3. Implementation of the project would not substantially impede the movement of native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors after implementation of proposed policies in the 2040 general plan and compliance with the American Canyon municipal code.	No mitigation is required.	Less than Significant
Impact BIO-4. The project would implement proposed policies designed to protect biological resources. Development and mobility improvements facilitated by the project would be required to adhere to these policies, as well as American Canyon municipal code requirements to protect biological resources. Therefore, this impact would be less than significant.	No mitigation is required.	Less than Significant

Impact Statement	Mitigation Measure(s)	Residual Impact
<p>Impact BIO-5. Implementation of the project would not conflict with the provision of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. No impact would occur.</p>	<p>No mitigation is required.</p>	<p>No Impact</p>
Cultural Resources		
<p>Impact CUL-1. Development facilitated by the project could adversely affect previously unidentified historic-period resources. Impacts to historic-period resources would be less than significant with mitigation.</p>	<p>CUL-1 Historical Built Environment. Prior to project approval, the applicant shall submit a report to the City that identifies any historic-age features (i.e., structures over 45 years of age) proposed to be altered or demolished. If historical-age features are present, the applicant shall submit a historical resources evaluation to the City prepared in areas that contains buildings, structures, objects, sites, landscape/site plans, or other features that are 45 years of age or older, by a qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualifications Standards (PQS) in architectural history or history (36 CFR Part 61). The evaluation shall include an intensive-level evaluation, in accordance with the guidelines and best practices meeting the State Office of Historic Preservation guidelines. All evaluated properties shall be documented on Department of Parks and Recreation Series 523 Forms. The report shall be submitted to the City for review and approval.</p> <p>If historical resources are identified through the survey and evaluation, efforts shall be made by the applicant to ensure that the relocation, rehabilitation, or alteration of the resource is consistent with the Secretary of the Interior's Standards for the Treatments of Historic Properties (Standards). The applicant shall submit a report to the City that identifies and specifies the treatment of character-defining features and construction activities, and demonstrates how the project complies with the Standards and avoids the substantial adverse change in the significance of the historical resource as defined by CEQA Guidelines Section 15064.5(b). The report shall be prepared by an architectural historian or historical architect meeting the PQS as defined by 36 CFR Part 61 and provided to the City for review and concurrence prior to project approval.</p>	<p>Less than Significant with Mitigation</p>
<p>Impact CUL-2. Development facilitated by the project could adversely affect previously unidentified archaeological resources. Impacts would be less than significant with mitigation.</p>	<p>CUL-2 Archaeological Resources Assessment. Prior to project approval of a project that involves ground disturbance activities (that may include but are not limited to, pavement removal, potholing, grubbing, tree removal, and grading), the applicant shall submit to the City an archaeological resources assessment prepared by a qualified archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards in either prehistoric or historic archaeology. Assessments shall include a CHRIS records search at the NWIC and a SLF Search from the NAHC. The records searches shall characterize the results of previous cultural resource surveys and disclose any cultural resources that have been recorded and/or evaluated in and around the development site. A qualified professional</p>	<p>Less than Significant with Mitigation</p>

Impact Statement	Mitigation Measure(s)	Residual Impact
	<p>shall conduct a Phase I pedestrian survey for those projects that include undeveloped areas to locate any surface cultural materials.</p> <p>If the Phase I archaeological survey identifies resources that may be affected, the applicant shall also conduct Phase II testing and evaluation. If resources are determined significant or unique through Phase II testing and site avoidance is not possible, the qualified professional shall identify appropriate site-specific mitigation measures in the Phase II evaluation. These measures may include, but would not be limited to, a Phase III data recovery program, avoidance, or other appropriate actions to be determined by a qualified archaeologist. If significant archaeological resources cannot be avoided, impacts may be reduced to less than significant level by filling on top of the sites rather than cutting into the cultural deposits. Alternatively, and/or in addition, a data collection program may be warranted, including mapping the location of artifacts, surface collection of artifacts, or excavation of the cultural deposit, to characterize the nature of the buried portions of sites. Curation of the excavated artifacts or samples would occur as specified by the archaeologist. The City shall review and approve the archaeological resources assessment prior to project approval.</p> <p>CUL-3 Unanticipated Discoveries. For projects whose Phase I archaeological survey identifies archaeological resources that may be affected, the applicant shall retain a qualified cultural resource specialist to monitor construction activities that involve ground-disturbing activities greater than 12 inches in depth and occur within 60 feet of a potentially significant cultural resource. If archaeological resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior’s Professional Qualifications Standards for Archaeology should be contacted immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for CRHR eligibility. If the discovery proves to be significant under CEQA and cannot be avoided by the project, additional work, such as excavating the cultural deposit to fully characterize its extent and collecting and curating artifacts may be warranted to mitigate any significant impacts to cultural resources. If archaeological resources of Native American origin are identified during construction, a qualified archaeologist will consult with the City to begin Native American consultation procedures. Periodic reports of the find and subsequent evaluations shall be submitted to the City during construction.</p>	
<p>Impact CUL-3. Development facilitated by the project could result in damage to or destruction of human burials. Impacts would be less than significant through adherence to existing regulations and with mitigation.</p>	<p>CUL-4 Human Remains. In the event of an accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Sections 5097.94 and Section 5097.98 shall be followed. If during construction, there is accidental discovery or recognition of any human remains, the following steps shall be taken:</p>	<p>Less than Significant with Mitigation</p>

Impact Statement	Mitigation Measure(s)	Residual Impact
	<ol style="list-style-type: none"> 1. There shall be no further excavation or disturbance within 100 feet of the remains until the County Coroner is contacted to determine whether the remains are Native American and if an investigation of the cause of death is required. If the Coroner determines the remains to be Native American, the Coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours, and the NAHC shall identify the person or persons it believes to be the Most Likely Descendant (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work within 48 hours, for means of treating or disposing of, with appropriate dignity, the human remains, and any associated grave goods as provided in Public Resource Code Section 5097.98. 2. Where the following conditions occur, the landowner or authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the MLD or on the project site in a location not subject to further subsurface disturbance: <ul style="list-style-type: none"> ▪ The NAHC is unable to identify an MLD or the MLD failed to make a recommendation within 48 hours after being notified by the commission. ▪ The descendant identified fails to make a recommendation. ▪ The landowner or authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner. <p>Additionally, California Public Resources Code Section 15064.5 requires the following relative to Native American Remains:</p> <ul style="list-style-type: none"> ▪ When an initial study identifies the existence of, or the probable likelihood of, Native American Remains within a project, a lead agency shall work with the appropriate Native Americans as identified by the NAHC as provided in Public Resources Code Section 5097.98. The applicant may each develop a plan with respect to their respective individual development proposals for treating or disposing of, with appropriate dignity, the human remains, and any items associated with Native American Burials with the appropriate Native Americans as identified by the NAHC. 	
Greenhouse Gas Emissions Impact GHG-1. Development facilitated by the project would make progress towards achieving state goals but would not necessarily meet state 2030 or 2045 goals. Mitigation measures ghg-2 and ghg-3 would require implementation of CEQA GHG thresholds and a climate	GHG-1 Construction GHG BMPs. Prior to the issuance of any grading permits, the project applicant shall provide the City of American Canyon with documentation (e.g., site plans) demonstrating implementation of construction Best Management Practices (BMPs). Measures may include but are not limited to:	Significant and Unavoidable

Impact Statement	Mitigation Measure(s)	Residual Impact
action plan (cap); however, development facilitated by the project would not meet the 2030 or 2045 goals until the cap is updated and adopted. This impact would be significant and unavoidable.	<ul style="list-style-type: none"> At least 15 percent of the construction fleet for each project phase shall be alternatively fueled or electric. At least 10 percent of building materials used for project construction shall be sourced from local suppliers. At least 65 percent of construction and demolition waste materials shall be recycled or reused. At least one contractor that has a business location in American Canyon shall be contracted for project construction. All construction contracts shall include language that requires all off-road equipment with a power rating below 19 kilowatts (e.g., plate compactors, pressure washers) using during construction be electrically powered. Architectural coatings used for project construction shall be “Low-VOC,” containing no greater than 50 grams of volatile organic compounds (VOC) per liter of product. Project construction shall prohibit the use of generators and shall establish grid power connection to electrical equipment needs. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure [ATCM] Title 13, Section 2485 of California Code of Regulations). Clear signage regarding idling restrictions shall be provided for construction workers at all access points. All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. The prime construction contractor shall post a publicly visible sign with their telephone number and contractor to contact. The construction contractor shall take corrective action within 48 hours. The BAAQMD’s phone number shall also be identified and visible to ensure compliance with applicable regulations. <p>GHG-2 Adopt and Implement a CEQA GHG Emissions Threshold. The City shall include and implement a new 2040 General Plan policy under the Environment Element to prepare, adopt, and implement a CEQA GHG Emissions threshold of significance. The City shall adopt the CEQA GHG Emissions threshold of significance by the end of 2025 for use in future CEQA GHG emissions analyses through 2030. In addition, upon completion of future CAP updates and as necessary, the City shall update the CEQA GHG Emissions threshold of significance and American Canyon CEQA GHG Checklist to be consistent with each CAP update.</p> <p>GHG-3 Adopt American Canyon CAP to Meet the State’s 2030 and 2045 GHG Emissions Goals. The City shall draft and adopt the American Canyon qualified CAP by the end of 2025</p>	

Impact Statement	Mitigation Measure(s)	Residual Impact
	<p>to outline how American Canyon will meet the State's 2030 goal of 40 percent below 1990 emissions levels and 2045 goal of carbon neutrality. Implementation measures in the updated qualified CAP to achieve the 2030 and 2045 goals may include, but are not limited to, the following:</p> <p>Develop and adopt Zero Net Energy requirements for new and remodeled residential and non-residential development;</p> <ul style="list-style-type: none"> ▪ Develop and adopt a building electrification ordinance for existing and proposed structures; ▪ Expand charging infrastructure and parking for electric vehicles; ▪ Implement carbon sequestration by expanding the urban forest, participating in soil-based or compost application sequestration initiatives, supporting regional open space protection, and/or incentivizing rooftop gardens; and ▪ Implement policies and measures included in the California 2022 Climate Change Scoping Plan, such as mobile source strategies for increasing clean transit options and zero emissions vehicles by providing electric vehicle charging stations. 	
Land Use and Planning		
Impact LU-1. The project would not physically divide an established community and there would be no impact.	No mitigation is required.	No Impact
Impact LU-2. The project would not result in a significant environmental impact due to a conflict with a plan adopted for the purpose of avoiding or mitigating an environmental effect. Impacts would be less than significant.	Mitigation measures AES-1, AES-2, AQ-1 through AQ-4, BIO-1, BIO-2, CUL-1 through CUL-3, GHG-1 through GHG-3, NOI-1 through NOI-3, PAL-1, WF-1, and WF-2.	Less than Significant

Impact Statement	Mitigation Measure(s)	Residual Impact
Noise		
<p>Impact NOI-1. Construction of development facilitated by the project would temporarily increase noise levels, potentially affecting nearby noise-sensitive land uses. Development facilitated by the project would also introduce new noise sources and contribute to increases in operational noise. The continued regulation of noise, consistent with the city municipal code and implementation of proposed policies in the 2040 general plan would minimize impacts to adjacent land uses. However, construction and operational traffic noise could exceed standards even after implementation of mitigation. This impact would be significant and unavoidable.</p>	<p>NOI-1 Conduct Construction Noise Analysis. The City shall review future developments within 1,000 feet of a sensitive receiver, and where applicable, require the following feasible measures as standard conditions of approval to reduce construction noise levels below a level of significance:</p> <ul style="list-style-type: none"> ▪ Mufflers. During excavation and grading construction phases, all construction equipment, fixed or mobile, shall be operated with closed engine doors and shall be equipped with properly operating and maintained mufflers consistent with manufacturers' standards. ▪ Stationary Equipment. All stationary construction equipment shall be placed so that emitted noise is directed away from the nearest sensitive receivers. ▪ Equipment Staging Areas. Equipment staging shall be located in areas that will create the greatest distance feasible between construction-related noise sources and noise-sensitive receivers. ▪ Smart Back-up Alarms. Mobile construction equipment shall have smart back-up alarms that automatically adjust the sound level of the alarm in response to ambient noise levels. Alternatively, back-up alarms shall be disabled and replaced with human spotters to ensure safety when mobile construction equipment is moving in the reverse direction in compliance with applicable safety laws and regulations. ▪ Electrically-Powered Tools and Facilities. Electrical power shall be used to run air compressors and similar power tools and to power any temporary structures, such as construction trailers or caretaker facilities, where feasible. ▪ Noise Disturbance Coordinator. The project applicant shall designate a "noise disturbance coordinator" responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of any noise complaint and shall require that reasonable measures be implemented to correct the problem. A telephone number for the disturbance coordinator and the City shall be posted at the construction site. ▪ Temporary Noise Barriers. Erect temporary noise barriers, where feasible, when construction noise is predicted to exceed the City's construction standards and when the anticipated construction duration is greater than is typical (e.g., two years or greater). Temporary noise barriers shall be constructed with solid materials (e.g., wood) with a density of at least 1.5 pounds per square foot with no gaps from the ground to the top of the barrier. If a sound blanket is used, barriers shall be constructed with solid material with a density of at least 1 pound per square foot with no gaps from the ground to the top of the barrier and be lined on the construction side with acoustical 	<p>Significant and Unavoidable.</p>

Impact Statement	Mitigation Measure(s)	Residual Impact
	<p>blanket, curtain or equivalent absorptive material rated sound transmission class (STC) 32 or higher.</p> <p>NOI-2 Implement Roadway Vehicle Noise Reduction Measures. The City shall install “quiet pavement” roadway improvements, such as rubberized asphalt or open-grade asphalt concrete overlays along impacted roadway segments (American Canyon Road west of I-80 and Newell Drive north of American Canyon Road). The program may be funded by “fair share” developer contributions for proposed projects along impacted roadways to pay for the “quiet pavement” roadway improvements.</p>	
<p>Impact NOI-2. Construction of development facilitated by the project would temporarily generate groundborne vibration and noise, potentially affecting nearby land uses. This impact would be less than significant with mitigation. Operation of development facilitated by the project would not result in substantial groundborne vibration and noise and this impact would be less than significant.</p>	<p>NOI-3 Construction Vibration Control Plan. Prior to issuance of a building permit for a project that includes the following, the project applicant shall prepare a groundborne noise and vibration analysis to assess and mitigate potential noise and vibration impacts related to these construction activities:</p> <ul style="list-style-type: none"> ▪ Pile driving within: <ul style="list-style-type: none"> ▫ 135 feet of fragile structures such as historical resources; ▫ 100 feet of non-engineered timber and masonry buildings (e.g., most residential buildings); or ▫ 75 feet of engineered concrete and masonry (no plaster); ▪ A vibratory roller within: <ul style="list-style-type: none"> ▫ 40 feet of fragile historical resources; or ▫ 25 feet of any other structure ▪ A dozer or other large earthmoving equipment within: <ul style="list-style-type: none"> ▫ 20 feet for a fragile historical structure; or ▫ 15 feet of any other structure <p>The noise and vibration analysis shall be conducted by a qualified and experienced acoustical consultant or engineer. The vibration levels shall not exceed FTA architectural damage thresholds (e.g., 0.12 in/sec PPV for fragile or historical resources, 0.2 in/sec PPV for non-engineered timber and masonry buildings, and 0.3 in/sec PPV for engineered concrete and masonry). If vibration levels would exceed this threshold, alternative uses such as drilling piles as opposed to pile driving, static rollers as opposed to vibratory rollers, and lower horsepower earthmoving equipment shall be used. If necessary, construction vibration monitoring shall be conducted to ensure FTA vibration thresholds are not exceeded.</p>	<p>Less than Significant with Mitigation</p>

Impact Statement	Mitigation Measure(s)	Residual Impact
Impact NOI-3. Development facilitated by the project would not result in a significant increase in airport or airstrip activity. The continued regulation of airport noise consistent with state and federal regulations, the implementation of proposed policies in the 2040 general plan, and compliance with napa county airport land use compatibility plan would minimize disturbance to people residing or working within proximity of the napa county airport. Impacts would be less than significant.	No mitigation is required.	Less than Significant
Paleontological Resources		
Impact PAL-1. the project has the potential to result in impacts to paleontological resources. Impacts would be less than significant with mitigation incorporated.	PAL-1 Retention of a Qualified Professional Paleontologist. Prior to submittal of a discretionary development application in areas underlain by high or undetermined sensitivity geologic units (i.e., Pleistocene alluvial fan deposits; Markley Sandstone; Jameson Shale Member of Markley Sandstone; Domengine Sandstone; and sandstone and shale of the Great Valley Complex), the City shall require a Qualified Professional Paleontologist [as defined by the Society of Vertebrate Paleontology (SVP) (2010)] be retained to determine the project’s potential to significantly impact paleontological resources according to SVP (2010) standards. If necessary, the Qualified Professional Paleontologist shall recommend mitigation measures to reduce potential impacts to paleontological resources to a less than significant level. The City shall review and approve the Qualified Professional Paleontologist’s findings and recommendation. All recommendations shall be incorporated into the project plans prior to issuance of a grading permit.	Less than Significant with Mitigation
Population and Housing		
Impact POP-1. Implementation of the project would facilitate the construction of new housing in American Canyon and would increase population. The 2040 general plan would accommodate and plan for population growth and includes policies to manage growth and development. Impacts would be less than significant.	No mitigation is required.	Less than Significant

Impact Statement	Mitigation Measure(s)	Residual Impact
Impact POP-2. Implementation of the project would not result in the displacement of substantial numbers of housing or people. The project would facilitate the development of new housing in accordance with state and local housing requirements, while preserving existing residential neighborhoods. Impacts would be less than significant.	No mitigation is required.	Less than Significant
Public Services and Recreation		
Impact PS-1. Development facilitated by the project would increase the population in the planning area, which would result in an increase in demand for fire, police, and libraries. Compliance with proposed policies in the 2040 general plan and continued environmental review would minimize adverse environmental effects associated with the provision of new or physically altered fire, police, or library facilities. These impacts would be less than significant.	No mitigation is required.	Less than Significant
Impact PS-2. Future development facilitated by the project would be required to pay impact fees that would provide funding for the provision or expansion of new school facilities, pursuant to government code section 65995(b). Impacts from the project would be offset by the payment of impact fees and impacts would be less than significant.	No mitigation is required.	Less than Significant
Impact PS-3. Development facilitated by the project would increase the population in the planning area, which would increase the use of parks and recreational facilities. Adherence to American Canyon municipal code regulations and proposed 2040 general plan policies would ensure impacts related to parks and recreational facilities would be less than significant.	No mitigation is required	Less than Significant
Transportation		
Impact TRA-1. The project would not conflict with a program, plan, ordinance or policy addressing the circulation system and impacts would be less than significant.	No mitigation is required.	Less than Significant

Impact Statement	Mitigation Measure(s)	Residual Impact
Impact TRA-2. The future (2040) citywide rate of Residential VMT per Capita with the proposed 2040 General Plan would be higher than the significance threshold. The project would therefore conflict with or be inconsistent with CEQA Guidelines 15064.3(b) and impacts would be significant.	No feasible mitigation measures beyond policies included in the Mobility Element of the General Plan.	Significant and Unavoidable
Impact TRA-3. The project would not substantially increase hazards due to a geometric design feature and impacts would be less than significant.	No mitigation is required.	Less than Significant
Impact TRA-4. The project would not result in inadequate emergency access and impacts would be less than significant.	No mitigation is required.	Less than Significant
Tribal Cultural Resources		
Impact TCR-1. The project could adversely impact tribal cultural resources. Impacts would be less than significant through consultation conducted pursuant to AB 52.	No mitigation is required.	Less than Significant
Utilities and Service Systems		
Impact UTL-1. Development facilitated by the project would increase demand for water, wastewater, electric power, telecommunications, and stormwater drainage; however, no additional relocation or construction of utility services would be required to service the project beyond connections to existing utilities. The project would result in a minimal increase in natural gas demand. Impacts would be less than significant.	No mitigation is required.	Less than Significant
Impact UTL-2. The project would increase demand for water. Water supply for the project would be provided by the City of American Canyon from existing and planned supply sources including imported water and supplemental water purchased from the City of Vallejo as well as locally developed recycled water. Potential impacts would be less than significant.	No mitigation is required.	Less than Significant

Impact Statement	Mitigation Measure(s)	Residual Impact
Impact UTL-3. Development facilitated by the project would increase demand for wastewater treatment. The timing, intensity, and location of an expansion of wastewater treatment facilities is unknown at this time, but an expansion would require additional ceqa review and compliance with existing building and zoning codes. As such, impacts related to expansion of wastewater treatment facilities as a result of the 2040 general plan would be less than significant.	No mitigation is required.	Less than Significant
Impact UTL-4. The project would not generate solid waste in excess of state or local standards, would not exceed the capacity of local infrastructure, and would not impair the attainment of solid waste reduction goals. Impacts would be less than significant.	No mitigation is required.	Less than Significant
Wildfire		
Impact W-1. The 2040 general plan proposed policies address emergency access, response, and preparedness. Therefore, the project would not impair an emergency response plan or emergency evacuation plan. Impacts would be less than significant.	No mitigation is required.	Less than Significant
Impact W-2. The project could expose people and structures to wildfire risk; however, wildfire risks would be reduced with mitigation and impacts would be less than significant.	<p>WF-1 Wildfire Risk Reduction During Construction. For projects located in proximity to agricultural or undeveloped areas (including hillside areas) with flammable vegetation, prior to issuance of a grading or building permit, whichever occurs first, the applicant shall submit documentation that they will implement the following measures to reduce risk of loss, injury, or death from wildfire during construction:</p> <ol style="list-style-type: none"> 1. Construction equipment powered by internal combustion engines shall be equipped with spark arresters. The spark arresters shall be maintained pursuant to manufacturer recommendations to ensure adequate performance. 2. Certain project construction activities with potential to ignite wildfires during red-flag warnings issued by the National Weather Service for the project site location shall be prohibited. Example activities that shall be prohibited during red-flag warnings include welding and grinding outside of enclosed buildings, mowing, chain sawing, chipping, the use of any equipment with the potential to introduce sparks. 3. Fire extinguishers shall be required to be onsite during construction. Construction vehicles shall be equipped with at least one (1) functioning fire extinguisher and one (1) shovel or McLeod firefighting tool. Heavy machinery or equipment (e.g., tractors, 	Less than Significant with Mitigation

Impact Statement	Mitigation Measure(s)	Residual Impact
	<p>grinders, tree chippers, excavators, bulldozers) shall be equipped with one (1) shovel, McLeod firefighting tool, or Pulaski; one (1) functioning fire extinguisher; and at least one 5-gallon backpack pump or larger capacity water (or CAFS) pump/delivery system.. Fire extinguishers shall be maintained to function according to manufacturer specifications. Construction personnel shall receive training on the proper methods of using a fire extinguisher.</p> <p>WF-2 Fire Resistant Vegetation and Landscaping. For projects located in proximity to agricultural or undeveloped areas (including hillside areas) with flammable vegetation, prior to issuance of a building permit for development located within or adjacent to a VHFHSZ, the applicant shall submit landscape plans prepared by a registered Landscape Architect that are consistent with applicable Building and Fire Codes.</p>	
Impact W-3. The project would include the installation of utilities and future mobility improvements; however, compliance with the HMP and proposed policies in the 2040 general plan would reduce impacts to less than significant.	No mitigation is required.	Less than Significant
Impact W-4. The planning area is relatively flat and compliance with proposed policies in the 2040 general plan and the American Canyon municipal code would ensure that risks from flooding or landslides due to a wildfire would be less than significant.	No mitigation is required	Less than Significant

1 Introduction

This Environmental Impact Report (EIR) examines the potential environmental effects of the proposed City of American Canyon (City) 2040 Technical General Plan Update (“project”). The environmental review process for the project, and legal basis for preparing an EIR, are described below.

1.1 Environmental Impact Report Background

This document is an EIR that evaluates the potential environmental impacts associated with implementation of the project. This section of the EIR:

1. Provides an overview of project’s background.
2. Summarizes the process involved in developing the project.
3. Describes the purpose of and legal authority of the EIR.
4. Summarizes the scope and content of the EIR.
5. Lists lead, responsible, and trustee agencies for the EIR.
6. Describes the intended uses of the EIR.
7. Provides a synopsis of the environmental review process required under the California Environmental Quality Act (CEQA).

The contents of other EIR sections are as follows:

- Section 2, *Project Description*, provides a detailed discussion of the project.
- Section 3, *Environmental Setting*, describes the general environmental setting for the City of American Canyon.
- Section 4, *Environmental Impact Analysis*, describes the potential environmental effects associated with development facilitated by the project.
- Section 5, *Other CEQA Required Sections*, discusses issues such as growth inducement and significant irreversible environmental effects.
- Section 6, *Alternatives*, discusses alternatives to the project, including the CEQA-required “no project” alternative.
- Section 7, *References and Report Preparers*, lists informational sources for the EIR and persons involved in the preparation of the document.

In addition, this EIR also includes the following Appendices:

- Appendix A. Notice of Preparation and Scoping Comments Received
- Appendix B. Supporting Biological Resources Information
- Appendix C. Supporting Noise Information

1.2 Overview of the Project

State law (Government Code Section 65300) requires each city and county adopt a comprehensive general plan. The City's existing General Plan was adopted by the City Council on November 3, 1994. The project is a comprehensive effort to update the existing General Plan to respond to current local and regional conditions, and changes in State law that may not have been in effect when the General Plan was originally adopted. The proposed 2040 Technical General Plan Update has been organized into the following elements: Land Use; Housing; Economic Development; Mobility; Utilities; Public Services and Facilities; Environment, Parks, and Recreation; Safety; and Environmental Justice. Together, these elements cover all topics required to include in a General Plan under State law.

The General Plan defines the policy framework by which the City's physical and economic resources are to be managed and used over the next 18 years. City decision-makers will use the General Plan as a blueprint for:

- Choices about the use of land;
- Protection of environmental resources;
- Conservation and development of housing;
- Provision of supporting infrastructure and public and human services; and
- Protection of people and property from natural and constructed hazards.

The General Plan serves as a constitution for future development in American Canyon. Therefore, any City decision affecting land use and development must be consistent with the General Plan. This includes development projects that may be proposed in the future. An action, program, or project would be considered consistent with the General Plan if, considering all of its aspects, it will further the objectives and policies of the General Plan or not obstruct their attainment.

The project contains goals, policies, and implementation programs to implement the City's overarching objectives.

- **Goals** are statements that provide direction and state the desired end condition.
- **Policies** establish basic courses of action to achieve these goals, and directly guide the response of elected and appointed officials to development proposals and related community actions.
- **Implementation Programs** are specific actions, procedures, standards or techniques that the City must take to help achieve a specified goal or implement an adopted policy.

1.3 Purpose and Legal Authority

This EIR has been prepared in accordance with the CEQA Guidelines. In accordance with CEQA Guidelines Section 15121(a) (California Code of Regulations, Title 14, Division 6, Chapter 3), the purpose of an EIR is to:

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

This EIR fulfills the requirements for a Program EIR. Although the legally required contents of a Program EIR are the same as a Project EIR, Program EIRs are by necessity more conceptual and may

contain more general discussion of impacts, alternatives, and mitigation measures than a Project EIR. As provided in CEQA Guidelines Section 15168, a Program EIR may be prepared on a series of actions characterized as one large project. Use of a Program EIR enables the City (as Lead Agency) to consider broad policy alternatives and program-wide mitigation measures and greater flexibility to address environmental issues and/or cumulative impacts on a comprehensive basis. While the Program level EIR uses expansive program-level thresholds, it should not be assumed that impacts determined to be less than significant at a program level would be less than significant for an individual project implemented under the 2040 General Plan, even if the individual project is consistent with the 2040 General Plan.

Once a Program EIR has been prepared, subsequent activities within the Project must be evaluated to determine what, if any, additional CEQA documentation needs to be prepared. If the Program EIR addresses the Project's effects as specifically and comprehensively as possible, many subsequent activities could be found to be within the Program EIR scope and additional environmental documentation may not be required (CEQA Guidelines Section 15168(c)). When a Lead agency relies on a Program EIR for a subsequent activity, it must incorporate applicable mitigation measures and alternatives developed in the Program EIR into the subsequent activities (CEQA Guidelines Section 15168(c)(3)). If a subsequent activity would have effects not contemplated or not within the scope of the Program EIR, the Lead Agency must prepare a new Initial Study leading to a Negative Declaration, Mitigated Negative Declaration, or a project level EIR. In this case, the Program EIR still serves a valuable purpose as the first-tier environmental analysis. CEQA Guidelines Section 15168(b) encourage the use of Program EIRs, citing five advantages:

- Provision of a more exhaustive consideration of impacts and alternatives than would be practical in an individual EIR.
- Focus on cumulative impacts that might be slighted in a case-by-case analysis.
- Avoidance of continual reconsideration of recurring policy issues.
- Consideration of broad policy alternatives and programmatic mitigation measures at an early stage when the agency has greater flexibility to deal with them.
- Reduction of paperwork by encouraging the reuse of data (through tiering).

This EIR has been prepared to analyze potentially significant environmental impacts resulting from implementation of the project and provides feasible mitigation measures or project alternatives that would minimize or eliminate these impacts.

1.4 Scope and Content

In accordance with the CEQA Guidelines, a Notice of Preparation (NOP) of a Draft EIR was circulated to potentially interested parties on July 5, 2022. The NOP, included in Appendix A, indicates that all issues on the City's environmental checklist would be discussed in the EIR. These include:

- | | |
|---------------------------------------|----------------------------------|
| ▪ Aesthetics | ▪ Noise |
| ▪ Agricultural and Forestry Resources | ▪ Population and Housing |
| ▪ Air Quality | ▪ Public Services and Recreation |
| ▪ Biological Resources | ▪ Transportation |
| ▪ Cultural Resources | ▪ Tribal Cultural Resources |

- Greenhouse Gas Emissions
- Land Use and Planning
- Utilities and Service Systems
- Wildfire

This EIR evaluates potential impacts in each of these areas. Impacts regarding the CEQA topics of Agriculture and Forestry Resources, Energy, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, and Mineral Resources were determined to not be significant and are analyzed in section 4.15 of this EIR. The focus of this EIR is to:

- Provide information about the project for consideration by the City Council in its selection of the project, an alternative to the project, or a combination of various elements from the project and its alternatives, for approval;
- Review and evaluate the potentially significant environmental impacts that could occur as a result of the growth and development envisioned in the project;
- Identify feasible mitigation measures that may be incorporated into the project to reduce or eliminate potentially significant effects;
- Disclose any potential growth-inducing and/or cumulative impacts associated with the project; and
- Examine a reasonable range of alternative growth scenarios (including growth according to the existing General Plan, reduced growth, and alternative locations within the City for growth) that could feasibly attain the basic objectives of the project, while eliminating and/or reducing some or all of its potentially significant adverse environmental effects.

The NOP of this EIR received three written responses. The responses, included in Appendix A, are addressed, as appropriate, in the analysis contained in the various subsections of Section 4, *Environmental Impact Analysis*. The City staff also conducted a virtual scoping meeting on July 28, 2022. Two Planning Commissioners and one member of the public made comments at the Scoping Meeting. Table 1-1 shows a summary of the written comments and Scoping Meeting comments. The NOP and written comments are included in Appendix A.

Table 1-1 NOP Comments and EIR Response

Commenter	Issue Area/Issues Raised	How and Where Addressed in the EIR
Agency Comments		
California Department of Fish and Wildlife (CDFW)	Requested that the EIR include the following information: land use changes; project footprints; temporarily impacted areas; plans for proposed structures, ground disturbing activities, landscaping, stormwater improvements, fencing, paving, stationary machinery; operational features; and construction activities.	Chapter 2, <i>Project Description</i> includes the complete project description. Some of the information requested by CDFW is currently not available, including footprints, plans for buildings, operational features, and construction information. This EIR is a programmatic EIR and the information requested by CDFW will be available when future plans and projects are proposed and reviewed by the City.
	Requested creation of procedure or checklist for evaluating subsequent project impacts on biological resources to determine if individual projects are within the scope of the Program EIR.	Section 1.3, <i>Purpose and Legal Authority</i> identifies how this Programmatic EIR would be used in the future.
	Noted regulatory authority under the California Endangered Species Act, Native	These regulations are incorporated into Section 4.3, <i>Biological Resources</i> .

Commenter	Issue Area/Issues Raised	How and Where Addressed in the EIR
	Plant Protection Act, Fish and Game Code, and Migratory Bird Treaty Act.	
	Recommended EIR provide baseline data for species and habitat from multiple sources.	The baseline data used for this EIR is included in Section 4.3, <i>Biological Resources</i> .
	Recommended surveys be conducted for special-status species.	A requirement for biological resource surveys for future projects is included in Section 4.3, <i>Biological Resources</i> .
	Requested discussion of all direct and indirect impacts associated with the project, feasible mitigation, and cumulative impacts	Impacts and mitigation are identified in Section 4.3, <i>Biological Resources</i> .
California Department of Transportation (Caltrans)	Identified that VMT analysis should include discussion of multimodal transportation and traffic safety issues; the project's effects on pedestrians, bicycles, travelers with disabilities, and transit performance; and, if necessary, mitigation for an increase in VMT.	Comment is addressed in Section 4.11, <i>Transportation</i>
Native American Heritage Commission (NAHC)	Noted tribal consultation is required under Assembly Bill 52 and Senate Bill 18.	The notification process, pursuant to Assembly Bill 52 and Senate Bill 18, is summarized in Section 4.12, <i>Tribal Cultural Resources</i> .
	Identified procedures to follow and requested feasible mitigation be considered, including provisions for the inadvertent discovery of tribal cultural resources.	Comment is addressed in Section 4.4, <i>Cultural Resources</i> and Section 4.12, <i>Tribal Cultural Resources</i> .
Planning Commission Comments		
Vice Chair Wong	Requested information on Measure J consistency with the American Canyon General Plan and Napa County General Plan	This comment concerns the General Plan Update and is not relevant to the EIR.
	Requested information on EIR and General Plan noticing process to public and Planning Commission.	Summary of noticing is provided in Section 1.7, <i>Environmental Review Process</i> .
	Asked how the draft resolutions regarding climate change would be incorporated into the General Plan Update.	This comment concerns the General Plan Update and is not relevant to the EIR. A discussion of greenhouse gas emissions is provided in Section 4.7, <i>Greenhouse Gas Emissions</i> .
Commissioner Navarro	Asked if General Plan Update and EIR would address climate change and prohibiting new gas stations in the City.	Comment is addressed in Section 4.5, <i>Energy</i> , and Section 4.7, <i>Greenhouse Gas Emissions</i> .
	Noted highlighting greenhouse gas reduction measures may result in extra community engagement.	A discussion of greenhouse gas emissions is provided in Section 4.7, <i>Greenhouse Gas Emissions</i> .
Public Comments		
Chris James	Requested clarification on Measure J, Green Island Vineyards project, and LAFCO's effect on the General Plan Update.	This comment concerns the General Plan Update and is not relevant to the EIR.
	Requested information on the Urban Limit Line and introduction of the Hess Laird property.	A discussion of the Urban Limit Line and Hess Laird property is included in Chapter 2, <i>Project Description</i> .

1.5 Lead, Responsible, and Trustee Agencies

The City of American Canyon is the lead agency under CEQA for this EIR because it has primary discretionary authority to determine whether or how to approve the project. CEQA Guidelines Section 15381 defines responsible agencies as other public agencies that are responsible for carrying out/implementing a specific component of a project or for approving a project that implements the goals and policies of a General Plan. There are no responsible agencies for the project. Although not responsible agencies under CEQA, several other agencies have review authority over aspects of the project or approval authority over projects that could potentially be implemented in accordance with various objectives and policies included in the project. These agencies and their roles are listed below.

- The State Geologist is responsible for the review of the City's program for minimizing exposure to geologic hazards and for regulating surface mining activities.
- The Napa Local Agency Formation Commission (LAFCO) has responsibility for approving any annexations to the City that might occur over the life of the project.
- The California Department of Transportation (Caltrans) has responsibility for approving future improvements to the state highway system, including State Route 29.
- The California Department of Fish and Wildlife (CDFW) has responsibility for issuing take permits and streambed alteration agreements for any projects with the potential to affect plant or animal species listed by the State of California as rare, threatened, or endangered or that would disturb waters of the State.
- The Napa County Airport Land Use Commission (ALUC) has the responsibility of reviewing the project and future individual projects, as applicable, for consistency with the ALUC's Airport Land Use Compatibility Plan (ALUCP).
- Any other public agencies which may own land within City boundaries.

Trustee agencies have jurisdiction over certain resources held in trust for the people of California but do not have a legal authority over approving or carrying out the project. CEQA Guidelines Section 15386 designates four agencies as trustee agencies: CDFW with regards to fish and wildlife, native plants designated as rare or endangered, game refuges, and ecological reserves; the State Lands Commission, with regard to state-owned "sovereign" lands, such as the beds of navigable waters and State school lands; the California Department of Parks and Recreation, with regard to units of the State park system; and the University of California, with regard to sites within the Natural Land and Water Reserves System. The CDFW, due to the potential for rare or endangered species, is the only trustee agencies for the project.

1.6 Intended Uses of the EIR

This EIR is as an informational document for use in the City's review and consideration of the project. This document is a Program EIR. CEQA Guidelines Section 15168(a) states that:

A Program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either: (1) geographically; (2) as logical parts in a 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.

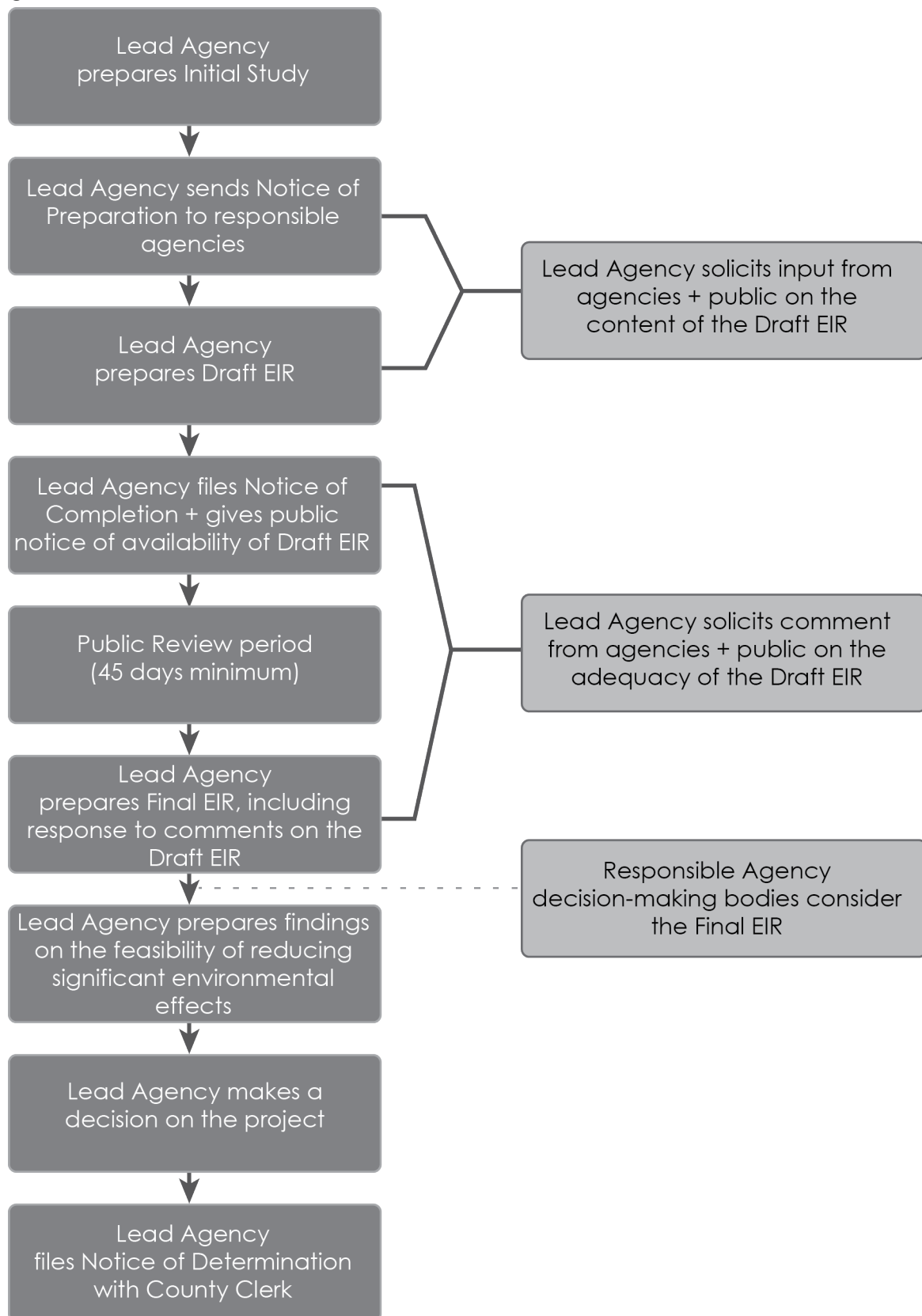
As a programmatic document, this EIR presents and discloses a region-wide assessment of the environmental impacts of the project. The information and analysis in this EIR will be used by the City of American Canyon Planning Commission and City Council, trustee agencies, and the general public to evaluate the project's potential effects on the environment.

1.7 Environmental Review Process

The environmental impact review process required under CEQA is summarized below and illustrated in Figure 1-1. The steps appear in sequential order.

1. **Notice of Preparation (NOP) Distributed.** Immediately after deciding that an EIR is required, the lead agency must file a NOP soliciting input on the EIR scope to "responsible," "trustee," and involved federal agencies; to the State Clearinghouse, if one or more state agencies is a responsible or trustee agency; and to parties previously requesting notice in writing. The NOP must be posted in the County Clerk's office for 30 days. A scoping meeting to solicit public input on the issues to be assessed in the EIR is not required but may be conducted by the lead agency. The NOP public comment period for the project was from July 5, 2022 to August 4, 2022 and a scoping meeting was held on July 28, 2022. Public comments were received in response to the NOP and scoping process.
2. **Draft EIR Prepared.** The Draft EIR must contain: a) table of contents or index; b) summary; c) project description; d) environmental setting; e) significant impacts (direct, indirect, cumulative, growth-inducing and unavoidable impacts); f) alternatives; g) mitigation measures; and h) irreversible changes.
3. **Public Notice and Review.** A lead agency must prepare a Public Notice of Availability of an EIR. The Notice must be placed in the County Clerk's office for 30 days (Public Resources Code Section 21092) and sent to anyone requesting it. Additionally, public notice of Draft EIR availability must be given through at least one of the following procedures: a) publication in a newspaper of general circulation; b) posting on and off the project site; and c) direct mailing to owners and occupants of contiguous properties. The lead agency must consult with and request comments on the Draft EIR from responsible and trustee agencies, and adjacent cities and counties. When a Draft EIR is sent to the State Clearinghouse for review, the public review period must be 45 days, unless a shorter period is approved by the Clearinghouse (Public Resources Code 21091). Distribution of the Draft EIR may be required through the State Clearinghouse. This EIR will be circulated for a 45-day public review and will be sent to the State Clearinghouse.
4. **Notice of Completion.** A lead agency must file a Notice of Completion with the State Clearinghouse as soon as it completes a Draft EIR.
5. **Final EIR.** A Final EIR must include: a) any revisions to the Draft EIR; b) copies of comments received during public review; c) list of persons and entities commenting; and d) responses to comments.
6. **Certification of Final EIR.** The lead agency shall certify that: a) the Final EIR has been completed in compliance with CEQA; b) the Final EIR was presented to the decision-making body of the lead agency; and c) the decision-making body reviewed and considered the information in the Final EIR prior to approving a project.

7. **Lead Agency Project Decision.** A lead agency may: a) disapprove a project because of its significant environmental effects; b) require changes to a project to reduce or avoid significant environmental effects; or c) approve a project despite its significant environmental effects, if the proper findings and statement of overriding considerations are adopted.
8. **Findings/Statement of Overriding Considerations.** For each significant impact of the project identified in the EIR, the lead or responsible agency must find, based on substantial evidence, that: a) the project has been changed to avoid or substantially reduce the magnitude of the impact; b) changes to the project are within another agency's jurisdiction and such changes have or should be adopted; or c) specific economic, social, or other considerations make the mitigation measures or project alternatives infeasible. If an agency approves a project with unavoidable significant environmental effects, it must prepare a written Statement of Overriding Considerations that set forth the specific social, economic, or other reasons supporting the agency's decision.
9. **Mitigation Monitoring/Reporting Program.** When an agency makes findings on significant effects identified in the EIR, it must adopt a reporting or monitoring program for mitigation measures that were adopted or made conditions of project approval to mitigate significant effects.
10. **Notice of Determination.** An agency must file a Notice of Determination after deciding to approve a project for which an EIR is prepared. A local agency must file the Notice with the County Clerk. The Notice must be posted for 30 days and sent to anyone previously requesting notice. Posting of the Notice starts a 30-day statute of limitations on CEQA challenges.

Figure 1-1 Environmental Review Process

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2 Project Description

The project analyzed in this Environmental Impact Report (EIR) is the City of American Canyon (City) Technical 2040 General Plan Update, hereafter referred to as the “project.” This section of the EIR describes the key characteristics of the project, including the project proponent/lead agency, the geographic extent of the plan, project objectives, required approvals, and the development forecasted by the project.

2.1 Project Purpose

The project is an update to the City’s current General Plan, which includes the following chapters: Introduction, Land Use Element, Housing Element, Economic Development Element, Circulation Element, Utilities Element, Public Services and Facilities Element, Parks and Recreation Element, Natural and Historic & Cultural Resources Element, Geology Element, Flood Hazards Element, and Noise Element. The project establishes the City’s vision for future development through the horizon year of 2040. The project will serve as the City’s primary guide for future land use and development decisions in a way that meets the community needs and priorities while serving as a key tool for influencing and improving the quality of life for residents and businesses. As such, it serves as the “blueprint” for future development and conservation of a community. The 2040 General Plan Update will help the City plan for important community issues, such as community growth; health, housing, mobility, and infrastructure needs; climate change; and environmental protection. It will also set the stage for future social, physical, and economic development of the City.

2.2 Project Proponent/Lead Agency

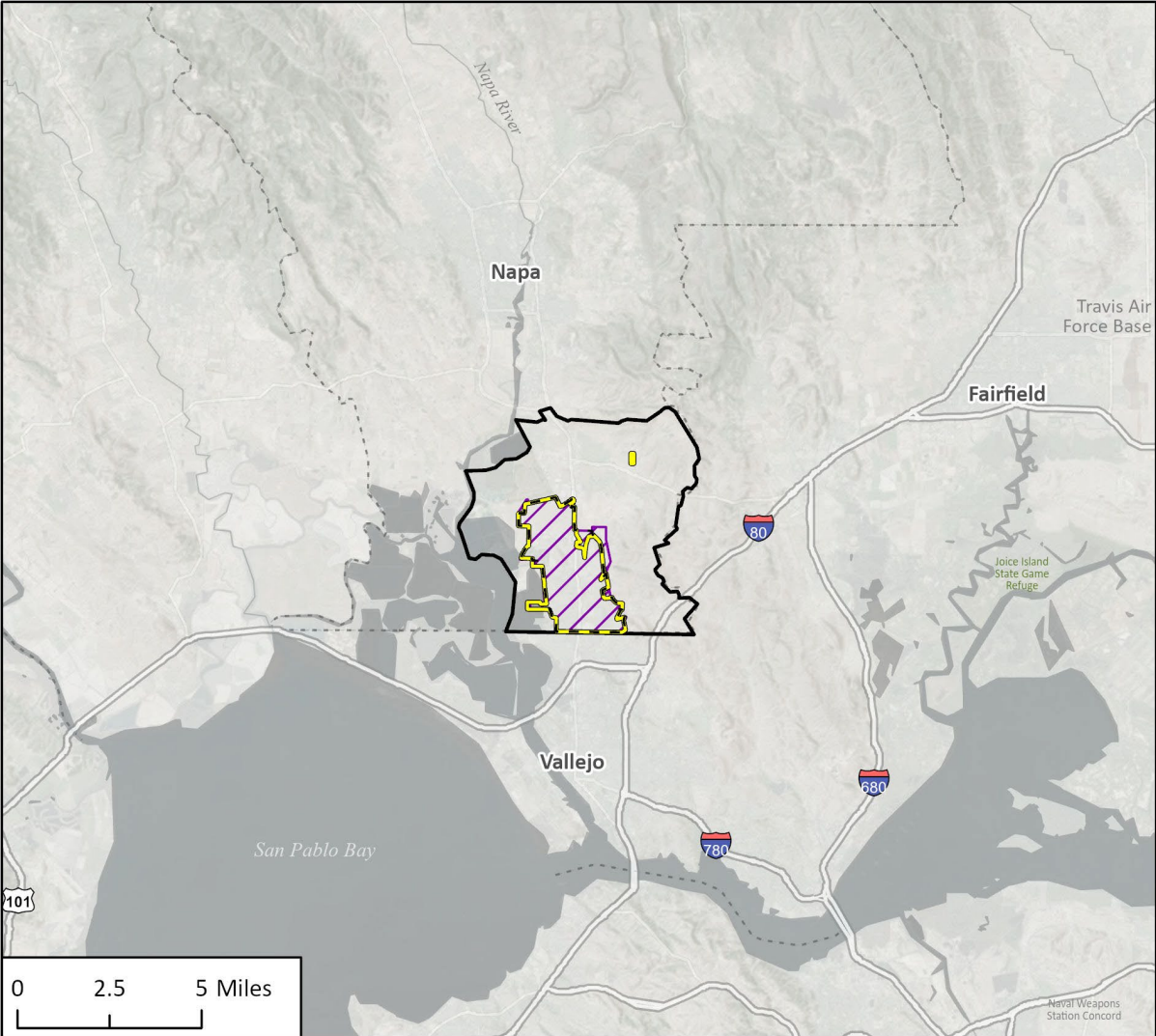
The City of American Canyon is both the project proponent and the lead agency for the project. The City’s Community Development Department (located at 4381 Broadway Street, Suite 201, American Canyon, California 94503) prepared this EIR with the assistance of Rincon Consultants, Inc. and Mintier-Harnish.

2.3 Project Location

The City of American Canyon is located in southern Napa County, as shown in Figure 2-1. The City is bordered by Napa County Airport to the north, Sulphur Spring Mountains to the east, Solano County and the City of Vallejo to the south, and the Napa River to the west.

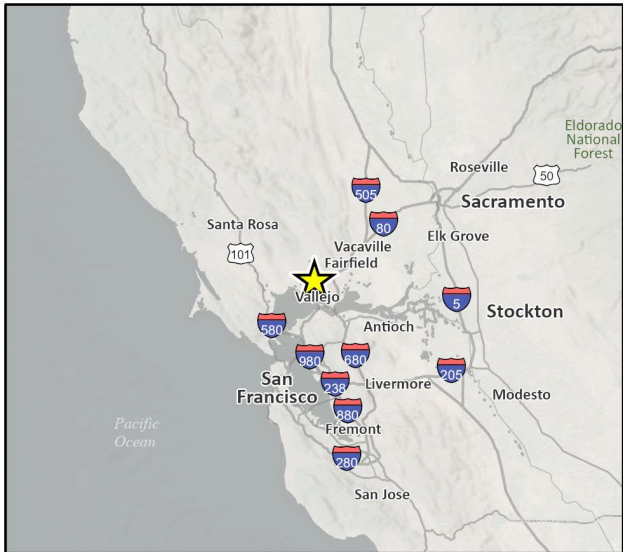
Pursuant to State law, a General Plan must address all areas that bear a physical relationship to the long-term planning of the city. Consistent with this principle, the General Plan Area includes the City of American Canyon Water and Sewer Service area, the City limits, the City’s Sphere of Influence (SOI), and urban limit line. Figure 2-1 depicts the limits of the General Plan Area.

Figure 2-1 Regional Location



Basemap provided by Microsoft Bing, Esri and their licensors © 2023.
Additional data provided by the City of American Canyon, 2022.

-  City of American Canyon Boundary
-  Sphere of Influence
-  General Plan Area
-  2030 Urban Limit
-  Project Location



American Canyon GPU and EIR

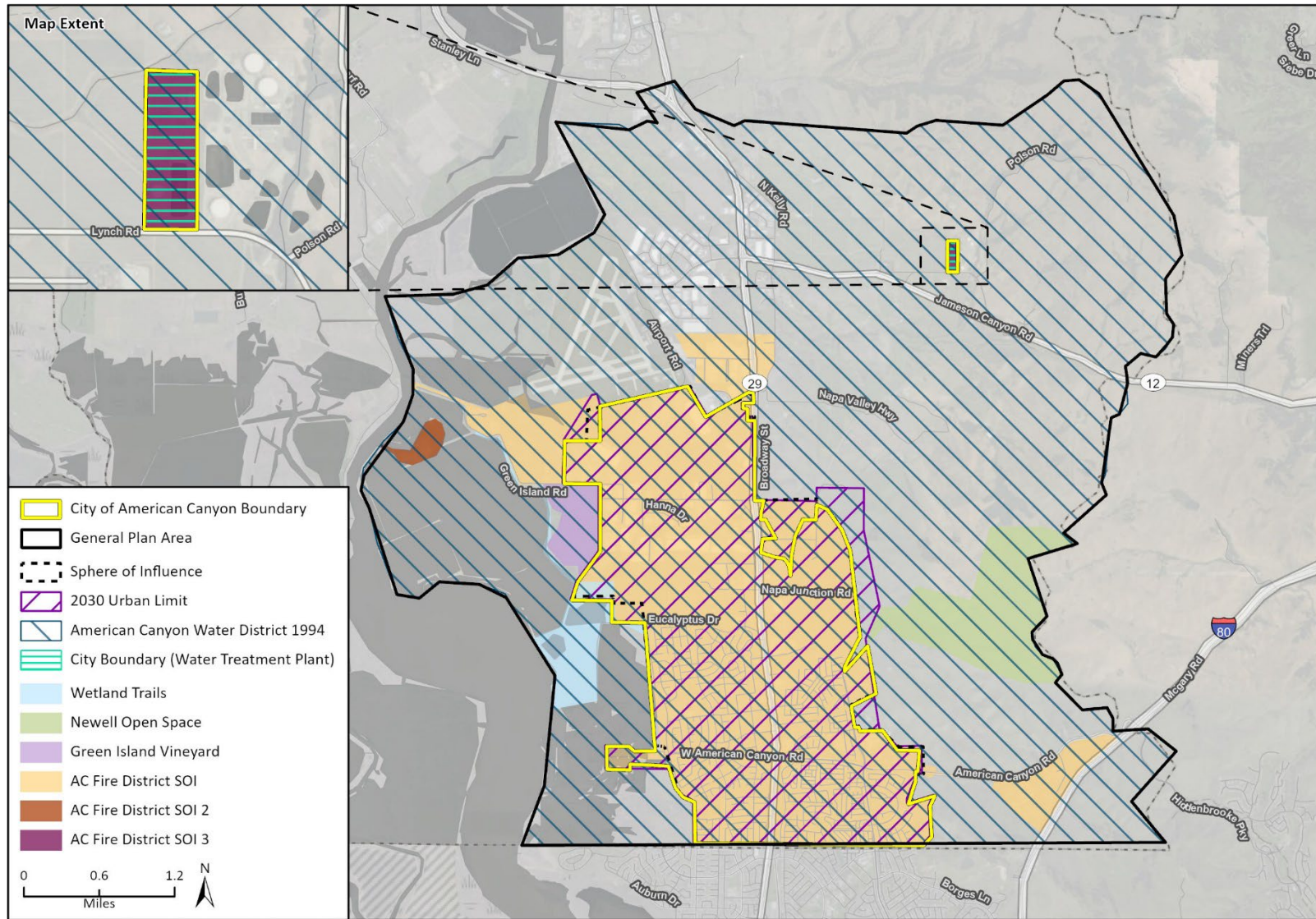
Any future development associated with the 2040 General Plan would be limited to the City limits, the SOI, and the urban limit line. As such, this EIR focuses on these three areas, which altogether are referred to as the “Planning Area.” Figure 2-2 depicts the City limits, the SOI, and the urban limit line. The American Canyon city limits defines land that has been incorporated and for which the City has authority. The Napa County Local Agency Formation Commission (LAFCo) established the SOI, which defines the probable physical boundary and service area of a local agency. The SOI includes areas the City will have primary responsibility to provide public facilities and services. The City Council adopted an initiative in 2008 to adopt an urban limit line around the city. This urban limit line was negotiated with Napa County to be consistent with the County’s general plan and agricultural protection ordinances. The boundary helps preserve agriculture and open spaces, prevent urban sprawl, implement the planned development of the city, foster sustainable growth, and maintain a balance between housing and jobs. Primary regional access to the City is provided by Interstate 80 (I-80), approximately five miles to the east of the City limits. State Route 29 (SR 29) provides north-south access while State Route 12 (SR 12) provides east-west access to the City. The City is served by a surface street system ranging from multi-lane arterial roadways to narrow two-lane streets.

2.4 Regulatory Setting

State law (Government Code Sections 65300 through 65303.4) sets forth the requirement for each municipality to adopt and periodically update its General Plan, and sets the requirement that a General Plan include the following mandatory subject areas, or “elements”: Land Use, Circulation, Housing, Open Space, Conservation, Noise, Safety, and Environmental Justice. State law also allows for optional elements that can be organized or combined at the City’s discretion. The 2040 General Plan has been organized into the following elements: Land Use; Housing; Economic Development; Mobility; Utilities; Public Services and Facilities; Environment, Parks, and Recreation; Safety; and Environmental Justice. Together, these elements cover all topics required to be included in a General Plan under State law. The Housing Element was certified by the State Department of Housing and Community Development (HCD) on June 30, 2023.

Under State law, a property’s zoning is required to be consistent with its General Plan land use designation (Government Code Section 65860). Section 65860(c) of the Government Code requires that when a General Plan is amended or updated in a way that makes the Zoning Ordinance inconsistent with the General Plan, “the zoning ordinance shall be amended within a reasonable time so that it is consistent with the general plan as amended.”

Figure 2-2 Project Location



Basemap provided by Microsoft Bing, Esri and their licensors © 2022.
 Additional data provided by the City of American Canyon, 2022.

American Canyon GPD and EIR
 Fig 2 Project Location Map

2.5 Project Objectives

The Technical 2040 General Plan will serve as a long-term framework for future growth and development, represents the community's view of its future, and contains the goals and policies upon which the City Council, Planning Commission, and the entire community will base land use and resource decisions. The Technical 2040 General Plan will provide a contemporary plan that will guide American Canyon through the next 20 years. The primary objective of this project is to update the existing American Canyon General Plan in order for it to be compliant with State law.

The Technical 2040 General Plan would implement the vision of the existing General Plan. The City identifies the following three fundamental roles of the City:

1. The City should be home for a residential population, internally accommodating a sufficient range of uses to support the needs of residents (including a mix of housing types, commercial services, entertainment, employment, recreation, education, health, religious, cultural facilities, transportation services, and open space). At the present time, many of these uses are located outside the City, which necessitates extensive travel by residents to access these services.
2. The City should be a center of employment and commerce for regional, as well as local residents. This will provide an opportunity to capitalize upon (1) the cluster of uses which have developed in the Green Island Industrial Park; (2) the proximity of the City to the Napa County Airport and Southern Pacific railroad, and (3) the relationship of the City to the agricultural and vineyard industries of Napa County.
3. The City can capture visitors to the Napa Valley by providing uses which capitalize on the unique environmental setting of the foothills, river valleys, and agriculture. Environmental educational facilities, such as wetlands interpretative centers, overnight camping and recreational vehicle facilities, river recreational facilities such as boating, golf courses, and hotel/motels and restaurants are representative of the range of uses which may be considered.

2.6 Project Characteristics

2.6.1 2040 General Plan Update Organization

The elements included in the 2040 General Plan are further described below.

- **Land Use Element.** This element contains the development policies and standards that directly shape land use decisions and the resulting physical form of the City of American Canyon. These include density, lot coverage, and height policies. The Land Use Element serves as the primary means for ensuring that new land uses are logically organized and developed sustainably.
- **Mobility Element.** This element provides a framework for decisions concerning the City's multimodal transportation network. This element also incorporates Vehicle Miles Travelled policies consistent with Senate Bill 743 (SB 743) and updates street standards for all modes of transportation including transit, bicycles, and pedestrian.
- **Utilities.** This element focuses on the variety of public facilities, utilities, and infrastructure that are necessary to sustain existing households and businesses and to accommodate future population and employment growth.
- **Environment, Parks, and Recreation.** This element considers the effects of existing and planned development on natural resources, including biological resources, water resources, soil

resources, cultural and historic resources, and air quality and climate change. This element also guides the long-range preservation and conservation of open space, as well as the park and recreational facilities.

- **Safety Element.** This element addresses natural and urban safety hazards in American Canyon, including existing and potential hazards. This Element establishes policies and actions to mitigate identified hazards to protect City residents and visitors. This element also focuses on noise element requirements, consistent with Government Code Section 65302(f), including new existing noise contours as well as projected noise contours based on future traffic volumes projected to arise from improvements planned for in the Mobility Element.
- **Environmental Justice.** This element establishes goals, policies, and implementation programs related to environmental justice to ensure all the members of the American Canyon community (i.e., residents, workers, business owners, local organizations, and visitors) regardless of race, ethnicity, age, gender, religion, sexual orientation, disability, and socio-economic status feel valued, safe, respected, included, and secure.

The City has also prepared an updated Housing Element, which was made available for public review on September 27, 2022. The Housing Element identifies the City's Regional Housing Needs Allocation (RHNA) goal of 622 dwelling units and provides the City's action plan for the 6th Cycle Housing Element (2023 to 2031). The Housing Element was certified by the State Department of Housing and Community Development (HCD) on June 30, 2023. The Housing Element has undergone separate CEQA review and for that reason is not analyzed in this EIR.

In addition, the 2040 General Plan would include an Economic Development and Public Services and Facilities Element. However, these elements have not been updated and the current Economic Development and Public Services and Facilities Element in the current General Plan would still apply to the project. Pertinent policies that would reduce environmental impacts are identified in this EIR.

2.6.2 Land Use Designations

The land use map for the General Plan Update is provided in Figure 2-3. These land use designations define the basic categories of land uses allowed in the city but are implemented through the City's Zoning Ordinance and Zoning Map, which are part of the City's Municipal Code and contain more specific regulations and standards governing development on individual properties. The project would change some of the land use designations; however, these changes primarily resolve inconsistencies between existing uses and the General Plan land use designations. Figure 2-4 shows the changes in land use designations compared to the current General Plan.

2.6.3 Urban Limit Line Expansion

As a part of the project, the City would update the Urban Limit Line to include the Hess/Laird Property, as shown in Figure 2-5. The lands that would be added to the Urban Limit Line are within Napa County's jurisdiction and would need to be incorporated into the City with an annexation before any future development could occur in that area. Because these lands are not within the City's jurisdiction, the potential environmental impacts from future development in the Hess Laird Property will be addressed when the City pursues annexation of that area. The expansion of the Urban Limit Line is an administrative process that would not result in an environmental impacts and is not discussed further in this EIR.

Figure 2-3 2040 General Plan Land Use Designations

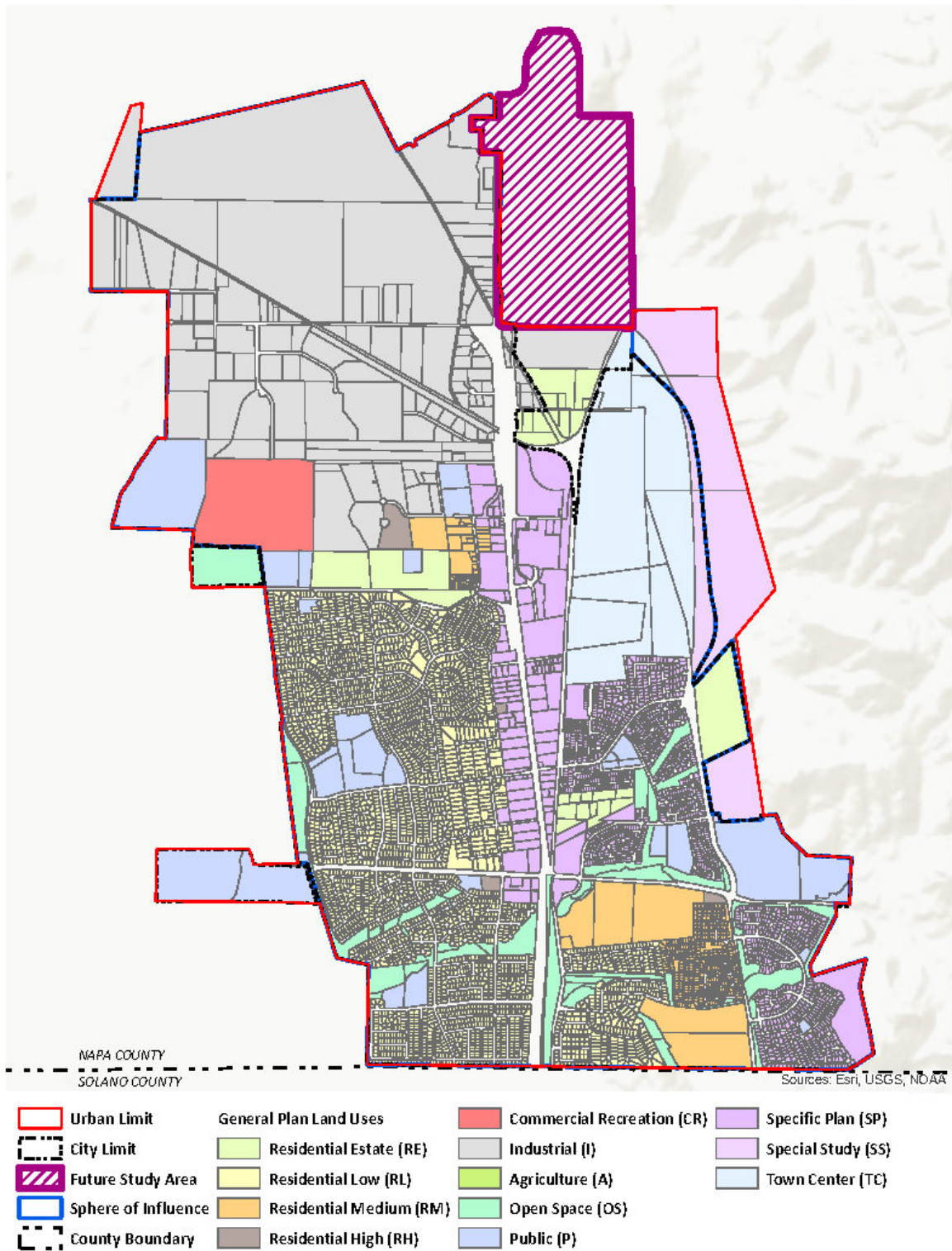
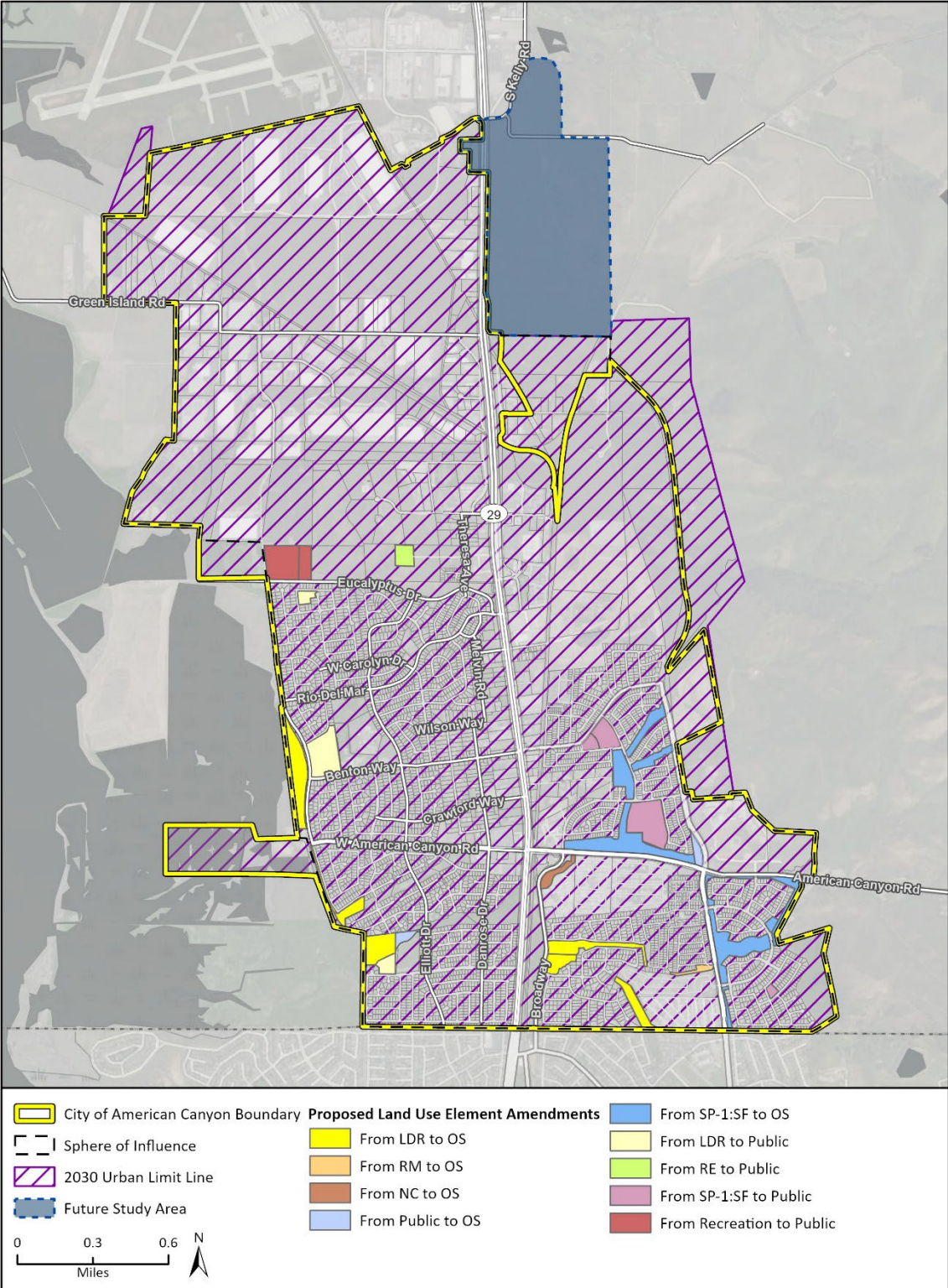


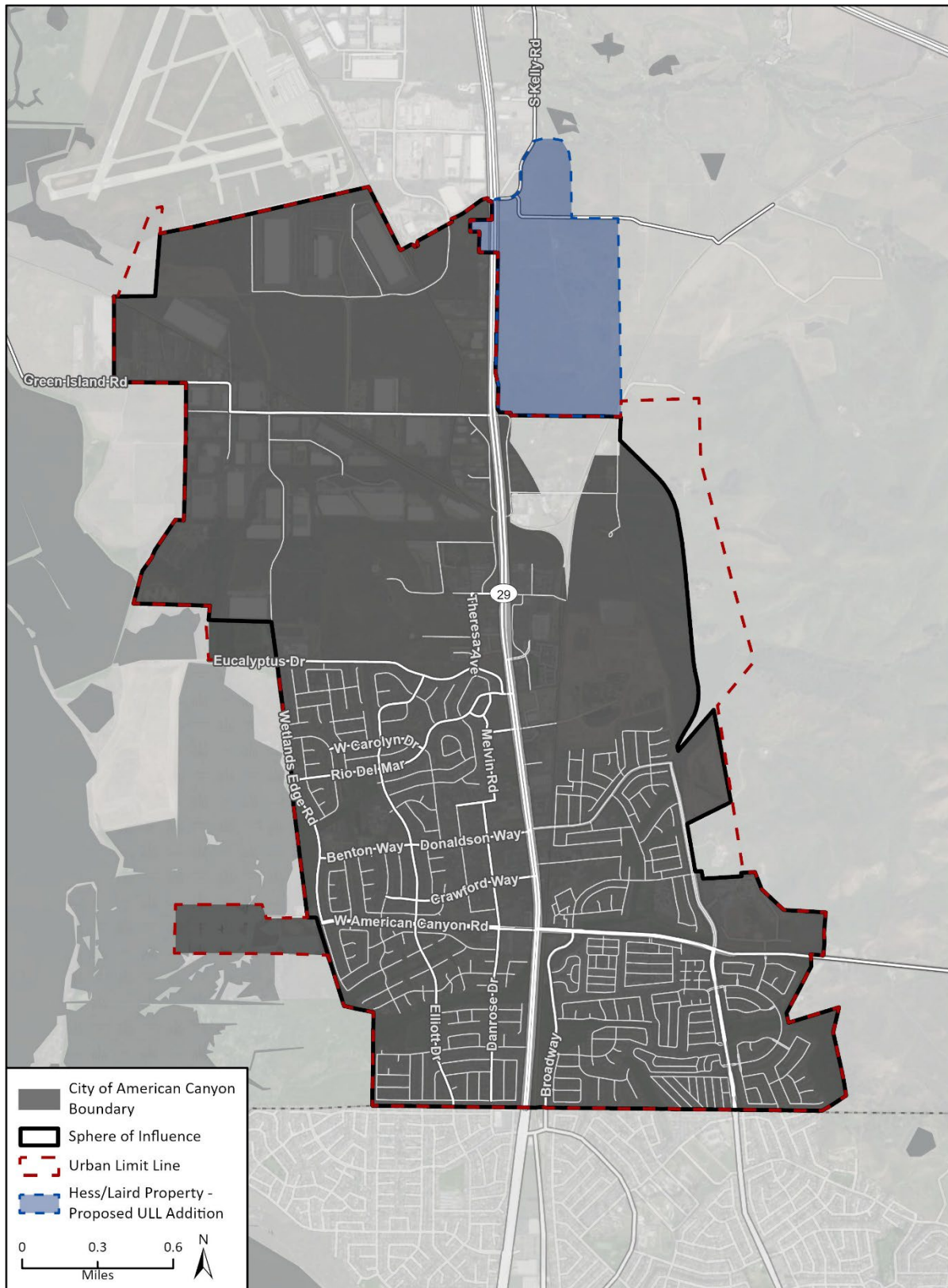
Figure 2-4 Proposed Land Use Element Amendments



Basemap provided by Microsoft Bing, Esri and their licensors © 2024.
Additional data provided by the City of American Canyon, 2022.

American Canyon GPU and EIR
Fig 3 Proposed Land Use Element Amendments

Figure 2-5 Proposed Urban Limit Line



2.6.4 Project Buildout

Compared to existing conditions, there could be additional buildout from implementation of the 2040 General Plan. The potential buildout associated with the project was estimated based on the City's Traffic Impact Fee (TIF) Nexus Study, as well as the known buildout of specific plans and already approved General Plan Amendments. Table 2-1 and Table 2-2 identifies the additional residential and non-residential buildout that could occur relative to existing conditions, respectively.

Overall, compared to existing conditions, the project could add a total of 3,379 additional residential units and approximately 5,704,000 square feet of commercial, retail, hotel, industrial, warehouse, and research and development (R&D) uses.

2.6.5 Mobility Updates

The 2040 General Plan includes a Mobility Element, which provides a vision and guiding principles for the transportation system. The Mobility Element identifies the following proposed major circulation improvements in American Canyon:

- The City is in partnership with the Napa Valley Transportation Authority to identify improvements to SR 29, including landscaping improvements, pedestrian improvements, and multimodal features.
- Newell Drive extension from Watson Ranch to Highway 29 at Green Island Road (2-Lane Major Collector Road and 4-Lane Arterial)
- Green Island Road reconstruction from a 2-lane Arterial to a 3-Lane Arterial
- West Side Connector (2-Lane Major Collector)
- Eucalyptus Drive extension from Theresa Avenue to Broadway (2-Lane Major Collector)
- Rio Del Mar or South Napa Junction Road, including new at-grade crossing from Broadway to Newell Drive (2-Lane Major Collector)
- Napa Junction Road from Theresa Avenue to Hess Road (2-Lane Minor Collector)
- Newell Drive Railroad Overcrossing
- American Canyon Road Pedestrian Crossing
- Donaldson Way Pedestrian Crossing
- Napa Junction Road Pedestrian Crossing

The new proposed roadways are shown in Figure 2-6.

Table 2-1 Residential Buildout Compared to Existing Conditions

Residential Type	Number of Dwelling Units					Total
	Pipeline Projects ^a	Remaining TIF Projects ^b	Broadway District Specific Plan ^c	Watson Ranch Specific Plan ^d	Oat Hill Residential General Plan Amendment ^e	
Single Family	41	197	0	1,061	0	1,299
Multi-family	186	36	1,200	192	291	1,905
Total	227	233	1,200	1,253	291	3,204

Notes:

- a. The City has identified the following pipeline projects that would be constructed in the future: Lemos Pointe, Canton Estates, West Carolyn Subdivision, and Rio Del Mat West Subdivisions (City of American Canyon 2022).
- b. The Remaining TIF Projects were calculated by subtracting the estimated buildout in the 2015 TIF with both the pipeline projects and the projects that were constructed between 2014 and 2021 (City of American Canyon 2015 and 2022a).
- c. The Broadway District Specific Plan was adopted in July 2019 and has undergone CEQA review (City of American Canyon 2020).
- d. The Watson Ranch Specific Plan was adopted in 2018 and has undergone CEQA review (City of American Canyon 2018).
- e. In September 2021, the Oat Hill Multi-Family Residential Project, which included a General Plan Amendment was approved. An Initial Study/Mitigated Negative Declaration was prepared for this Project (City of American Canyon 2021).

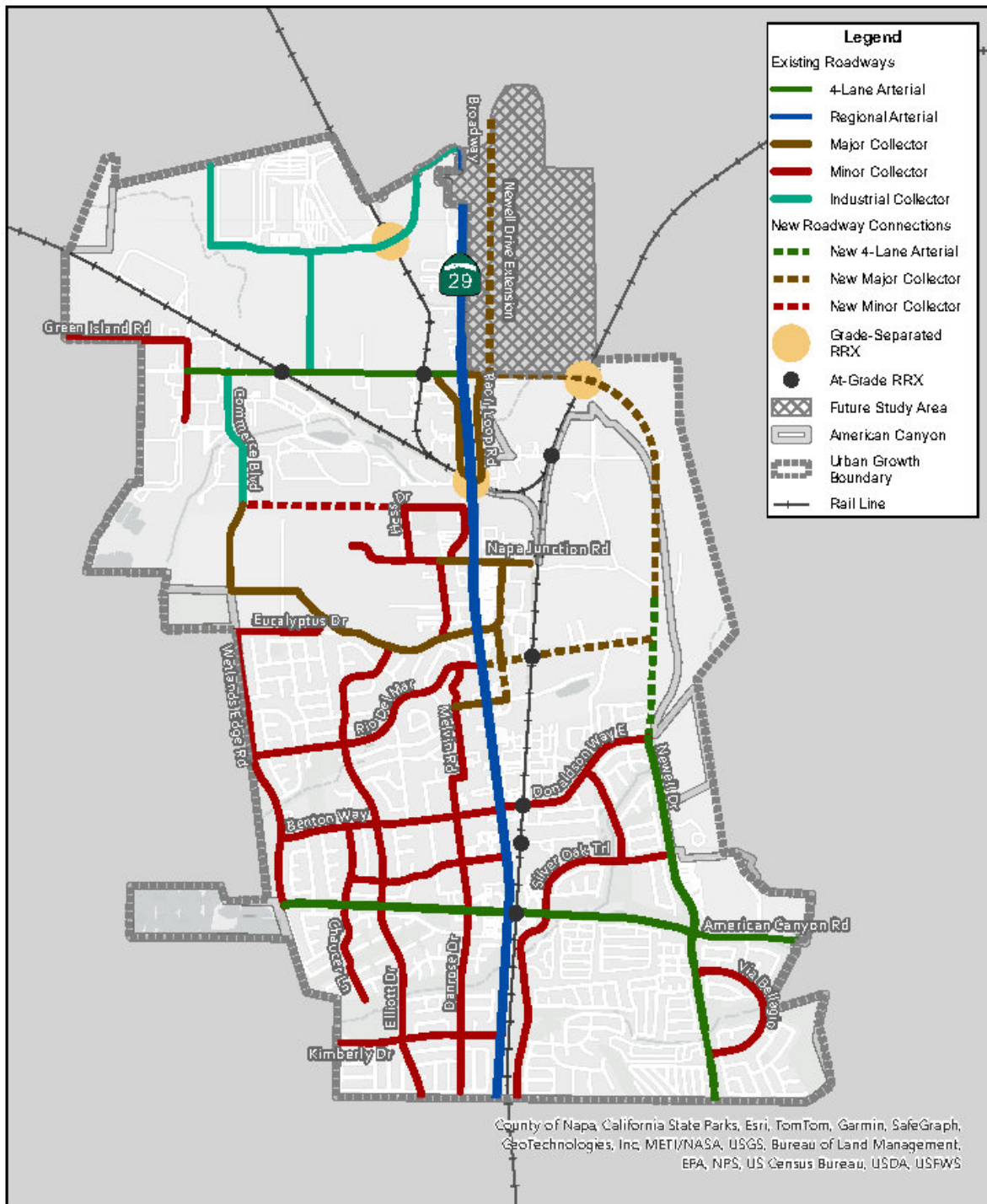
Table 2-2 Non-Residential Buildout Compared to Existing Conditions

Non-Residential Type	Area (in Million Square Feet)					Total
	Pipeline Projects ^a	Remaining TIF Projects ^b	Broadway District Specific Plan ^c	Watson Ranch Specific Plan ^d	Watson Lane Annexation ^e	
Office	0	65	100	25	0	190
Commercial/Retail/Hotel	0	0	840	175	189	1,204
Industrial/Warehouse/R&D	3,118	0	0	0	1,192	4,310
Total	3,118	65	940	200	1,381	5,704

Notes:

- a. The City has identified the following pipeline projects that would be constructed in the future: Future Warehouse at 1055 Commerce Court, Napa Airport Commerce Center, Giovanni Logistics Center, SDG 217 Warehouse, and PGE Regional Center (City of American Canyon 2022).
- b. The Remaining TIF Projects were calculated by subtracting the estimated buildout in the 2015 TIF with both the pipeline projects and the projects that were constructed between 2014 and 2021 (City of American Canyon 2015 and 2022a).
- c. The Broadway District Specific Plan was adopted in July 2019 and has undergone CEQA review (City of American Canyon 2020).
- d. The Watson Ranch Specific Plan was adopted in 2018 and has undergone CEQA review (City of American Canyon 2018).
- e. The Watson Lane Annexation Project would annex an area within the City's SOI and allow for industrial and commercial development. The project is currently undergoing CEQA (City of American Canyon 2022b).

Figure 2-6 Proposed Roadway Connections



2.7 Intended Use of this EIR

This EIR provides a programmatic environmental review of implementing the City's 2040 General Plan Update. Subsequent activities falling under the City's 2040 General Plan Update will utilize this EIR to focus the environmental review of these consequent activities and to determine their effects. If a new project is proposed that is not anticipated by the 2040 General Plan Update, or may result in project-level environmental effects not addressed in this program-level EIR, the future project would be evaluated as required under CEQA. This EIR is not intended to prohibit consideration of future projects or CEQA analysis of future projects.

2.8 Project Implementation

Following adoption of project by the City Council, all subsequent activities and development within the City will be guided by the goals and policies in the Technical 2040 General Plan Update. It therefore provides specific policy guidance for implementation of plan concepts. The City will also need to work with Napa County and other public agencies to implement policies that affect their respective jurisdictions or would affect the region. Implementing these policies in accordance with new development (residential, commercial, or industrial) will be subject to the City's established review and approval processes, with final review and approval by the appropriate departmental staff, as well as the appointed and elected officials. The principal responsibilities that city officials and staff have for project implementation are briefly summarized below:

- Update the City of American Canyon Zoning Ordinance to achieve consistency with the adopted General Plan Update.
- Rezone properties, as dictated by future development proposals.
- Approve tentative maps, variances, conditional use permits, and other land use permits and entitlements.
- Approve development agreements and issuance of related permits and approvals consistent with the 2040 General Plan Update.
- Analyze and plan public infrastructure such as roadway improvements, other capital improvements, and natural/capital resource preservation and/or restoration.
- Conduct or consider further focused planning studies, as appropriate to future development in the city.

2.9 Required Approvals

With recommendations from the City's Planning Commission, the American Canyon City Council will need to take the following discretionary actions in conjunction with the project:

- Certify the Final EIR and adopt required findings, including required findings under CEQA Guidelines Sections 15090, 15091, and 15093.
- Approve and adopt the Technical 2040 General Plan Update.

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3 Environmental Setting

This section provides a general overview of the environmental setting for the project. More detailed descriptions of the environmental setting for each environmental issue area can be found in Section 4, *Environmental Impact Analysis*.

3.1 Setting

The City of American Canyon is located in southern Napa County, approximately 5 miles south of the City of Napa, 25 miles northeast of the city of San Francisco, and approximately 20 miles north of the City of Oakland. The city is located north of the San Francisco Bay and San Pablo Bay, east of Napa River and west of the Newell Open Space Preserve and Lynch Canyon Open Space Park. Broadly, the City of American Canyon is bordered by unincorporated Napa County and the Napa County Airport to the north, Sulphur Spring Mountains to the east, Solano County and the City of Vallejo to the south, and a salt marsh and wetland area including the Napa River to the west.

The City encompasses an area of approximately 6.1 square miles. In addition, the City has a sphere of influence (SOI), which represents those areas that may already receive City services and are a visual and logical expansion of the city boundaries. There is currently one area in the SOI that is not within City limits. The City is currently in the process of annexing that area as part of the Paoli/Watson Lane Annexation Project and is currently preparing an Environmental Impact Report (EIR) consistent with the California Environmental Quality Act (CEQA) (City of American Canyon 2022). Primary regional access to the city is provided by Interstate 80 (I-80), approximately 5 miles to the east of the city limits. State Route (SR) 29 provides north-south access while SR 12 and SR 37 provide east-west access to the city. The city is served by a surface street system ranging from multi-lane arterial roadways to narrow two-lane streets. Primary access to the project site is provided by SR 29, known locally as “Broadway.”

Land uses in the City include single and multi-family residential, commercial, industrial, and open space. The City plays an important role in the Napa Valley wine industry with continuous growth in wine logistics, wine making, storage and distribution. The City is also home to growing major food production industries and logistics distribution, such as Coca Cola, Barry Callebaut Chocolate, Mezzetta, Amazon, and the nation’s first IKEA E-Commerce Distribution Center.

The climate of the City of American Canyon is a warm-summer Mediterranean climate, characterized by dry, hot summers and moderately moist, cool winters. The average temperature for the year in the City is 56.4°F (13.6°C). The warmest month, on average, is August with an average temperature of 65.1°F (18.4°C). The coolest month on average is December, with an average temperature of 45.4°F (7.4°C) (Weatherbase 2022). Average annual precipitation in American Canyon is 17.4 inches. Generally, in an average or typical year, most precipitation is received from October through April (Weatherbase 2022).

3.2 EIR Baseline

Section 15125 of the California Environmental Quality Act (CEQA) Guidelines states that an Environmental Impact Report (EIR) “should include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is

published.” Section 15125 states that this approach “normally constitute[s] the baseline physical conditions by which a lead agency determines whether an impact is significant.” This EIR evaluates impacts against existing conditions, at the time the notice of preparation (NOP) was published, which was July 5, 2022. This EIR considers the potential impacts from buildout of the General Plan in 2040, compared to existing conditions.

3.3 Cumulative Development

CEQA defines cumulative impacts as two or more individual actions that, when considered together, are considerable or will compound other environmental impacts. Cumulative impacts are the changes in the environment that result from the incremental impact of development of the proposed project and other nearby projects. For example, traffic impacts of two nearby projects may be insignificant when analyzed separately but could have a significant impact when analyzed together. Cumulative impact analysis allows an EIR to provide a reasonable forecast of future environmental conditions and can more accurately gauge the effects of a series of projects.

Because the project is a general plan update, cumulative impacts are treated somewhat differently than would be the case for a project-specific development. CEQA Guidelines Section 15130 provides the following direction relative to cumulative impact analysis and states that the following elements are necessary for an adequate discussion of environmental impacts:

A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency.

By its nature, a general plan considers cumulative impacts insofar as it considers cumulative development that could occur within the Planning Area. For example, the transportation analysis considers the overall change in vehicle miles travelled (VMT) due to implementing several development projects that would add to the buildout associated with implementing the project. These cumulative VMT calculations are accounted for in the air quality, energy, greenhouse gas emissions, and noise analyses; therefore, these analyses would also be considered cumulative. Other impacts, such as geology and soils and cultural resources, are site specific and would not result in an overall cumulative impact from growth outside of the city. Therefore, the analysis of project impacts in this EIR also constitutes the cumulative analysis.

4 Environmental Impact Analysis

This section discusses the possible environmental effects of the project for the specific issue areas identified through the scoping process with potential to experience significant effects. A “significant effect” as defined by the California Environmental Quality Act (CEQA) Guidelines Section 15382:

means 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. A social or economic change related to a physical change 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, 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 the City and other agencies, universally recognized, or developed specifically for this analysis to determine whether potential effects are significant. 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 pursuant to CEQA Guidelines Section 15093.
- **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 CEQA Guidelines Section 15091.
- **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 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 (if required) and the residual effects or level of significance remaining after implementation of the measure(s). The Executive Summary of this EIR summarizes all impacts and mitigation measures that apply to the project.

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4.1 Aesthetics

This section summarizes the aesthetic resources in the Planning Area and analyzes the impacts on aesthetics, including impacts to scenic vistas, scenic resources, visual character, visual quality, and light and glare due to the project.

4.1.1 Setting

The Planning Area is situated in the central portion of the Coast Mountain Ranges in the southeastern portion of Napa County, between the east bank of the Napa River and the Sulfur Springs Mountains foothills. The primary arterial roadway in the City is State Route (SR) 29, which bisects the City from north to south and serves as the primary commercial corridor. Residential uses are generally located in the southern portion of the City, with commercial and industrial uses located in the northern portion near the Napa County Airport. American Canyon is characterized by its low-rise, rural suburban appearance, with most development having occurred within the last 40 years. The City is characterized by a variety of visual resources, both natural and constructed, including the rolling foothills to the east, riparian corridors, Oat Hill, Napa River, and the Basalt Plant. Visual resources in American Canyon are shown in Figure 4.1-1 through Figure 4.1-6. These figures show views of American Canyon Creek (Figure 4.1-1), the Basalt Plant site (Figure 4.1-2), the foothills to the east of American Canyon (Figure 4.1-3), an overview of American Canyon (Figure 4.1-4), a view of Oat Hill (Figure 4.1-5), and a view of the Napa River and wetlands to the west of American Canyon (Figure 4.1-6).

a. Scenic Resources

Most communities identify scenic resources that contribute to community identity. Scenic resources can be natural or constructed features such as trees, rock formations, historic buildings, and public art. The eastern foothills contribute to the City's visual image as they provide a transition between the higher mountain ranges to the east and the low land or floodplains to the west. The foothills also contribute to the rural quality of the community and serve as a backdrop to the City's existing development, which is viewed by its residents and vehicles traveling on State Route (SR) 29. Active vineyards located on portions of the foothills provide a linkage with the Napa Valley (City of American Canyon 1994a).

Oat Hill is located in the western portion of the City between developed land and the Napa River. The hill is a visual landmark that provides direction and orientation to many residents in the community, particularly those living in residential neighborhoods within proximity to the hill (City of American Canyon 1994a).

Although most of the city's visual resources are natural, the Napa Valley Ruins & Gardens is an exception. The Basalt Rock Company started a rock quarrying facility and operations near the Napa River in 1941. Following World War II, the plant built almost 30 miles of pipeline in Napa County. This facility is now the focus of the Watson Ranch Specific Plan neighborhood. Architectural features of the Napa Valley Ruins & Gardens are planned to be incorporated into the design of the Watson Ranch Specific Plan neighborhood.

Figure 4.1-1 View of American Canyon Creek, Facing East



Figure 4.1-2 View of Distant Basalt Plant Site, Facing Northeast



Figure 4.1-3 View of Foothills East of Newell Drive, Facing East



Figure 4.1-4 View of American Canyon from Napa Junction Road, Facing Southeast



Figure 4.1-5 View of Oat Hill from Napa Junction Road, Facing South



Figure 4.1-6 View of the Napa River and Wetlands from Wetlands Edge Road, Facing Northwest



Scenic Vistas and Views

A scenic vista provides views of an aesthetically valued landscape that benefits the public. The term “vista” generally implies an expansive view, usually from an elevated point or open area. This designation may be officially designated or unofficially defined by a set of criteria. American Canyon contains a number of streams and creeks, including American Canyon Creek, that provide the area with riparian habitats and vegetation and are considered scenic views. American Canyon Creek runs through the central portion of the City from the higher elevations of the Sulphur Spring Mountains to the Napa River. Development has altered the creek’s natural stream course and ability to be viewed in some locations in American Canyon (City of American Canyon 1994a).

Although the Napa River flows outside City limits, the river serves as the primary western edge for American Canyon. In addition to the river’s role as a key boundary, the river itself is another visual resource that enhances the overall beauty of the area. Napa River is clearly visible from the City’s higher elevations, including atop Oat Hill, the eastern foothills, and neighborhoods immediately east of the Napa River (City of American Canyon 1994a).

Scenic Roadways

California’s Scenic Highway Program designates scenic highways with the intention of protecting these corridors from change that would diminish the aesthetic value of adjacent lands. A highway is designated as an eligible scenic highway when the California Department of Transportation (Caltrans) determines that the roadway corridor qualifies for official status. The status of an officially designated scenic highway changes when the local governing body applies to Caltrans for scenic highway approval, adopts a Corridor Protection Program, and receives notification that the highway has been officially designated (Caltrans 2022). Scenic highways must have an approved Corridor Protection Program and remain in compliance to maintain scenic highway status. According to the Caltrans State Scenic Highway Map and list of eligible and officially designated State Scenic Highways, SR 29 is eligible for designation as a State Scenic Highway but is not officially designated as such (Caltrans 2018).

b. Visual Character

The City is in a transitional area between the Sulphur Springs Mountains and the Napa River. A high-quality visual image and environmental character distinguish the area from other cities in the northern San Francisco Bay region. These visual and physical qualities provide a contrast from the urbanized areas to the south (City of American Canyon 1994b). Residential uses are generally located in the southern portion of American Canyon, with commercial and industrial uses located in the northern portion near the Napa County Airport.

c. Light and Glare Conditions

Light and glare from indoor or outdoor uses can reduce visibility of the night sky, create potential hazards to drivers, and be a nuisance to residential areas. The City has typical light conditions found in suburban areas (e.g., roadway lighting, commercial parking lot and building lighting, residential buildings, headlights from motor vehicles). Sources of daytime glare include direct beam sunlight and reflections from windows, architectural coatings, glass, and other shiny reflective surfaces. Nighttime lighting and glare are produced by both stationary and mobile sources. Stationary sources of nighttime light include structure illumination, decorative landscape lighting, lighted signs, and streetlights. The primary source of mobile nighttime light is motor vehicle headlights. Sources of

light and glare in the residential areas include street lighting along roadways, lit building exteriors and signage, and parking lot lighting.

4.1.2 Regulatory Setting

a. Federal Regulations

No existing federal regulations pertain to the aesthetic resources in the City.

b. State Regulations

California Scenic Highways Program

The California Scenic Highway Program, established in 1963, identifies and designates certain highways throughout the State which require special conservation treatment in relation to surrounding land use development. Caltrans manages the State Scenic Highway Program and defines a scenic highway as any freeway, highway, road, or other public right-of-way, that traverses an area of exceptional scenic quality. Suitability for designations as a State scenic highway is based on the vividness, intactness, and unity of their view corridors, as described in Caltrans' Scenic Highway Guidelines (Caltrans 2008):

- *Vividness* is the extent to which the landscape is memorable. This is associated with the distinctiveness, diversity, and contrast of visual elements. A vivid landscape makes an immediate and lasting impression on the viewer.
- *Intactness* is the integrity of visual order in the landscape and the extent to which the natural landscape is free from visual intrusions (e.g., buildings, structures, equipment, grading).
- *Unity* is the extent to which development is sensitive to and visually harmonious with the natural landscape.

California Code of Regulations, Title 24

Title 24 of the California Code of Regulations (CCR), also known as the California Building Standards Code, consists of regulations to control building standards throughout the State. The California Electrical Code (Title 24, Part 3) and Green Building Standards Code (also referred to as the CALGreen Code; Title 24, Part 11) stipulate minimum light intensities for safety and security at pedestrian pathways, circulation ways, and paths of egress.

- The CALGreen Code (24 CCR, Part 11, Paragraph 5.106.8, *Light Pollution Reduction*) provides that all nonresidential outdoor lighting must comply with the following:
 - The minimum requirements in the California Energy Code (CEC) for Lighting Zones 0 to 4 as defined in Chapter 10 of the California Administrative Code;
 - Backlight ratings as defined in the Illuminating Engineering Society's Technical Memorandum on Luminaire Classification Systems for Outdoor Luminaires (IES TM-15-11);
 - Uplight and Glare ratings as defined in the CEC; and
 - Allowable backlight, uplight, and glare ratings not exceeding those shown in Table 5.106.8 in Section 5.106.8 of the CALGreen Code, or a local ordinance lawfully enacted pursuant to Section 101.7 of the CALGreen Code, whichever is more stringent.

The 2022 updates to the CALGreen Code went into effect on January 1, 2023. They require nonresidential buildings to maximize light emitting diode (LED) technology in indoor and outdoor lighting plans.

c. Local Regulations

American Canyon Municipal Code – Title 19 (Zoning)

The Zoning Code (Title 19) of the American Canyon Municipal Code implements the General Plan, particularly the Land Use Element. While General Plan designations are more generalized in nature, the Zoning Code and zoning districts provide specific controls on land use, density or intensity of development, and development standards to implement the City's General Plan goals and policies. The Zoning Code provides standards for protection of visual resources, compatible design, and illumination for new development in the City that is associated with zoning. Zoning Code Title 19 establishes standards for development within the City. Zoning Code Chapter 19.23 provides a list of prohibited signage in the City. The California Building Code, which includes lighting requirements, has been adopted in Chapter 16.02 of the Municipal Code (City of American Canyon 2022).

4.1.3 Impact Analysis

a. Significance Thresholds and Methodology

CEQA Significance Criteria

Based on Appendix G of the CEQA Guidelines a project may be deemed to have a significant impact on aesthetics if it would:

1. Have a substantial adverse effect on a scenic vista;
2. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
3. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality; or
4. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area.

Methodology

Aesthetics impact assessments involve qualitative analysis that is subjective but informed by the City policies detailed above. Reactions to the same aesthetic conditions vary according to viewer taste and interests but are basically governed by the visual compatibility with the surroundings and existing development, coherence with design guidelines established by the jurisdiction, and use of high-quality materials that blend into the landscape. Ultimately, development decisions that prescribe aesthetic or design treatments for specific projects fall under the purview of the American Canyon Planning Commission and appointed or elected bodies charged with overseeing development permits. As a programmatic document, this EIR presents a City-wide assessment of the project. Because the EIR is a long-term document intended to guide actions for many years into the future, this analysis relies on program-level and qualitative evaluation.

Threshold 1: Would the project have a substantial adverse effect on a scenic vista?
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Impact AES-1 THE PROJECT WOULD NOT HAVE A SUBSTANTIAL ADVERSE EFFECT ON A SCENIC VISTA, INCLUDING VIEWS OF HILLS, AND IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The City has no designated scenic vistas or scenic viewpoints; however, views of the hills and ridgelines surrounding the City, including the Sulphur Springs foothills to the east and Oat Hill to the west, are generally considered important visual resources. Views from SR 29 provide motorists with expansive, although fleeting, views of these hills. In addition, expansive scenic views of the City and surrounding natural areas are provided from the Newell Open Space Preserve. Views from the Newell Open Space Preserve include the City, the Napa Wetlands, the Napa River, and Oat Hill. Wetlands Edge Road provides unobstructed views of the wetlands and Napa River to the west.

Future mobility improvements facilitated by the project, including improvements to roadways, and bicycle and pedestrian facilities, would not substantially obstruct views of a scenic vista. Mobility improvements such as installation of a roundabout, repaving of roads, or other improvements to bicycle lanes or pedestrian intersections are not large-scale developments which have the potential to substantially obstruct views of important visual resources in the City. In addition, mobility improvements could offer new opportunities for the public to view scenic areas. Accordingly, mobility improvements facilitated by the project would not have a substantial adverse effect on a scenic vista.

In addition, the 2040 General Plan Update would implement the following proposed policies to minimize impacts to scenic vistas:

- **Policy ENV-9.3: Identify Scenic Vistas.** Identify notable viewsheds and public views from which scenic vistas can be observed.
- **Policy ENV-9.4: Visual Design.** Require massing, height, and orientation of new development where allowable by the zoning standards adjacent to viewsheds and public views be evaluated and be sited and designed to minimize additional obstructions of public views to and along scenic areas.

Implementation of the proposed policies ENV-9.3 and ENV-9.4 would require the City's Community Development Department to create and periodically update an inventory of scenic resources important to the City; identify and map valuable scenic views; and update the City's development and design standards to protect scenic resources and viewsheds by requiring massing, height, and orientation of new development adjacent to viewsheds and public views be designed to minimize additional obstructions of public views and along scenic areas. Future development would be required to comply with the City's updated development and design standards created in accordance with proposed policies ENV-9.3 and ENV-9.4. As a result, project-specific development would be designed to minimize obstruction to scenic vistas. Therefore, the project would not have a substantial adverse effect on a scenic vista. This impact would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 2: Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Impact AES-2 THE CITY OF AMERICAN CANYON DOES NOT HAVE A DESIGNATED STATE SCENIC HIGHWAY AND THE PROJECT WOULD NOT DAMAGE SCENIC RESOURCES WITHIN A STATE SCENIC HIGHWAY. NO IMPACT WOULD OCCUR.

There are no designated state scenic highways within or directly adjacent to the Planning Area (Caltrans 2018). Because there are no state scenic highways in the Planning Area, there would be no impacts related to scenic resources within a state scenic highway.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

There would be no impact.

Threshold 3: Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Impact AES-3 THE PROJECT WOULD IMPLEMENT POLICIES THAT WOULD REQUIRE DEVELOPMENT OF OBJECTIVE DESIGN STANDARDS FOR FUTURE DEVELOPMENT. THE PROJECT WOULD NOT CONFLICT WITH APPLICABLE ZONING AND OTHER REGULATIONS GOVERNING SCENIC QUALITY AND THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

CEQA Guidelines Section 21071 defines an urbanized area as an incorporated city that meets either of the following criteria:

- Has a population of at least 100,000 persons; or
- Has a population of less than 100,000 persons if the population of that city and not more than two contiguous incorporated cities combined equals at least 100,000 persons.

The City does not meet the first criteria but does meet the second criteria (California Department of Finance 2022)¹. Therefore, this analysis considers whether the project conflicts with applicable zoning and other regulations governing scenic quality. The 2040 General Plan Update would implement the following proposed policies, which would minimize impacts on scenic quality from future development:

- **Policy LU-2.3: Objective Design Standards.** Establish objective design standards that convey a high level of quality and character in new residential development.

¹ The City of American Canyon has a population of approximately 21,758 persons. The City of Vallejo is an incorporated city which is contiguous to the City of American Canyon and has a population of approximately 121,558 persons. The combined population of both cities exceeds 100,000 persons.

- **Policy LU-2.4: Nonresidential Structures in Residential Neighborhoods.** Require nonresidential structures in new development (e.g., recreation facilities, community meeting rooms and auditoriums, neighborhood commercial, services, and religious facilities) be designed to be compatible with and convey the visual and physical scale and character of residential structures.
- **Policy LU-3.2: Unique Viewsheds.** Accommodate commercial uses on Oat Hill that capitalize on the unique views of the Napa River, San Francisco Bay, and Napa Valley, site topography, and other natural characteristics.
- **Policy LU-5.2: Industrial Development Unified Character.** Require new industrial development be designed to convey a unified character by inclusion of pedestrian walkways, arcades, an/or other visual elements to interconnect individual buildings; differentiation of building facades by materials, color, architectural details, and modulation of building volumes; use of consistent and well-designed public and informational signage; and installation of elements that define the key entries to the industrial district.
- **Policy LU-8.2: Objective Design and Development Standards.** Require new development to comply with the City's objective design and development standards to maintain long-term, high-quality development.
- **Policy ENV-9.4: Visual Design.** Require massing, height, and orientation of new development where allowable by the zoning standards adjacent to viewsheds and public views be evaluated and be sited and designed to minimize additional obstructions of public views to and along scenic areas.

Proposed policy LU-2.3 and policy LU-8.2 would require all new development to comply with objective design standards prepared by the City's Community Development Department. Proposed policy LU-2.4 would require nonresidential structures be designed to be visually compatible with the surrounding character of residential structures. Proposed policy LU-3.2 would require commercial development to be sited and designed to emphasize the visual characteristics of its setting. Proposed policy LU-5.2 would require industrial development to be designed to convey a unified character with surrounding development through implementation of visual elements to interconnect individual buildings. Furthermore, proposed policy ENV-9.4 would require massing, height, and orientation of new development adjacent to viewsheds and public views be evaluated and be sited and designed to minimize additional obstructions of public views to and along scenic areas.

All future development facilitated by the project would be required to adhere to the proposed policies within the 2040 General Plan Update and the City's objective design standards, which would be developed as required by the 2040 General Plan Update. As such, future development facilitated by the project would not conflict with applicable zoning or other regulations governing scenic quality. Therefore, this impact would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 4: Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Impact AES-4 CONSTRUCTION AND OPERATION OF FUTURE DEVELOPMENT FACILITATED BY THE PROJECT COULD CREATE NEW SOURCES OF LIGHT OR GLARE THAT COULD ADVERSELY AFFECT THE VISUAL ENVIRONMENT. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

The City of American Canyon is a built out city with existing sources of light and glare. Future development facilitated by the project would introduce new sources of light or glare to American Canyon. New sources of light (security lighting, parking lot lighting, ornamental lighting, pedestrian scale lights, lighting from ground floor storefronts, and signs) would increase overall lighting levels in areas where increased development would occur.

Construction of future development would largely be limited to between 7:00a.m. and 7:00p.m., consistent with the City's Noise Ordinance, codified as Chapter 8.12 in the American Canyon Municipal Code. However, temporary construction lighting may be necessary for specific developments during the early morning or evening hours for safety and security reasons, and could be approved by the City upon applicant request. The introduction of temporary construction lighting could potentially result in new sources of substantial light or glare that could adversely affect nighttime views. This lighting could be bright, which would be a potentially significant impact. Implementation of Mitigation Measure AES-1 would require construction lighting to be minimized and downward-facing.

The City is characterized by existing residential, commercial, and other land uses that already generate high ambient levels of lighting. Nonetheless, a potentially significant lighting impact could occur if lighting on future development is not properly installed to minimize light spillage. Future development facilitated by the project would adhere to the CALGreen Code Section 5.106.8 which stipulates new lighting must conform to standards that keep light generated on-site from leaving the site through the use of reflectors, shields, screen walls, and any other method which complies with the CALGreen Code's intent to limit light pollution. Furthermore, future development facilitated by the project would adhere to existing American Canyon Municipal Code standards. Section 19.14.040 prohibits bright or flashing lights to be visible off-site in industrial zones. Section 19.11.060 requires parking illumination in commercial districts, including security lighting, to be arranged to reflect from adjoining properties and rights-of-way. Furthermore, the 2040 General Plan includes the following policies that would minimize lighting impacts:

- **Policy LU-3.3: Unwanted Glare.** Prevent glare with commercial lighting designed to illuminate within the property line in accordance with safety standards.
- **Policy LU-5.4: Industrial Operations.** Require, where industrial uses are located adjacent to residential neighborhoods, that their operations be controlled to prevent adverse impacts on adjacent property (e.g., noise, light and glare, and odors) and appropriate measures implemented to buffer these uses (e.g., setbacks, landscaping, and earthen berms).

Furthermore, implementation of Mitigation Measure AES-2 would require the submittal of a photometric plan for future development to ensure that all exterior light fixtures are directed downward or employ full cut-off fixtures to minimize light spillage. Implementation of this mitigation, as well as the requirements in the Municipal Code and policies in the 2040 General Plan would minimize potentially significant light and glare impacts.

Mitigation Measures

AES-1 Construction Lighting Plan

Prior to nighttime construction, if needed for a particular project, project applicants shall submit a construction lighting plan to the City for review and approval. The construction lighting plan shall ensure that the minimum amount of lighting is used to meet safety requirements and ensure no spillover occurs to nearby sensitive uses. All lighting shall be directed downward and away from surrounding land uses.

AES-2 Operational Lighting Plan

Prior to discretionary project approval, the project applicant shall prepare and submit a photometric plan to the City for review and approval which demonstrates that all exterior light fixtures will be directed downward or employ full cut-off fixtures to prevent light spillage. The approved plan shall be incorporated into project design plans.

Significance After Mitigation

Implementation of Mitigation Measure AES-1 would require a construction lighting plan for projects that would require nighttime construction and Mitigation Measure AES-2 would require the preparation of a photometric plan. Implementation of Mitigation Measures AES-1 and AES-2 would ensure that lighting and glare is minimized during construction and operation of future development. With implementation of Mitigation Measures AES-1 and AES-2, impacts would be less than significant.

4.2 Air Quality

This section analyzes the potential effects on air quality related to implementation of the project, including impacts due to construction, operations, and impacts to nearby sensitive receptors.

4.2.1 Setting

a. Climate and Topography

Air quality is affected by the rate and location of pollutant emissions and by climatic conditions that influence the movement and dispersion of pollutants. Atmospheric conditions, such as wind speed, wind direction, and air temperature gradients, along with local and regional topography, influence the relationship between air pollutant emissions and air quality.

The Planning Area is in the San Francisco Bay Area Air Basin (SFBAAB), which is comprised of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, southwestern Solano, and southern Sonoma Counties. SFBAAB covers approximately 5,540 square miles of complex terrain, consisting of coastal mountain ranges, inland valleys, and the San Francisco Bay. The SFBAAB is generally bounded on the west by the Pacific Ocean, on the north by the Coast Ranges, and on the east and south by the Diablo Range.

The climate within the SFBAAB is dominated by a strong, semi-permanent, subtropical high-pressure cell over the northeastern Pacific Ocean. Climate is also affected by the adjacent oceanic heat reservoir's moderating effects. Mild summers and winters, moderate rainfall and humidity, and daytime onshore breezes characterize regional climatic conditions in the San Francisco Bay Area (Bay Area). In summer, when the high-pressure cell is strongest and farthest north, fog forms in the morning and temperatures are mild. In winter, when the high-pressure cell is weakest and farthest south, occasional rainstorms occur.

Winter daytime temperatures in the SFBAAB typically average in the mid-50s, with nighttime temperatures averaging in the low 40s. Summer daytime temperatures typically average in the 70s, with nighttime temperatures averaging in the 50s. Precipitation varies in the region, but in general, annual rainfall is lowest in the coastal plain and inland valley, higher in the foothills, and highest in the mountains.

b. Air Pollutants of Primary Concern

Criteria air pollutants are defined as those pollutants for which the federal and state governments have established air quality standards for outdoor or ambient concentrations to protect public health with a determined margin of safety. Ozone (O₃) is generally considered to be regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as carbon monoxide (CO), nitrogen dioxide (NO₂), and sulfur dioxide (SO₂) are considered local pollutants because they tend to accumulate in the air locally. Coarse particulate matter (PM₁₀) and fine particulate matter (PM_{2.5}) are considered both regional and local pollutants.

Ozone

O₃ is a highly oxidative unstable gas, produced by a photochemical reaction (triggered by sunlight) between NO_x and reactive organic gas (ROG)/volatile organic compounds (VOC).¹ ROG 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 NO₂. NO_x is formed during the combustion of fuels, while ROG are formed during combustion and evaporation of organic solvents. As a highly reactive molecule, O₃ readily combines with many different components of the atmosphere. Consequently, high levels of O₃ tend to exist only while high ROG and NO_x levels are present to sustain the O₃ formation process. Once the precursors have been depleted, O₃ levels rapidly decline. Because these reactions occur on a regional rather than local scale, O₃ is considered a regional pollutant. Groups most sensitive to O₃ include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors (United States Environmental Protection Agency [USEPA] 2022a). Depending on the level of exposure, O₃ can result in the following:

- Cause coughing and sore or scratchy throat;
- Make it more difficult to breathe deeply and vigorously and cause pain when taking a deep breath;
- Inflame and damage the airways;
- Make the lungs more susceptible to infection;
- Aggravate lung diseases such as asthma, emphysema, and chronic bronchitis; and/or
- Increase the frequency of asthma attacks.

Carbon Monoxide

CO 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. When CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease. People with heart disease have restricted blood flow which results in a lack of oxygen to the heart muscle. These people are especially vulnerable to the effects of CO when exercising or under increased stress, when the heart needs more oxygen than usual. In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart accompanied by chest pain also known as angina (USEPA 2022b).

Nitrogen Dioxide

NO₂ is a by-product of fuel combustion; the primary sources are motor vehicles and industrial boilers and furnaces. The principal form of NO_x produced by combustion is nitric oxide, but nitric oxide reacts rapidly to form NO₂, creating the mixture of nitric oxide and NO₂, commonly called NO_x. NO₂ is a reactive, oxidizing gas and an acute irritant capable of damaging cell linings in the respiratory tract. Such exposures over short periods can aggravate respiratory diseases, particularly

¹ The California Air Resources Board defines VOC and ROG 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, ROG and VOC are considered comparable in terms of mass emissions, and the term ROG is used in this environmental impact report.

asthma, leading to respiratory symptoms (such as coughing, wheezing, or difficulty breathing), and increase hospital admissions and visits to emergency rooms. Longer exposures to elevated concentrations of NO₂ may contribute to the development of asthma and potentially increase susceptibility to respiratory infections. People with asthma, as well as children and the elderly are generally at greater risk for the health effects of NO₂ (USEPA 2022c). NO₂ absorbs blue light and causes a reddish-brown cast to the atmosphere and reduced visibility. It can also contribute to the formation of O₃/smog and acid rain.

Sulfur Dioxide

SO₂ is included in a group of highly reactive gases known as “oxides of sulfur.” The largest sources of SO₂ emissions are from fossil fuel combustion at power plants (73 percent) and other industrial facilities (20 percent). Smaller sources of SO₂ emissions include industrial processes such as extracting metal from ore and burning fuels with a high sulfur content by locomotives, large ships, and off-road equipment. Short-term exposures to SO₂ can harm the human respiratory system and make breathing difficult. People with asthma, particularly children, are sensitive to these effects of SO₂ (USEPA 2022d).

Particulate Matter

Suspended atmospheric PM₁₀ and PM_{2.5} is comprised of finely divided solids and liquids such as dust, soot, aerosols, fumes, and mists. Both PM₁₀ and PM_{2.5} 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 PM_{2.5} can be very different. PM₁₀ is generally associated with dust mobilized by wind and vehicles while PM_{2.5} is generally associated with combustion processes as well as formation in the atmosphere as a secondary pollutant through chemical reactions. PM₁₀ can cause increased respiratory disease, lung damage, cancer, premature death, reduced visibility, surface soiling. For PM_{2.5}, short-term exposures (up to 24-hours duration) have been associated with respiratory issues such as acute bronchitis and asthma attacks. In addition, PM_{2.5} can cause premature mortality, increased hospital admissions for heart or lung issues, and restricted activity days. These adverse health effects have been reported primarily in infants, children, and older adults with preexisting heart or lung diseases (California Air Resources Board [CARB] 2022a).

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 PM_{2.5}. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs (CARB 2022b).

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.

TACs include both organic and inorganic chemical substances. While DPM is a main source, TACs 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. People exposed to toxic air pollutants at sufficient concentrations and durations may have an increased chance of developing cancer or experiencing other serious health effects. These health effects can include damage to the immune system, as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory, and other health problems (USEPA 2020).

c. Air Quality Standards and Attainment

The federal and state governments have authority under the federal and state Clean Air Acts (CAA) to regulate emissions of airborne pollutants and have established ambient air quality standards (AAQS) for the protection of public health. An air quality standard is defined as “the maximum amount of a pollutant averaged over a specified period of time that can be present in outdoor air without harming public health” (CARB 2019a). The USEPA is the federal agency designated to administer air quality regulation, while CARB is the state equivalent in California. Federal and state AAQS have been established for six criteria pollutants: O₃, CO, NO₂, SO₂, PM₁₀, PM_{2.5}, and lead. AAQS are designed to protect those segments of the public most susceptible to respiratory distress, such as children under the age of 14, the elderly (over the age of 65), persons engaged in strenuous work or exercise, and people with cardiovascular and chronic respiratory diseases (USEPA 2016). In addition to the federal criteria pollutants, the California Ambient Air Quality Standards (CAAQS) also specify standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride (CARB 2019b). Table 4.2-1 lists the current National Ambient Air Quality Standards (NAAQS) as well as the CAAQS for regulated pollutants.

USEPA and CARB designate air basins or portions of air basins and counties as being in “attainment” or “nonattainment” for each of the criteria pollutants. Areas that do not meet the AAQS standards are classified as nonattainment areas. The NAAQS (other than O₃, PM₁₀, PM_{2.5}, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. The NAAQS for O₃, PM₁₀, and PM_{2.5} are based on statistical calculations over one- to three-year periods, depending on the pollutant. The CAAQS are not to be exceeded during a three-year period. The attainment status for Napa County is included in Table 4.2-2.

Pursuant to the CAA, USEPA designates areas as attainment, nonattainment, or maintenance for each criteria pollutant based on whether the NAAQS have been achieved. Whether an area meets the state and federal standards is based on air quality monitoring data. Areas that are unclassified have insufficient monitoring data for a specific pollutant to determine attainment or nonattainment status, although unclassified areas are typically treated as attainment for a specific pollutant. Since attainment and nonattainment designation is pollutant-specific, an area may be classified as nonattainment for one pollutant and attainment for another. Similarly, because the state and federal standards differ, an area could be classified as attainment for the federal standards of a pollutant and as nonattainment for the state standards of the same pollutant. The region is designated as a nonattainment area for the federal and state Ozone standards and the State PM₁₀ and PM_{2.5} standards. The region is designated unclassified or attainment for all other ambient air quality standards (BAAQMD 2017a).

Table 4.2-1 Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	NAAQS	CAAQS
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	0.030 ppm
	1-Hour	0.100 ppm	0.18 ppm
Sulfur Dioxide	Annual	–	–
	24-Hour	–	0.04 ppm
	1-Hour	0.075 ppm	0.25 ppm
PM ₁₀	Annual	–	20 µg/m ³
	24-Hour	150 µg/m ³	50 µg/m ³
PM _{2.5}	Annual	12 µg/m ³	12 µg/m ³
	24-Hour	35 µg/m ³	–
Lead	30-Day Average	–	1.5 µg/m ³
	3-Month Average	0.15 µg/m ³	–

NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; ppm = parts per million; µg/m³ = micrograms per cubic meter

Source: CARB 2016; USEPA 2016

Table 4.2-2 Attainment Status of Criteria Pollutants in Napa County

Pollutant	State Designation	Federal Designation
O ₃	Nonattainment	Nonattainment
PM ₁₀	Nonattainment	Unclassified
PM _{2.5}	Nonattainment	Unclassified/Attainment
CO	Attainment	Attainment
NO ₂	Attainment	Unclassified/Attainment
SO ₂	Attainment	Attainment

Sources: BAAQMD 2017a

d. Current Ambient Air Quality

The Planning Area is located in Napa County, which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). BAAQMD is responsible for achieving and maintaining the state and federal AAQS within its jurisdiction. BAAQMD operates a network of air quality monitoring stations throughout the SFBAAB. The monitoring stations aim to measure ambient concentrations of pollutants and determine whether ambient air quality meets the state and federal standards. The monitoring station closest to the Planning Area is the Vallejo – 304 Tuolumne Street Station, approximately 4 miles south of the Planning Area. This station measures 8-hour O₃, hourly O₃, PM_{2.5}, and NO_x. The Napa – Valley College air monitoring station (located at Magnolia Drive and Route 221) in Napa is the closest air monitoring station to the Planning Area that measures PM₁₀. This station is approximately 6.5 miles north of the Planning Area. Table 4.2-3 indicates the number of

days each federal and state standard was exceeded at the Vallejo – 304 Tuolomne Street and Napa – Valley College air monitoring stations. As shown in Table 4.2-3, O₃ measurements exceeded federal or state O₃ standards in all three observation years. PM₁₀ measurements exceeded the State standard in 2020. PM_{2.5} measurements exceeded federal PM_{2.5} standards in 2020. No other state or federal standards were exceeded at these air monitoring stations.

Table 4.2-3 Ambient Air Quality Data

Pollutant	2019	2020	2021
8 Hour Ozone (ppm), 8-Hour Average ¹	0.076	0.077	0.072
Number of Days of state exceedances (>0.070 ppm)	1	1	1
Number of days of federal exceedances (>0.070 ppm)	1	1	1
Ozone (ppm), Worst Hour ¹	0.092	0.096	0.099
Number of days of state exceedances (>0.09 ppm)	0	1	1
Carbon Monoxide (ppm), Worst-Hour	*	*	*
Number of days of state exceedances (>20.0 ppm)	*	*	*
Nitrogen Dioxide (ppm) - Worst Hour ¹	0.053	0.048	0.041
Number of days of state exceedances (>0.18 ppm)	0	0	0
Number of days of federal exceedances (>0.10 ppm)	0	0	0
Particulate Matter 10 microns, µg/m ³ , Worst 24 Hours ²	37.5	122.9	22.9
Number of days of state exceedances (>50 µg/m ³)	0	12	0
Number of days above federal standard (>150 µg/m ³)	0	0	0
Particulate Matter <2.5 microns, µg/m ³ , Worst 24 Hours ¹	30.5	152.7	32.0
Number of days above federal standard (>35 µg/m ³)	0	12	0

¹ Measurements were taken from the Vallejo – 304 Tuolomne Street Station

² Measurements taken from the Napa – Valley College Station.

*Insufficient data available to determine the value.

Bold lettering indicates an exceedance of applicable AAQS.

Source: CARB 2022c

e. Sensitive Receptors

Sensitive receptors are facilities or land uses that include members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. According to BAAQMD, sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples include schools, hospitals and residential areas (BAAQMD 2017b). The Planning Area contains residential sensitive receptors throughout the Planning Area. Schools within the city include American Canyon High School, Canyon Oaks Elementary School, Donaldson Way Elementary School, and American Canyon Middle School.

4.2.2 Regulatory Setting

a. Federal

Federal Clean Air Act

The Federal Clean Air Act (CAA) governs air quality in the United States. The CAA is administered by United States Environmental Protection Agency (USEPA) at the federal level, California Air Resources Board (CARB) at the State level, and by the Air Quality Management Districts at the regional and local levels. The CAA of 1970 and the CAA Amendments of 1971 required the USEPA to establish the National Ambient Air Quality Standards (NAAQS), with states retaining the option to adopt more stringent standards or to include other specific pollutants. On April 2, 2007, the Supreme Court found that CO₂ is an air pollutant covered by the CAA; however, no NAAQS have been established for CO₂.

The USEPA is responsible for enforcing the federal CAA. The USEPA is also responsible for establishing NAAQS. NAAQS are required under the 1977 CAA and subsequent amendments. The USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. The agency has jurisdiction over emission sources outside State waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission standards established by CARB.

USEPA Emission Standards for New Off-road Equipment

Before 1994, there were no standards to limit the amount of emissions from off-road equipment. In 1994, USEPA established emission standards for hydrocarbons, NO_x, CO, and PM to regulate new pieces of off-road equipment. These emission standards came to be known as Tier 1. Since that time, increasingly more stringent Tier 2, Tier 3, and Tier 4 (interim and final) standards were adopted by USEPA, as well as by CARB. Each adopted emission standard was phased in over time. New engines built in and after 2015 across all horsepower sizes must meet Tier 4 final emission standards. In other words, new manufactured engines cannot exceed the emissions established for Tier 4 final emissions standards.

b. State

California Clean Air Act

The California CAA allows the state to adopt ambient air quality standards and other regulations provided that they are at least as stringent as federal standards. CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California, including setting the CAAQS. CARB also conducts research, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB also has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.

California State Implementation Plan

The SIP is a living document that is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins, as reported by the agencies with jurisdiction over them. The CAA Amendments dictate that states containing areas violating the NAAQS revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS. The USEPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA.

State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the USEPA for approval and publication in the Federal Register. The BAAQMD 2017 Clean Air Plan is the SIP for the SFBAAB. The 2017 Clean Air Plan accommodates growth by projecting the growth in emissions based on different indicators. For example, population forecasts adopted by the Association of Bay Area Governments (ABAG) are used to forecast population-related emissions. Through the planning process, emissions growth is offset by basin-wide controls on stationary, area, and transportation sources of air pollution.

California Low-Emission Vehicle Program

CARB first adopted Low-Emission Vehicle (LEV) program standards in 1990. These first LEV standards ran from 1994 through 2003. LEV II regulations, running from 2004 through 2010, represent continuing progress in emission reductions. As the State's passenger vehicle fleet continues to grow and more sport utility vehicles and pickup trucks are used as passenger cars rather than work vehicles, the more stringent LEV II standards were adopted to provide reductions necessary for California to meet federally mandated clean air goals outlined in the 1994 SIP. In 2012, CARB adopted the LEV III amendments to California's LEV regulations. These amendments, also known as the Advanced Clean Car Program, include more stringent emission standards for model years 2017 through 2025 for both criteria pollutants and greenhouse gas (GHG) emissions for new passenger vehicles.

California On-Road Heavy-Duty Vehicle Program

CARB has adopted standards for emissions from various types of new on-road heavy-duty vehicles. Section 1956.8, Title 13, California Code of Regulations contains California's emission standards for on-road heavy-duty engines and vehicles, and test procedures. CARB has also adopted programs to reduce emissions from in-use heavy-duty vehicles including the Heavy-Duty Diesel Vehicle Idling Reduction Program, the Heavy-Duty Diesel In-Use Compliance Program, the Public Bus Fleet Rule and Engine Standards, and the School Bus Program and others.

California Airborne Toxics Control Measure for Asbestos

CARB has adopted Airborne Toxics Control Measures for sources that emit a particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate Best Available Control Technology to minimize emissions. In July 2001, CARB approved an Air Toxic Control Measure for construction, grading, quarrying and surface mining operations to minimize emissions of naturally occurring asbestos. The regulation requires application of best management practices (BMPs) to control fugitive dust in areas known to have naturally occurring asbestos and requires notification to the local air district prior to commencement of ground-disturbing activities.

The measure establishes specific testing, notification and engineering controls prior to grading, quarrying, or surface mining in construction zones where naturally occurring asbestos is located on projects of any size. There are additional notification and engineering controls at work sites larger than one acre in size. These projects require the submittal of a “Dust Mitigation Plan” and approval by the air district prior to the start of a project.

Construction sometimes requires the demolition of existing buildings where construction occurs. Buildings often include materials containing asbestos. Asbestos is also found in a natural state, known as naturally occurring asbestos. Exposure and disturbance of rock and soil that naturally contain asbestos can result in the release of fibers into the air and consequent exposure to the public. Asbestos most commonly occurs in ultramafic rock that has undergone partial or complete alteration to serpentine rock (serpentinite) and often contains chrysotile asbestos. In addition, another form of asbestos, tremolite, can be found associated with ultramafic rock, particularly near faults. Sources of asbestos emissions include unpaved roads or driveways surfaced with ultramafic rock, construction activities in ultramafic rock deposits, or rock quarrying activities where ultramafic rock is present. The Planning Area is not located in an area likely to contain naturally occurring asbestos (California Department of Conservation 2000).

Verified Diesel Emission Control Strategies

USEPA and CARB tiered off-road emission standards only apply to new engines and off-road equipment can last several years. CARB has developed Verified Diesel Emission Control Strategies (VDECS), which are devices, systems, or strategies used to achieve the highest level of pollution control from existing off-road vehicles, to help reduce emissions from existing engines. VDECS are designed primarily for the reduction of diesel PM emissions and have been verified by CARB. There are three levels of VDECS, the most effective of which is the Level 3 VDECS. Tier 4 engines are not required to install VDECS because they already meet the emissions standards for lower tiered equipment with installed controls.

California Diesel Risk Reduction Plan

CARB Diesel Risk Reduction Plan has led to the adoption of new state regulatory standards for all new on-road, off-road, and stationary diesel-fueled engines and vehicles to reduce DPM emissions by about 90 percent overall from year 2000 levels. The projected emission benefits associated with the full implementation of this plan, including federal measures, are reductions in DPM emissions and associated cancer risks of 75 percent by 2010, and 85 percent by 2020.

Tanner Air Toxics Act and Air Toxics Hot Spots Information and Assessment Act

TACs in California are primarily regulated through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588), also known as the Hot Spots Act. To date, CARB has identified more than 21 TACs and has adopted the USEPA list of Hazardous Air Pollutants (HAPs) as TACs.

Carl Moyer Memorial Air Quality Standards Attainment Program

The Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program), a partnership between CARB and local air districts, issues grants to replace or retrofit older engines and equipment with engines and equipment that exceed current regulatory requirements to reduce

air pollution. Money collected through the Carl Moyer Program complements California's regulatory program by providing incentives to effect early or extra emission reductions, especially from emission sources in environmental justice communities and areas disproportionately affected by air pollution.

The program has established guidelines and criteria for the funding of emissions reduction projects. Within the SFBAAB, the BAAQMD administers the Carl Moyer Program. The program has established guidelines and criteria for the funding of emissions reduction projects. Within SFBAAB, the BAAQMD administers the Carl Moyer Program. The program establishes cost-effectiveness criteria for funding emission reductions projects, which under the final 2017 Carl Moyer Program Guidelines are \$30,000 per weighted ton of NOX, ROG, and PM.

c. Regional and Local Regulations

Bay Area Clean Air Plan

The BAAQMD is responsible for assuring that the federal and state ambient air quality standards are attained and maintained in the Bay Area. BAAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, conducting public education campaigns, as well as many other activities.

BAAQMD adopted the *Bay Area Clean Air Plan: Spare the Air, Cool the Climate (Bay Area Clean Air Plan)* on April 19, 2017 as an update to the 2010 Clean Air Plan. The BAAQMD prepared the 2017 Clean Air Plan in cooperation with the Metropolitan Transportation Commission (MTC) and the ABAG. The goals of the 2017 Clean Air Plan are to reduce regional air pollutants and climate pollutants to improve the health of Bay Area residents for the next decades. The 2017 Clean Air Plan aims to lead the region into a post-carbon economy, continue progress toward attaining all State and federal air quality standards, and eliminate health risk disparities from air pollution exposure in Bay Area communities. The 2017 Clean Air Plan defines an integrated, multi-pollutant control strategy that includes 85 distinct feasible control measures to reduce emissions for four categories: ground-level ozone and its precursors, ROG and NO_x; PM (primarily PM_{2.5}, and precursors to secondary PM_{2.5}); TACs, and greenhouse gas emissions. The control measures are categorized based on the economic sector framework and include stationary sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, and water. To protect public health, the control strategy will decrease population exposure to PM and TACs in communities that are most impacted by air pollution with the goal of eliminating disparities in exposure to air pollution between communities. The control strategy will also protect the climate by reducing greenhouse gas emissions and developing a long-range vision of how the Bay Area could look and function in a year 2050 post-carbon economy.

The focus of control measures includes aggressively targeting the largest source of GHG, ozone pollutants, and PM emissions: transportation. This includes more incentives for electric vehicle infrastructure, off-road electrification projects such as Caltrain and shore power at ports, and reducing emissions from trucks, school buses, marine vessels, locomotives, and off-road equipment. Additionally, the BAAQMD will continue to work with regional and local governments to reduce Vehicle Miles Traveled (VMT) through the further funding of rideshare, bike and shuttle programs.

BAAQMD Particulate Matter Plan

To fulfill federal air quality planning requirements, BAAQMD adopted a 2010 PM_{2.5} emissions inventory in 2012. The Bay Area Clean Air Plan also included several measures for reducing PM emissions from stationary sources and wood burning. In 2013, USEPA issued a final rule determining that the Bay Area has attained the 24-hour PM_{2.5} NAAQS, suspending federal SIP planning requirements for the SFBAAB. Despite this USEPA action, the SFBAAB will continue to be designated as nonattainment for the national 24-hour PM_{2.5} standard until BAAQMD submits a redesignation request and a maintenance plan to USEPA, and USEPA approves the proposed redesignation.

The SFBAAB is in nonattainment for the federal PM₁₀ and federal PM_{2.5} standards. USEPA lowered the 24-hour PM_{2.5} standard from 65 micrograms per cubic meter (µg/m³) to 35 µg/m³ in 2006, and designated the Air Basin as nonattainment for the new PM_{2.5} standard effective December 14, 2009.

BAAQMD believes that it would be premature to submit a redesignation request and PM_{2.5} maintenance plan at this time. Therefore, BAAQMD will prepare a “clean data” SIP to address the required elements, including:

- An emission inventory for primary PM_{2.5}, as well as precursors to secondary PM formation; and
- Amendments to the BAAQMD’s New Source Review regulation to address PM_{2.5}.

The SFBAAB will continue to be designated as nonattainment for the 24-hour PM_{2.5} NAAQS until the Air District elects to submit, and the EPA approves, a redesignation request and maintenance plan. At this time, BAAQMD does not have an applicable SIP with which the project would be required to comply. However, development facilitated by the project would be subject to the Bay Area Clean Air Plan, in addition to regulations set forth by BAAQMD as discussed in the following section.

BAAQMD Regulations

Regulation 2, Rule 1 (Permits–General Requirements)

The BAAQMD regulates new sources of air pollution and the modification and operation of existing sources through the issuances of authorities to construct and permits to operate. Regulation 2, Rule 1 provides an orderly procedure which the project would be required to comply with to receive authorities to construct or permits to operate from the BAAQMD for new sources of air pollutants, as applicable.

Regulation 2, Rule 5 (New Source Review Permitting)

The BAAQMD regulates backup emergency generators, fire pumps, and other sources of TACs through its New Source Review (Regulation 2, Rule 5) permitting process. Although emergency generators are intended to be used only during periods of power outages, monthly testing of each generator is required. BAAQMD limits testing to no more than 50 hours per year. Each emergency generator installed is assumed to meet a minimum of Tier 2 emission standards (before control measures). As part of the permitting process, the BAAQMD limits the excess cancer risk from any facility to no more than 10 per 1-million-population for any permits that are applied for within a 2-year period, and would require any source that would result in an excess cancer risk greater than 1 per 1 million to install Best Available Control Technology for Toxics.

Regulation 6, Rule 1 (Particulate Matter–General Requirements)

The BAAQMD regulates PM emissions through Regulation 6 by means of establishing limitations on emission rates, emissions concentrations, and emission visibility and opacity. Regulation 6, Rule 1 provides existing standards for PM emissions that could result during project construction or operation that the project would be required to comply with, as applicable, such as the prohibition of emissions from any source for a period or aggregate periods of more than 3 minutes in any hour which are equal to or greater than 20 percent opacity.

Regulation 6, Rule 6, (Particulate Matter–Prohibition of Trackout)

One rule by which the BAAQMD regulates PM includes Regulation 6, Rule 6, which prohibits PM trackout during project construction and operation. Regulation 6, Rule 6 requires the prevention or timely cleanup of trackout of solid materials onto paved public roads outside the boundaries of large bulk material sites, large construction sites, and large disturbed surface sides such as landfills.

Regulation 8, Rule 3 (Architectural Coatings)

This rule governs the manufacture, distribution, and sale of architectural coatings and limits the reactive organic gases content in paints and paint solvents. Although this rule does not directly apply to the project, it does dictate the ROG content of paint available for use during the construction.

Regulation 8, Rule 15 (Emulsified and Liquid Asphalts)

Although this rule does not directly apply to the project, it does dictate the reactive organic gases content of asphalt available for use during construction by regulating the sale and use of asphalt and limiting the ROG content in asphalt.

Regulation 1, Rule 301 (Odorous Emissions)

BAAQMD enforces odor control by helping the public to document a public nuisance. Upon receipt of a complaint, BAAQMD sends an investigator to interview the complainant and to locate the odor source if possible. BAAQMD typically brings a public nuisance court action when there are a substantial number of confirmed odor events within a 24-hour period. An odor source with five or more confirmed complaints per year averaged over 3 years is considered to have a substantial effect on receptors. Several BAAQMD regulations and rules apply to odorous emissions. Regulation 1, Rule 301 is the nuisance provision that states that sources cannot emit air contaminants that cause nuisance to a number of persons. Regulation 7 specifies limits for the discharge of odorous substances where BAAQMD receives complaints from 10 or more complainants within a 90-day period. Regulation 7 also precludes discharge of an odorous substance that causes the ambient air at or beyond the property line to be odorous after dilution with 4 parts of odor-free air, and specifies maximum limits on the emission of certain odorous compounds.

Regulation 9, Rule 8 (Inorganic Gaseous Pollutants–Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines)

Under Regulation 9, Rule 8, the BAAQMD regulates the emissions of nitrogen oxides and carbon monoxide from stationary internal combustion engines with an output rated by the manufacturer at more than 50 brake horsepower. As such, any proposed stationary source equipment (e.g., backup generators, fire pumps) which would be greater than 50 horsepower would require a BAAQMD permit under Regulation 9, Rule 8 to operate.

Regulation 11, Rule 2 (Hazardous Pollutants–Asbestos Demolition, Renovation, and Manufacturing)

Under Regulation 11, Rule 2, the BAAQMD regulates emissions of asbestos to the atmosphere during demolition, renovation, milling, and manufacturing and establishes appropriate waste disposal procedures. Any of these activities which pose the potential to generate emissions of airborne asbestos are required to comply with the appropriate provisions of this regulation.

Plan Bay Area

On October 2021, the Metropolitan Transportation Commission (MTC) approved Plan Bay Area 2050. Plan Bay Area includes integrated land use and transportation strategies for the region and was developed through OneBayArea, a joint initiative between ABAG, BAAQMD, MTC, and the San Francisco Bay Conservation and Development Commission. Plan Bay Area is also considered the ABAG/MTC Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). In accordance with SB 743, Plan Bay Area included elements designed to encourage the type of land-use development to meet three primary objectives. First, Roadway Level of Service (LOS) could not be considered an environmental impact under the California Environmental Quality Act (CEQA). Second, it introduced changes to VMT per capita as a determinant of environmental impact. Third, the use of VMT as an environmental impact in CEQA is considered a mechanism for achieving State and regional GHG reduction goals. As a regional land use plan, Plan Bay Area aims to reduce per-capita GHG emissions through the promotion of more compact, mixed-use residential and commercial neighborhoods located near transit (ABAG; MTC 2021).

Industrial Commerce Centers Sustainability Standards Ordinance 2024-03

The American Canyon Industrial Greenhouse Gas (GHG) Standards Ordinance applies to warehousing, logistics and distribution facilities in the City for which a Notice of Preparation is issued after March 1, 2024 under CEQA. The Ordinance requires zero or low emissions standards to various aspects of industrial commerce center(s), including zero-emission equipment, rooftop solar panels, and environmental compliance measures aimed at mitigating air quality degradation.

The Ordinance establishes the following standards to all warehousing, logistics, and distribution facilities in the City where a Notice of Preparation is issued after March 1, 2024, under the California Environmental Quality Act (CEQA). It defines such facilities as those used for storing and consolidating manufactured goods, typically larger than 200,000 square feet with specific characteristics such as dock high loading doors and truck activities.

The following standards are applicable under the proposed Ordinance:

1. **Zero Emission Operational Equipment:** All on-site motorized operational equipment (forklifts, yard trucks, pallet jacks, etc.) must be zero-emission. This includes using electrical hookups instead of diesel-fueled generators for construction tools.
2. **Zero Emission Cargo Handling Equipment:** All outdoor cargo handling equipment must be zero-emission vehicles. Necessary charging stations or infrastructure for these vehicles must be included in each building.
3. **Rooftop Solar Panels:** Before issuing a business license, the City will ensure that rooftop solar panels are installed to supply 100% of the power needed for non-refrigerated parts of the facility, including parking areas.

4. Refrigerated Space Requirements: Facilities not committing to non-refrigerated use must install conduits during construction for potential refrigerated spaces. Electric plug-in units for refrigeration units must be installed at relevant dock doors.
5. Zero Emission Construction Equipment: All generators and diesel-fueled off-road construction equipment over 75 horsepower must be zero-emissions or have CARB Tier IV-compliant engines. Exemptions are possible if such equipment is not reasonably available.
6. Electric Vehicle Charging Stations: Install infrastructure for Level 2 (or faster) EV charging stations for a percentage of employee parking spaces, increasing to 25% by 2030.
7. Air Filtration Systems: Install HVAC and/or HEPA air filtration systems in all warehouse facilities.

4.2.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Based on Appendix G of the CEQA Guidelines a project may be deemed to have a significant impact on air quality if it would:

1. Conflict with or obstruct implementation of the applicable air quality plan;
2. 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;
3. Expose sensitive receptors to substantial pollutant concentrations; or
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

This analysis uses the BAAQMD 2017 CEQA Air Quality Guidelines to evaluate air quality.

Construction Criteria Pollutant and TAC Emissions

Construction-related emissions are limited in duration but may still cause adverse air quality impacts. Construction would generate emissions from three primary sources: the operation of construction vehicles (e.g., scrapers, loaders, dump trucks, etc.); ground disturbance during site preparation and grading, which creates fugitive dust; and the application of asphalt, paint, or other oil-based substances.

At this time, the pace, location, and duration associated with construction are not sufficiently detailed to quantify a specific emission impact, and thus it would be speculative to do so. Rather, construction criteria pollutant and TAC emissions impacts for the project are discussed qualitatively, pursuant to the BAAQMD 2017 CEQA Air Quality Guidelines.

Operation Criteria Pollutant and TAC Emissions

Based on plan-level guidance from the BAAQMD 2017 CEQA Air Quality Guidelines, long-term operational criteria pollutant and TAC emissions associated with implementation of the project are discussed qualitatively by comparing the project to the 2017 Clean Air Plan goals, policies, and control measures. In addition, comparing the rate of increase of plan VMT and population is recommended by BAAQMD for determining significance of criteria pollutants. If the project does not meet either criterion, then impacts would be potentially significant.

Odors

The impact analysis qualitatively evaluates the types of land uses facilitated by the project to evaluate whether major sources of anticipated odors would be present and, if so, whether those sources would likely generate objectionable odors. According to the BAAQMD 2017 CEQA Air Quality Guidelines, the project-level threshold for odor sources is if they result in five confirmed complaints per year averaged over three years within the screening distance for land uses shown in Table 3-3 of the guidelines (BAAQMD 2017b). The plan-level threshold states to identify the location and include policies to reduce the impacts of existing or planned sources of odors. None of the land uses identified as odor sources in the 2017 guidelines are planned as part of the project. The significance thresholds for odor impacts are qualitative in nature. Specifically, an odor-generating source with five or more confirmed complaints in the new source area per year averaged over three years is considered to have a significant impact on receptors within the screening distances provided in the guidelines.

Methodology

Consistency with Air Quality Plan

The applicable air quality plan is the BAAQMD 2017 Bay Area Clean Air Plan, which identifies measures to:

- Reduce emissions and reduce ambient concentrations of air pollutants; and
- Safeguard public health by reducing exposure to the air pollutants that pose the greatest health risk, with an emphasis on protecting the communities most heavily affected by air pollution.

The project would be consistent with the Bay Area Clean Air Plan if it would support the Clean Air Plan goals, include applicable control measures, and not disrupt or hinder implementation of Clean Air Plan. Consistency with the Clean Air Plan is the basis for determining whether the project would conflict with or obstruct implementation of an applicable air quality plan.

Construction Criteria Pollutant and TAC Emissions Thresholds

BAAQMD's 2017 CEQA Air Quality Guidelines have no plan-level significance thresholds for construction air pollutants emissions. However, they do include the individual project-level thresholds for construction-related and long-term operational emissions of air pollutants. These thresholds represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. Construction emissions associated with implementation of the project are discussed qualitatively to evaluate potential air quality impacts.

For health risks associated with TAC and PM_{2.5} emissions, the BAAQMD 2017 CEQA Air Quality Guidelines state a project would result in a significant impact if the any of the following thresholds are exceeded:

- Non-compliance with Qualified Community Risk Reduction Plan;
- Increased cancer risk of > 10.0 in a million;
- Increased non-cancer risk of > 1.0 Hazard Index (Chronic or Acute); or
- Ambient PM_{2.5} increase of > 0.3 µg/m³ annual average

In addition, a project would have a cumulatively considerably impact associated with health risks from TAC and PM_{2.5} emissions if the aggregate total emissions of all past, present, and foreseeable future sources within a 1,000-foot radius of the fence line of the source plus the project's contribution exceed any of the following thresholds:

- Non-compliance with Qualified Community Risk Reduction Plan;
- Increased cancer risk of > 100.0 in a million;
- Increased non-cancer risk of > 10.0 Hazard Index (Chronic or Acute); or
- Ambient PM_{2.5} increase of > 0.8 µg/m³ annual average

Operational Criteria Pollutant and TAC Emissions Thresholds

BAAQMD's 2017 CEQA Air Quality Guidelines contain specific operational plan-level significance thresholds for criteria air pollutants. Plans must show the following over the planning period:

- Consistency with current air quality plan control measures
- VMT or vehicle trips increase is less than or equal to the plan's projected population increase

If a plan can demonstrate consistency with both of these criteria, then impacts are considered less than significant. The same thresholds listed above for construction health risks from TAC and PM_{2.5} would apply to operation.

b. Project Impacts and Mitigation Measures

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

Impact AQ-1 THE PROJECT WOULD BE CONSISTENT WITH THE BAAQMD'S 2017 CLEAN AIR PLAN. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Under BAAQMD's methodology, a determination of consistency with CEQA Guidelines thresholds should demonstrate that a project:

- Supports the primary goals of the 2017 Clean Air Plan;
- Includes applicable control measures from the 2017 Clean Air Plan; and
- Does not disrupt or hinder implementation of any 2017 Clean Air Plan control measures.

The following includes a discussion of consistency with these criteria for the project. The 2017 Clean Air Plan contains 85 control measures aimed at reducing air pollution and protecting the climate in the Bay Area. For consistency with climate planning efforts at the State level, the control strategies in the 2017 Clean Air Plan are based on the same economic sector framework used by CARB, which encompass stationary sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, water, and super-GHG pollutants (such as methane and hydrofluorocarbons). Table 4.2-4 identifies applicable control measures and discusses project consistency with the 2017 Clean Air Plan.

Table 4.2-4 Clean Air Plan Control Measures Consistency Analysis

Control Measures	Consistency
Stationary Sources	
<p>SS18: Basin-Wide Combustion Strategy. Stabilize and then reduce emissions of GHGs, criteria air pollutant and toxic emissions from stationary combustion sources throughout the Air District by first establishing carbon intensity caps on major GHG sources, and then adopting new rules to (1) reduce fuel use on a source-type by source-type basis, and (2) evaluate alternatives to decarbonize abatement devices.</p> <p>SS21: New Source Review for Air Toxics. Propose revisions to Air District Rule 2-5, New Source Review of Toxic Air Contaminants, based on OEHHA's 2015 Health Risk Assessment Guidelines and CARB/ CAPCOA's 2015 Risk Management Guidance. Revise the Air District's health risk assessment trigger levels for each toxic air contaminant using the 2015 Guidelines and most recent health effects values.</p>	<p>Consistent. Stationary sources are regulated directly by BAAQMD, which routinely adopts/revises rules or regulations to implement the Stationary Source control measures to reduce stationary source emissions. Therefore, any new stationary sources associated with development facilitated by the project would be required to comply with BAAQMD's regulations.</p>
Transportation	
<p>TR2: Trip Reduction Programs. Implement the regional Commuter Benefits Program (Rule 14-1) that requires employers with 50 or more Bay Area employees to provide commuter benefits. Encourage trip reduction policies and programs in local plans, e.g., general and specific plans, while providing grants to support trip reduction efforts. Encourage local governments to require mitigation of vehicle travel as part of new development approval, to adopt transit benefits ordinances in order to reduce transit costs to employees, and to develop innovative ways to encourage rideshare, transit, cycling, and walking for work trips. Fund various employer-based trip reduction programs.</p>	<p>Consistent: The Mobility Element includes proposed policies that encourage trip reduction programs. The following proposed goals and policies aim to reduce VMT through implementation of policies such as:</p> <ul style="list-style-type: none"> ▪ Policy MOB-1.5: Sidewalks. Require sidewalks on all arterial and collector streets. Where feasible, separate sidewalks from streets on arterials and collectors with landscaping including a tree canopy to create shade. ▪ Policy MOB-1.7: Promote Walking and Bicycling. Promote walking and bicycling for transportation, recreation, and improvement of public health. ▪ Policy MOB-1.11: Reduce the Need to Drive. Implement land use policies designed to create a pattern of activity that makes it easy to shop, play, visit friends, and conduct personal business without driving. ▪ Policy MOB-1.17: Reduce Vehicle Miles Traveled. Through layout of land uses, improved alternate travel modes, and provision of more direct routes, strive to reduce the total vehicle miles traveled by city and non-residents traveling to American Canyon to work or shop. ▪ Policy MOB-1.22: Non-motorized Circulation System. Provide safe and direct pedestrian routes and bikeways between places. ▪ Policy MOB-6.1: VMT Thresholds. Maintain and periodically reevaluate established vehicle miles traveled (VMT) thresholds and Transportation Demand Management (TDM) mitigation requirements for the purposes of environmental review under the California Environmental Quality Act (CEQA). Continue to maintain LOS standards for the purposes of planning and designing street

Control Measures	Consistency
	<p>improvements on Green Island Road, Devlin Road, and American Canyon Road.</p> <ul style="list-style-type: none"> ▪ Policy MOB 5.10 : Transit Supportive Development. Ensure that new development is designed to make transit a viable transportation choice for residents, including neighborhood centers or focal points with sheltered bus stops; locating medium and high-density development on or near streets served by transit wherever feasible; and link neighborhoods to bus stops by continuous sidewalks or pedestrian paths. <i>(Source: Existing Policy 3.11)</i> ▪ Policy MOB 5.12 : SB 375 Implementation. Coordinate with other agencies to implement regional transit solutions as part of the SB 375 Sustainable Communities Strategy. <i>Source: Existing Policy 3.12)</i>
<p>TR13: Parking Policies. Encourage parking policies and programs in local plans, e.g., reduce minimum parking requirements; limit the supply of off-street parking in transit-oriented areas; unbundle the price of parking spaces; support implementation of demand-based pricing (such as “SF Park”) in high-traffic areas.</p>	<p>Consistent: Development facilitated by the project would be required to comply with existing City parking standards and standards regarding EV parking in compliance with the latest CALGreen standards.</p>
Energy	
<p>EN1: Decarbonize Electricity Production. Engage with PG&E, municipal electric utilities and CCEs to maximize the amount of renewable energy contributing to the production of electricity within the Bay Area as well as electricity imported into the region. Work with local governments to implement local renewable energy programs. Engage with stakeholders including dairy farms, forest managers, water treatment facilities, food processors, public works agencies and waste management to increase use of biomass in electricity production.</p> <p>EN2: Decrease Electricity Demand. Work with local governments to adopt additional energy-efficiency policies and programs. Support local government energy efficiency program via best practices, model ordinances, and technical support. Work with partners to develop messaging to decrease electricity demand during peak times.</p>	<p>Consistent. Measures EN1 and EN2 are intended to decrease energy use as a means of reducing adverse air quality emissions. Development facilitated by the project would comply with 2022 Building Energy Efficiency Standards (or most recent version of the California Building Code) requirements that commercial buildings be electric-ready and standards for expanded solar and battery storage and residential development under three stories include rooftop photovoltaic panels. The Building Energy Efficiency Standards are updated every three years and the project would be subject to the 2022 California Building Standards when they go into effect on January 1, 2023. In addition, 2040 General Plan proposed policies listed in Section 4.15, <i>Effects Found to be Less than Significant</i>, under Section 4.15.2, <i>Energy</i>, would encourage energy efficiency and reduction.</p>
Buildings	
<p>BL1: Green Buildings. Collaborate with partners such as KyotoUSA to identify energy-related improvements and opportunities for on-site renewable energy systems in school districts; investigate funding strategies to implement upgrades. Identify barriers to effective local implementation of the CALGreen (Title 24) statewide building energy code; develop solutions to improve implementation/enforcement. Work with ABAG’s BayREN program to make additional funding available for energy-related projects in the buildings sector. Engage with additional partners to target reducing emissions from specific types of buildings.</p>	<p>Consistent: Measures BL1 and BL2 focus on working with local governments to adopt the best GHG emissions control practices and policies. As discussed above for the Energy and Climate control measures, development facilitated by the project would comply with 2022 Building Energy Efficiency Standards’ (or most recent version of the California Building Code) requirements that commercial buildings be electric-ready and standards for expanded solar and battery storage and residential development under three stories include rooftop photovoltaic panels. The Building Energy Efficiency Standards are updated every three years and the project would be subject to the 2022 California Building Standards when they go into</p>

Control Measures	Consistency
BL2: Decarbonize Buildings. Explore potential Air District rulemaking options regarding the sale of fossil fuel-based space and water heating systems for both residential and commercial use. Explore incentives for property owners to replace their furnace, water heater or natural-gas powered appliances with zero-carbon alternatives. Update Air District guidance documents to recommend that commercial and multi-family developments install ground source heat pumps and solar hot water heaters.	effect on January 1, 2023. In addition, 2040 General Plan proposed policies listed in Section 4.15, <i>Effects Found to be Less than Significant</i> , under Section 4.15.2, <i>Energy</i> , would encourage energy efficiency and reduction.
Waste Management Control Measures	
WA4: Recycling and Waste Reduction. Develop or identify and promote model ordinances on community-wide zero waste goals and recycling of construction and demolition materials in commercial and public construction projects	Consistent. Measure WA4 include strategies to increase waste diversion rates through efforts to reduce, reuse, and recycle. Development facilitated by the project would comply with Assembly Bill (AB) 341, which requires mandatory commercial recycling for businesses that generate four cubic yards or more of commercial solid waste per week. For further discussion of waste diversion, please refer to Section 4.13, <i>Utilities and Service Systems</i> .

BAAQMD has identified examples of how a project or plan may disrupt or delay local government implementation of these control measures, such as a project that may preclude an extension of a transit line or bike path, or that propose excessive parking beyond parking requirements. Development within the project area would not disrupt or delay local government implementation of control measures. Overall, the project would be consistent with the three criteria for evaluating consistency with the 2017 Clean Air Plan. As such, the project would not conflict with or obstruct implementation of the applicable air quality plan, and this impact would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

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 AQ-2 THE PROJECT WOULD NOT RESULT IN A CUMULATIVELY CONSIDERABLE NET INCREASE OF CRITERIA POLLUTANTS DURING CONSTRUCTION OR OPERATIONS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Construction

Future development and mobility improvements associated with the project would involve constructions activities that result in air pollutant emissions. Specifically, construction activities such as demolition, grading, construction worker travel, delivery and hauling of construction supplies and debris, and fuel combustion by on-site construction equipment would generate pollutant emissions. These construction activities would create emissions of dust, fumes, equipment exhaust, and other air contaminants, particularly during site preparation and grading. The extent of daily emissions, particularly ROG_s and NO_x emissions, generated by construction equipment, would depend on the

quantity of equipment used and the hours of operation for each project. The extent of PM_{2.5} and PM₁₀ emissions would depend upon the following factors: 1) the amount of disturbed soils; 2) the length of disturbance time; 3) whether existing structures are demolished; 4) whether excavation is involved; and 5) whether transporting excavated materials offsite is necessary. Dust emissions can lead to both nuisance and health impacts. According to the 2017 BAAQMD *CEQA Air Quality Guidelines*, PM_{2.5} is the greatest pollutant of concern during construction.

The BAAQMD 2017 CEQA Air Quality Guidelines have no plan-level significance thresholds for construction air pollutant emissions that would apply to the project. However, the guidelines include project-level thresholds for construction emissions. If an individual project's construction emissions fall below the project-level thresholds, the project's impacts on regional air quality would be individually and cumulatively less than significant. The BAAQMD has also identified feasible fugitive dust control measures for construction activities. These Basic Construction Mitigation Measures are recommended for all projects. In addition, the BAAQMD and CARB have regulations that address the handling of hazardous air pollutants such as lead and asbestos, which could be aerially disbursed during demolition activities. BAAQMD rules and regulations address both the handling and transport of these contaminants. Construction of development facilitated by the project would temporarily increase air pollutant emissions, possibly creating localized areas of unhealthy air pollution concentrations or air quality nuisances, resulting in a potentially significant impact.

However, the following 2040 General Plan proposed policy would reduce fugitive dust emissions from construction activities by requiring future development to implement construction management plans in accordance with BAAQMD standards:

- **Policy ENV-11.2: Construction Management Plans.** Require new development and redevelopment projects to prepare and implement a construction management plan that incorporates Best Available Control Measures and all best management practices in accordance with the Air District standards to reduce criteria pollutants.

Best available control measures and best management practices in accordance with BAAQMD would include the following:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times a day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacture's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper conditions prior to operation.

- Post a publicly visible sign with the applicant's site superintendent telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's number shall also be visible to ensure compliance with applicable regulations.

With adherence to 2040 General Plan proposed Policy ENV-11.2, cumulative construction impacts associated with violating an air quality standard or contributing substantially to an existing or projected air quality violation in terms of criteria air pollutant emissions would be less than significant.

Operation

The greatest source of criteria pollutants in American Canyon is and would continue to be from transportation sources, specifically mobile emissions from roadway traffic. The project emphasizes reducing VMT on area roadways through emphasizing greater mixed use in the area and proximity of residents to jobs. The following 2040 General Plan proposed goals and policies would encourage active transportation modes, such as walking and bicycling, as well as the use of public transit, thereby reducing vehicle trips and associated criteria air pollutants in the Planning Area:

Goal LU-1: Establish American Canyon as a “complete city” with a diversity of distinct land uses that serve the needs of residents, businesses, and visitors.

- **Policy LU-1.4: Compact Development Pattern.** Maintain a compact development pattern that fosters a walkable and bikeable urban form.

Goal MOB-1: Provide safe and convenient access throughout the community with a citywide network of complete streets that meet the needs of all users and reduce vehicle miles traveled (VMT).

- **Policy MOB-1.7: Promote Walking and Bicycling.** Promote walking and bicycling for transportation, recreation, and improvement of public health.
- **Policy MOB-1.11: Reduce the Need to Drive.** Implement land use policies designed to create a pattern of activity that makes it easy to shop, play, visit friends, and conduct personal business without driving.
- **Policy MOB-1.12: Neighborhood Context.** Support safe, complete, and well-connected neighborhood street, bicycle, and pedestrian access and connections that balance circulation needs with the neighborhood context.
- **Policy MOB-1.17: Reduce Vehicle Miles Traveled.** Through layout of land uses, improved alternate travel modes, and provision of more direct routes, strive to reduce the total vehicle miles traveled by city and non-residents traveling to American Canyon to work or shop.
- **Policy MOB-1.20: Bicycle Plan Funding.** Include funding for the City's Bicycle Plan updates and bikeway improvements consistent with the Bicycle Plan in the City's transportation financing program and TIF, recognizing the multi-modal travel needs of the City.
- **Policy MOB-1.22: Non-motorized Circulation System.** Provide safe and direct pedestrian routes and bikeways between places.
- **Policy MOB-1.23: Pedestrian Connections to Employment Destinations.** Encourage the development of a network of continuous walkways within new commercial, town center, public, and industrial uses to improve workers' ability to walk safely around, to, and from their

workplaces. Where possible, route pedestrians to grade separated crossings over State Route 29.

- **Policy MOB-1.24: Bicycle Facilities.** Bicycle facilities shall be provided to complete a continuous bikeway system, consistent with state standards, as shown on the Bikeway Plan Map. In cases where existing right of way constraints limit development of Class II or Class IV facilities, Class III signage and demarcation may be permitted at the discretion of the City Engineer. Deviations from these standards and from the routing shown on the diagram shall be permitted with the approval of the City Engineer.
- **Policy MOB-1.27: Sustainable Roadway Expansion.** Monitor the effects of roadway expansion on air, noise, seismic and archeological resources, and nesting habitat.

Goal MOB-5: Support increased public transit to improve mobility, improve air quality, and support efforts to reduce vehicle miles traveled (VMT).

- **Policy MOB-6.1: VMT Thresholds.** Maintain and periodically reevaluate established vehicle miles traveled (VMT) thresholds and Transportation Demand Management (TDM) mitigation requirements for the purposes of environmental review under the California Environmental Quality Act (CEQA). Continue to maintain LOS standards for the purposes of planning and designing street improvements on Green Island Road, Devlin Road, and American Canyon Road.
- **Policy MOB-5.2: Existing Transportation Demand Management Efforts.** Continue to support the implementation of existing local and regional efforts to manage traffic demand, such as the Napa Logistics Park trip monitoring program, and employer TDM provisions of the Bay Area Air Quality Management District (BAAQMD).
- **Policy MOB-5.3: Support Transit Operation Improvements.** Work with NVTa to expand both ACT and VINE fixed route services, improve operations, and support dedicated bus lanes and/or queue-jump lanes on SR 29 to enhance bus operations by reducing travel time for transit vehicles.
- **Policy MOB-5.7: Future Transit Links.** Consider orienting transit system expansion to link with other potential future commuter bus and/or rail services.

According to the BAAQMD 2017 CEQA Air Quality Guidelines, the threshold for criteria air pollutants and precursors requires a comparison of the percent increase in VMT and population. Table 4.2-5 summarizes the net increase in population versus VMT for cumulative plus project buildout conditions based on data provided by GHD (2022).

Table 4.2-5 Comparison of VMT and Population Increase due to the Project

Scenario	Existing (2024)	Cumulative Plus Project Buildout ^a	Net Increase
Population (number of residents)	21,758	33,248	11,490
Percentage change			53%
Total Citywide VMT	562,492	568,813	6,321
Percentage change			1%

Note:

^a. Cumulative conditions with the project is based on Year 2040 citywide residential and commercial growth, as well as projected regional land use growth

Source: GHD 2022

The project emphasizes changing land uses to concentrate growth and jobs and services near residences to reduce singular vehicle trips. As shown in Table 4.2-5, the City's population increase would be proportionately greater than the VMT increase. If a plan's VMT increase, under the cumulative condition, is less than or equal to the plan's projected population increase, impacts to operational criteria pollutant emissions would be less than significant. As such, impacts from project operation would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

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

Impact AQ-3 CONSTRUCTION ACTIVITIES FOR PROJECTS LASTING LONGER THAN TWO MONTHS OR LOCATED WITHIN 1,000 FEET OF SENSITIVE RECEPTORS COULD EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS. IMPLEMENTATION OF THE PROJECT MAY ALSO EXPOSE SENSITIVE RECEPTORS TO OPERATIONAL SOURCES OF TOXIC AIR CONTAMINANTS. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

Construction

The project would result in Diesel particulate matter (DPM) exhaust emissions from off-road, heavy-duty diesel equipment associated with site preparation (e.g., excavation, grading, clearing), building construction, and other construction activities. The potential cancer risk from inhaling DPM, as discussed below, outweighs the potential non-cancer² health impacts (CARB 2022b).

Generation of DPM from construction typically occurs in a single area for a short period. Future construction would occur over approximately seventeen years (assuming a buildout year of 2040), but use of diesel-powered construction equipment in any one area would likely occur for no more than a few years for an individual project and would cease when construction is completed in that area. It is impossible to quantify risk without identified specific project details and locations.

The dose to which the receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has with the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the Maximally Exposed Individual. The risks estimated for a Maximally Exposed Individual are higher if a fixed exposure occurs over a longer period. According to the California Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the development (OEHHA 2015). BAAQMD uses an exposure period of 30 years (BAAQMD 2016).

² Non-cancer risks include premature death, hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma, increased respiratory symptoms, and decreased lung function (CARB 2021a).

The maximum PM₁₀ and PM_{2.5} emissions would occur during demolition, site preparation and grading activities, which would only occur for a portion of the overall estimated timeframe of seventeen years for individual project construction. These activities would typically last for approximately two weeks to two years, depending on the extent of grading and excavation required (e.g., projects with subterranean parking structures or geological constraints require additional grading as compared to those without). PM₁₀ and PM_{2.5} emissions would decrease for the remaining construction period because construction activities such as building construction and architectural coating would require less intensive construction equipment. While the maximum DPM emissions associated with demolition, site preparation, and grading activities would only occur for a portion of the overall construction period, these activities represent the worst-case condition for the total construction period. This would represent between 0.1 to 7 percent of the total 30-year exposure period for health risk calculation.

Development facilitated by the project would also be required to be consistent with the applicable 2017 Clean Air Plan, BAAQMD regulatory requirements and control strategies, and the CARB In-Use Off-Road Diesel Vehicle Regulation, which are intended to reduce emissions from construction equipment and activities. Additionally, development facilitated by the project would be required to adhere to General Plan proposed Policy ENV-11.2, which requires implementation of BAAQMD best available control measures and best management practices that would reduce construction-related TACs. According to the OEHHA, construction of individual projects lasting longer than two months or placed within 1,000 feet of sensitive receptors could potentially expose nearby sensitive receptors to substantial pollutant concentrations, which could result in potentially significant risk impacts. There is the potential that development associated with the project could last more than two months or be within 1,000 feet of sensitive receptors. As such, these projects could exceed BAAQMD's thresholds of an increased cancer risk of greater than 10.0 in a million and an increased non-cancer risk of greater than 1.0 Hazard Index (Chronic or Acute). Therefore, construction impacts from TAC emissions would be potentially significant. However, implementation of Mitigation Measure AQ-1 would require the preparation of a Construction Health Risk Assessment for future projects and would mitigate potential construction-related TACs exposure impacts to a less than significant level.

Operation

The BAAQMD CEQA Guidelines include methodology for jurisdictions to evaluate the potential impacts from placing sensitive receptors in proximity to major air pollutant sources. For assessing community risk and hazards for siting a new receptor, sources within a 1,000-foot radius of a project site are typically considered. Sources are defined as freeways or high-volume roadways with 10,000 vehicles or more per day and permitted sources (BAAQMD 2017b).

Development facilitated by the project could accommodate a net increase of approximately 3,379 additional residential units and approximately 5.7 million square feet of commercial, retail, hotel, industrial, warehouse, and research and development uses. Development facilitated by the 2040 General Plan in accordance with land use and zoning regulations would not site land uses that typically generate TAC, such as industrial land uses near residential land uses. Additionally, if the proposed commercial, retail, warehouse, research and development, and industrial uses site a new stationary TAC source, like an emergency generator, then said stationary source would be required to receive a permit from BAAQMD. The permitting process would ensure that the stationary source does not present a health risk to existing nearby sensitive receptors.

Furthermore, there are several high-volume roadways in American Canyon, including SR 29, American Canyon Road, Flosden Road, and Newell Drive. The 2040 General Plan may facilitate locating sensitive receptors in proximity to high-volume roadways and freeways. To minimize health risks to sensitive receptors located near stationary sources and/or high-volume roadways, the 2040 General Plan includes the following proposed goal and policies that aim to improve air quality and minimize exposure to TAC:

Goal ENV-11: Improve air quality and minimize human exposure to toxic air pollutants.

- **Policy ENV-11.1: Regional Air Quality Efforts.** Support and coordinate with BAAQMD and State and Federal planning efforts aimed at reducing air pollution and management of major pollutants affecting American Canyon and the region, including the Clean Air Plan.
- **Policy ENV-11.3: Separate Sensitive Land Uses.** Separate sources of air pollution from sensitive land uses, such as residences, schools, day care centers, hospitals, and nursing homes.

In addition, the following proposed policy would ensure that industrial uses would not generate unacceptable levels of air emissions, including TAC.

- **Policy LU-5.5: Prevent Adverse Impacts.** Control, through the permit process, the development of industrial uses that use, store, produce, or transport hazardous materials in threshold planning quantities, generate unacceptable levels of noise or air emissions, or result in other impacts that adversely impact American Canyon.

The primary mobile source of TACs within the plan area is truck idling and use of off-road equipment. New warehousing operations could generate substantial DPM emissions from off-road equipment use and truck idling. In addition, some warehousing and industrial facilities may include use of transport refrigeration units for cold storage. Such potential future uses could generate an increase in DPM that would contribute to cancer and noncancer health risk at nearby sensitive receptors. Without project-specific analysis, health risk impacts from nonpermitted sources associated with development of industrial and commercial land uses under the proposed plan would be potentially significant. Mitigation Measure AQ-2 would require project applicants to prepare an operational health risk assessment for the siting of new sensitive receptors within 500 feet of major sources of TAC (high-volume roadways with 10,000 vehicles or more per day). Mitigation Measure AQ-3 would require applicants for land uses that would generate substantial diesel truck travel to determine the appropriate level of operational health risk assessment required. With the implementation of Mitigation Measures AQ-2 and AQ-3, the project's impacts related to TAC emissions would be less than significant.

Mitigation Measures

AQ-1 Conduct Construction Health Risk Assessment

Prior to issuance of a grading or building permit, whichever occurs first, the applicant shall submit to the City a construction health risk assessment (HRA) in accordance with BAAQMD recommendations for any development project that has at least one of the following characteristics:

- The project is located within 1,000 feet of sensitive receptors.
- Project construction would last longer than two months.

- Project construction would not utilize equipment rated USEPA Tier 4 (for equipment of 50 horsepower or more); construction equipment fitted with Level 3 Diesel Particulate Filters (for all equipment of 50 horsepower or more); or alternative fuel construction equipment.

If the HRA determines that construction will exceed BAAQMD significance thresholds, the HRA shall provide mitigation measures to reduce the impact to less than significant, including but not limited to requiring the use of Tier 4 engines, Level 3 Diesel Particulate Filters, and/or alternative fuel construction equipment.

AQ-2 Reduce Operational Toxic Air Contaminants Near Sensitive Receptors

For new sensitive receptors proposed within 500 feet of a major sources of TAC (high-volume roadways with 10,000 vehicles or more per day), the project applicant shall prepare an operational health risk assessment for the City's review and approval. If TAC exposure at new sensitive receptor sites would exceed BAAQMD health risk thresholds, require the project applicant include mechanical air filtration or other measures to reduce health risk exposure to acceptable levels.

AQ-3 Conduct Operational Health Risk Assessment

Prior to permit approval for industrial, warehousing, or commercial land uses that would generate at least 100 diesel trucks per day or 40 or more trucks with diesel-powered transport refrigeration units per day, the applicant shall submit an operational health risk assessment (HRA) or submit proof that an HRA is not required in accordance with BAAQMD thresholds to the City for review and approval. If required by the City, the operational HRA shall be prepared in accordance with the Office of Environmental Health Hazard Assessment and BAAQMD requirements, and mitigated to an acceptable level. Typical measures to reduce risk impacts may include, but are not limited to:

- Restricting idling on-site beyond Air Toxic Control Measures idling restrictions, as feasible.
- Electrifying warehousing docks.
- Truck Electric Vehicle (EV) Capable trailer spaces.
- Requiring use of newer equipment and/or vehicles.
- Restricting off-site truck travel through the creation of truck routes.

The operational HRA shall be provided to the City for review and concurrence prior to project approval.

Significance After Mitigation

Construction and operational related TACs exposure impacts would be less than significant with implementation of Mitigation Measures AQ-1 through AQ-3.

Threshold 4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?
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Impact AQ-4 THE PROJECT WOULD NOT CREATE OBJECTIONABLE ODORS THAT COULD ADVERSELY AFFECT A SUBSTANTIAL NUMBER OF PEOPLE. IMPACTS RELATED TO ODORS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

Construction of development and mobility improvements would require the operation of construction equipment and asphalt paving, which could generate oil, diesel fuel, and asphalt odors.

The odors would be limited to the construction period and would be temporary. Therefore, odors emitted from the construction of individual future projects under the project would be less than significant.

As stated in the BAAQMD CEQA Guidelines, land uses typically producing objectionable odors include agricultural uses, wastewater treatment plants, food manufacturing plants, chemical plants, composting, refineries, landfills, and confined animal facilities. Development facilitated by the 2040 General Plan would include commercial, retail, hotel, industrial, warehouse, and research and development uses. Most of these land uses typically do not produce objectionable odors; however, certain commercial and industrial uses would have the potential to generate nuisance odors. Therefore, individual projects under the 2040 General Plan could generate potentially significant objectionable odors unless analyzed and mitigated. Mitigation Measure AQ-4 would require project applicants to evaluate potential odor impacts and implement odor control measures to the extent feasible. Therefore, 2040 General Plan impacts related to operational odor impacts would be less than significant with mitigation. In addition, other odors from development of the 2040 General Plan include odors associated with vehicle and engine exhaust and idling; however, odors from vehicles are not stationary and are dispersed throughout the roadway network and would result in less than significant impacts.

Mitigation Measures

AQ-4 Reduce Operational Odor Impacts

Prior to discretionary approval by the City, if it is determined by the City that a development project has the potential to emit nuisance odors beyond the property line, the project applicant shall prepare an odor management plan and submit it to the City for review and approval. Facilities that have the potential to generate nuisance odors include, but are not limited to:

- Wastewater treatment plants
- Composting, green waste, or recycling facilities
- Fiberglass manufacturing facilities
- Painting/coating operations
- Large-capacity coffee roasters
- Food-processing facilities

The odor management plan shall demonstrate compliance with the latest BAAQMD screening distances and guidelines. The odor management plan shall identify the best available control technologies for toxics (T-BACTs) that will be utilized to reduce potential odors to acceptable levels, including appropriate enforcement mechanisms. T-BACTs may include but are not limited to scrubbers (i.e., air pollution control devices) at the industrial facility. T-BACTs identified in the odor management plan shall be identified as mitigation measures in the documents prepared for the development project and/or incorporated into the project's site plan.

Significance After Mitigation

Odor impacts would be less than significant with implementation of Mitigation Measure AQ-4 to reduce operational odor impacts.

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4.3 Biological Resources

This section summarizes the biological resources in the Planning Area and analyzes the potential effects on biological resources related to implementation of the project.

4.3.1 Setting

This following information was obtained through a desktop literature review of the United States Fish and Wildlife Service's (USFWS) National Wetlands Inventory (NWI) and Information for Planning and Consultation (IPaC); the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDDB); the National Oceanic and Atmospheric Administration's (NOAA) Protected Resources Application; the Napa County General Plan Environmental Impact Report; and Napa County vegetation mapping.

a. Land Cover

The Planning Area contains substantial urban development. There are, however, areas of relatively undisturbed natural habitats in the Planning Area. Descriptions of the vegetation communities in the Planning Area are listed below, based on vegetation mapping in Napa County (Napa County 2019). Figure 4.3-1 shows the vegetation communities and land covers within the Planning Area.

Grassland

Grassland is a relatively common biotic community within the Planning Area. Three common grassland assemblages exist within Napa County: annual grassland, native grassland, and serpentine (bunchgrass) grassland. Of these assemblages, annual grassland is found within the Planning Area. Vernal pools are found in some grassland areas (County of Napa 2007).

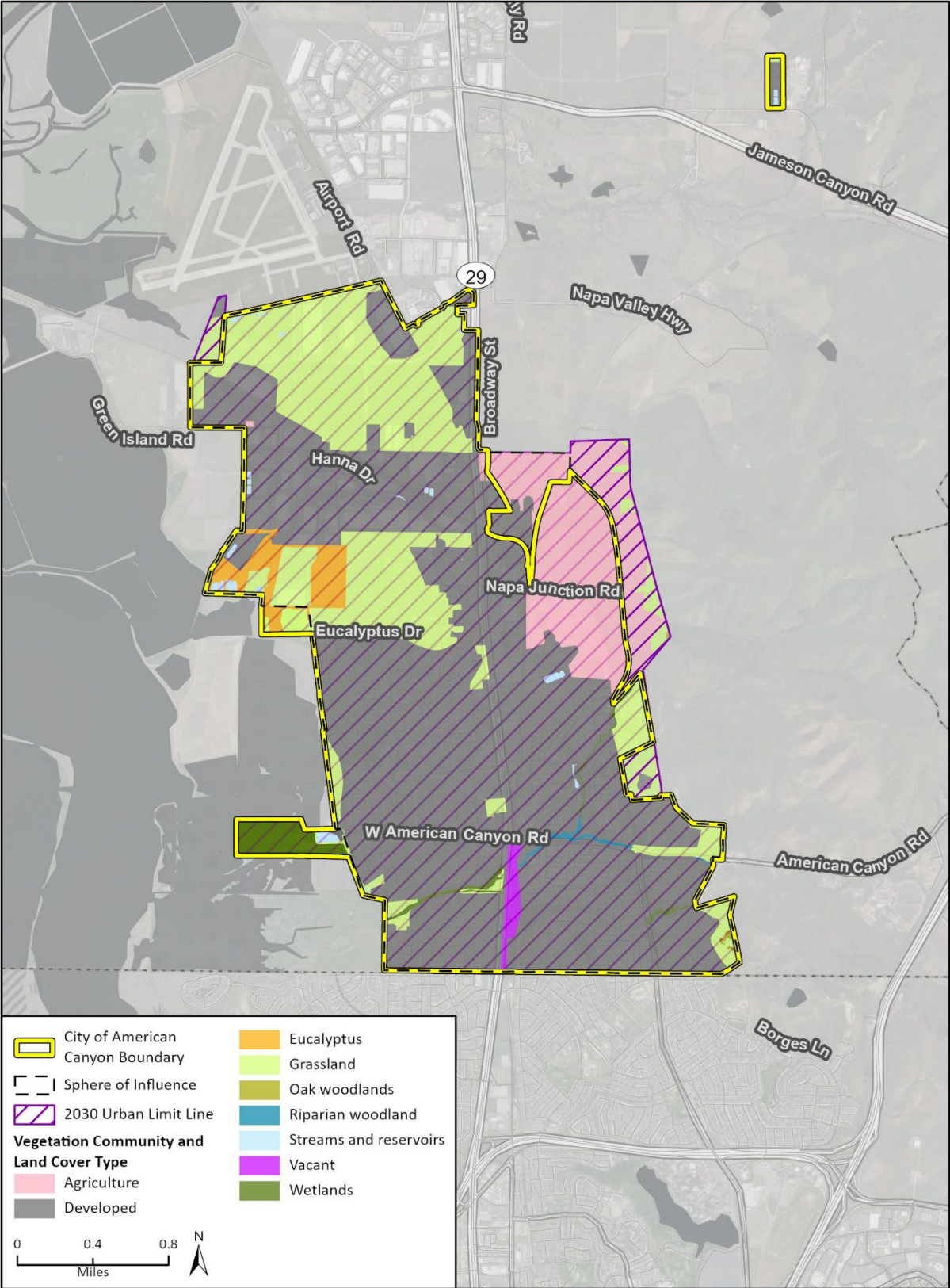
Oak Woodland

Oak woodland occurs across a broad range of elevations, on gentle and steep slopes. There are 13 vegetation types (alliances or associations) within the oak woodland group. Six of these are dominated by evergreen oak species, six are dominated by deciduous oak species, and one is a mixture of deciduous and evergreen oaks (County of Napa 2007). Within the Planning Area, oak savannahs are protected via the American Canyon Municipal Code, Chapter 19.24.

Riparian Woodland

Within the Planning Area, riparian areas are associated with the American Canyon Creek, Rio Del Mar Creek, North Slough, and No Name Creek. Riparian woodland habitat can provide shade, habitat, and nesting sites for resident birds, migratory birds, and other wildlife such as reptiles. In addition, riparian habitat can serve as rearing habitat for anadromous fish.

Figure 4.3-1 Vegetation Communities in American Canyon



Wetlands, Streams, and Reservoirs

Wetlands are highly productive habitats for plants and wildlife. Coastal wetlands and riparian wetlands (linear areas adjacent to streams, creeks and drainages) are especially productive for plants, because recurrent flooding in these areas delivers influxes of soil and nutrients. This highly productive biotic community provides shelter and food sources for resident and migratory wildlife. The structural complexity and existence of native vegetation in these areas enhance the productivity of wetlands for wildlife species, by providing diverse sites for foraging and breeding (Napa County 2007). According to the USFWS NWI, wetlands in and surrounding the Planning Area consist of estuarine and marine habitats, freshwater ponds, freshwater emergent wetlands, and riverine habitats (USFWS 2022a).

Open water habitats, such as streams and reservoirs, are highly diverse in size, type, water chemistry, and hydrologic functions. The Napa River is a prominent aquatic feature in the Planning Area (County of Napa 2007).

Eucalyptus

American Canyon contains eucalyptus groves near the northwestern border of its city limits. The eucalyptus groves are surrounded by industrial development, a school, and public facilities. Eucalyptus are non-native and invasive in California.

b. Special Status Species

For the purposes of this analysis, special-status species include the following:

- Species listed as threatened or endangered under the Federal Endangered Species Act (FESA), including proposed and candidate species.
- Species listed as candidate, threatened, or endangered under the California Endangered Species Act (CESA).
- Species designated as Fully Protected by the California Fish and Game Code (CFGF), and Species of Special Concern or Watch List by CDFW.
- Plant species protected by the Native Plant Protection Act (NPPA) (State Rare).
- Plant species with California Native Plant Society (CNPS) California Rare Plant Ranks (CRPR) 1A, 1B, 2A and 2B.
- Species designated as locally important by the Local Agency and/or otherwise protected through ordinance, local policy, or HCPs/NCCPs.

Queries of the USFWS's IPaC, CNDDb, and CNPS's online Inventory of Rare and Endangered Plants of California were conducted to obtain comprehensive information regarding special-status species and sensitive vegetation communities known or with potential to occur in the Planning Area.

Queries of the CNPS inventory and CNDDb database included the Cuttings Wharf U. S. Geological Service (USGS) 7.5-minute topographic quadrangle and surrounding 11 quadrangles (Cordelia, Sonoma, Napa, Mt. George, Fairfield North, Fairfield South, Vine Hill, Benicia, Mare Island, Petaluma Point, and Sears Point). The results of these scientific database queries are provided as Appendix B of this EIR. There are 51 plant species and 44 animal species with potential to occur within the Planning Area which meet at least one of the criteria for a special status species, described above (Appendix B). These include the federally endangered Suisun thistle (*Cicuta maculate* var. *bolanderi*), the federally threatened and State species of special concern California red-legged frog

(*rana draytonii*), the federally threatened green sturgeon – southern DPS (*Acipenser medirostris* pop. 1), and the federally threatened vernal pool fairy shrimp (*Branchinecta lynchi*) (Appendix B).

c. Nesting Birds

Suitable nesting sites for avian species protected by the federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGF), including shrubs, trees, man-made structures, and the ground surface occur throughout the Planning Area. Some species prefer vegetation for nesting, including ornamental vegetation and some species can be found nesting in man-made structures, such as power poles or the eaves of buildings. Nesting birds may occur during the breeding season (generally February 1 through August 31 but beginning January 1 for some raptor species).

d. Sensitive Vegetation Communities and Critical Habitat

Various habitats support special status species. The City identifies the following habitats as sensitive, and the American Canyon Municipal Code provides enhanced protection for these habitats and subsequently, species within these habitats:

- Riparian corridors
- Coastal saltmarsh
- Mixed hardwood forest
- Oak savannah
- Vernal pool
- Wetland habitats

The following five sensitive natural communities occur within the 12 quadrangles search range (Appendix B):

- Coastal Brackish Marsh
- Northern Claypan Vernal Pool
- Northern Coastal Salt Marsh
- Northern Vernal Pool
- Serpentine Bunchgrass

In addition, NOAA identifies critical habitat for green sturgeon – southern DPS (*Acipenser medirostris* pop. 1) in the waters adjacent to the western border of the Planning Area (NOAA 2022). UFWFS identifies critical habitat for the California red-legged frog (*rana draytonii*) and the vernal pool fairy shrimp within the City limits (*Branchinecta lynchi*) (USFWS 2022a).

e. 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 linkages do not necessarily need to be the same or of the same quality as the habitats that are being linked. Rather, the linkage 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.

Migration corridors can be bordered on either side by urban land uses, and within the City limits these corridors often include barriers to movement such as developed areas and roads. Substantial habitat connectivity occurs generally to the east and north of the City's sphere-of-influence (SOI), as well as within the City's riparian corridors. As defined by CDFW, the eastern portion of American Canyon, including the City's SOI and urban limit line are within essential habitat connectivity areas. However, due to the existing level of development, the area is considered less permeable, meaning it is more difficult for animals to migrate in these areas (CDFW 2022).

4.3.2 Regulatory Setting

a. Federal Regulations

Federal Endangered Species Act

The Federal Endangered Species Act of 1973 and subsequent amendments provide for the conservation of endangered and threatened species, and the ecosystems upon which they depend. FESA is intended to prevent the unlawful "take" of listed fish, wildlife, and plant species. Section 9(a)(1)(B) specifically states take of species listed as threatened or endangered is unlawful. Take is defined as any action that would harass, harm, pursue, hunt, wound, shoot, kill, trap, capture, or collect any threatened or endangered species. Section 10 of the FESA allows the USFWS to issue incidental take permits if take of a listed species may occur during otherwise lawful activities. Section 10(a)(1)(B) requires a Habitat Conservation Plan for an incidental take permit on non-federal lands. Section 7 of the FESA requires federal agencies to aid in the conservation of listed species, and to ensure that the activities of federal agencies will not jeopardize the continued existence of listed species or adversely modify designated critical habitat. The USFWS and NOAA are responsible for administration of the FESA and have regulatory authority over federally listed species.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) makes it unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, or kill migratory birds, and prohibits the removal of nests occupied by migratory birds. The USFWS has regulatory authority for the MBTA.

Clean Water Act

The United States Army Corps of Engineers (USACE), under provisions of Section 404 of the Clean Water Act (CWA) and USACE implementing regulations, has jurisdiction over the placement of dredged or fill material into "waters of the United States." Congress enacted the CWA "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." In practice, the boundaries of certain waters subject to USACE jurisdiction under Section 404 have not been fully

defined. Previous regulations codified in 1986 defined “waters of the United States” as traditional navigable waters, interstate waters, all other waters that could affect interstate or foreign commerce, impoundments of waters of the United States, tributaries, the territorial seas, and adjacent wetlands.

USACE jurisdictional limits are typically identified by the Ordinary High Water Mark (OHWM) or the landward edge of adjacent wetlands, where present. The OHWM is the “line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area” (33 Code of Federal Regulations 328.3).

The USACE defines wetlands as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3). The USACE’s delineation procedures identify wetlands in the field based on indicators of three wetland parameters: hydrophytic vegetation, hydric soils, and wetland hydrology.

Fish and Wildlife Coordination Act

The USFWS also has responsibility for project review under the Fish and Wildlife Coordination Act. This statute requires that all federal agencies consult with USFWS, NOAA Fisheries, and the State’s wildlife agency (CDFW) for activities that affect, control, or modify streams and other water bodies. Under the authority of the Fish and Wildlife Coordination Act, USFWS, NOAA Fisheries, and the CDFW review applications for permits issued under Section 404 and provide comments to the SACE about potential environmental impacts.

b. State Regulations

California Endangered Species Act

The CDFW is responsible for administration of the California Endangered Species Act. For projects that may affect both a State and federal listed species, compliance with the FESA will satisfy the CESA, provided the CDFW determines that the federal incidental take authorization is consistent with the CESA.

Take is defined in the California Fish and Game Code (CFG) Section 86 as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” The CESA allows for take incidental to otherwise lawful activities under CFGC Section 2081. Project proponents wishing to obtain incidental take permits can do so through a permitting process outlined in California Code of Regulations (CCR) Section 783. Additionally, some sensitive mammals and birds are protected by the state as Fully Protected Mammals or Fully Protected Birds, as described in the CFGC, Sections 4700 and 3511, respectively.

Projects that may result in a take of a California listed species require a take permit under the CESA. The federal and State acts lend protection to species considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or den locations, communal roosts, and other essential habitat. Unlike the FESA, the CESA prohibits the take of not just listed endangered or threatened species, but also candidate species (species petitioned for listing).

The CESA defines an endangered species as:

...a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.

A threatened species is defined as:

...a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a threatened species.

Candidate species are defined as:

...a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list.

Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the FESA, CESA does not include listing provisions for invertebrate species. Article 3, Sections 2080 through 2085, of the CESA addresses the taking of threatened or endangered species by stating:

...no person shall import into this State, export out of this State, or take, possess, purchase, or sell within this State, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided.

California Fish and Game Code - Nesting Bird Protection

According to CFGC Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird [except English sparrows (*Passer domesticus*) and European starlings (*Sturnus vulgaris*)]. Sections 3503 and 3513 prohibit the taking of specific birds, their nests, eggs, or any portion thereof during the nesting season. Section 3503.5 specifically protects birds in the orders Falconiformes and Strigiformes (birds-of-prey). Section 3513 overlaps with the federal MBTA, prohibiting the take or possession of any migratory nongame bird.

California Native Plant Protection Act

The California Native Plant Protection Act (NPPA) was enacted in 1977 and allows the California Fish and Wildlife Commission to designate plants as rare or endangered. Currently, 64 species, subspecies, and varieties of plants are protected as rare under the NPPA. The NPPA prohibits take of endangered or rare native plants but includes some exceptions for agricultural and nursery operations; emergencies; and after properly notifying CDFW for vegetation removal from canals, roads, and other sites; changes in land use; and in certain other situations. Effective in 2015, CDFW promulgated regulations (14 CCR 786.9) under the authority of the NPPA, establishing that the CESA permitting procedures (CFG Code Section 2081) would be applied to plants listed under the NPPA as

"Rare." With this change, there is little practical difference between regulations and protocols for plants listed under CESA and those listed under the NPPA.

Clean Water Act Section 401, Porter-Cologne Water Quality Control Act

The State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) have jurisdiction over "waters of the State," which are defined as any surface water or groundwater, including saline waters, within the boundaries of the state (California Water Code sec. 13050(e)). These agencies also have responsibilities for administering Section 401 of the CWA. In addition, where Federal jurisdiction is not asserted (for example, due to a lack of connectivity to a Relatively Permanent Waters [RPW] and Traditional Navigable Waters [TNW]), RWQCB assert jurisdiction over "waters of the State" pursuant to Section 13263 of the Porter-Cologne Water Quality Control Act, which are defined as any surface water or groundwater, including saline waters, within the boundaries of the State. In this event, the SWRCB may issue general Waste Discharge Requirements (WDRs) regarding discharges to "isolated" waters of the State if limiting criteria are not exceeded (Water Quality Order No. 2004-0004-DWQ, Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the USACE to be Outside of Federal Jurisdiction) or project-specific WDRs.

The SWRCB and RWQCBs have not established regulations for field determinations of waters of the state except for wetlands. In many cases the RWQCBs interpret the limits of waters of the State to be bounded by the OHWM unless isolated conditions or ephemeral waters are present. However, in the absence of statewide guidance, each RWQCB may interpret jurisdictional boundaries within their region and the SWRCB has encouraged applicants to confirm jurisdictional limits with their RWQCB before submitting applications. As determined by the RWQCB, waters of the State may include riparian areas or other locations outside the OHWM, leading to a larger jurisdictional area over a given water body compared to the USACE.

Procedures for defining wetland waters of the State pursuant to the SWRCB's State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State went into effect May 28, 2020. The SWRCB defines an area as wetland if, under normal circumstances:

the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

The SWRCB's Implementation Guidance for the Wetland Definition and Procedures for Discharges of Dredge and Fill Material to Waters of the State (2020), states that waters of the U.S. and waters of the State should be delineated using the standard USACE delineation procedures, taking into consideration that the methods shall be modified only to allow for the fact that a lack of vegetation does not preclude an area from meeting the definition of a wetland.

California Fish and Game Code Section 1600 et seq.

Pursuant to CFGC Section 1600, CDFW has authority over all perennial, intermittent, and ephemeral rivers, streams, and lakes in the state, and requires any person, state or local governmental agency, or public utility to notify the CDFW before beginning any activity that would "substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material

containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake” that supports fish or wildlife resources.

A stream is defined as a “body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation” (CCR, Title 14 Section 1.72). A Lake or Streambed Alteration Agreement may be required for any project that would result in an adverse impact to a river, stream, or lake. CDFW jurisdiction typically extends to the top of the bank and out to the outer edge of adjacent riparian vegetation if present. However, CDFW can take jurisdiction over a body of flowing water and the landform that conveys it, including water sources and adjoining landscape elements that are byproducts of and affected by interactions with flowing water without regard to size, duration, or the timing of flow.

CDFW Special Animals List

Special-status wildlife species are those species included on the CDFW “Special Animals” list (CDFW 2020). “Special Animal” is a general term that refers to all the taxa the CNDDDB is interested in tracking, regardless of their legal or protection status. The CDFW considers the taxa on this list to be those of greatest conservation need. The species on this list generally fall into one or more of the following categories:

- Officially listed or proposed for listing under the CESA and/or FESA
- State or Federal candidate for possible listing
- Taxa that meet the criteria for listing, even if not currently included on any list, as described in CEQA Guidelines Section 15380
- Taxa considered by the Department to be a Species of Special Concern
- Taxa that are biologically rare, very restricted in distribution, declining throughout their range, or have a critical vulnerable stage in their life cycle that warrants monitoring
- Populations in California that may be on the periphery of a taxon’s range but are threatened with extirpation in California

c. Local Regulations

American Canyon Municipal Code

The American Canyon Municipal Code Title 14, Title 18, and Title 19 implement measures designed to protect biological resources. Chapter 14.28 implements requirements designed to reduce substantial adverse effects to water quality in the City. These include the following:

- Implementation of erosion control measures.
- Implementation construction and operational Best Management Practices (BMPs) to reduce protect water quality.
- Prohibition of discharge, modification, deposition, construction, or placement of material into a water course.

Chapter 18.40 sets design standards for development. Specifically, Section 18.40.110 sets the following requirements to protect trees:

- Requires existing trees to be preserved unless otherwise approved by City Council as part of site development plans.

- Mandates removed trees shall be replaced on-site unless an exception is approved by City Council.

Chapter 19.24 requires protection, preservation, and enhancement of biological habitats, plants, and wildlife within the City. Specifically, Chapter 19.24 requires the following:

- Requires the preparation of a biological assessment report for developments which have the potential to substantially adversely affect biological resources.
- Limits permitted uses in riparian corridors to development including underground utilities, flood control, fish and wildlife management, water supply projects, education and research, nonmotorized recreation, trails, bridges, and resource consumptive uses as provided in the California Fish and Game Code and Title 14 of the California Administrative Code.
- Prohibits development and grading that alters the biological integrity of a riparian corridor unless no feasible alternative exists, and damaged habitat is replaced with habitat of equal value.
- Requires development permitted in riparian corridors to minimize the removal of vegetation, erosion, sedimentation, and runoff; provide for sufficient passage of native and anadromous fish; minimize wastewater discharges and entrapment; prevent groundwater depletion or substantial interference with surface and subsurface flows; minimize the channelization of streams or other water courses, provide wildlife corridors to adjacent open space; buffer habitat areas, and use open space or conservation easements to protect sensitive species and their habitats.
- Requires development in wetlands areas and areas of existing or potential vernal pools be designed and sited to preserve these areas in their natural conditions. Requires habitat replacement for any wetland or vernal pool habitat removed.
- Requires development of areas designated as oak savannah, mixed hardwood forest, and coastal saltmarsh maintain a buffer from the edge of the designated habitat, maintain connectivity to surrounding habitats, and limit public access in areas where damage to habitats may occur.

4.3.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Based on Appendix G of the CEQA Guidelines a project may be deemed to have a significant impact on biological resources if it would:

1. 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;
2. 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;

3. 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;
4. 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;
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan

Methodology

The assessment of potential impacts to biological resources were informed based on a review of readily available information from the USFWS, CDFW, and the NOAA. As a programmatic document, this EIR presents an assessment of the potential for adoption of the 2040 General Plan to result in significant impacts to biological resources. Because the EIR is a long-term document intended to guide actions for many years into the future, this analysis relies on program-level and quantitative evaluation.

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 BIO-1 THE PROJECT COULD HAVE THE POTENTIAL TO HAVE AN ADVERSE IMPACT ON SPECIAL STATUS SPECIES. IMPLEMENTATION OF FEDERAL, STATE, AND LOCAL REGULATIONS AND POLICIES, AS WELL AS MITIGATION MEASURES BIO-1 AND BIO-2, WOULD ENSURE DEVELOPMENT FACILITATED BY THE PROJECT WOULD NOT HAVE A SUBSTANTIAL ADVERSE EFFECT ON CANDIDATE, SENSITIVE, OR SPECIAL STATUS SPECIES. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

As discussed in Section 4.3.1, *Setting*, there are 51 plant species and 44 animal species with potential to occur within the Planning Area. In addition, the Planning Area contains riparian corridors, coastal saltmarsh, mixed hardwood forest, and oak savannah which could serve as habitat for special status species. Critical habitat is also present within the Planning Area. Potentially significant effects on candidate, sensitive, or special status species would occur if temporary disturbance during construction or permanent development facilitated by the project would result in incremental direct loss of habitat, fragmentation of larger open areas and wildlife corridors, or disturbance of special status wildlife or vegetation species.

As shown in Figure 4.3-1, the City is primarily developed and vegetation communities primarily exist outside of the City's SOI. The American Canyon Municipal Code requires project-specific development to minimize the potential for impacts to biological resources. Section 19.24.030 of the American Canyon Municipal Code requires a biological assessment report to be prepared by a qualified professional chosen by the City for project-specific development which has the potential to adversely affect biological resources. Section 19.24.040 of the American Canyon Municipal Code prohibits residential, commercial, and industrial use in riparian corridors. Section 19.24.060 of the American Canyon Municipal Code requires development in areas that encompass oak savannah, mixed hardwood forest, and coastal saltmarsh to maintain buffers from these habitats as

recommended by the biological assessment report, maintain connectivity to surrounding habitats, and limit public access in areas where habitat damage may occur. In addition, the 2040 General Plan would include the following proposed policies that would help protect habitats:

- **Policy ENV-1.2: Sensitive Habitat Assessment and Impact Mitigation.** Require new development and redevelopment located within sensitive habitats, including coastal saltmarsh, mixed hardwood forest, oak savannah, vernal pools, and riparian habitats to provide a detailed assessment of the potential for impacts on these resources, and include measures to reduce any identifiable impacts.
- **Policy ENV-1.3: Habitat Conservation.** Support habitat conservation efforts to set aside and preserve suitable habitats, with priority given to habitats for rare and endangered species in American Canyon in accordance with state and federal resource agency requirements.

Compliance with the American Canyon Municipal Code and implementation of proposed policies in the 2040 General Plan would help ensure habitats are identified prior to project-specific siting and habitat areas are protected where applicable. However, the Municipal Code is only applicable to “significant biological habitats” defined as riparian corridors, coastal saltmarsh, mixed hardwood forest, oak savannah, vernal pools and wetlands (as defined by USFWS), and special-status species may occur in other habitats such as grasslands and eucalyptus stands, or less suitable habitats within the planning area. The Municipal Code also does not specify what level of mitigation would be required if impacts are unavoidable within significant biological habitats. Regionally occurring special-status species such as Crotch’s bumblebee (*Bombus crotchii*, state candidate endangered), monarch butterfly (*Danaus Plexippus*, federal candidate), burrowing owl (*Athene cunicularia*, California species of special concern), and western pond turtle (*Actinemys marmorata*, federally proposed threatened) may occur outside these significant biological habitats and development facilitated by the project could result in indirect impacts. Given the City does not have substantial contiguous, high-quality habitat to support special status species in previously developed and disturbed areas of the City and existing American Canyon Municipal Code requirements designed to limit the disturbance of habitat, including critical habitat, development facilitated by the project would not result in significant direct impacts to special status species due to habitat loss, but may impact special status-species if individuals are present during vegetation removal or construction. Therefore, impacts to special-status species would be potentially significant.

Construction activities associated with development and mobility improvements facilitated by the project could potentially result in impacts to birds and raptors. Nesting birds and raptors have the potential to nest on buildings, in shrubs and trees, in rocky outcrops, and on bare ground throughout the City. Vegetation, including street trees, in the City can provide refuge cover from predators, perching sites, and favorable nesting habitat. Future development and mobility improvements facilitated by the project must comply with the requirements of the MBTA and Sections 3503, 3503.5, and 3513 of the California Fish and Game Code, which include obtaining prior authorization by the USFWS before the take of a protected migratory bird species occurs, subject to USFWS requirements, and prohibiting the take, possession, or destruction of nests or eggs. However, existing City regulations do not mandate procedures to ensure compliance with the requirements of the MBTA and Sections 3503, 3503.5, and 3513 of the California Fish and Game Code. Therefore, it is possible development facilitated by the project could result in disturbance to birds or raptors and potentially violate the MBTA and Sections 3503, 3503.5, and/or 3513 of the California Fish and Game Code. Impacts to nesting birds would be potentially significant.

In addition, construction activities associated with development facilitated by the project could result in indirect impacts to bats, such as the pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), and big free-tailed bat (*Nyctinomops macrotis*). Bats have the potential to roost in buildings and trees, including street trees. If construction or demolition activities associated with development facilitated by the project would alter, demolish, or remove buildings or trees it could result in the disturbance of bat roosts. Therefore, impacts to special-status bats would be potentially significant.

Indirect impacts to special status species which utilize riparian corridors and other aquatic habitat could occur because of future development and mobility improvements facilitated by the project. The federal Clean Water Act requires compliance with the requirements of the National Pollutant Discharge Elimination System (NPDES) Construction General Permit for projects disturbing more than one acre during construction. Compliance with the Construction General Permit requires the development of a Stormwater Pollution Prevention Plan (SWPPP) developed by a certified Qualified SWPPP Developer. The SWPPP includes project-specific BMPs to control erosion, sediment release, and otherwise reduce the potential for discharge of pollutants from construction into stormwater. Typical BMPs include, but are not limited to, installation of silt fences, erosion control blankets, and anti-tracking pads at site exits to prevent off-site transport of soil materials. Chapter 14.28 of the American Canyon Municipal Code requires any construction activities to implement appropriate BMPs to prevent the discharge of sediment. If a project would not be required to submit a SWPPP pursuant to the NPDES Construction General Permit, the City requires implementation of an Erosion and Sediment Control Plan for any project subject to a grading permit. In addition, American Canyon Municipal Code Section 14.28.082 requires implementation of a Stormwater Control Plan (SCP) for all new development and redevelopment projects subject to post-construction stormwater control measure requirements. In addition, the 2040 General Plan would include the following proposed policies that would minimize water quality impacts:

- **Policy U-4.1: Storm Drainage Maintenance.** Maintain existing public storm drains and flood control facilities and construct upgraded and expanded storm drain and flood control facilities, where necessary, to protect existing and accommodate new permitted development.
- **Policy U-4.8: Low Impact Development.** Require new developments to install green infrastructure consistent with the best management practices of the State and the San Francisco Bay Regional Water Quality Control Board, including but not limited to pervious pavement, infiltration basins, raingardens, green roofs, rainwater harvesting systems, and other types of low impact development (LID).

Compliance with these regulatory requirements would minimize indirect impacts to special status species that utilize aquatic and riparian habitat. Therefore, the project would result in less than significant indirect impacts to special status species within aquatic or riparian habitat.

Mitigation Measures

BIO-1 Biological Resources Screening and Assessment

For projects proposed within undeveloped parcels, the City shall require project applicants to engage a qualified biologist (having the appropriate education and experience level) to perform a baseline Biological Resources Screening and Assessment to determine whether projects proposed within undeveloped parcels have any potential to impact special-status biological resources, inclusive of special-status plants and animals, sensitive vegetation communities (including vernal

pools and other wetlands), and critical habitat. If it is determined that the project has no potential to impact biological resources, no further action is required. If the project would have the potential to impact biological resources, prior to construction, a qualified biologist shall conduct a project-specific biological analysis to document the existing biological resources within a project footprint plus a minimum buffer of 500 feet around the project footprint, as is feasible, and to determine the potential impacts to those resources. The project-specific biological analysis shall evaluate the potential for impacts to all biological resources including, but not limited to special-status species, nesting birds, wildlife movement, sensitive plant communities, critical habitats, and other resources judged to be sensitive by local, state, and/or federal agencies. If the project would have the potential to impact these resources, the following mitigation measures (mitigation measures BIO-2 through BIO-8) shall be incorporated, as applicable, to reduce impacts to a less than significant level. Pending the results of the project-specific biological analysis, design alterations, further technical studies (e.g., protocol surveys) and consultations with the USFWS, CDFW, and/or other local, state, and federal agencies may be required. Note that specific surveys described in the mitigation measures below may be completed as part of the project-specific biological analysis where suitable habitat is present.

BIO-2 Special-status Plant Species Surveys

If the project-specific Biological Resources Screening and Assessment (Mitigation Measure BIO-1) determines that there is potential for significant impacts to federally or state-listed plants or regional population level impacts to species with a CRPR of 1B or 2B from project development, a qualified biologist shall complete surveys for special-status plants prior to any vegetation removal, grubbing, or other construction activity (including staging and mobilization). The surveys shall be floristic in nature and shall be seasonally timed to coincide with the target species. All plant surveys shall be conducted by a qualified biologist during the blooming season prior to development permit approval. All special-status plant species identified on site shall be mapped onto a site-specific aerial photograph or topographic map with the use of Global Positioning System unit. Surveys shall be conducted in accordance with the most current protocols established by the CDFW, USFWS, and the local jurisdictions if said protocols exist. A report of the survey results shall be submitted to the City, and the CDFW and/or USFWS, as appropriate, for review and/or approval.

BIO-3 Special-status Plant Species Avoidance, Minimization, and Mitigation

If federally and/or state-listed or CRPR 1B or 2 species are found during special-status plant surveys (pursuant to Mitigation Measure BIO-2), and would be directly impacted, or there would be a population-level impact to non-listed sensitive species, then the project shall be re-designed to avoid impacting those plant species, where feasible. Rare and listed plant occurrences that are not within the immediate disturbance footprint but are located within 50 feet of disturbance limits shall have bright orange protective fencing installed at least 30 feet beyond their extent, or other distance as approved by a qualified biologist, to protect them from harm.

BIO-4 Habitat Restoration Plan

If federally or state-listed plants or non-listed special-status CRPR 1B and 2 plant populations identified during special status plant surveys (pursuant to Mitigation Measure BIO-2), cannot be avoided, and will be impacted by development, all impacts shall be mitigated by the applicant at a ratio not lower than 1:1 per acre of impact (and 1:1 per tree), and to be determined by the City (in coordination with CDFW and USFWS as and if applicable) for each species as a component of habitat restoration. A qualified biologist shall prepare and submit a restoration plan to the City for review

and approval prior to City approval of project plans. (Note: if a federally and/or state-listed plant species will be impacted, the restoration plan shall be submitted to the USFWS and/or CDFW for review, and federal and/or state take authorization may be required by these agencies.) The restoration plan shall include, at a minimum, the following components:

1. Description of the project/impact site (i.e., location, responsible parties, areas to be impacted by habitat type).
2. Goal(s) of the compensatory mitigation project (type[s] and area[s]) of habitat to be established, restored, enhanced, and/or preserved; specific functions and values of habitat type[s] to be established, restored, enhanced, and/or preserved).
3. Description of the proposed compensatory mitigation site (location and size, ownership status, existing functions, and values).
4. Implementation plan for the compensatory mitigation site (rationale for expecting implementation success, responsible parties, schedule, site preparation, planting plan).
5. Maintenance activities during the monitoring period, including weed removal as appropriate (activities, responsible parties, schedule).
6. Monitoring plan for the compensatory mitigation site, including no less than quarterly monitoring for the first year (performance standards, target functions and values, target acreages to be established, restored, enhanced, and/or preserved, annual monitoring reports).
7. Success criteria based on the goals and measurable objectives; said criteria to be, at a minimum, at least 80 percent survival of container plants and 30 percent relative cover by vegetation type or other industry standards as determined by a qualified restoration specialist.
8. An adaptive management program and remedial measures to address any shortcomings in meeting success criteria.
9. Notification of completion of compensatory mitigation and agency confirmation.
10. Contingency measures (initiating procedures, alternative locations for contingency compensatory mitigation, funding mechanism).
11. All nursery plants used in restoration shall be inspected for sudden oak death.

BIO-5 Endangered/Threatened Special-status Species Habitat Assessments and Protocol Surveys

If the results of the project-specific biological analysis (Mitigation Measure BIO-1) determine that suitable habitat may be present for federal or state listed, candidate, or proposed species, protocol habitat assessments/surveys shall be completed in accordance with current CDFW and/or USFWS protocols prior to issuance of any construction permits. If, through consultation with the CDFW and/or USFWS, it is determined that protocol habitat assessments/surveys are not required, the applicant shall complete and document this consultation and submit it to the City prior to issuance of any construction permits. Each protocol has different survey and timing requirements. The applicant shall be responsible for ensuring they understand the protocol requirements and shall hire a qualified biologist to conduct protocol surveys. (Note: if a federally and/or state-listed wildlife species will be impacted, federal and/or state take authorization may be required by USFWS and CDFW.)

BIO-6 Endangered/Threatened Animal Species Avoidance and Minimization

The following measures shall be applied to impacted aquatic and/or terrestrial animal species identified by the project-specific Biological Resources Screening and Assessment required under Mitigation Measure BIO-1.

1. Ground disturbance shall be limited to the minimum necessary to complete the project. A qualified biologist shall flag the project limits of disturbance. Areas of special biological concern within or adjacent to the limits of disturbance shall have highly visible orange construction fencing installed between said area and the limits of disturbance.
2. All projects occurring within/adjacent to aquatic habitats (including riparian habitats and wetlands) shall be completed between April 1 and October 31, if feasible, to avoid impacts to sensitive aquatic species. Any work outside these dates would require project-specific approval from the City and may be subject to regulatory agency approval.
3. All projects occurring within or adjacent to sensitive habitats that may support federally and/or state-listed endangered/threatened species shall have a CDFW- and/or USFWS-approved biologist present during all initial ground disturbing/vegetation clearing activities. Once initial ground disturbing/vegetation clearing activities have been completed, said biologist shall conduct daily pre-activity clearance surveys for endangered/threatened species. Alternatively, and upon approval of the CDFW and/or USFWS, said biologist may conduct site inspections at a minimum of once per week to ensure all prescribed avoidance and minimization measures are fully implemented.
4. No endangered/threatened species shall be captured and relocated without express permission from the CDFW and/or USFWS.
5. If at any time during project construction an endangered/threatened species enters the construction site or otherwise may be impacted by the project, all project activities shall cease. A CDFW/USFWS-approved biologist shall document the occurrence and consult with the CDFW and USFWS, as appropriate, to determine whether it was safe for project activities to resume.
6. For all work occurring in areas where endangered/threatened species may be present and are at risk of entering the project site during construction, the applicant shall install exclusion fencing along the project boundaries prior to start of construction (including staging and mobilization). The placement of the fence shall be at the discretion of the CDFW/USFWS-approved biologist. This fence shall consist of solid silt fencing placed at a minimum of three feet above grade and two feet below grade and shall be attached to wooden stakes placed at intervals of not more than five feet. The applicant shall inspect the fence weekly and following rain events and high wind events and shall be maintained in good working condition until all construction activities are complete.
7. All vehicle maintenance/fueling/staging shall occur not less than 100 feet from any riparian habitat or water body, including seasonal wetland features. 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.
8. No equipment shall be permitted to enter wetted portions of any affected drainage channel or wetland.
9. At the end of each workday, excavations shall be secured with a cover or a ramp provided to prevent wildlife entrapment.

10. All trenches, pipes, culverts, or similar structures shall be inspected for animals prior to burying, capping, moving, or filling.
11. Considering the potential for the project to impact federally and state-listed species and their habitat, the City shall contact CDFW and USFWS to identify mitigation banks within Napa County during project development. If the results of the project-specific biological analysis (Mitigation Measure BIO-1) determine that impacts to federally and state threatened or endangered species habitat are expected, City and/or applicant shall explore species-appropriate mitigation bank(s) servicing the region for purchase of mitigation credits.
12. Prior to grading and construction in natural areas of containing suitable upland habitat, a qualified biologist shall conduct a preconstruction survey as determined necessary during the biological analysis (Mitigation Measure BIO-1) . The survey should include a transect survey over the entire project disturbance footprint (including access and staging areas), and mapping of suitable habitat features, such as burrows, that are potentially suitable for listed species. If any listed species are detected, no work shall be conducted until the individual(s) leaves the site of their own accord, unless federal and/or state “take” authorization has been issued for relocation. Typical preconstruction survey procedures, such as burrow scoping and burrow collapse, cannot be conducted without federal and state permits. If any life stage of listed species are found within the survey area, the City and/or applicant shall consult with the USFWS and CDFW to determine the appropriate course of action to comply with the FESA and CESA, if permits are not already in place at the time of construction.

BIO-7 Pre-Construction Bird Surveys, Avoidance, and Notification

For all future development under the 2040 General Plan, construction activities initiated during the bird nesting season (February 1 – September 15), involving removal of vegetation (e.g. trees and shrubs), abandoned structures, or other nesting bird habitat, a pre-construction nesting bird survey shall be conducted no more than 5 days prior to initiation of ground disturbance and vegetation removal. The nesting bird pre-construction survey shall be conducted on foot and shall include a buffer around the construction site at a distance determined by a qualified biologist, including staging and storage areas. The minimum survey radii surrounding the work area shall be the following: 250 feet for non-raptors and 1,000 feet for raptors. The survey shall be conducted by a qualified biologist familiar with the identification of avian species known to occur in the American Canyon region. If construction lapses for seven days or longer, the qualified biologist shall conduct another focused survey before project activities are reinitiated. If nests are found, an avoidance buffer shall be determined by the biologist dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site. The qualified biologist shall observe the active nest to establish a behavioral baseline of the adults and nestlings, if present. The qualified biologist shall continuously monitor the active nests to detect signs of disturbance and behavioral change as a result of construction impacts, such as noise, vibration, odors, or worker/equipment motion. If signs of disturbance and behavioral changes are observed, the qualified biologist shall cease work causing those changes and may contact CDFW or USFWS for guidance. The buffer shall be demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to demarcate the boundary. All construction personnel shall be notified of the buffer zone as an “Ecologically Sensitive Area” and to avoid entering the buffer zone during the nesting season. No ground disturbing activities shall occur within the buffer until the biologist has confirmed that breeding/nesting is completed and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist on the basis that the encroachment will not be detrimental to an active nest. A report summarizing the

pre-construction survey(s) shall be prepared by a qualified biologist and shall be submitted to the City prior to the commencement of construction activities.

Project site plans shall include a statement acknowledging compliance with the federal MBTA and California Fish and Game Code that includes avoidance of active bird nests and identification of Best Management Practices to avoid impacts to active nests, including checking for nests prior to construction activities during February 1 to September 15, and what to do if an active nest is found so that the nest is not inadvertently impacted during grading or construction activities.

BIO-8 Roosting Bat Surveys and Avoidance Prior to Removal

For all future development under the 2040 General Plan that will require the removal of large trees (greater than 20 inches in diameter at five feet from the ground), abandoned buildings, bridges, or other suitable roosting structure identified during the Biological Resources Screening and Assessment (Mitigation Measure BIO-1), prior to tree and/or structure removal, a qualified biologist shall conduct a focused survey of all trees and structures to be removed or impacted by construction activities to determine whether active roosts of special-status bats are present on site. Tree or structure removal shall be planned for either the spring or the fall, and timed to ensure both suitable conditions for the detection of bats and adequate time for tree and/or structure removal to occur during seasonal periods of bat activity exclusive of the breeding season, as described below. Trees and/or structures containing suitable potential bat roost habitat features shall be clearly marked or identified. If no bat roosts are found, the results of the survey will be documented and submitted to the City within 30 days of the survey, after which no further action will be required.

If roosts are present, the biologist shall prepare a site-specific roosting bat protection plan to be implemented by the contractor following the City's approval. Additionally, the qualified biologist shall determine compensatory mitigation for temporary or permanent habitat loss due to tree removal, in conjunction with CDFW. The plan shall incorporate the following guidance as appropriate:

- When possible, removal of trees/structures identified as suitable roosting habitat shall be conducted during seasonal periods of bat activity, including the following:
 - Between September 1 and about October 15, or before evening temperatures fall below 45 degrees Fahrenheit and/or more than 0.5 inch of rainfall within 24 hours occurs.
 - Between March 1 and April 15, or after evening temperatures rise above 45 degrees Fahrenheit and/or no more than 0.5 inch of rainfall within 24 hours occurs.
- If a tree/structure must be removed during the breeding season and is identified as potentially containing a colonial maternity roost, then a qualified biologist shall conduct acoustic emergence surveys or implement other appropriate methods to further evaluate if the roost is an active maternity roost. Under the biologist's guidance, the contractor shall implement measures similar to or exceeding the following:
 - If it is determined that the roost is not an active maternity roost, then the roost may be removed in accordance with the other requirements of this measure.
 - If it is found that an active maternity roost of a colonial roosting species is present, the roost shall not be disturbed during the breeding season (April 15 to August 31).
- Tree removal procedures shall be implemented using a two-step tree removal process. This method is conducted over two consecutive days and works by creating noise and vibration by cutting non-habitat branches and limbs from habitat trees using chainsaws only (no excavators

or other heavy machinery) on day one. The noise and vibration disturbance, together with the visible alteration of the tree, is very effective in causing bats that emerge nightly to feed to not return to the roost that night. The remainder of the tree is removed on day two.

- Prior to the demolition of vacant structures within the project site, a qualified biologist shall conduct a focused habitat assessment of all structures to be demolished. The habitat assessment shall be conducted enough in advance to ensure the commencement of building demolition can be scheduled during seasonal periods of bat activity (see above), if required. If no signs of day roosting activity are observed, no further actions will be required. If bats or signs of day roosting by bats are observed, a qualified biologist will prepare specific recommendations such as partial dismantling to cause bats to abandon the roost, or humane eviction, both to be conducted during seasonal periods of bat activity, if required.
- If the qualified biologist determines a roost is 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 consultation with 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.

BIO-9 Conduct Pre-construction Crotch's Bumblebee Surveys and Implement Avoidance Measures

If the results of the project-specific biological analysis (Mitigation Measure BIO-1) determine that suitable habitat may be present for Crotch's bumble bee, a habitat assessment shall be performed by a qualified biologist knowledgeable and experienced with Crotch's bumblebee and the habitat in which they occur. If the biologist determines that suitable habitat for Crotch's bumblebee is present, a focused survey shall be performed during the species' active flight period for Crotch's bumblebee and peak blooming period of nectar and pollen sources (May 1 through July 31). The Crotch's bumblebee survey shall be conducted on foot and shall encompass the entirety of a project site and focus on areas that allow for the highest probability of detection, such as high abundance nectar or pollen sources and rodent burrows that may be used for breeding and nesting. If Crotch's bumblebee is determined to be present, the project proponent shall map the locations of the observed bumblebee, areas of abundant nectar or pollen sources, and any active nesting sites. A report summarizing the results of the habitat assessment and focused survey (if required) shall be prepared by the qualified biologist and shall be submitted to the City prior to the commencement of construction activities. Further, consultation with the CDFW will be necessary in the event Crotch's bumblebee was observed within a project site and an Incidental Take Permit, in accordance with the California Endangered Species Act, may be required prior to initiating any ground disturbance on the site. If Crotch's bumble are not listed and no longer candidates for listing at the time of project implementation, this mitigation measure would not be required.

Significance After Mitigation

Implementation of Mitigation Measure BIO-1 through BIO-9 would reduce potential impacts to special-status species, nesting birds, and roosting bats to a less than significant level by requiring Biological Resources Screening and Assessments, avoidance and minimization, habitat restoration, and preconstruction surveys.

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?

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 BIO-2 DEVELOPMENT AND MOBILITY IMPROVEMENTS FACILITATED BY THE PROJECT WOULD BE SUBJECT TO ADOPTED CITY REGULATIONS TO MINIMIZE IMPACTS TO RIPARIAN HABITAT, SENSITIVE NATURAL COMMUNITIES, AND WETLANDS. COMPLIANCE WITH THE NPDES CONSTRUCTION GENERAL PERMIT, MS4 STORM WATER PERMIT, AMERICAN CANYON MUNICIPAL CODE, AND PROPOSED POLICIES IN THE 2040 GENERAL PLAN WOULD ENSURE POTENTIAL IMPACTS TO RIPARIAN HABITAT, SENSITIVE NATURAL COMMUNITIES, AND WETLANDS WOULD BE LESS THAN SIGNIFICANT.

The City identifies riparian corridors, coastal saltmarsh, mixed hardwood forest, and oak savannah as sensitive areas. These areas support a range of wildlife species. Riparian areas in particular shade aquatic habitats and maintain cooler water temperatures for wildlife within riparian areas. In addition, the CNDDDB identifies coastal brackish marsh, northern claypan vernal pools, northern coastal salt marsh, northern vernal pool, and serpentine bunchgrass as sensitive natural communities, which could occur in the Planning Area (Appendix B). According to the USFWS NWI, wetlands in and surrounding the City consist of estuarine and marine habitats, freshwater ponds, freshwater emergent wetlands, and riverine habitats (USFWS 2022a). Potentially significant effects on riparian or other sensitive natural communities would occur if future development or mobility improvements facilitated by the project result in the loss of habitat or degradation of habitat, such as impacts to water quality. Potentially significant impacts to state or federally protected wetlands could occur if development or mobility improvements facilitated by the project would result in the loss or degradation of existing wetlands.

Mobility improvements facilitated by the project, including improvements to roadways, and bicycle and pedestrian facilities, are not likely to result in the removal of riparian or other sensitive natural community habitat, as they would occur in areas of the City that are developed and surrounded by existing development. Development facilitated by the project would be subject to American Canyon Municipal Code requirements to protect riparian habitat and sensitive natural communities.

Section 19.24.040 of the American Canyon Municipal Code restricts residential, commercial, and industrial uses in riparian corridors and limits the potential for new development to substantially affect riparian areas. In addition, Section 19.24.040 requires development permitted in a riparian corridor to minimize the removal of vegetation, erosion, sedimentation, and runoff; minimize wastewater discharges and entrapment; buffer habitat from the built environment; and locate and design roads and utilities to avoid conflicts with biological resources, habitat areas, and wildlife corridors. Section 19.24.030 of the American Canyon Municipal Code requires a biological assessment report to be prepared for project-specific development that could result in potentially significant impacts to riparian habitat, wetlands, or vernal pools. This biological assessment would identify and provide mitigation for potentially significant impacts, in accordance with City review processes.

Section 19.24.050 of the American Canyon Municipal Code requires new development to be sited to preserve wetlands, including the retention of sufficient natural space. If preservation of wetlands for project-specific development is infeasible, the project applicant would be required to replace the

habitat consistent with the provisions of Section 19.24.050. Future development would not result in substantial adverse effects due to the direct removal of wetlands, as development facilitated by the project would primarily occur outside of substantial wetland habitat, and any wetland habitat that would be removed would be replaced in accordance with City requirements.

Section 19.24.060 of the American Canyon Municipal Code requires development of areas that encompass oak savannah, mixed hardwood forest, and coastal saltmarsh to maintain a buffer from the edge of the designated habitat zone as recommended by a biological assessment report, maintain connectivity to surrounding habitats, and limit public access in areas where damage to habitat may occur.

In addition, Section 14.28.110 of the American Canyon Municipal Code prohibits discharge into a watercourse; modification of the natural flow of water; deposition or removal of material from a watercourse; alteration of watercourse; or the placement of loose or unconsolidated material in or adjacent to a watercourse. Implementation of Section 14.28.110 would minimize the potential for development facilitated by the project to fill or hydrologically interrupt a wetland or damage water quality in riparian habitat. Development in state and/or federally protected wetlands would potentially be subject to United States Army Corps of Engineers, CDFW, and RWQCB permitting requirements.

In addition, the 2040 General Plan would include the following proposed policies that would protect riparian, creek, and wetland habitats:

- **Policy ENV-1.2: Sensitive Habitat Assessment and Impact Mitigation.** Require new development and redevelopment located within sensitive habitats, including coastal saltmarsh, mixed hardwood forest, oak savannah, vernal pools, and riparian habitats to provide a detailed assessment of the potential for impacts on these resources, and include measures to reduce any identifiable impacts.
- **Policy ENV-1.3: Habitat Conservation.** Support habitat conservation efforts to set aside and preserve suitable habitats, with priority given to habitats for rare and endangered species in American Canyon in accordance with state and federal resource agency requirements.
- **Policy: ENV-2.1: Creek Preservation.** Maintain American Canyon Creek within its natural waterway.
- **Policy ENV-2.2: Existing Streams and Creeks.** As required by wetland resource permitting agencies, require new development to incorporate existing streams and creeks into proposed development plans in their natural state to prevent degradation, erosion, or sedimentation and help impart a unique character to the city.

Development and mobility improvements facilitated by the project would be subject to applicable federal, State, and City requirements, which would minimize potential impacts to riparian habitat, sensitive natural communities, and wetlands. Through compliance with these regulations, the project would not have a substantial adverse impact on riparian habitat, sensitive natural communities, or wetlands. These impacts would be less than significant.

In addition, as discussed in Impact BIO-1, development and mobility improvements facilitated by the project would be required to comply with the provisions of the NPDES Construction General Permit, MS4 Storm Water Permit, American Canyon Municipal Code, and proposed policies in the 2040 General Plan. Compliance with these regulations would ensure future development facilitated by the project would not substantially degrade water quality in wetlands riparian habitats. These indirect impacts would be less than significant.

Mitigation Measure

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

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 BIO-3 IMPLEMENTATION OF THE PROJECT WOULD NOT SUBSTANTIALLY IMPEDE THE MOVEMENT OF NATIVE RESIDENT OR MIGRATORY FISH OR WILDLIFE SPECIES, OR WITH ESTABLISHED NATIVE RESIDENT OR MIGRATORY WILDLIFE CORRIDORS AFTER IMPLEMENTATION OF PROPOSED POLICIES IN THE 2040 GENERAL PLAN AND COMPLIANCE WITH THE AMERICAN CANYON MUNICIPAL CODE.

Habitat connectivity is generally located to the east and north of the Planning Area, as well as within the riparian corridors in the Planning Area. Potentially significant effects on wildlife movement would occur if temporary disturbance during construction or permanent new development facilitated by the project would result in the fragmentation or degradation of wildlife corridors or nursery sites. Mobility improvements facilitated by the project, including improvements to roadways, and bicycle and pedestrian facilities, would occur in areas of the City that are developed and generally are surrounded by existing development and urban disturbance. As a result, mobility improvements facilitated by the project would not result in potentially significant impacts to wildlife movement because they would not obstruct wildlife corridors or fragment habitat such that wildlife movement is restricted.

Due to the existing level of development, the Planning Area is not within an essential connectivity area as defined by CDFW (CDFW 2022). Development facilitated by the project would generally occur in areas of the City that are developed or surrounded by existing development and urban disturbance. The 2040 General Plan includes the following proposed policy to establish a network of open spaces along the City's natural drainages and riparian corridors:

- **ENV-1.5: Open Space Network.** Establish a network of open spaces along the city's natural drainages and riparian corridors and link significant biological habitats by restricting alteration to these resources and limiting land uses. Any recreational use of these areas shall be designed to avoid damaging sensitive habitat areas.

In addition, Section 19.24.040 of the American Canyon Municipal Code restricts uses in riparian corridors, which would minimize the potential impacts on riparian habitat. Furthermore, Section 19.24.040 requires project-specific development permitted within riparian corridors provide for sufficient passage of native and anadromous fish and provide wildlife corridors to adjacent open spaces.

The 2040 General Plan also includes the following proposed policy, which would minimize impacts from any future development or mobility improvements on sensitive habitat that could provide opportunities for wildlife movement:

- **ENV-1.2: Sensitive Habitat Assessment and Impact Mitigation.** Require new development and redevelopment located within sensitive habitats, including coastal saltmarsh, mixed hardwood forest, oak savannah, vernal pools, and riparian habitats to provide a detailed assessment of the

potential for impacts on these resources, and include measures to reduce any identifiable impacts.

With implementation of the proposed policies in the 2040 General Plan, as well as compliance with the American Canyon Municipal Code, development facilitated by the project would not substantially interfere 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. This impact would be less than significant.

Mitigation Measure

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

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

Impact BIO-4 THE PROJECT WOULD IMPLEMENT PROPOSED POLICIES DESIGNED TO PROTECT BIOLOGICAL RESOURCES. DEVELOPMENT AND MOBILITY IMPROVEMENTS FACILITATED BY THE PROJECT WOULD BE REQUIRED TO ADHERE TO THESE POLICIES, AS WELL AS AMERICAN CANYON MUNICIPAL CODE REQUIREMENTS TO PROTECT BIOLOGICAL RESOURCES. THEREFORE, THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

The Planning Area has trees within its developed and disturbed areas, as well as its surrounding parks and open space. Section 18.40.110 of the American Canyon Municipal Code provides regulations governing trees in the City. Pursuant to Section 18.40.110, existing trees are required to be preserved unless otherwise approved by City Council as part of a development plan. Any tree removed as part of project-specific development is required to be replaced on-site at a minimum size of a 24-inch box of the same species, unless specifically approved by the City Council. In addition, the 2040 General Plan would implement the following proposed policies related to trees:

- **Policy ENV-1.4: Native Species.** Encourage the use of native vegetation where possible.
- **Policy ENV-1.6: Urban Forest.** Build upon existing streetscapes and develop an urban forest within the City's streets, parks, and open space to provide avian habitat, sequester carbon monoxide emissions, foster pedestrian activity, and provide shade.
- **Policy ENV-1.7: Trees for Pollinators.** Support sustainable pollinator species (i.e.: bees, birds, butterflies) in American Canyon by planting low-water use pollinator-supportive trees in streets, parks, open spaces, and private development.
- **Policy ENV-6.12: Climate Adaptation.** Mitigate the effects of heat reflecting from paved trail surfaces by incorporating shade trees along the south and west sides of trails wherever possible.

In addition, the Environment, Parks, and Recreation Element in the 2040 General Plan has additional policies that would protect biological resources in the Planning Area. Development and mobility improvements facilitated by the project would adhere to the requirements of the American Canyon Municipal Code and the proposed policies in the 2040 General Plan. Therefore, the project would not conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. This impact would be less than significant.

Mitigation Measure

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

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 BIO-5 IMPLEMENTATION OF THE PROJECT WOULD NOT CONFLICT WITH THE PROVISION OF AN ADOPTED HABITAT CONSERVATION PLAN, NATURAL COMMUNITY CONSERVATION PLAN, OR OTHER APPROVED LOCAL, REGIONAL, OR STATE HABITAT CONSERVATION PLAN. NO IMPACT WOULD OCCUR.

There are no habitat conservation plans, natural community conservation plans, or other approved local regional or state habitat conservation plans in the Planning Area. Therefore, development and improvements in the Planning Area would not conflict with such plans. No impact would occur.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

There would be no impact and no mitigation would be required.

4.4 Cultural Resources

This section summarizes the potential cultural resources in the Planning Area and analyzes the impacts on cultural resources due to the project.

4.4.1 Setting

a. Cultural Setting

The cultural setting for the Planning Area is presented broadly in three overviews: Prehistoric, Ethnographic, and Historic. The prehistoric and historic overviews describe human occupation before and after European contact. The ethnographic overview in the Section 4.12, *Tribal Cultural Resources* provides a synchronic “snapshot” of traditional Native American culture.

Prehistory

The Planning Area lies in the San Francisco Bay Area archaeological region (Milliken et al. 2007, Moratto 1984). Milliken et al. (2007) generally divided the prehistoric chronology of the Bay Area into five periods: The Early Holocene (8,000-3,500 before common era [BCE]), Early Period (3,500-500 BCE), Lower Middle Period (500 BCE to CE 430 common era [CE]), the Upper Middle Period (430-1050 CE), and the Late Period (1050 CE-contact).

It is presumed that early Paleoindian groups lived in the area prior to 8,000 BCE; however, no evidence for this period has been discovered in the San Francisco Bay Area (Milliken et al. 2007). Sites dating to this period may be submerged or deeply buried as a result of rising sea levels and widespread sediment deposition that has occurred since the Terminal Pleistocene (Byrd et al. 2017). For this reason, the Terminal Pleistocene Period (ca. 11,700-8,000 BCE) is not discussed here.

The earliest intensive study of the archaeology of the San Francisco Bay Area began with N.C. Nelson of the University of California, Berkeley, between 1906 and 1908. He documented over 400 shell mounds throughout the area. Nelson was the first to identify the Bay Area as a discrete archaeological region (Moratto 1984).

Early Holocene (8,000-3,500 BCE)

Archaeological evidence from the early Holocene is limited as sites dating to this period are likely buried under Holocene alluvial deposits (Moratto 1984; Ragir 1972). The available data suggests that the Early Holocene in the San Francisco Bay Area is characterized by a mobile forager pattern and the presence of millingslabs, handstones, and a variety of leaf-shaped projectile points. Two archaeological sites (CA-CCO-696 and CA-CCO-637) dating to this period have been identified in Contra Costa County at the Los Vaqueros Reservoir. The earliest date for the Early Holocene comes from the CA-CCO-696, dating to approximately 7000 BCE (Milliken et al. 2007).

Early Period (3,500-600 BCE)

The Early Period saw increased sedentism with the introduction of new ground stone technologies (i.e., mortar and pestle), an increase in regional trade, and the first cut shell beads. The earliest evidence for the use of the mortar and pestle in the San Francisco Bay Area dates to 3800 BCE and comes from archaeological site CA-CCO-637. By 1500 BCE, mortars and pestles had almost completely replaced millingslabs and handstones, indicating a greater reliance on processing nuts,

especially acorns. Faunal evidence from various sites during this period indicate a diverse faunal exploitation pattern based on the presence mussel and other shellfish, marine mammals, terrestrial mammals, and birds within sites dating to this period (D'Oro 2009).

The earliest cut bead horizon is also associated with this period. Rectangular *Haliotis* spp. (abalone) and *Callianax biplicata* (formerly *Olivella biplicata*) (Vellanoweth et al. 2014) (snail) beads have been identified at several Early Period sites, including CA-CCO-637, CA-SCL-832 in Sunnyvale, and CA-ALA-307 in Berkeley (Milliken et al. 2007). These early examples of cut beads were recovered from mortuary contexts.

Lower Middle Period (500 BCE-CE 430)

The Lower Middle Period saw numerous changes from the previous period. The presence of chipped stone points and bone tools became typical. Rectangular shell beads (common during the Early Period) disappear completely and are replaced by split-beveled and saucer *Olivella* beads. *Haliotis* spp. ornaments, bone tools and ornaments, and basketry awls also became typical, indicating the development of coiled basketry technology. Mortars and pestles continued to be the dominant grinding tool (Luby and Gruber 1999; Milliken et al. 2007).

Evidence for the Lower Middle Period in the Bay Area comes from sites such as the Emeryville shell mound (CA-ALA-309) and Ellis Landing (CA-CCO-295). The Emeryville shell mound (CA-ALA-309) is one of the largest shell mounds in the San Francisco Bay Area and contains multiple cultural sequences. The lower levels of the site, which date to the Middle Period, contain flexed burials with bone implements, chert bifaces, charmstones, and oyster shells (Moratto 1984).

Upper Middle Period (CE 430-1050)

Around CE 430, *Olivella* saucer bead trade networks that had been established during earlier periods collapsed and over half of known sites occupied during the Lower Middle Period were abandoned. *Olivella* saucer beads were replaced with *Olivella* saddle beads. New types of material culture appear within these sites, including elaborate, decorative blades, fishtail charmstones, new *Haliotis* spp. ornament forms, and mica ornaments. Sea otter bones became more abundant, while salmon and other fish became less so, suggesting changes in faunal exploitation patterns from earlier periods (Milliken et al. 2007; Simons and Carpenter 2009). Excavations at archaeological site CA-ALA-309 indicate that a shift from mussels to oysters, and oysters to clams may have occurred (Gifford 1916). Isotopic analysis confirms that San Francisco Bay Area individuals shifted from hunting higher-trophic-level foods in the Early Period to gathering foods like plants and shellfish in the Middle and Upper Periods (Burns et al. 2012). Subsistence analyses at various sites dating to this period indicate a diverse diet that included numerous species of fish, mammals, birds, shellfish, and plant resources that varied by location in the San Francisco Bay Area (Hylkema 2002).

Late Period (CE 1050-contact)

The Late Period saw an increase in social complexity, indicated by differences in burials and an increased level of sedentism relative to preceding periods, evidenced by mortars weighing up to 90.7 kilograms (Lentz 2012). An increase in imported Napa Valley obsidian occurred during this time for the production of smaller points, preforms and simple flake tools. Small, finely worked projectile points of the Stockton Serrated series associated with bow and arrow technology appear around CE 1250. *Olivella* shell beads disappeared and were replaced with *Olivella* lipped and spire-lopped beads in the South Bay and clamshell disk beads in the North Bay. Thicker and larger beads indicated higher affluence. The toggle harpoon, hopper mortar, and magnesite tube beads also

appeared during this period (Milliken et al. 2007; Lentz 2012; Von Der Porten et al. 2014), as did an increase in the intensity of resource exploitation that correlates with an increase in population (Moratto 1984). Many of the well-known sites of earlier periods, such as the Emeryville shell mound (CA-ALA-309) and the West Berkeley site (CA-ALA-307) were abandoned, as indicated by the lack of Late Period elements. Researchers have suggested that the abandonment of these sites may have resulted from fluctuating climates and drought that occurred throughout the Late Period (Lightfoot and Luby 2002).

b. Historic Context

The Post-European contact history of California is generally divided into three periods: the Spanish Period (1769–1822), the Mexican Period (1822–1848), and the American Period (1848–present). Each of these periods is briefly described below.

Spanish Period (1769 – 1822)

For more than 200 years, Cabrillo and other Spanish, Portuguese, British, and Russian explorers sailed the Alta (upper) California coast and made limited inland expeditions, but they did not establish permanent settlements (Bean 1968; Rolle 2003). Explorers such as Francis Drake and Sebastian Cermeno explored the San Francisco Bay area in the late 1500s (Bean 1968). Gaspar de Portolá and the Franciscan Father Junípero Serra established the first Spanish settlement in Alta California at Mission San Diego de Alcalá in 1769, the first of 21 missions erected by the Spanish. Portolá continued north, reaching the San Francisco Bay later that year. Pedro Fages' expedition also explored the region in 1772 (Cook 1957). Mission San Francisco de Asis and the San Francisco presidio (military fort) were founded in 1776, and Mission San Rafael Arcangel was built in 1817, all within about 30 miles of the Planning Area (Presidio Trust 2020; California Missions Foundation, N.D.).

Mexican Period (1822 – 1848)

The Mexican Period commenced when news of the success of the Mexican Revolution (1810-1821) against the Spanish crown reached California in 1822. This period saw the federalization of mission lands in California with the passage of the Secularization Act of 1833. This Act enabled Mexican governors in California to distribute former mission lands to individuals in the form of land grants. Successive Mexican governors made more than 700 land grants between 1822 and 1846, putting most of the state's lands into private ownership for the first time (Shumway 2007). The approximately 80,000-acre Rancho Suscol or Soscol was acquired by General Vallejo in 1843; which encompasses the Planning Area (City of Sonoma, N.D.).

The Mexican period saw an increased importance of sea trade and an influx of American settlers, which motivated the United States to expand their territory into California. The United States supported a small group of insurgents from Sonoma during the Bear Flag Revolt. The Bear Flaggers captured Sonoma in June of 1846. The next month, Commodore John Drake Sloat landed in Monterey and proceeded to take Yerba Buena, Sutter's Fort, Bodega Bay, and Sonoma. Fighting between American and Mexican forces continued until Mexico surrendered in 1847 (Rolle 2003).

American Period (1848 – Present)

The American Period began with the signing of the Treaty of Guadalupe Hidalgo in 1848, in which the United States agreed to pay Mexico \$15 million for the conquered territory, including California, Nevada, Utah, and parts of Colorado, Arizona, New Mexico, and Wyoming. Settlement of California

continued to increase during the early American Period. Many ranchos were sold or otherwise acquired by Americans, and most were subdivided into agricultural parcels or towns. California's population grew exponentially with the discovery of gold in 1848. San Francisco grew from a population of 812 to 25,000 in only a few years and became California's first city (Rolle 2003).

The City of Vallejo, located directly south of the Planning Area, was founded on what was once General Vallejo's rancho land, and thus was named after him. After the state of California was admitted to the Union, he donated 156 acres of land and offered funding to establish a new state capital. The town of Vallejo briefly became the site of the state capitol in 1852, and it served as the capital again in 1853 for approximately one month. Vallejo's son-in-law, John B. Frisbie, is generally credited with the founding of the city and helping to establish its government (Vallejo Convention and Visitors Bureau 2019; Vallejo Chamber of Commerce 2020).

Although the town lost the government center, a naval shipyard was established there in 1854 which furthered development of the town. Mare Island Naval Shipyard, also located approximately 5-miles south of the Planning Area, became the first United States Navy installation on the Pacific Coast, and Vallejo developed into an important shipping center with ferry transportation serving passengers, railroads, and the Pony Express (Vallejo Convention and Visitors Bureau 2019). The Mare Island Naval Shipyard had an immense impact on the population of Vallejo and surrounding areas. It was known in the 1920s for the development of submarines, and its peak production period for shipbuilding, repair, and maintenance occurred during World War II. Correspondingly, the population in the areas greatly expanded during the war years. Mare Island continued to be a primary station for the construction and development of the Navy's pacific fleet of submarines in the years that followed. At the time, the base encompassed 5,200 acres (Vallejo Chamber of Commerce 2020). The area flourished as well, in part due to the Navy's presence which attracted countless military and civilian personnel from various parts. In the 1920s many Filipinos settled in the area following the Spanish-American War and the Filipino Insurrection, making the area one of the most diverse areas in northern California.

With the end of the Cold War, Mare Island Naval Shipyard's budget was reduced and the shipyard was closed in 1996, dramatically affecting the surrounding areas. The municipality underwent a bankruptcy in 2008, and efforts afterwards focused on drawing new investment to the area (Felix 2013). Various industrial, educational, recreational and historical areas have been developed as part of evolving the property for new uses (Gase 2019). Today, the waterfront area has become a focus for redevelopment to generate economic growth (City of Vallejo 2018).

City of American Canyon

The area now comprising Napa County was subject to European exploration as early as 1823, when Francisco Castro, Father Jose Altamira, and Jose Sanchez led an expedition though the area to find a site for a new mission. However, despite this incursion, European-American settlement of what is now American Canyon did not begin until two years after California was admitted to the United States (FirstCarbon Solutions 2016). In 1852, American Simpson Thompson purchased lands from General Mariano Guadalupe Vallejo and General J.B. Frisbie to establish a ranch. Thompson earned fame as one of the area's earliest fruit growers, but also grew grains on his land. In 1869, a railroad servicing the Napa Valley was developed, with a stop at Napa Junction (the original name for American Canyon), from which another line went east into the interior of California (ACHC n.d.). The area maintained a predominantly agricultural character until around 1900, when Augustus Watson established a limestone quarry. By 1902, Watson sold the quarry to the Standard Portland Cement Company, which supplemented the quarry with a new cement plant. Central to the local economy,

the plant employed 200 and produced more than 2,000 barrels of cement a day, on average. The plant continued producing cement until the 1920s or 1930s, when the local supply of limestone was exhausted. By 1946, the Basalt Rock Company repurposed the facility for the production of aggregate (FirstCarbon Solutions 2016).

Residential development of the area began after World War II. American Canyon's first subdivision, McKnight Acres was completed in 1948 and the Rancho Del Mar subdivision was built in 1952. Throughout the 1950s and 1960s, the community established new institutions and municipal services, such as the American Canyon Fire Protection District and the American Canyon Water District, in addition to expansions of the sewer and parks systems. A multi-decade campaign resulted in the incorporation of American Canyon in 1992, confirming the community's separate identity from neighboring Vallejo and Napa (ACHC n.d.). The city has grown steadily since its incorporation, expanding from about 7,000 in 1990 to approximately 21,758 residents in 2024 (see Section 4.13, *Population and Housing*).

c. Historical and Archaeological Resources in the Planning Area

There are seven important historic resources in or next to American Canyon city limits: the four properties described below and three residential properties on Jameson Canyon Road. These properties are not listed on the National Register of Historic Places or the California Register of Historical Resources but with further research and evaluation they, along with other historic-age properties within the city boundaries, may have potential to be listed historical resources.

Watson Ranch

Watson Ranch gained its name from the Watson family, who homesteaded the land in the 1850's and started the Napa Junction Company in 1900. This property consists of a main house and six outbuildings, including a secondary residence, three barns, a shop, and a garage. The Napa Junction Company mined and manufactured aggregate rock for cement, and Watson sold the company to the Standard Portland Cement Company in 1902.

Standard Portland Cement Company

The Standard Portland Cement Company mined limestone and clay from quarries located where the Watson Ranch development is now proposed. The concrete made from materials mined onsite went into countless projects in the Bay Area, including rebuilding San Francisco after the 1906 earthquake. Since the plant's closure in 1970, the structures have deteriorated and were further damaged in the 2014 Napa earthquake. The remaining walls of the structures have become an attraction for local urban graffiti artists as well. The Watson Ranch development will possibly preserve parts of the historic structures and include housing, retail, and other community services.

Lee Ranch

Lee Ranch is located at the north end of American Canyon between Green Island Road and the railroad tracks in what is now an industrial area. The home was built in 1929 and is a privately-owned home.

Newell Ranch

Newell Ranch was the home of Jack and Bernice Newell, beloved residents and benefactors of Vallejo and American Canyon for several decades until their passing. Historic Newell Ranch consists

of a barn and the ruins of two sheds, with a modern house constructed on the property in 1991. The ranch is a cultural icon for the community. The Newell Ranch Open Space was donated to the City of American Canyon by the Newell family in 1999, allowing residents to enjoy the 640 acres of trails, open hills, and scenic overlooks it provides, as well as preserving habitat for critical and endangered species and on-site cultural resources.

d. Native American Outreach

On August 16, 2022, City mailed and emailed out letters to the Cortina Band of Indians, Federated Indians of Graton Rancheria, and Yocha Dehe Wintun Nation to inform them of the proposed General Plan Update. To date, one response dated September 14, 2022 was received on from the Yocha Dehe Wintun Nation which stated that the project is within the aboriginal territories of the Yocha Dehe Wintun Nation. The Tribe requested formal consultation with the lead agency, a project timeline, detailed project information, and the latest cultural study conducted for the project. On November 16, 2022; December 9, 2022; and December 12, 2022, the City communicated with the Tribe to coordinate a date and time to meet regarding the General Plan Update. A consultation meeting was held on January 12, 2023. For a summary of the consultation meeting, refer to the discussion in Impact TCR-1 in Section 4.12, *Tribal Cultural Resources*.

4.4.2 Regulatory Setting

a. Federal Regulations

National Register of Historic Places

Although the project does not have a federal nexus, properties which are listed in or have been formally determined eligible for listing in the National Register of Historic Places (NRHP) are automatically listed in the California Register of Historical Resources (CRHR). The following is therefore presented to provide applicable regulatory context. The NRHP was authorized by Section 101 of the National Historic Preservation Act and is the nation's official list of cultural resources worthy of preservation. The NRHP recognizes the quality of significance in American, state, and local history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects. Pursuant to 36 Code of Federal Regulations (CFR) Part 60.4, a property is eligible for listing in the NRHP if it meets one or more 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 as follows:

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.

Certain properties are generally considered ineligible for listing in the NRHP, including cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions, relocated structures, or commemorative properties. Additionally, a property must be at least 50 years of age to be eligible for listing in the NRHP. The National Park Service states that 50 years is the general estimate of the time needed to develop the necessary historical perspective to evaluated significance (National Park Service 1997:41). Properties which are less than 50 years must be determined to have "exceptional importance" to be considered eligible for NRHP listing.

b. State Regulations

California Environmental Quality Act

California Public Resources Code (PRC) Section 21804.1 requires lead agencies determine if a project could have a significant impact on historical or unique archaeological resources. As defined in PRC Section 21084.1, a historical resource is a resource listed in, or determined eligible for listing in, the CRHR; a resource included in a local register of historical resources or identified in a historical resources survey pursuant to PRC Section 5024.1(g); or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant. PRC Section 21084.1 also states resources meeting the above criteria are presumed to be historically or cultural significant unless the preponderance of evidence demonstrates otherwise. Resources listed in the NRHP are automatically listed in the CRHR and are, therefore, historical resources under CEQA. Historical resources may include eligible built environment resources and archaeological resources of the precontact or historic periods.

CEQA Guidelines Section 15064.5(c) provides further guidance on the consideration of archaeological resources. If an archaeological resource does not qualify as a historical resource, it may meet the definition of a "unique archaeological resource" as identified in PRC Section 21083.2. 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 meets any of the following criteria:

1. It contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological resource does not qualify as a historical or unique archaeological resource, the impacts of a project on those resources will be less than significant and need not be considered further (CEQA Guidelines Section 15064.5[c][4]). CEQA Guidelines Section 15064.5 also provides guidance for addressing the potential presence of human remains, including those discovered during the implementation of a project.

According to CEQA, an impact that results in a substantial adverse change in the significance of a historical resource is considered a significant impact on the environment. A substantial adverse change could result from physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired (CEQA Guidelines Section 15064.5 [b][1]). Material impairment is defined as demolition or alteration in an adverse manner [of] those characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the CRHR or a local register (CEQA Guidelines Section 15064.5[b][2][A]).

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all 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]).

CEQA Guidelines Section 15126.4 stipulates an EIR shall describe feasible measures to minimize significant adverse impacts. In addition to being fully enforceable, mitigation measures must be completed within a defined time period and be roughly proportional to the impacts of the project. Generally, a project which is found to comply with the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* (the Standards) is considered to be mitigated below a level of significance (CEQA Guidelines Section 15126.4 [b][1]). For historical resources of an archaeological nature, lead agencies should also seek to avoid damaging effects where feasible. Preservation in place is the preferred manner to mitigate impacts to archaeological sites; however, data recovery through excavation may be the only option in certain instances (CEQA Guidelines Section 15126.4[b][3]).

California Register of Historical Resources

The CRHR was established in 1992 and codified by PRC Sections 5024.1 and 4852. The CRHR is an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected from substantial adverse change to the extent prudent and feasible (Public Resources Code, 5024.1(a)). The criteria for eligibility for the CRHR are consistent with the NRHP criteria but have been modified for state use to include a range of historical resources that better reflect the history of California (Public Resources Code, 5024.1(b)). Unlike the NRHP, the CRHR does not have a defined age threshold for eligibility; rather, a resource may be eligible for the CRHR if it can be demonstrated sufficient time has passed to understand its historical or architectural significance

(California Office of Historic Preservation 2006). Further, resources may still be eligible for listing in the CRHR even if they do not retain sufficient integrity for NRHP eligibility (California Office of Historic Preservation 2006). Generally, the California Office of Historic Preservation recommends resources over 45 years of age be recorded and evaluated for historical resources eligibility (California Office of Historic Preservation 1995:2).

Properties are eligible for listing in the CRHR if they meet one of more of the following criteria:

Criterion 1: Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

Criterion 2: Is associated with the lives of persons important to our past.

Criterion 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.

Criterion 4: Has yielded, or may be likely to yield, information important in prehistory or history.

California Health and Safety Code Section 7050.5

California Health and Safety Code Section 7050.5 states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site, or any nearby area reasonably suspected to overlie adjacent remains, until the coroner of the county in which the remains are discovered has determined if the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the NAHC within 24 hours of this identification.

California Public Resources Code Section 5097.98

California Public Resources Code Section 5097.98 states that the NAHC, upon notification of the discovery of Native American human remains pursuant to Health and Safety Code Section 7050.5, shall immediately notify those persons it believes to be descended from the deceased (i.e., the Most Likely Descendant or "MLD"). With permission of the landowner or a designated representative, the MLD may inspect the remains and any associated cultural materials and make recommendations for treatment or disposition of the remains and associated grave goods. The MLD shall provide recommendations or preferences for treatment of the remains and associated cultural materials within 48 hours of being granted access to the site.

c. Local Regulations

City of American Canyon General Plan

The current City of American Canyon General Plan contains goals and policies to avoid potential impacts to cultural resources.

4.4.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Based on Appendix G of the CEQA Guidelines a project may be deemed to have a significant impact on cultural resources if it would:

1. Cause a substantial adverse change in the significance of a historic resource pursuant to Section 15064.5
2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5
3. Disturb any human remains, including those interred outside of formal cemeteries

Methodology

If a project may cause a substantial adverse change in the characteristics of a resource that convey its significance or justify its eligibility for inclusion in the CRHR, either through demolition, destruction, relocation, alteration, or other means, then the project would have a significant effect on the environment (CEQA Guidelines Section 15064.5[b]).

Direct impacts can be assessed by identifying the types and locations of proposed development, determining the exact locations of cultural resources within the Planning Area, assessing the significance of the resources that may be affected, and determining the appropriate mitigation. Removal, demolition, or alteration of historical resources can permanently impact the historic fabric of an archaeological site, building or structure, or historic district.

The State Legislature, in enacting the CRHR, amended CEQA to clarify which properties are significant, as well as which project impacts are considered significantly adverse. A project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have significant effect on the environment (CEQA Guidelines Section 150645[b]). A substantial adverse change in the significance of a historical resource means demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (CEQA Guidelines Section 150645[b][1]).

The CEQA Guidelines further state that “[t]he significance of an historical resource is materially impaired when a project... [d]emolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in the California Register ... local register of historic resources... or its identification in an historic resources survey.” As such, the consideration for determining whether the project will have a significant impact on identified historic resources is whether it will materially impair the physical integrity of the historic resource, such that it could no longer be listed in the CRHR or a local landmark program.

b. Project Impacts and Mitigation Measures

Threshold 1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Impact CUL-1 DEVELOPMENT FACILITATED BY THE PROJECT COULD ADVERSELY AFFECT PREVIOUSLY UNIDENTIFIED HISTORIC-PERIOD RESOURCES. IMPACTS TO HISTORIC-PERIOD RESOURCES WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

As discussed above in Section 4.4.1, *Setting*, review of historical maps and aerial photographs indicate that there are several historic-aged buildings or structures located within the Planning Area. Currently there are no specific development plans; however, the 2040 General Plan could result in development on parcels containing buildings that meet the age threshold for potential historical resources, pursuant to CEQA.

Development facilitated by the project could result in material impairment of historical resources, which CEQA Guidelines Section 15064.5[b][2][A] defines as the demolition or alteration in an adverse manner [of] those characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the CRHR or a local register. The Environment Element of the 2040 General Plan Update contains the following proposed goals and policies, which would minimize impacts to historical resources within the City of American Canyon:

Goal ENV-4: Preserve and restore sites, and structures that have architectural, historical, archaeological and/or cultural significance to the City of American Canyon.

- **Policy ENV-4.1: Resource Protection.** Ensure the City's culturally, historically, and archaeologically significant resources are protected in a manner that preserves and/or enhances the inherent resource value.
- **Policy ENV-4.2: Historic Structure Compatibility.** Encourage compatibility between new development and existing adjacent historic structures in terms of scale, massing, building materials and general architectural treatment.
- **Policy ENV-4.3: Historic Resource Reuse.** Encourage appropriate adaptive reuse of historic resources where possible to prevent misuse, disrepair, and demolition.
- **Policy ENV-4.4: Historical Building Code.** When historical structures are rehabilitated in accordance with established historic preservation guidelines, consider implementing the State Historical Building Code Part 8, Title 24.
- **Policy ENV-4.5: Historic Resource Preservation.** Prohibit demolition of an historic resource as a first-choice alternative for resources that qualify for Federal, State Historic Registration, or Locally Significant Resources.
- **Policy ENV-4.6: Flexible Development Standards** Consider flexibility in development standards, such as a Variance of setbacks, heights and parking requirements to help feasibility of new development that contains preserved historic resources.

These policies would help reduce impacts; however, they do not require formal historical resource evaluations or the consideration of measures to mitigate potential impacts. As such, additional measures would be required to identify and mitigate impacts to historical resources to a less than significant level. The implementation of Mitigation Measure CUL-1 would reduce impacts on historical resources by requiring evaluations for age-eligible buildings within the Planning Area and

avoiding impacts on any identified potential historical resources. This impact would be less than significant with implementation of this mitigation measure.

Mitigation Measure

CUL-1 Historical Built Environment

Prior to project approval, the applicant shall submit a report to the City that identifies any historic-age features (i.e., structures over 45 years of age) proposed to be altered or demolished. If historical-age features are present, the applicant shall submit a historical resources evaluation to the City prepared in areas that contains buildings, structures, objects, sites, landscape/site plans, or other features that are 45 years of age or older, by a qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualifications Standards (PQS) in architectural history or history (36 CFR Part 61). The evaluation shall include an intensive-level evaluation, in accordance with the guidelines and best practices meeting the State Office of Historic Preservation guidelines. All evaluated properties shall be documented on Department of Parks and Recreation Series 523 Forms. The report shall be submitted to the City for review and approval.

If historical resources are identified through the survey and evaluation, efforts shall be made by the applicant to ensure that the relocation, rehabilitation, or alteration of the resource is consistent with the Secretary of the Interior's Standards for the Treatments of Historic Properties (Standards). The applicant shall submit a report to the City that identifies and specifies the treatment of character-defining features and construction activities, and demonstrates how the project complies with the Standards and avoids the substantial adverse change in the significance of the historical resource as defined by CEQA Guidelines Section 15064.5(b). The report shall be prepared by an architectural historian or historical architect meeting the PQS as defined by 36 CFR Part 61 and provided to the City for review and concurrence prior to project approval.

Significance After Mitigation

Mitigation Measure CUL-1 would ensure a historical resource evaluation is conducted for sites with age-eligible resources within the Planning Area and require measures to reduce impacts to historical resources to less than significant.

Threshold 2: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Impact CUL-2 DEVELOPMENT FACILITATED BY THE PROJECT COULD ADVERSELY AFFECT PREVIOUSLY UNIDENTIFIED ARCHAEOLOGICAL RESOURCES. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

The City has known archaeological sensitivity and, as a result, the potential to encounter unidentified archaeological resources is moderate to high. Overall, ground disturbance into native soils in any areas within the Planning Area could contain previously unknown prehistoric or historic-period resources. Undeveloped areas have a higher probability of containing previously unidentified archaeological resources, given the City's known sensitivity and the probable lack of previous ground-disturbing activities in those areas. The Environment Element of the 2040 General Plan contains the following proposed goals and policies, which would minimize impacts to archaeological resources within the City of American Canyon:

Goal ENV-4: Preserve and restore sites, and structures that have architectural, historical, archaeological and/or cultural significance to the City of American Canyon.

- **Policy ENV-4.1: Resource Protection.** Ensure the City's culturally, historically, and archaeologically significant resources are protected in a manner that preserves and/or enhances the inherent resource value.

Goal ENV-5: Protect cultural and tribal resources.

- **Policy ENV-5.1: Preservation.** Protect areas containing significant historic, archaeological, and paleontological resources, as defined by the California Public Resources Code.

Many portions of the Planning Area have been previously developed for various purposes and uses. Nonetheless, there is the potential for both historic and prehistoric archaeological resources to exist surficially and below the ground surface throughout the Planning Area, which could be disturbed by grading and excavation activities for future projects. Therefore, development projects within the Planning Area that involve ground disturbance activities would have the potential to damage or destroy archaeological resources, especially if they occur in less disturbed sediments. Consequently, impacts would be potentially significant, and mitigation would be required for projects involving ground disturbance activities.

Mitigation Measures

CUL-2 Archaeological Resources Assessment

Prior to project approval of a project that involves ground disturbance activities (that may include but are not limited to, pavement removal, potholing, grubbing, tree removal, and grading), the applicant shall submit to the City an archaeological resources assessment prepared by a qualified archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards in either prehistoric or historic archaeology. Assessments shall include a CHRIS records search at the NWIC and a SLF Search from the NAHC. The records searches shall characterize the results of previous cultural resource surveys and disclose any cultural resources that have been recorded and/or evaluated in and around the development site. A qualified professional shall conduct a Phase I pedestrian survey for those projects that include undeveloped areas to locate any surface cultural materials.

If the Phase I archaeological survey identifies resources that may be affected, the applicant shall also conduct Phase II testing and evaluation. If resources are determined significant or unique through Phase II testing and site avoidance is not possible, the qualified professional shall identify appropriate site-specific mitigation measures in the Phase II evaluation. These measures may include, but would not be limited to, a Phase III data recovery program, avoidance, or other appropriate actions to be determined by a qualified archaeologist. If significant archaeological resources cannot be avoided, impacts may be reduced to less than significant level by filling on top of the sites rather than cutting into the cultural deposits. Alternatively, and/or in addition, a data collection program may be warranted, including mapping the location of artifacts, surface collection of artifacts, or excavation of the cultural deposit, to characterize the nature of the buried portions of sites. Curation of the excavated artifacts or samples would occur as specified by the archaeologist. The City shall review and approve the archaeological resources assessment prior to project approval.

CUL-3 Unanticipated Discoveries

For projects whose Phase I archaeological survey identifies archaeological resources that may be affected, the applicant shall retain a qualified cultural resource specialist to monitor construction activities that involve ground-disturbing activities greater than 12 inches in depth and occur within 60 feet of a potentially significant cultural resource. If archaeological resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology should be contacted immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for CRHR eligibility. If the discovery proves to be significant under CEQA and cannot be avoided by the project, additional work, such as excavating the cultural deposit to fully characterize its extent and collecting and curating artifacts may be warranted to mitigate any significant impacts to cultural resources. If archaeological resources of Native American origin are identified during construction, a qualified archaeologist will consult with the City to begin Native American consultation procedures. Periodic reports of the find and subsequent evaluations shall be submitted to the City during construction.

Significance After Mitigation

Mitigation Measures CUL-2 and CUL-3 would reduce potential impacts to a less than significant level by requiring the identification and evaluation of any archaeological resources that may be present prior to construction and by providing steps for the evaluation and protection of unanticipated finds encountered during construction.

Threshold 3: Would the project disturb any human remains, including those interred outside of formal cemeteries?

Impact CUL-3 DEVELOPMENT FACILITATED BY THE PROJECT COULD RESULT IN DAMAGE TO OR DESTRUCTION OF HUMAN BURIALS. IMPACTS WOULD BE LESS THAN SIGNIFICANT THROUGH ADHERENCE TO EXISTING REGULATIONS AND WITH MITIGATION.

Human burials outside of formal cemeteries can occur in prehistoric archaeological contexts. While no known burial sites have been identified within the Planning Area, excavations during construction activities could have the potential to disturb these resources, which could include Native American burial sites. Although it is unlikely that human remains are present, the Planning Area has the possibility of containing previously unidentified human remains.

Human burials, in addition to being potential archaeological resources, have specific provisions for treatment in PRC Section 5097. The California Health and Safety Code (Section 7050.5, 7051, and 7054) has specific provisions for the protection of human burial remains. Existing regulations address the illegality of interfering with human burial remains, and protect them from disturbance, vandalism, or destruction. They also include established procedures to be implemented if Native American skeletal remains are discovered. PRC Section 5097.98 also addresses the disposition of Native American burials, protects such remains, and establishes the NAHC to resolve any related disputes.

The Environment Element of the 2040 General Plan Update contains the following proposed goals and policies, which would minimize impacts to human burials within the City of American Canyon:

Goal ENV-4: Protect cultural and tribal resources.

- **Policy ENV-4.1: Preservation.** Protect areas containing significant historic, archaeological, and paleontological resources, as defined by the California Public Resources Code.
- **Policy ENV-4.2: Development.** Ensure that human remains are treated with sensitivity and dignity and ensure compliance with the provisions of California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.98.
- **Policy ENV-4.3: Yocha Dehe Wintun Nation Treatment Protocol.** In the event any Native American human remains, grave goods, ceremonial items, and items of cultural patrimony are found in conjunction with development, including archaeological studies, excavation, geotechnical investigations, grading, and any ground disturbing activity, the “Yocha Dehe Wintun Nation Treatment Protocol for Handling Human Remains and Cultural Items Affiliated with the Yocha Dehe Wintun Nation” shall be implemented as included as Appendix A to the Housing Element.

Construction of future development and mobility improvements facilitated by the project, such as improvements to roadways, and bicycle and pedestrian facilities would be subject to State of California Health and Safety Code Section 7050.5, which states that if human remains are unearthed, no further disturbance can occur until the county coroner has made the necessary findings as to the origin and disposition of the remains, pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the NAHC, which will determine and notify an MLD. The MLD shall complete the inspection of the site and make recommendations to the landowner within 48 hours of being granted access. Implementation of Mitigation Measure CUL-4 would ensure that the appropriate protocols are followed if human remains are encountered and would reduce potentially significant impacts to a less than significant level.

Mitigation Measures

CUL-4 Human Remains

In the event of an accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Sections 5097.94 and Section 5097.98 shall be followed. If during construction, there is accidental discovery or recognition of any human remains, the following steps shall be taken:

1. There shall be no further excavation or disturbance within 100 feet of the remains until the County Coroner is contacted to determine whether the remains are Native American and if an investigation of the cause of death is required. If the Coroner determines the remains to be Native American, the Coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours, and the NAHC shall identify the person or persons it believes to be the Most Likely Descendant (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work within 48 hours, for means of treating or disposing of, with appropriate dignity, the human remains, and any associated grave goods as provided in Public Resource Code Section 5097.98.

2. Where the following conditions occur, the landowner or authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the MLD or on the project site in a location not subject to further subsurface disturbance:
 - The NAHC is unable to identify an MLD or the MLD failed to make a recommendation within 48 hours after being notified by the commission.
 - The descendant identified fails to make a recommendation.
 - The landowner or authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner.

Additionally, California Public Resources Code Section 15064.5 requires the following relative to Native American Remains:

- When an initial study identifies the existence of, or the probable likelihood of, Native American Remains within a project, a lead agency shall work with the appropriate Native Americans as identified by the NAHC as provided in Public Resources Code Section 5097.98. The applicant may each develop a plan with respect to their respective individual development proposals for treating or disposing of, with appropriate dignity, the human remains, and any items associated with Native American Burials with the appropriate Native Americans as identified by the NAHC.

Significance After Mitigation

Mitigation Measure CUL-4 would reduce potential impacts on human remains to a less than significant level by requiring the implementation of the appropriate protocols.

4.5 Greenhouse Gas Emissions

This section summarizes the setting for greenhouse gas (GHG) emissions and climate change and analyzes the impacts related to GHG emissions and climate change due to the project.

4.5.1 Setting

Gases that absorb and re-emit infrared radiation in the atmosphere are called GHGs. The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO₂); methane (CH₄); nitrous oxides (N₂O); fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs); and sulfur hexafluoride (SF₆). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO₂) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as “carbon dioxide equivalent” (CO₂e), which is the amount of GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a 100-year GWP of 30, meaning its global warming effect is 30 times greater than CO₂ on a molecule per molecule basis (United Nations Intergovernmental Panel on Climate Change [IPCC] 2021).¹

GHGs are emitted by natural processes and human activities. Of these gases, CO₂ and CH₄ are emitted in the greatest quantities from human activities. Emissions of CO₂ are usually by-products of fossil fuel combustion, and CH₄ results from off-gassing associated with agricultural practices and landfills. Human-made GHGs, many of which have greater heat-absorption potential than CO₂, include fluorinated gases and SF₆ (United States Environmental Protection Agency [USEPA] 2022a).

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. The baseline against which these changes are measured originates in historical records that identify temperature changes that occurred in the past, such as during previous ice ages. The global climate is changing continuously, as evidenced in the geologic record, which indicates repeated episodes of substantial warming and cooling. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming over the past 150 years. The IPCC expressed in their Sixth Assessment Report that the rise and continued growth of atmospheric CO₂ concentrations is unequivocally due to human activities (IPCC 2021). Human influence has warmed the atmosphere, ocean, and land, which has led the climate to warm at an unprecedented rate in the last 2,000 years. It is estimated that between the period of 1850 through 2019, a total of 2,390 gigatons of anthropogenic CO₂ was emitted. It is likely that anthropogenic activities have increased the global

¹ The Intergovernmental Panel on Climate Change’s (2021) *Sixth Assessment Report* determined that methane has a GWP of 30. However, the 2017 Climate Change Scoping Plan published by the California Air Resources Board uses a GWP of 25 for methane, consistent with the Intergovernmental Panel on Climate Change’s (2007) *Fourth Assessment Report*. Therefore, this analysis utilizes a GWP of 25.

surface temperature by approximately 1.07 degrees Celsius between the years 2010 through 2019 (IPCC 2021).

The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without the natural heat-trapping effect of GHGs, the earth's surface would be about 33 degrees Celsius (°C) cooler (World Meteorological Organization 2013). However, since 1750, estimated concentrations of CO₂, CH₄, and N₂O in the atmosphere have increased by 47 percent, 156 percent, and 23 percent, respectively, primarily due to human activity (IPCC 2021). GHG emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, are believed to have elevated the concentration of these gases in the atmosphere beyond the level of concentrations that occur naturally.

a. Greenhouse Gas Emissions Inventory

Global Emissions Inventory

Worldwide anthropogenic GHG emissions totaled 47,000 million metric tons (MT) of CO₂e in 2015, which is a 43 percent increase from 1990 GHG levels (USEPA 2022b). Specifically, 34,522 million metric tons (MMT) of CO₂e of CO₂, 8,241 MMT of CO₂e of CH₄, 2,997 MMT of CO₂e of N₂O, and 1,001 MMT of CO₂e of fluorinated gases were emitted in 2015. The largest source of GHG emissions were energy production and fuel use from vehicles and buildings, which accounted for 75 percent of the global GHG emissions. Agriculture uses and industrial processes contributed 12 percent and six percent, respectively. Waste sources contributed three percent and international transportation sources contributed two percent. These sources account for approximately 98 percent because there was a net sink of two percent from land-use change (including afforestation/reforestation and emissions removals by other land use activities) (USEPA 2022b).

United States Emissions Inventory

Total United States (U.S.) GHG emissions were 6,558 MMT of CO₂e in 2019. Emissions decreased by 1.7 percent from 2018 to 2019. Since 1990, total U.S. emissions have increased by an average annual rate of 0.06 percent for a total increase of 1.8 percent between 1990 and 2019. The decrease from 2018 to 2019 reflects the combined influences of several long-term trends, including population changes, economic growth, energy market shifts, technological changes such as improvements in energy efficiency, and decrease carbon intensity of energy fuel choices. In 2019, the industrial and transportation end-use sectors accounted for 30 percent and 29 percent, respectively, of nationwide GHG emissions; while the commercial and residential end-use sectors accounted for 16 percent and 15 percent of nationwide GHG emissions, respectively, with electricity emissions distributed among the various sectors (USEPA 2022c).

California Emissions Inventory

Based on the California Air Resources Board (CARB) California Greenhouse Gas Inventory for 2000-2019, California produced 418.2 MMT of CO₂e in 2019, which is 7.2 MMT of CO₂e lower than 2018 levels. The major source of GHG emissions in California is the transportation sector, which comprises 40 percent of the state's total GHG emissions. The industrial sector is the second largest source, comprising 21 percent of the state's GHG emissions, while electric power accounts for approximately 14 percent (CARB 2021a). The magnitude of California's total GHG emissions is due in part to its large size and large population compared to other states. However, its relatively mild climate is a factor that reduces California's per capita fuel use and GHG emissions as compared to

other states. In 2016, the State of California achieved its 2020 GHG emission reduction target of reducing emissions to 1990 levels, as emissions fell below 431 MMT of CO₂e (CARB 2021).

Local Emissions Inventory

Based on the City of American Canyon's 2012 Energy Efficiency Climate Action Plan (EECAP), the City generated approximately 120,201 MT of CO₂e in 2010 (City of American Canyon 2012). On-road transportation was the major source accounting for 39.9 percent of the total, largely due to passenger vehicles, but also commercial trips and buses. Commercial/industrial energy was the second largest source of emissions at 27 percent. Residential energy usage represented 18 percent, and solid waste and wastewater represented 7 percent each. Off-road transportation accounted for 2 percent. Agriculture accounted for less than 1 percent of emissions (City of American Canyon 2012).

b. Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through 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 on record, and the decade from 2000 through 2010 has been the warmest. The observed global mean surface temperature from 2015 to 2017 was approximately 1.0°C higher than the average global mean surface temperature over the period from 1880 to 1900 (National Oceanic and Atmospheric Administration 2020). Furthermore, several independently analyzed data records of global and regional Land-Surface Air Temperature obtained from station observations jointly indicate that Land-Surface Air Temperature and sea surface temperatures have increased.

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, larger forest fires, and more drought years (State of California 2018). 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 2018). 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 because of climate change.

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 2018). 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. The magnitude of the effect of the increased concentration of ground-level ozone, 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

2018). 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 (California Natural Resources Agency 2009).

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. Year-to-year variability in statewide precipitation levels has increased since 1980, meaning that wet and dry precipitation extremes have become more common (California Department of Water Resources 2018). 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. The average early spring snowpack in the western U.S., including the Sierra Nevada Mountains, decreased by about 10 percent during the last century. During the same period, sea level rose over 0.15 meter along the central and southern California coasts (State of California 2018). The Sierra snowpack provides most of California's water supply as snow that accumulates during wet winters is released slowly during the dry months of spring and summer. A warmer climate is predicted to reduce the fraction of precipitation that falls as snow and the amount of snowfall at lower elevations, thereby reducing the total snowpack (State of California 2018). 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).

Hydrology and Sea Level Rise

Climate change could affect the intensity and frequency of storms and flooding (State of California 2018). Furthermore, climate change could induce substantial sea level rise in the coming century. Rising sea level increases the likelihood of and risk from flooding. The rate of increase of global mean sea levels between 1993 to 2022, observed by satellites, is approximately 3.5 millimeters per year, double the twentieth century trend of 1.6 millimeters per year (World Meteorological Organization 2013; National Aeronautics and Space Administration 2022). 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. While the City is no close to the Pacific coast, sea level rise may jeopardize California's water supply due to saltwater intrusion and induce groundwater flooding and/or exposure of buried infrastructure (State of California 2018).

Agriculture

California has an over \$50 billion annual agricultural industry that produces over a third of the country's vegetables and two-thirds of the country's fruits and nuts (California Department of Food and Agriculture 2020). Higher CO₂ levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, certain regions of agricultural production could experience water shortages of up to 16 percent, which would increase

water demand as hotter conditions lead to the loss of soil moisture. In addition, crop yield could be threatened by water-induced stress and extreme heat waves, and plants may be susceptible to new and changing pest and disease outbreaks (State of California 2018). Temperature increases could also change the time of year certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality (California Climate Change Center 2006).

Ecosystems

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 because of higher temperatures, and intense rainstorms are likely to become more frequent. Rising temperatures could have four major impacts on plants and animals: timing of ecological events; geographic distribution and range of species; species composition and the incidence of nonnative species within communities; and ecosystem processes, such as carbon cycling and storage (Parmesan 2006; State of California 2018).

4.5.2 Regulatory Setting

a. International

United Nations Climate Change Framework Convention

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

b. Federal Regulations

Federal Clean Air Act

The U.S. Supreme Court determined in *Massachusetts et al. v. Environmental Protection Agency et al.* ([2007] 549 U.S. 05-1120) that 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 and Title V Operating Permit programs are required for new and existing industrial facilities.

In *Utility Air Regulatory Group v. Environmental Protection Agency* (134 Supreme Court 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 Prevention of Significant Deterioration or Title V permit. The Court also held that Prevention of Significant Deterioration 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.

Safer Affordable Fuel-Efficient Vehicles Rule

On September 27, 2019, the USEPA and the National Highway Traffic Safety Administration 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 National Highway Traffic Safety Administration published Part Two of the SAFE Vehicles Rule, which revised corporate average fuel economy and CO₂ emissions standards for passenger cars and trucks of model years 2021-2026, such that the standards increase by approximately 1.5 percent each year through model year 2026, as compared to the approximately 5 percent annual increase required under the 2012 standards (National Highway Traffic Safety Administration 2022).

Construction Equipment Fuel-Efficiency Standard

USEPA sets emission standards for construction equipment. The first federal standards (Tier 1) were adopted in 1994 for all off-road engines over 50 horsepower (hp) and were phased in by 2000. A new standard was adopted in 1998 that introduced Tier 1 for all equipment below 50 hp and established the Tier 2 and Tier 3 standards. The Tier 2 and Tier 3 standards were phased in by 2008 for all equipment. The current iteration of emissions standards for construction equipment are the Tier 4 efficiency requirements, which are contained in 40 Code of Federal Regulations Parts 1039, 1065, and 1068 (originally adopted in 69 Federal Register 38958 [June 29, 2004] and most recently updated in 2014 [79 Federal Register 46356]). Emissions requirements for new off-road Tier 4 vehicles were completely phased in by the end of 2015.

c. State Regulations

CARB is responsible for the coordination and oversight of State and local air pollution control programs in California. There are numerous regulations aimed at reducing the state's GHG emissions. These initiatives are summarized below.

California Advanced Clean Cars Program

Assembly Bill (AB) 1493 (2002), California's Advanced Clean Cars program (referred to as "Pavley"), requires CARB to develop and adopt regulations to achieve "the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." On June 30, 2009, the USEPA granted the waiver of Clean Air Act preemption to California for its GHG emission standards for motor vehicles, beginning with the 2009 model year, which allows California to implement more stringent vehicle emission standards than those promulgated by the USEPA. Pavley I regulates model years from 2009 to 2016 and Pavley II, now referred to as "LEV (Low Emission Vehicle) III GHG," regulates model years from 2017 to 2025. The Advanced Clean Cars program coordinates the goals of the LEV, Zero Emissions Vehicles (ZEV), and Clean Fuels Outlet programs and would provide major reductions in GHG emissions. By 2025, the rules will be fully implemented, and new automobiles will emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions from their model year 2016 levels (CARB 2011).

California Advanced Clean Trucks Program

In June 2020, CARB approved the Advanced Clean Trucks regulation, which requires manufacturers who certify Class 2b-8 chassis or complete vehicles with combustion engines to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. In addition,

the regulation requires company and fleet reporting for large employers and fleet owners with 50 or more trucks. By 2045, all new trucks sold in California must be zero-emission. Implementation of this regulation would reduce consumption of nonrenewable transportation fuels as trucks transition to alternative fuel sources.

Executive Order B-48-18: Zero-Emission Vehicles

On January 26, 2018, Governor Brown signed Executive Order B-48-18 requiring all State entities to work with the private sector to have at least 5 million ZEVs on the road by 2030, as well as install 200 hydrogen fueling stations and 250,000 electric vehicle (EV) charging stations by 2025. It specifies that 10,000 of the EV charging stations should be direct current fast chargers. This order also requires all State entities to continue to partner with local and regional governments to streamline the installation of ZEV infrastructure. The Governor's Office of Business and Economic Development is required to publish a Plug-in Charging Station Design Guidebook and update the 2015 Hydrogen Station Permitting Guidebook to aid in these efforts. All State entities are required to participate in updating the 2016 ZEV Action Plan, along with the 2018 ZEV Action Plan Priorities Update, which includes and extends the 2016 ZEV Action Plan (Governor's Interagency Working Group on Zero-Emission Vehicles 2016, 2018) to help expand private investment in ZEV infrastructure with a focus on serving low-income and disadvantaged communities.

Executive Order N-79-20

Governor Gavin Newsom signed Executive Order N-79-20 in September 2020, which sets a Statewide goal that 100 percent of all new passenger car and truck sales in the State will be zero-emissions by 2035. It also sets a goal that 100 percent of statewide new sales of medium- and heavy-duty vehicles will be zero emissions by 2045, where feasible, and for all new sales of drayage trucks to be zero emissions by 2035. Additionally, the Executive Order targets 100 percent of new off-road vehicle sales in the State to be zero emission by 2035. CARB is responsible for implementing the new vehicle sales regulation.

California Global Warming Solutions Act of 2006 (Assembly Bill 32, Senate Bill 32, and Assembly Bill 1279)

The "California Global Warming Solutions Act of 2006," (AB 32), outlines California's major legislative initiative for reducing GHG emissions. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires CARB to prepare a Scoping Plan that outlines the main state strategies for reducing GHG emissions to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 target of 431 MMT of CO₂e, which was achieved in 2016. CARB approved the Scoping Plan on December 11, 2008, which included GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among others (CARB 2008).

The CARB approved the 2013 Scoping Plan update in May 2014. The update defined the CARB's climate change priorities for the next five years, set the groundwork to reach post-2020 statewide goals, and highlighted California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan.

On September 8, 2016, the governor signed Senate Bill (SB) 32 into law, extending the California Global Warming Solutions Act of 2006 by requiring the state to further reduce GHG emissions to 40

percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, the CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, and implementation of recently adopted policies and legislation, such as SB 1383 and SB 100 (discussed below). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies.

AB 1279, “The California Climate Crisis Act,” was passed on September 16, 2022 and declares the State would achieve net zero greenhouse gas emissions as soon as possible, but no later than 2045, and to achieve and maintain net negative greenhouse gas emissions thereafter. In addition, the bill states that the State would reduce GHG emissions by 85 percent below 1990 levels no later than 2045. The 2022 Scoping Plan lays out a path to achieve AB 1279 targets (CARB 2022). The actions and outcomes in the 2022 Scoping Plan would achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon.

Senate Bill 375

The Sustainable Communities and Climate Protection Act of 2008 (SB 375), signed in August 2008, enhances the state’s ability to reach AB 32 goals by directing the CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. SB 375 aligns regional transportation planning efforts, regional GHG reduction targets, and affordable housing allocations. Metropolitan Planning Organizations (MPOs) are required to adopt a Sustainable Communities Strategy (SCS), which allocates land uses in the MPO’s Regional Transportation Plan (RTP). Qualified projects consistent with an approved SCS or Alternative Planning Strategy (categorized as “transit priority projects”) can receive incentives to streamline CEQA processing.

The City of American Canyon is within the planning area of the Association of Bay Area Governments (ABAG). ABAG was assigned targets of a 10 percent reduction in GHGs from transportation sources by 2020 and a 19 percent reduction in GHGs from transportation sources by 2035 (CARB 2022b).

Assembly Bill 1493 (Reduce GHG Emissions from Vehicle Use)

AB 1493 (Chapter 200, Statutes of 2002), known as the Pavley Bill, amended Health and Safety Code Sections 42823, and added Section 43018.5 requiring CARB to develop and adopt regulations that achieve maximum feasible and cost-effective reduction of GHG emissions from passenger vehicles, light-duty trucks, and other vehicles used for noncommercial personal transportation in California.

Assembly Bill 1007 (State Alternative Fuels Plan)

AB 1007 (Chapter 371, Statutes of 2005) required the California Energy Commission (CEC) to prepare a State plan to increase the use of alternative fuels in California. The CEC prepared the State Alternative Fuels Plan (SAF Plan) in partnership with CARB and in consultation with other federal, State, and local agencies. The SAF Plan presents strategies and actions California must take to increase the use of alternative non-petroleum fuels in a manner that minimizes costs to California and maximizes the economic benefits of in-state production. The SAF Plan assessed various alternative fuels and developed fuel portfolios to meet California’s goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-State

production of biofuels without causing a significant degradation of public health and environmental quality.

CARB In-Use On-Road and Off-Road Diesel Rules

The CARB rule imposes limits on idling, restricts the addition of older vehicles, and requires the retirement or replacement of older engines depending on their fleet size category. This policy indirectly impacts energy consumption.

More specifically, CARB is also charged with developing air pollution control regulations based upon the best available control measures and implementing feasible control measures under the State and Federal Clean Air Act. (Health & Safety Code, Sections 39602.5, 39667, 43013, subds. (a) and (h), 43018, 40600, 40601, 40612(a)(2) and (c)(1)(A).) Pursuant to these statutory authorities, more stringent emission standards were adopted in 2004 for off-road construction equipment (i.e. “Tier 4” standards) (40 Code of Federal Regulations Parts 1039, 1065, and 1068; Cal. Code Regs., tit. 13, Section 2025; AR 2854). CARB also adopted emission standards for on-road heavy duty diesel vehicles (i.e., haul trucks). (Cal. Code Regs., title 13, Section 1956.8.) These haul truck regulations mandate fleet turn-over to ensure that by January 1, 2023, nearly all on-road diesel trucks will have 2010 model year engines or equivalent [i.e., Tier 4]. In addition, interim steps are incorporated into the regulations (e.g., vehicles older than 1999 will be replaced with newer engines by 2020).

California Integrated Waste Management Act (Assembly Bill 341)/Assembly Bill 1826 (Mandatory Recycling/Composting)

The California Integrated Waste Management Act of 1989, as modified by AB 341, requires each jurisdiction’s source reduction and recycling element to include an implementation schedule that shows diversion away from landfills of 75 percent of all solid waste by 2020 and annually thereafter. AB 1826 requires recycling of organic waste (i.e., composting). All businesses and public entities that generate four or more cubic yards of solid waste per week and multi-family residential dwellings that have five or more units are required to recycle and compost.

Senate Bill 1383

Adopted in September 2016, SB 1383 requires CARB to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants. SB 1383 requires the strategy to achieve the following reduction targets by 2030:

- Methane – 40 percent below 2013 levels
- Hydrofluorocarbons – 40 percent below 2013 levels
- Anthropogenic black carbon – 50 percent below 2013 levels

SB 1383 also requires the California Department of Resources Recycling and Recovery (CalRecycle), in consultation with the CARB, to adopt regulations that achieve specified targets for reducing organic waste in landfills.

Senate Bill 100

Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state’s Renewables Portfolio Standard (RPS) Program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by

2030, and 100 percent by 2045. The 2020 goal was met, with approximately 36 percent of electricity coming from renewable sources in March 2021 (CARB 2021b).

Executive Order B-55-18

On September 10, 2018, the former Governor Brown issued Executive Order B-55-18, which established a new statewide goal of achieving carbon neutrality by 2045 and maintaining net negative emissions thereafter. This goal is in addition to the existing statewide GHG reduction targets established by SB 375, SB 32, SB 1383, and SB 100.

California Refrigerant Management Program

California's Refrigerant Management Program (RMP) regulates refrigerants used in larger facilities, primarily industrial and supermarket land uses. Refrigerants regulated under the RMP include any refrigerant that is an ozone depleting substance as defined in Title 40 of the Code of Federal Regulation, Part 82, and any compound with a GWP value equal to or greater than 150 according to the GWPs specified in the IPCC Fourth Assessment Report of 2007. According to the RMP, all supermarket and industrial refrigeration systems with a full recharge capacity of 50 pounds (22.7 kilograms) or greater will be required to limit the refrigerants used to no greater than 150 GWP beginning in 2022. Similarly, according to the RMP, all room air conditioning unit systems with a full recharge capacity of 50 pounds or greater will be required to limit the refrigerants used to no greater than 750 GWP beginning in 2023.

Senate Bill 1020

Senate Bill 1020 (SB 1020), signed into law on September 16, 2022, requires renewable energy and zero-carbon resources to supply 90 percent of all retail electricity sales by 2035, 95 percent by 2040, and 100 percent by 2045. All State agencies facilities must be served by 100 percent renewable and zero-carbon resources by 2030. SB 1020 also requires the Public Utilities Commission, Energy Commission, and CARB to issue a joint progress report outlining the reliability of the electrical grid with a focus on summer reliability and challenges and gaps. Additionally, SB 1020 requires the Public Utilities Commission to define energy affordability and use energy affordability metrics to develop protections, incentives, discounts, or new programs for residential customers facing hardships due to energy or gas bills.

CARB Gas Appliances Sales Ban

As part of the 2022 State Implementation Plan, CARB adopted a ban on new sales of natural gas heaters, water heaters, and furnaces by 2030 in September of 2022. This new measure is intended to reduce emissions from new residential and commercial space and water heaters sold in the State. An emission standard for space and water heaters will go into effect in 2030. Beginning in 2030, 100 percent of the sales of new natural gas-powered heaters and water heaters would need to comply with the emission standard, such as putting in electric heaters or other zero-emission options.

California Building Standards Code

The California Code of Regulations (CCR) Title 24 is referred to as the California Building Standards Code. It consists of a compilation of several distinct standards and codes related to building construction, including plumbing, electrical, interior acoustics, energy efficiency, and accessibility for persons with physical and sensory disabilities. The California Building Standards Code's energy-efficiency and green building standards are outlined below. These standards are updated every

three years and future projects would be subject to the 2022 California Building Standards when they go into effect on January 1, 2023.

Part 6 – Building Energy Efficiency Standards/Energy Code

CCR Title 24, Part 6 is the Building Energy Efficiency Standards or California Energy Code. This code, originally enacted in 1978, establishes energy-efficiency standards for residential and non-residential buildings to reduce California’s energy demand. New construction and major renovations must demonstrate their compliance with the current Energy Code through submittal and approval of a Title 24 Compliance Report to the local building permit review authority and the CEC. The current iteration is the 2019 Title 24 standards. The California Building Standards Code’s energy-efficiency and green building standards are outlined below. The 2022 Standards have been adopted and will come into effect January 1, 2023.

Part 11 – California Green Building Standards

The California Green Building Standards Code, referred to as CALGreen, was added to Title 24 as Part 11, first in 2009 as a voluntary code, which then became mandatory effective on January 1, 2011 (as part of the 2010 California Building Standards Code). The 2022 CALGreen includes mandatory minimum environmental performance standards for all ground-up new construction of residential and non-residential structures. It also includes voluntary tiers with stricter environmental performance standards for these same categories of residential and non-residential buildings. Local jurisdictions must enforce the minimum mandatory CALGreen standards and may adopt additional amendments for stricter requirements.

The mandatory standards require:

- Minimum 20 percent reduction in indoor water use relative to specified baseline levels²
- Waste Reduction
 - Minimum 65 percent non-hazardous construction/demolition waste diverted from landfills;
 - Non-residential and Multifamily dwellings with 5 or more units shall provide readily accessible areas identified for the depositing, storage and collection of nonhazardous materials for recycling including (at a minimum) paper, corrugated cardboard, glass, plastic, organic waste, and metals;
 - Nonresidential: 100 percent of trees, stumps, rocks and associated vegetation soils resulting from primary land clearing shall be reused or recycled.
- Inspections of energy systems to ensure optimal working efficiency
- Electric Vehicle (EV) Charging for New Construction³
 - Multifamily dwellings, hotels/motels with less than 20 units/rooms: Designation of at least 10 percent of the total number of parking spaces shall be EV capable and at least 25 percent of the total number of parking spaces shall be EV Ready.

² Similar to the compliance reporting procedure for demonstrating Energy Code compliance in new buildings and major renovations, compliance with the CALGreen water reduction requirements must be demonstrated through completion of water use reporting forms. Buildings must demonstrate a 20 percent reduction in indoor water use by either showing a 20 percent reduction in the overall baseline water use as identified in CALGreen or a reduced per-plumbing-fixture water use rate.

³ EV Capable = a vehicle space with electrical panel space and load capacity to support a branch circuit and necessary raceways to support EV charging. EV Ready = a vehicle space which is provided with a branch circuit and any necessary raceways to accommodate EV charging stations including a receptacle for future installation of a charger. See 2022 California Green Building Standard Code, Title 24 Part 11 for full explanation of mandatory measures including exceptions.

- Multifamily dwellings, hotels/motels with greater than 20 units/rooms: Designation of at least 10 percent of the total number of parking spaces shall be EV capable, at least 25 percent of the total number of parking spaces shall be EV Ready, and at least 5 percent of the total number of parking spaces shall be equipped with a Level 2 Charging Station.
- Non-residential land uses shall comply with the following EV charging requirements based on the number of passenger vehicle parking spaces
 - 0-9: no EV capable spaces or charging stations required;
 - 10 – 25: 4 EV capable spaces but no charging stations required;
 - 26 – 50: 8 EV capable spaces of which 2 must be equipped with charging stations;
 - 51 – 75: 13 EV capable spaces of which 3 must be equipped with charging stations;
 - 76 – 100: 17 EV capable spaces of which 4 must be equipped with charging stations;
 - 101 – 150: 25 EV capable spaces of which 6 must be equipped with charging stations;
 - 151 – 200: 35 EV capable spaces of which 9 must be equipped with charging stations;
 - >200: 20 percent of the total available parking spaces of which 25 percent must be equipped with charging stations;
- Non-residential land uses shall comply with the following EV charging requirements for medium-duty and heavy-duty vehicles: Warehouses, grocery stores, and retail stores with planned off-street loading spaces shall install EV supply and distribution equipment, spare raceway(s) or busway(s) and adequate capacity for transformer(s), service panel(s), or subpanel(s) at the time of construction based on the number of off-street loading spaces as indicated in Table 5.106.5.4.1 of the California Green Building Standards.
- **Bicycle Parking**
 - Non-residential short term bicycle parking for projects anticipated to generate visitor traffic: permanently anchored bicycle racks within 200 feet of visitor entrance for 5 percent of new visitor motorized vehicle parking spaces with a minimum of one two-bike capacity rack.
 - Non-residential buildings with tenant spaces of 10 or more employees/tenant-occupants: Secure bicycle parking for 5 percent of the employee/tenant-occupant vehicle parking spaces with a minimum of one bicycle parking facility.
- **Shade Trees (Non-Residential)**
 - Surface parking: Minimum No. 10 container size or equal shall be installed to provide shade over 50 percent of the parking within 15 years (unless parking area covered by appropriate shade structures and/or solar);
 - Landscape areas: Minimum No. 10 container size or equal shall be installed to provide shade of 20 percent of the landscape area within 15 years;
 - Hardscape areas: Minimum No. 10 container size or equal shall be installed to provide shade of 20 percent of the landscape area within 15 years (unless covered by applicable shade structures and/or solar or the marked area is for organized sports activities).

The CALGreen voluntary standards are only mandatory if a local ordinance requires them. Since the City has not made any of the voluntary measures mandatory, the following voluntary standards would not be applicable to the project:

- Deconstruct existing buildings and reuse applicable salvaged materials;

- **Residential Bicycle Parking:**
 - Multifamily/hotel/motel short-term parking: Provide permanently anchored bicycle racks within 100 feet of visitor's entrance for 5 percent of visitor motorized vehicle parking capacity (minimum 1 two-bike capacity rack);
 - Hotel/Motel long-term parking: Provide one acceptable on-site bicycle parking space for every 25,000 square feet but not less than two spaces;

The CALGreen voluntary standards are divided into two tiers. Tier 1 adds additional requirements beyond the mandatory measures, whereas Tier 2 further increases the requirements.

- **Tier I**
 - Stricter energy efficiency requirements;
 - Stricter water conservation requirements for specific fixtures;
 - Minimum 65 percent reduction in construction waste with third-party verification, Minimum 10 percent recycled content for building materials;
 - Minimum 20 percent permeable paving;
 - Minimum 20 percent cement reduction;
 - Multifamily developments/hotels/motels: Minimum 35 percent of total parking spaces shall be EV ready and for projects with 20 or more dwelling units/rooms a minimum of 10 percent of the total number of parking spaces shall be equipped with EV charging stations;
- **Tier II**
 - Stricter energy efficiency requirements,
 - Stricter water conservation requirements for specific fixtures;
 - Minimum 75 percent reduction in construction waste with third-party verification,
 - Minimum 15 percent recycled content for building materials;
 - Minimum 30 percent permeable paving;
 - Minimum 25 percent cement reduction;
 - Multifamily developments/hotels/motels: Minimum 40 percent of total parking spaces shall be EV ready and for projects with 20 or more dwelling units/rooms a minimum of 15 percent of the total number of parking spaces shall be equipped with EV charging stations

Plan Bay Area 2050

Plan Bay Area 2050 is a State-mandated, integrated long-range transportation, land-use, and housing plan, known as an RTP/SCS, that would support a growing economy, provide more housing and transportation choices and reduce transportation-related pollution in the nine-county San Francisco Bay Area. Plan Bay Area 2050 builds on earlier efforts to develop an efficient transportation network and grow in a financially and environmentally responsible way. Plan Bay Area 2050 focuses on advancing equity and improving resiliency in the Bay Area by creating strategies in the following four elements: Housing, Economy, Transportation, and Environment. The Plan discusses how the future is uncertain due to anticipated employment growth, lack of housing options, and outside forces, such as climate change and economic turbulence. These uncertainties will impact growth in the Bay Area and exacerbate issues for those who are historically and systemically marginalized and underserved and excluded. Thus, Plan Bay Area 2050 has created strategies and considered investments that will serve those systemically underserved communities

and provide equitable opportunities. The Plan presents a total of 35 strategies to outline how the \$1.4 trillion dollar investment would be utilized. The strategies include, but are not limited to, the following: providing affordable housing, allowing higher-density in proximity to transit-corridors, optimizing the existing roadway network, creating complete streets, providing subsidies for public transit, reducing climate emissions, and expanding open space area. To bring these strategies to fruition, it will require participation by agencies, policymakers, and the public. An implementation plan is also included as part of the Plan to assess the requirements needed to carry out the strategies, identify the roles of pertinent entities, create an appropriate method to implement the strategies, and create a timeline for implementation.

Napa Valley Transportation Authority

The Napa Valley Transportation Authority (NVTa) is a Congestion Management Agency (CMA) formed in 1998 as a joint power authority between the cities of American Canyon, Calistoga, Napa, St. Helena, the town of Yountville, and the County of Napa. NVTa serves as the countywide transportation planning agency. NVTa also develops the long-range county transportation plan, which (along with similar plans from the other eight Bay Area counties) forms the “primary basis” for the RTP/SCS adopted by the Metropolitan Transportation Commission. In turn, the county transportation plan must consider the most recently adopted RTP/SCS to assure that both plans employ a common planning framework.

City of American Canyon Energy Efficiency Climate Action Plan

The City of American Canyon Energy Efficiency Climate Action Plan (EECAP) was adopted in December 2012 to develop a coordinated approach to energy efficiency and GHG reductions within the community and local government. The EECAP provides feasible strategies and measures that cost-effectively reduce energy-related and GHG emissions. Additionally, the EECAP includes an inventory of GHG emissions from all sectors in the community for years 2005 and 2010, as well as forecasts of anticipated GHG emissions for years 2020 and 2035 under a business-as-usual scenario that takes into consideration current consumption patterns, as well as population and job projections.

American Canyon Industrial GHG Standards Ordinance 2024-02

CEQA requires lead agencies to choose a threshold of significance to evaluate greenhouse gas emissions that is supported by substantial evidence and captures all significant impacts which may be one developed by an expert agency. The City falls within the Bay Area Air Quality Management District (BAAQMD), which in 2022 issued GHG significance thresholds recommendations for residential and commercial projects but did not recommend a threshold for industrial land uses. The South Coast Air Quality Management District (SCAQMD), which includes Los Angeles County, has developed a threshold of significance under CEQA for industrial land uses that is supported by substantial evidence and serves as a basis for mitigation of significant sources of GHG impacts.

The City’s threshold of significance that combines BAAQMD’s baseline threshold with the SCAQMD’s threshold will capture the main sources of GHG emissions from industrial land uses.

The threshold standards are applied in a tiered evaluation system:

Tier 1: CEQA Categorical Exemptions

- Initially, determine if the project qualifies for any CEQA categorical exemptions. If it does not, proceed to Tier 2.

Tier 2: Consistency with Local GHG Reduction Plans

- Assess if the project aligns with a locally adopted GHG reduction plan. This plan must have undergone public hearing and CEQA review, have an approved inventory, and include monitoring. If the project is not consistent with such a plan, move to Tier 3.

Tier 3: Project Design Elements

- Evaluate the project against specific design elements
 - Buildings**
 - The project should not include natural gas appliances or plumbing.
 - The project should avoid wasteful or unnecessary energy use, as per CEQA guidelines.
 - Transportation**
 - The project must achieve a reduction in vehicle miles traveled (VMT) below the regional average, currently at least 15% as per the California Climate Change Scoping Plan.
 - The project must comply with the latest CALGreen Tier 2 electric vehicle requirements.
- If the project does not incorporate these design elements, it is considered to have a significant GHG impact. If it does, move to Tier 4.

Tier 4: GHG Emissions Screening Threshold

- Determine if the project's GHG emissions exceed the South Coast Air Quality Management District's threshold of 10,000 metric tons of CO₂ equivalent (MT CO₂e) per year for industrial uses and stationary projects. Projects exceeding this threshold are deemed to have a significant GHG impact.

Industrial Commerce Centers Sustainability Standards Ordinance 2024-03

The American Canyon Industrial Greenhouse Gas Standards Ordinance establishes the following standards to all warehousing, logistics, and distribution facilities in the City where a Notice of Preparation is issued after March 1, 2024, under CEQA. It defines such facilities as those used for storing and consolidating manufactured goods, typically larger than 200,000 square feet with specific characteristics such as dock high loading doors and truck activities.

The following standards are applicable under the proposed Ordinance:

- Zero Emission Operational Equipment.** All on-site motorized operational equipment (forklifts, yard trucks, pallet jacks, etc.) must be zero-emission. This includes using electrical hookups instead of diesel-fueled generators for construction tools.
- Zero Emission Cargo Handling Equipment.** All outdoor cargo handling equipment must be zero-emission vehicles. Necessary charging stations or infrastructure for these vehicles must be included in each building.

3. **Rooftop Solar Panels.** Before issuing a business license, the City will ensure that rooftop solar panels are installed to supply 100% of the power needed for non-refrigerated parts of the facility, including parking areas.
4. **Refrigerated Space Requirements.** Facilities not committing to non-refrigerated use must install conduits during construction for potential refrigerated spaces. Electric plug-in units for refrigeration units must be installed at relevant dock doors.
5. **Zero Emission Construction Equipment.** All generators and diesel-fueled off-road construction equipment over 75 horsepower must be zero-emissions or have CARB Tier IV-compliant engines. Exemptions are possible if such equipment is not reasonably available.
6. **Electric Vehicle Charging Stations.** Install infrastructure for Level 2 (or faster) EV charging stations for a percentage of employee parking spaces, increasing to 25% by 2030.
7. **Air Filtration Systems.** Install HVAC and/or HEPA air filtration systems in all warehouse facilities.

4.5.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Based on Appendix G of the CEQA Guidelines a project may be deemed to have a significant impact on GHG emissions if it would:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
2. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Most individual projects do not generate sufficient GHG emissions to create a project-specific impact through a direct influence on climate change. However, physical changes caused by a project can contribute incrementally to cumulative effects that are significant, even if individual changes resulting from a project are limited. 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 15064[h][1]). The 2022 BAAQMD *CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans* provides two plan level thresholds for determining the significance of GHGs. The two approaches are as follows:

1. Consistency with a qualified GHG reduction plan
2. Meets the State's goals to reduce emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045

The City of American Canyon's EECAP is not a qualified GHG reduction plan, since it contains targets only for 2020 and was adopted prior to the adoption of new targets contained in the 2022 Scoping Plan; therefore, the first approach is not feasible. As such, the City uses the second approach to determine the significance of GHGs for development facilitated by the project.

Methodology

Based on plan-level guidance from the 2022 BAAQMD *CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans*, GHG emissions associated with project implementation is discussed qualitatively by comparing the project to the 2022 BAAQMD GHG thresholds, namely whether policies work towards achieving carbon neutrality by 2045. In addition, the project is qualitatively compared to other applicable plans, policies, and regulations adopted for the purpose of reducing the emissions of GHGs.

In developing its 2022 GHG significance thresholds, BAAQMD analyzed what new land use development projects will require to achieve California's long-term climate goal of carbon neutrality by 2045, thereby better representing what design elements new land use development projects need to incorporate to sufficiently contribute to achieving the State's goal. As GHG emissions from the land use sector come primarily from building energy use and from transportation, these are the areas that need to be evaluated to determine whether the project can or will be carbon neutral. With respect to building energy use, this can be achieved by replacing natural gas with electric power and by eliminating inefficient or wasteful electricity usage. These strategies will support California's transition away from fossil fuel-based energy sources and will bring the project's GHG emissions associated with building energy use down to zero because SB 100 incrementally requires greater proportions of in-state sales of electricity to be generated from renewable and carbon-free sources, ultimately requiring 100 percent of in-state electricity sales to be generated from carbon-free sources by 2045. With respect to transportation, projects need to be designed to reduce project-generated VMT and to provide sufficient EV charging infrastructure to support the adoption of EVs. BAAQMD's 2022 significance thresholds for project design elements are listed below. If a land use development project cannot demonstrate consistency, then that project would result in a potentially significant impact related to GHG emissions.

1. Buildings

- i. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).
- ii. The project will not result in any wasteful, inefficient, or unnecessary electrical usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the CEQA Guidelines.

2. Transportation

- i. Achieve compliance with off-street EV requirements in the most recently adopted version of CALGreen Tier 2.
- ii. Achieve a 15 percent reduction in project-generated residential VMT per capita and VMT per employee rate below the existing American Canyon rate.

As discussed in Chapter 4.11, *Transportation*, project-generated traffic is evaluated for whether it would conflict or be inconsistent with CEQA Guidelines Section 15064.3(b), which describes specific considerations for analyzing transportation impacts as amended on July 1, 2020, pursuant to SB 375. SB 375 aims to better promote statewide policies that (a) combat climate change by reducing greenhouse gas emissions and particulates; (b) encourage infill development and a diversity of uses instead of sprawl; and (c) promote multi-modal transportation networks, providing clean, efficient access to destinations and improving public health through active transportation. Section 15064.3(b) states that VMT is "generally" the most appropriate measure of transportation impacts. No particular methodology or metric is mandated by section 15064.3(b) and the methodology or

metric is left to the lead agency, bearing in mind the criteria the legislature had in mind for determining the significance of transportation impacts in SB 743. These were expressed in Public Resource Code section 21099(b)(1), which states: “[t]hose criteria shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.” The American Canyon travel demand model is a trip-based model and estimates the following:

- Residential VMT per capita was estimated based on the VMT attributable to home-based trip productions, to and from residences in American Canyon.
- VMT per employee was estimated based on the VMT associated with home-based work (HBW) trips, to and from places of employment in American Canyon.

VMT impacts would be considered potentially significant if the forecasted rate of residential VMT per capita or VMT per employee for the project were to exceed 85 percent of the existing rate of VMT in each category for American Canyon, based on the American Canyon travel demand model.

In terms of the potential for wasteful, inefficient, or unnecessary electrical usage as determined by the analysis required under CEQA Section 21100(b)(3) and CEQA Guidelines Section 15126.2(b), project energy impacts are addressed under *Energy* in Chapter 4.15, *Effects Found to be Less than Significant*.

b. Project Impacts and Mitigation Measures

Threshold 1:	Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
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 GHG-1 DEVELOPMENT FACILITATED BY THE PROJECT WOULD MAKE PROGRESS TOWARDS ACHIEVING STATE GOALS BUT WOULD NOT NECESSARILY MEET STATE 2030 OR 2045 GOALS. MITIGATION MEASURES GHG-2 AND GHG-3 WOULD REQUIRE IMPLEMENTATION OF CEQA GHG THRESHOLDS AND A CLIMATE ACTION PLAN (CAP); HOWEVER, DEVELOPMENT FACILITATED BY THE PROJECT WOULD NOT MEET THE 2030 OR 2045 GOALS UNTIL THE CAP IS UPDATED AND ADOPTED. THIS IMPACT WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Construction

Construction of future development and mobility improvements associated with the 2040 General Plan would result in GHG emissions during construction, primarily from fuel consumption associated with heavy equipment, light-duty vehicles, machinery, and generators for lighting. Temporary grid power may also be provided to construction trailers or electric construction equipment that may result in indirect GHG emissions from energy generation. The project would utilize construction contractors that would be required to comply with applicable CARB regulations, such as accelerated retrofitting, repowering, or replacement of heavy-duty diesel on-road and off-road equipment. Construction contractors are required to comply with the provisions of CCR Title 13, sections 2449 and 2485, and CARB regulations, which prohibit diesel-fueled commercial and off-road vehicles from idling for more than five minutes, minimizing unnecessary GHG emissions. Construction equipment would be subject to the USEPA Construction Equipment Fuel Efficiency Standard, which would minimize inefficient fuel consumption and thus GHG emissions. These construction equipment

standards (i.e., Tier 4 efficiency requirements) are contained in 40 Code of Federal Regulations Parts 1039, 1065, and 1068. Pursuant to applicable regulatory requirements of CALGreen, the project would comply with construction waste management practices to divert construction and demolition debris from landfills. These practices would result in efficient use of energy during construction and, therefore, would minimize unnecessary GHG emissions. Furthermore, in the interest of cost efficiency, construction contractors would not utilize fuel in a manner that is wasteful or unnecessary, which would also have the effect of minimizing GHG emissions.

The use of GHG-reducing construction Best Management Practices (BMPs) is considered by the City to be a pragmatic and effective approach for the control of construction-related GHG emissions. The BAAQMD, in their 2017 CEQA Air Quality Guidelines, recommend that following construction BMPs for reducing GHG emissions:

- The use of alternative fueled construction vehicles and equipment for at least 15 percent of the fleet.
- The use of local building materials for at least 10 percent of materials.
- The recycling and reuse of at least 50 percent of construction and demolition waste materials.

Pursuant to the 2022 BAAQMD *CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans*, BAAQMD does not recommend a construction-related climate impact threshold. According to BAAQMD, GHG emissions from construction represent a very small portion of a project's lifetime GHG emissions. However, incorporation of feasible and applicable GHG-reducing construction BMPs serves herein as the basis for whether project construction would contribute its "fair share" of GHG emission reductions consistent with the legislative reduction targets codified by SB 32 and the State's long-term climate goal of carbon neutrality by 2045. The California Supreme Court, in *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) (62 Cal.4th 204, 220-223), explained that an approach by which a lead agency ascertains a proposed project's "fair share" of required Statewide GHG reductions is a legitimate approach for formulating significance thresholds for GHG emissions. Under this approach, which here is focused on the project incorporating BAAQMD-recommended BMPs for construction-related emissions, the project would be considered to result in a potentially significant impact if project construction would not incorporate feasible and applicable GHG reducing construction BMPs including, at a minimum, those listed above. Implementation of Mitigation Measure GHG-1 would require incorporation of those GHG reducing construction BMPs and reduce construction related impacts to be less than significant.

The proposed thresholds for land use projects are designed to address operational GHG emissions that represent the vast majority of project GHG emissions. Therefore, the primary evaluation of GHG emissions impacts associated with project implementation is focused on operational emissions, discussed below.

Operation

The project would result in GHG emissions during operation. The nature of GHG emissions would be typical of those associated with residential, commercial, retail, hotel, industrial, warehouse, and research and development uses. GHG emissions would result primarily from building energy usage and fuel consumption associated with vehicle trips. The project contains policies that aim to reduce operational GHG emissions in accordance with State 2030 GHG emissions reductions goals and provide substantial progress to the State's goal of carbon neutrality by 2045, as included below. Operational buildout is expected to be 2040.

Transportation

On-road transportation sources are based on passenger vehicle and truck trip generation rates and VMT. As described in Section 4.11, *Transportation*, implementation of the 2040 General Plan would result in less than significant VMT impacts. The forecasted VMT of the project, including both VMT per residents and VMT per employee, would be more than 15 percent lower than existing VMT.

General Plan goals and policies listed under Impact AQ-2 in Section 4.2, *Air Quality*, would reduce emissions from vehicles by encouraging active transportation and transit use. Goal LU-1, coupled with proposed policy LU-1.4, would encourage compact development to reduce reliance on automobiles and associated GHG emissions. Goal MOB-1 and associated policies would encourage creation of complete streets (i.e., streets that support pedestrians and bicyclists) to reduce VMT in the City, which would reduce GHG emissions associated with vehicle use. Goal MOB-5 and associated policies would support public transit to reduce VMT, which would also reduce GHG emissions associated with vehicle use.

Buildings

Future buildings developed under the project would be served by Marin Clean Energy (MCE) or Pacific Gas and Electricity (PG&E). MCE is an alternative to PG&E for energy generation. All residents and local businesses are automatically enrolled in the Light Green Program (60 percent renewable energy) and have the option to opt up to the Deep Green Program, which offers 100 percent renewable energy. PG&E is required to increase its renewable energy procurement in accordance with SB 100 targets. SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state's Renewables Portfolio Standard Program. It requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045. In addition, GHG emissions from building use would be reduced through implementation of the proposed policies listed below, which would encourage energy efficiency in buildings.

- **Policy U-9.1: Reach Building Code.** Reduce energy use in new development by considering a local amendment that requires a 15% energy efficient standard improvement over the California Building Code.
- **Policy U-9.2: Electric Energy Systems.** Coordinate with Pacific Gas and Electric Company (PG&E) to ensure that electrical energy systems do not adversely impact land uses and population in the City of American Canyon.
- **Policy U-9.5: Electric Energy Systems.** Coordinate with Pacific Gas and Electric Company (PG&E) to ensure that electrical energy systems do not adversely impact land uses and population in the City of American Canyon.
- **Policy U-9.6: Passive Solar Heating and Cooling.** Consistent with the California Subdivision Map Act, require new subdivisions to examine the feasibility of incorporating site layouts that allow passive solar heating and cooling.
- **Policy U-9.7: Residential Energy Efficiency.** Seek grant funds that help low and moderate-income residents obtain low or no-cost loans to increase energy efficiency of their homes through weatherization, insulation, solar energy generation and energy battery backup storage; and assist utility providers with outreach on home energy efficiency rebates and programs for all residents, regardless of income.

- **Policy ENV-10.6: Reach Building Code.** Consider feasibility of adopting a “reach” local amendment to the California building code to require a 15% or greater energy efficiency than the State standard.
- **Policy ENV-10.8: Building Electrification.** Consider a Reach Building Code that would prohibit installation of natural gas in all new construction.
- **Policy ENV-11.1: Energy Efficiency.** Require developers employ energy-efficient site planning methods and building design, including building orientation, shading, landscaping, building reflectance, and passive solar heating and hot water systems.
- **Policy ENV-11.1: Renewable Energy Sources.** Work with other agencies and utility companies to develop safe, economical, and renewable energy resources.
- **Policy ENV-11.2: Renewable Energy Program.** Support installation of renewable energy and battery storage for homes and businesses.
- **Policy ENV-11.3: Energy Retrofit Program.** Develop an energy retrofit program and incentives for homeowners and building owners to encourage energy efficiency improvements such as fixture and appliance upgrades.
- **Policy ENV-11.4: Energy Efficiency City Operations.** Increase energy efficiency of City operations and evaluate the feasibility of installing renewable energy at city facilities.

Proposed policies U-9.1 and ENV-10.6 would encourage a reduction in building energy use and associated GHG emissions by adopting a reach code that requires greater energy efficiency than mandated by the State. Proposed policies U-9.2, U-9.5 through U-9.7, and ENV-11.1 through ENV-11.4 would reduce energy use and associated GHG emissions through various energy efficiency programs and increased use of renewable energy sources. Proposed policy ENV-10.8 would reduce GHG emissions by supporting a prohibition of natural gas.

The proposed policies regarding vehicle use and buildings would assist in reducing emissions to 40 percent below 1990 levels by 2030 and reaching carbon neutrality by 2045 but would not necessarily achieve either goal. The project is a policy-level document that guides land use and development throughout the City. The CARB 2022 Climate Change Scoping Plan outlines a pathway to achieving the 2030 reduction targets set under SB 32, which are considered interim targets toward meeting the long-term 2045 carbon neutrality goal established by California Executive Order B-55-18. While the project would facilitate additional development within the City, building energy consumption and VMT (and thus GHG emissions), water consumption, and solid waste generation per capita would be reduced under the project’s buildout compared to existing conditions, given the above discussed policies. However, the project does not outline how the City would meet the goals to reduce emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045. The project would therefore not be consistent with the California Executive Order B-55-18 goal of carbon neutrality by 2045, nor does it have a qualified GHG reduction plan to guide progress towards State goals. Therefore, impacts related to generation of GHG emissions and consistency with State GHG reduction plans due to the project would be potentially significant.

Implementation of Mitigation Measures GHG-2 and GHG-3 would require that the City implement CEQA GHG emissions thresholds and adopt the American Canyon CAP to establish a Citywide GHG reduction target and provide an outline of how the City will meet the State goal of carbon neutrality by 2045.

Mitigation Measures

GHG-1 Construction GHG BMPs

Prior to the issuance of any grading permits, the project applicant shall provide the City of American Canyon with documentation (e.g., site plans) demonstrating implementation of construction Best Management Practices (BMPs). Measures may include but are not limited to:

- At least 15 percent of the construction fleet for each project phase shall be alternatively fueled or electric.
- At least 10 percent of building materials used for project construction shall be sourced from local suppliers.
- At least 65 percent of construction and demolition waste materials shall be recycled or reused.
- At least one contractor that has a business location in American Canyon shall be contracted for project construction.
- All construction contracts shall include language that requires all off-road equipment with a power rating below 19 kilowatts (e.g., plate compactors, pressure washers) using during construction be electrically powered.
- Architectural coatings used for project construction shall be “Low-VOC,” containing no greater than 50 grams of volatile organic compounds (VOC) per liter of product.
- Project construction shall prohibit the use of generators and shall establish grid power connection to electrical equipment needs.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure [ATCM] Title 13, Section 2485 of California Code of Regulations). Clear signage regarding idling restrictions shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- The prime construction contractor shall post a publicly visible sign with their telephone number and contractor to contact. The construction contractor shall take corrective action within 48 hours. The BAAQMD’s phone number shall also be identified and visible to ensure compliance with applicable regulations.

GHG-2 Adopt and Implement a CEQA GHG Emissions Threshold

The City shall include and implement a new 2040 General Plan policy under the Environment Element to prepare, adopt, and implement a CEQA GHG Emissions threshold of significance. The City shall adopt the CEQA GHG Emissions threshold of significance by the end of 2025 for use in future CEQA GHG emissions analyses through 2030. In addition, upon completion of future CAP updates and as necessary, the City shall update the CEQA GHG Emissions threshold of significance and American Canyon CEQA GHG Checklist to be consistent with each CAP update.

GHG-3 Adopt American Canyon CAP to Meet the State’s 2030 and 2045 GHG Emissions Goals

The City shall draft and adopt the American Canyon qualified CAP by the end of 2025 to outline how American Canyon will meet the State’s 2030 goal of 40 percent below 1990 emissions levels and

2045 goal of carbon neutrality. Implementation measures in the updated qualified CAP to achieve the 2030 and 2045 goals may include, but are not limited to, the following:

- Develop and adopt Zero Net Energy requirements for new and remodeled residential and non-residential development;
- Develop and adopt a building electrification ordinance for existing and proposed structures;
- Expand charging infrastructure and parking for electric vehicles;
- Implement carbon sequestration by expanding the urban forest, participating in soil-based or compost application sequestration initiatives, supporting regional open space protection, and/or incentivizing rooftop gardens; and
- Implement policies and measures included in the California 2022 Climate Change Scoping Plan, such as mobile source strategies for increasing clean transit options and zero emissions vehicles by providing electric vehicle charging stations.

Significance After Mitigation

Implementation of Mitigation Measure GHG-1 would ensure that construction related GHG impacts would be less than significant. Implementation of Mitigation Measures GHG-2 and GHG-3 would ensure that development facilitated by the project after 2024 would be consistent with State emissions goals. However, individual projects that may occur prior to 2024 would not be guaranteed to be consistent with State emissions goals, nor are exact emissions reductions known at the time of adoption of the 2040 General Plan. Until the CEQA GHG thresholds are adopted and the CAP is updated, implementation of the project would not be consistent with BAAQMD GHG thresholds nor would it be consistent with State GHG reduction plans. Therefore, the project's impacts related to GHG emissions would be significant and unavoidable.

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4.6 Land Use and Planning

This section summarizes existing and planned land uses in the Planning Area and analyzes the impacts on land use and planning due to the project. The physical environmental effects associated with the project, many of which pertain to issues of land use compatibility (e.g., aesthetics, air quality, noise) are evaluated in other sections of this EIR.

4.6.1 Setting

a. Existing Land Use Patterns

The General Plan Planning Area includes the following four components.

1. Current City Limits: The City limits encompasses approximately 6.1 square miles. The existing uses within City limits are discussed in further detail below.
2. Sphere of Influence (SOI): The SOI represents areas that may already receive City services and are a visual and logical expansion of the city boundaries. There is currently one area in the SOI that is not within City limits. The City is currently in the process of annexing that area as part of the Paoli/Watson Lane Annexation Project and is currently preparing the California Environmental Quality Act (CEQA) documentation (City of American Canyon 2022).
3. Urban Limit Line (ULL): The ULL was established in a 2008 voter initiative. The ULL agreement obtained County support for City annexation of three properties in the Napa Airport Specific Plan and potentially additional properties within the ULL until the Year 2030. In return, the City clarified its City Water Service area policies for some properties outside the City limits. The ULL boundary includes the SOI plus additional properties east of the City (see Figure 2-3 in Chapter 2, *Project Description*).
4. Historical City Water Service Area: Areas within the City's historical water service area beyond the ULL are intended to remain outside the city limits for the duration of the General Plan planning period. This property is relevant to the General Plan because these County properties obtain potable water from the City's water service area.

Within the City limits, approximately 30 percent of the city has residential uses, including single-family, multifamily, and mobile home parks (American Canyon 2020). Approximately 26 percent of American Canyon is made up of vacant land, primarily vacant industrial land. Public facilities, parks, and open space make up next largest category at 16 percent. Existing industrial uses occupy 14 percent of the city, while commercial uses comprise 4.2 percent (American Canyon 2020).

Residential

Residential uses are the predominant land use in the City. Housing units consist of single-family, multi-family, mobile homes, and estate (agricultural) homes. Neighborhoods containing single-family detached dwelling units are the primary developed land use within the city. Most low-density (i.e., single-family) residential uses are located west of State Route (SR) 29 while the higher density residential uses (i.e., multi-family and mobile homes) are generally located between American Canyon Road and the City's southern limit, and between SR 29 and Flosden Road.

Commercial

Commercial uses in the City include retail (general and personal services), offices, restaurants, convenience markets, gas stations, and auto-related facilities. Commercial uses located along SR 29 and are generally sited to attract customers from commuter or tourist traffic on SR 29 (e.g., gas stations, restaurants, and convenience markets) (American Canyon 1994a). Planned multimodal improvements (i.e.: sidewalks, trails, property interconnectivity) as well as adjacent existing and planned housing will increase non-motorized access.

Industrial

Industrial uses in the City include light and heavy manufacturing, storage and salvage yards, business parks, and other related uses (American Canyon 1994a). Industrial uses are primarily located in the north-western portion of the City.

Institutional

Institutional uses include churches, and other religious institutions. These facilities provide a variety of services for the physically challenged, senior citizens, and others (American Canyon 1994a).

Public

The City's public uses encompass educational facilities, recreational facilities, utilities, easements, and civic structures. Utility facilities and easements include such uses as a wastewater treatment plant and Pacific Gas & Electric transmission line corridors (American Canyon 1994a). The City also includes a network of public parks, primarily around residences, and open space adjacent to the Napa River and Newell Open Space to provide opportunities for recreation.

Agriculture

Agriculture uses are limited within the Urban Limit Line (ULL). These consist of grazing, livestock feed crops and vineyards.

Vacant

Vacant land in the city is primarily located in areas designated industrial and residential on the northwestern side of the city. In the northeastern side of the City and ULL, vacant land is designated industrial, residential, and special study.

4.6.2 Regulatory Setting

a. Federal Regulations

There are no federal regulations that pertain to land use and planning.

b. State Regulations

General Plan Law (California Government Code Section 65300)

California Government Code Section 65300 regulates the substantive and topical requirements of general plans. State law requires that each city and county adopt a general plan "for the physical development of the county or city, and any land outside its boundaries which bears relation to its

planning.” The California Supreme Court has called the general plan the “constitution for future development.” The general plan expresses the community’s development goals and embodies public policy relative to the distribution of future land uses, both public and private.

California Government Code Section 65301

Section 65301 of the California Government Code requires a general plan to address the geographic territory of the local jurisdiction and any other territory outside its boundaries that bears relation to the planning of the jurisdiction. The jurisdiction may exercise their own judgment in determining what areas outside of its boundaries to include in the planning area. The State of California General Plan Guidelines denotes that the planning area for a city should include (at minimum) all land within the city limits and all land within the city’s SOI.

Government Code Section 65860(a)

State law requires that general law city or town zoning ordinances be consistent with the general plan. A zoning ordinance is consistent with an adopted general plan only if the various land uses authorized by the zoning ordinance "are compatible with the objectives, policies, general land uses, and programs specified in such a plan" (Government Code Section 65860(a)). State law also provides that in the event a zoning ordinance becomes inconsistent with a general plan by reason of amendment to such a plan, the zoning ordinance must be amended within a reasonable time so that it is consistent with the general plan as amended [Government Code Section 65860(a)]. The City of American Canyon is a general law city and is, therefore, required to have zoning consistency.

Cortese Knox Hertzberg Local Government Reorganization Act of 2000

The 2000 Cortese Knox Hertzberg Local Government Reorganization Act (CKH Act) established procedures for local agency changes of organization, including city incorporation, annexation to a city or special district, and consolidation of cities or special districts (Section 56000, et seq.). Local Agency Formation Commissions (LAFCOs) have numerous powers under the CKH Act, but the most important are the power to act on local agency boundary changes and to adopt sphere of influences (SOIs) for local agencies. The law states that to update an SOI, LAFCOs are required to first conduct a review of the municipal services provided by the local agency. The CKH Act requires LAFCOs to update SOIs for every city and special district every five years. The original deadline was January 2006, five years following the CKH Act becoming State law. That deadline was extended two years to January 2008. Every SOI update must be accompanied by an update of the municipal services review. American Canyon’s SOI is not being updated as a part of the 2040 General Plan.

State Aeronautics Act

The State Aeronautics Act requires each county with an airport to establish an Airport Land Use Commission (ALUC) to regulate land use around airports to protect public safety and ensure that land uses near airports do not interfere with aviation operations. The Napa County Airport Land Use Compatibility Plan (ALUCP) regulates land use around the Napa County Airport, as well as two other aviation facilities in the County, by requiring compliance with the policies of the plan. In certain circumstances, local governments may override the decisions of the ALUC.

Sustainable Communities and Climate Protection Act (SB 375)

The Sustainable Communities and Climate Protection Act (SB 375) supports the State's climate goals by helping reduce greenhouse gas emissions through coordinated transportation, housing, and land

use planning. Under SB 375, the California Air Resources Board (CARB) set targets for 2020 and 2035 for each of the 18 metropolitan planning organization regions in 2010 and updated them in 2018. Each of the regions must prepare a Sustainable Communities Strategy (SCS), as an integral part of its regional transportation plan, that contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet CARB's targets. SB 375 establishes some incentives to encourage implementation of the development patterns and strategies included in an SCS. Developers can get relief from certain environmental review requirements under CEQA if their new residential and mixed-use projects are consistent with a region's SCS that meets the targets (see Public Resources Code Sections 21155, 21155.1, 21155.2, and 21159.28).

c. Local Regulations

Association of Bay Area Governments 2021 Regional Transportation Plan/Sustainable Communities Strategy

The Association of Bay Area Governments (ABAG) is required by State and federal law to prepare, update, and adopt a Regional Transportation Plan (RTP) every four years. Senate Bill (SB) 375, California's Sustainable Communities and Climate Protection Act, was enacted in 2008, requiring all RTPs to include an SCS that reduces greenhouse gas emissions from passenger vehicles and light-duty trucks. The most recent update to the RTP/SCS was completed by ABAG and the Metropolitan Transportation Commission in October 2021. The 2021 RTP/SCS, also known as Plan Bay Area 2050, builds on ABAG's 2017 RTP/SCS and serves as the blueprint for the region's transportation system over the next 30 years (ABAG 2021).

The 2021 RTP/SCS includes the following goals:

- Protect and preserve affordable housing.
- Spur housing production for residents of all income levels.
- Create inclusive communities.
- Improve economic mobility.
- Shift the location of jobs.
- Maintain and optimize the existing transportation system.
- Create healthy and safe streets.
- Build a next-generation transit network.
- Reduce risks from hazards.
- Expand access to parks and open space.
- Reduce climate emissions.

City of American Canyon Municipal Code

The Zoning Code (Title 19) of the City of American Canyon Municipal Code is the primary tool used by the City to carry out the goals, objectives, and policies of the American Canyon General Plan by classifying and regulating the uses of land and structures within the city, consistent with the General Plan. Zoning is the instrument that implements the land use designations of a general plan. In addition to establishing permitted uses, zoning may also establish development standards relating to issues such as intensity, setbacks, height, and parking. Projects submitted to the City for review and approval are generally evaluated for consistency with the zoning designations.

The 21 existing zoning districts established by the American Canyon Zoning Ordinance are as follows (American Canyon 2015):

- RE – Residential Estate
- RR – Rural Residential (RR-20,000, RR-10,000)
- RS – Suburban Residential (RS-8000, RS-6500)
- RM – Medium Residential
- RH – High Residential (RH-1, RH-2)
- PC – Planned Community
- SP – Specific Plan (SP-1, SP-2)
- CN – Neighborhood Commercial
- CC – Community Commercial
- REC – Recreation
- TC – Town Center
- P – Public
- LI – Light Industrial
- GI – General Industrial
- OS – Open Space
- OS-CRW – Open Space Clarke Ranch West
- SS – Special Study

Napa County Airport Land Use Compatibility Plan

The Napa County ALUCP governs land use around Napa County Airport. The ALUCP identifies two categories of flight hazards: physical obstructions and land use characteristics. Physical obstructions are associated with tall objects or structures. The ALUCP establishes a height restriction of 35 feet above the ground for objects located within Zone D. Additional height may be permitted under stringent Special Use Permit procedures as provided for in the Airport Safety Ordinance No. 416 and be referred to the Napa County ALUC prior to final approval. Land use characteristics involve uses that may produce hazards to aviation. Specific characteristics prohibited within the airport land use planning boundaries are listed below:

- Glare or distracting lights, which could be mistaken for airport lights
- Sources of dust, steam, or smoke that may impair pilot visibility
- Sources of electrical interference with aircraft communications or navigation
- Any use that may attract large flocks or birds, especially landfills or certain agricultural uses

The ALUCP follows Noise Compatibility Guidelines, as included in Table 2-1 of the ALUCP (ALUC 1991). New residential uses are not permitted within Zone D without ALUC review. However, the City entered a Settlement Agreement with the ALUC on May 3, 2022. The Settlement Agreement provides that the City will not recommend for approval any application for a residential use in Zone D until an amendment to the ALUCP has been approved or December 31, 2023, whichever occurs first. The Settlement Agreement does not prohibit the City from processing an application for a residential proposal within Zone D.

4.6.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Based on Appendix G of the CEQA Guidelines a project may be deemed to have a significant impact on land use and planning if it would:

1. Physically divide an established community;
2. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Methodology

The consistency analysis describes existing regional and local plans and policies and is intended to fulfill the requirements of CEQA Guidelines Section 15125(d). The emphasis of the analysis is on the project's inconsistency and potential conflicts between the project and existing applicable land use plans adopted for the purpose of avoiding or mitigating an environmental effect, and whether any inconsistencies would cause significant environmental effects. The project is considered consistent with the provisions of the identified regional and local plans if it meets the general intent of the applicable plans and does not conflict with directly applicable policies. A given project need not be in perfect conformity with each and every policy nor does state law require precise conformity of a proposed project with every policy or land use designation. Courts have also acknowledged that general and specific plans attempt to balance a range of competing interests, and that it is nearly, if not absolutely, impossible for a project to be in perfect conformity with each and every policy set forth in the applicable plan. Additionally, in reaching such consistency conclusions, the City may also consider the consequences of denial of a project, which can result in other policy inconsistencies. For example, Government Code Section 65589.5 explains that the potential consequences of limiting the approval of housing can include reduced mobility, urban sprawl, excessive commuting, and air quality deterioration.

For an impact to be considered significant, an inconsistency would also have to result in a significant adverse change in the environment not already addressed in the other resource chapters of this EIR. The analysis below provides a discussion of the most relevant policies from the various planning documents. However, the City's consistency conclusions are based upon the planning documents as a whole.

b. Project Impacts and Mitigation Measures

Threshold 1: Would the project physically divide an established community?

Impact LU-1 THE PROJECT WOULD NOT PHYSICALLY DIVIDE AN ESTABLISHED COMMUNITY AND THERE WOULD BE NO IMPACT.

Most of the Planning Area is currently developed. As described in Section 2, *Project Description*, the project would have a maximum buildout potential of an additional 3,204 residential units and an additional 5.7 million non-residential square footage. This buildout is projected to occur specifically within the existing City limits. The 2040 General Plan would involve implementation of proposed policies and land use designations that identify the type and intensity of uses permissible in the

Planning Area. Intensity and density standards are established for each land use classification. The intent of the land use designations is to adequately classify and distinguish the various land uses needed within the Planning Area.

The Land Use Element of the 2040 General Plan contains the following proposed goals and policies, which would maintain existing communities within the City of American Canyon and would ensure that established communities would not be divided by development facilitated by the project:

Goal LU-1: Establish American Canyon as a "complete city" with a diversity of distinct land uses that serve the needs of residents, businesses, and visitors.

- **Policy LU-1.1: Balance of Land Uses.** Establish a diversity of land use designations that provide for housing, commercial, employment, educational, cultural, entertainment, and recreation needs of residents; capture visitor and tourist activity; provide employment opportunities for residents of the greater subregion; and provide open space and aesthetic relief from developed urban/suburban areas.
- **Policy LU-1.2: Pattern of Development.** Support a pattern of development that establishes distinct neighborhoods, districts, places of community activity and culture and open spaces that are interlinked and promote a cohesive image; locates jobs, commerce, recreation, and other places of community activity within close proximity to housing, minimizing the need for vehicular use; achieves a balance of uses to serve both sides of Highway 29; and establishes an overall compact urban form surrounded by open space.
- **Policy LU-1.4: Compact Development Pattern.** Maintain a compact development pattern that fosters a walkable and bikeable urban form.

These policies would maintain existing communities in the City of American Canyon and would ensure that established communities would not be divided. Policy LU-1.1 would ensure orderly, contiguous development and would avoid land use incompatibilities, which would prevent division of existing communities. Policies LU-1.2 and LU-1.4 would encourage infill development and development of underutilized property, which facilitate development of vacant or underutilized properties to be consistent with their surrounding land uses. Furthermore, the mobility improvements identified in the Mobility Element of the 2040 General Plan would not be located within an established community and would therefore not divide an established community. The project would not physically divide the City of American Canyon or its established communities. There would be no impact.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

There would be no impact and no mitigation would be required.

Threshold 2: Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Impact LU-2 THE PROJECT WOULD NOT RESULT IN A SIGNIFICANT ENVIRONMENTAL IMPACT DUE TO A CONFLICT WITH A PLAN ADOPTED FOR THE PURPOSE OF AVOIDING OR MITIGATING AN ENVIRONMENTAL EFFECT. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Several regionally and locally adopted land use plans, policies, and regulations apply to the project. These include the Plan Bay Area 2050, the Bay Area 2017 Clean Air Plan, and the ALUCP. Project consistency with the 2017 Clean Air Plan is discussed in Section 4.2, *Air Quality*. Project consistency with applicable goals and policies of Plan Bay Area 2050 are identified below in Table 4.6-1. Consistency of the project with the ALUCP is described below.

Table 4.6-1 Project Consistency with the Plan Bay Area 2050

Plan Bay Area Goals	Project Consistency
Environmental Strategies	
EN4. Maintain urban growth boundaries. Using urban growth boundaries and other existing environmental protections, focus new development within the existing urban footprint or areas otherwise suitable for growth, as established by local jurisdictions.	Consistent. The Planning Area is within the City's Sphere of Influence and urban limit line boundaries.
Economic Strategies	
EC4. Allow greater commercial densities in Growth Geographies. Allow greater densities for new commercial development in select Priority Development Areas and Transit-Rich Areas to encourage more jobs to locate near public transit.	<p>Consistent. The following 2040 General Plan proposed goals and policies encourages commercial and mixed-use development that is clustered and attractive to pedestrians and cyclists.</p> <ul style="list-style-type: none"> ▪ Goal LU-3: Attractive and vibrant neighborhoods, community, and regional commercial centers with convenient shopping, services, entertainment, and social interaction. ▪ Policy LU-3.1: Diversity of Commercial Uses. Provide for a diversity of retail and service commercial uses that support multiple neighborhoods and the greater community, reduce the need for trips to adjacent jurisdictions for goods and services, and provide shopping and service opportunities for commuters, visitors, and tourists. ▪ Goal LU-4: Improve the appearance and functionality of the Highway 29 corridor and establish a Town Center to provide for economically sound local-serving commercial development. ▪ Policy LU-4.9: Commercial Clustering. Encourage the clustering of commercial activities along Highway 29 to provide more attractive and cohesive facilities while minimizing potential circulation conflicts. <p>Overall, compared to existing conditions, the project could add approximately 5.7 million square feet of commercial, retail, hotel, industrial, warehouse, and research and development uses. With implementation of the proposed goals and policies in the 2040 General Plan, the project would be consistent with strategy EC4.</p>

Plan Bay Area Goals	Project Consistency
EC6. Retain and invest in key industrial lands. Implement local land use policies to protect key industrial lands, identified as Priority Production Areas, while funding key infrastructure improvements in these areas.	Consistent. Portions of the Planning Area are mapped as Priority Production Areas by ABAG. The project would facilitate infrastructure and roadway improvements while maintaining existing industrial lands throughout the Planning Area.

The Napa County Airport is located less than one mile north of the city limits and development within the Napa County Airport’s sphere of influence is governed by the ALUCP. Portions of the northern areas of the city are located within Compatibility Zone D and Zone E. The Napa County ALUCP contains “Supporting Compatibility Policies” related to noise, safety, airspace protection, and overflight (ALUC 1991). Consistency with the ALUCP regarding noise and maintenance of acceptable noise levels is discussed in Section 4.7, *Noise*, which finds impacts to be less than significant. Consistency with the ALUCP regarding hazards, including those related to safety, airspace protection, and overflight, is discussed in Section 4.15, *Effect Found to be Less Than Significant*, which finds impacts to be less than significant. As such, the project would be consistent with the ALUCP and impacts would be less than significant.

As demonstrated above, the project would be consistent with Plan Bay Area 2050 and the ALUCP. Therefore, impacts would be less than significant.

Mitigation Measures

No additional mitigation measures for land use and planning would be required beyond those identified throughout this EIR, including Mitigation Measures AES-1 and AES-2; AQ-1 through AQ-4; BIO-1 and BIO-2; CUL-1 through CUL-3; GHG-1 through GHG-3; NOI-1 through NOI-3; PAL-1; and WF-1 and WF-2.

Significance After Mitigation

Impacts would be less than significant without mitigation, beyond those identified throughout this EIR.

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4.7 Noise

This section analyzes noise and groundborne vibration impacts associated with the project, including short-term construction and long-term operational noise and vibration. Noise modeling results associated with the analysis herein are included in Appendix C to this EIR.

4.7.1 Environmental Setting

a. Fundamentals of Noise

Sound is a vibratory disturbance created by a moving or vibrating source, which is capable of being detected by the hearing organs. Noise is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and in the extreme, hearing impairment (California Department of Transportation [Caltrans] 2013).

Noise levels are commonly measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels so that they are consistent with the human hearing response. Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used to measure earthquake magnitudes. A doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dBA; dividing the energy in half would result in a 3 dBA decrease (Caltrans 2013).

Human perception of noise has no simple correlation with sound energy: the perception of sound is not linear in terms of dBA or in terms of sound energy. Two sources do not “sound twice as loud” as one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA, increase or decrease (i.e., twice the sound energy); that a change of 5 dBA is readily perceptible; and that an increase (or decrease) of 10 dBA sounds twice (half) as loud (Caltrans 2013).

Sound changes in both level and frequency spectrum as it travels from the source to the receiver. The most obvious change is the decrease in sound level as the distance from the source increases. The manner by which noise declines with distance depends on factors such as the type of sources (e.g., point or line), the path the sound will travel, site conditions, and obstructions. Noise levels from a point source (e.g., construction, industrial machinery, ventilation units) typically attenuate, or drop off, at a rate of 6 dBA per doubling of distance. Noise from a line source (e.g., roadway, pipeline, railroad) typically attenuates at about 3 dBA per doubling of distance (Caltrans 2013). The propagation of noise is also affected by the intervening ground, known as ground absorption. A hard site, such as a parking lot or smooth body of water, receives no additional ground attenuation and the changes in noise levels with distance (drop-off rate) result simply from the geometric spreading of the source. An additional ground attenuation value of 1.5 dBA per doubling of distance applies to a soft site (e.g., soft dirt, grass, or scattered bushes and trees) (Caltrans 2013).

Noise levels may also be reduced by intervening structures. The amount of attenuation provided by this “shielding” depends on the size of the object and the frequencies of the noise levels. Natural terrain features, such as hills and dense woods, and man-made features, such as buildings and walls, can alter noise levels. Generally, any large structure blocking the line of sight will provide at least a 5 dBA reduction in source noise levels at the receiver.

Noise Descriptors

The impact of noise is not a function of loudness alone. The time of day when noise occurs, its frequency, and the duration of the noise are also important. In addition, most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors have been developed.

One of the most frequently used noise metrics that considers both duration and intensity is the equivalent noise level (L_{eq}). The L_{eq} is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time. Typically, L_{eq} is equivalent to a one-hour period, even when measured for shorter durations, as the noise level of a 10- to 30-minute period would be the same as the hour if the noise source is relatively steady. L_{max} is the highest Root Mean Squared (RMS) sound pressure level within the sampling period, and L_{min} is the lowest RMS sound pressure level within the measuring period. Normal conversational levels at three feet are in the 60- to 65-dBA L_{eq} range and ambient noise levels greater than 65 dBA L_{eq} can interrupt conversations (Federal Transit Administration [FTA] 2018).

Noise that occurs at night tends to be more disturbing than that which occurs during the day. Community noise is usually measured using Day-Night Average Level (L_{dn} or DNL), which is a 24-hour average noise level with a +10 dBA penalty for noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours, or Community Noise Equivalent Level (CNEL), which is the 24-hour average noise level with a +5 dBA penalty for noise occurring from 7:00 p.m. to 10:00 p.m. and a +10 dBA penalty for noise occurring from 10:00 p.m. to 7:00 a.m. (Caltrans 2013). Noise levels described by DNL and CNEL usually differ by about 0.5 dBA and are, therefore, generally considered to be interchangeable.

b. Overview of Groundborne Vibration

In environmental analysis, groundborne vibration of concern consists of the oscillatory waves that move from a source through the ground to adjacent structures. The number of cycles per second of oscillation makes up the vibration frequency, described in terms of Hertz. The frequency of a vibrating object describes how rapidly it oscillates. Typically, groundborne vibration generated by human activities attenuates rapidly with distance from the source of the vibration.

While people have varying sensitivities to vibrations at different frequencies, in general they are most sensitive to low-frequency vibration. Vibration in buildings, such as from nearby construction activities, may cause windows, items on shelves, and pictures on walls to rattle. Vibration of building components can also take the form of an audible low-frequency rumbling noise, referred to as groundborne noise. Groundborne noise is usually only a problem when the originating vibration spectrum is dominated by frequencies in the upper end of the range (60 to 200 Hertz), or when foundations or utilities, such as sewer and water pipes, physically connect the structure and the vibration source (FTA 2018). Although groundborne vibration is sometimes noticeable in outdoor environments, it is almost never annoying to people who are outdoors. The primary concern from vibration is that it can be intrusive and annoying to building occupants and vibration-sensitive land uses.

Vibration energy spreads out as it travels through the ground, causing the vibration level to diminish with distance away from the source. High-frequency vibrations diminish much more rapidly than low frequencies, so low frequencies tend to dominate the spectrum at large distances from the source. Discontinuities in the soil strata can also cause diffractions or channeling effects that affect the propagation of vibration over long distances (Caltrans 2020). When a building is impacted by

vibration, a ground-to-foundation coupling loss will usually reduce the overall vibration level. However, under rare circumstances, the ground-to-foundation coupling may amplify the vibration level due to structural resonances of the floors and walls.

Vibration amplitudes are usually expressed in peak particle velocity (PPV). The PPV is normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is often used in monitoring of blasting vibration and other construction activity because it is related to the stresses that are experienced by buildings (Caltrans 2020). Table 4.7-1 summarizes the vibration damage criteria recommended by the FTA for evaluating the potential for architectural damage to buildings.

Table 4.7-1 Criteria for Vibration Damage Potential

Building Category	PPV (in/sec)
I. Reinforced concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Nonengineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12
in/sec = inches per second; PPV = peak particle velocity	
Source: FTA 2018	

c. Sensitive Receivers

According to the City's 2040 General Plan, the City defines noise-sensitive land uses as residential uses, residential care, child/elder care facilities, schools, places of worship, and hospitals. Vibration-sensitive receivers, which are similar to noise-sensitive receivers include residences, hotels, and institutional uses, such as hospitals, schools, and churches. However, vibration-sensitive receivers also include buildings where vibrations may interfere with vibration-sensitive equipment (e.g., recording studios or medical facilities with sensitive equipment). Other uses that may have particular sensitivity to groundborne vibration include historic sites and structures.

Noise-sensitive land uses are located throughout American Canyon. Residential development is located on the western and eastern sides of the City, mostly away from State Route (SR) 29 and the noise-generating areas of the airport and commercial area to the north. Schools, daycares, and assisted living facilities are located within these quieter residential areas, ensuring they are also located away from major noise sources.

d. Existing Conditions

Noise Sources

The most prevalent noise source in the City is from vehicle traffic along SR 29 and American Canyon Road. Motor vehicle noise is characterized by a high number of individual events that can create a sustained noise level in proximity to noise-sensitive uses. Roadways with the highest roadway vehicle volumes and speeds produce the highest noise levels. Table 4.7-2 provides existing roadway vehicle noise levels along roadway segments near the project area. Traffic noise modeling data are contained in Appendix C.

Table 4.7-2 Existing Traffic Noise Levels Along Roadway Segments

Roadway	Segment	Existing ADT ^{1, 2}	Existing Traffic Noise Level at 50 feet (dBA CNEL) ³
SR 29	North of SR 37	43,483	77.1
SR 29	South of Mini Drive	37,492	76.3
SR 29	North of Mini Drive	43,469	76.6
SR 29	North of American Canyon Road	49,579	77.1
SR 29	South of Napa Junction Road	40,762	77.1
SR 29	North of Napa Junction Road	59,044	78.6
SR 29	North of Green Island Road	60,263	79.2
SR 29	South of SR 12	59,200	78.9
American Canyon Road	West of SR 29	15,330	69.5
American Canyon Road	East of Flosden Road	10,771	67.1
American Canyon Road	West of I-80	4,076	66.0
Flosden Road	South of American Canyon Road	21,510	71.1
Newell Drive	North of American Canyon Road	9,685	64.0
South Kelly Road	South of SR 12	1,602	59.2

1. ADT = average daily traffic

2. Source: GHD 2022

3. Traffic noise levels were estimated based on the existing ADT by Rincon staff.

Figure 4.7-1 shows the existing 60, 65, and 70 dBA CNEL noise contours from roadways and highways in the Planning Area.

Airport noise associated with Napa County Airport operations is an additional noise source in American Canyon. The northern City boundary is just south of the Napa County Airport, with industrial buildings closest to the airport and residences located approximately four miles south. The Napa County Airport does not support commercial flights and mostly serves single-engine aircraft. Napa County projects that by 2021, the Napa County Airport would operate between approximately 210,000 and 260,000 total aircrafts (County of Napa 2007). The northern portion of American Canyon falls within the Napa County Airport Compatibility Zones D and E (Federal Aviation Administration [FAA] 2008).

Railroad operations are another source of noise in some parts of the Planning Area. Average noise levels from rail traffic vary depending on the number of daily trains along a given rail line, the timing and duration of train pass-by events, and whether trains sound their warning whistles near “at-grade” crossings. When trains approach an at-grade crossing, they are required to sound their warning horn within a quarter mile unless a Federal Railroad Administration (FRA) Quiet Zone has been established. There are no FRA Quiet Zones in the Planning Area; therefore, trains must sound their warning horn in the Planning Area. Train warning horns typically generate maximum noise levels of 105 to 110 dBA at 100 feet.

Using train data provided by the FRA and the Bay Area Regional Rail Plan (FRA 2022, MTC 2006), railroad noise levels were modeled using the FTA CREATE Model and the FRA Grade Crossing Horn Model. Table 4.7-3 contains the calculated distances to the 65 dBA L_{dn} /CNEL contours from railroad noise, both from the main line and within a quarter mile of grade crossings where horn warnings are required. Switching train activity is also a source of noise in the area around Napa Junction.

Table 4.7-3 Existing Railroad Noise Levels

Operator	Line	Distance (feet) to 65 dBA L _{dn} /CNEL Contour (Mail Line)	Distance (feet) to 65 dBA L _{dn} /CNEL Contour (Within ¼ Mile of Grade Crossing)
CFNR	Ignacio to Fairfield/Suisun	50	218
CFNR	Calistoga to Vallejo	35	199

Notes: CFNR = California Northern Railroad Company

Source: Calculated using the FTA CREATE Model and the FRA Grade Crossing Horn Model. See Appendix C.

Vibration Sources

Existing sources of operational vibration in the Planning Area include railroad operation and vehicle traffic on roadways. Caltrans has studied the effects of propagation of vehicle vibration on sensitive land uses and notes that “heavy trucks, and quite frequently buses, generate the highest earthborn vibrations of normal traffic.” Caltrans further notes that the highest traffic-generated vibrations are along freeways and state routes. Their study finds that “vibrations measured on freeway shoulders (five meters from the centerline of the nearest lane) have never exceeded 0.08 in/sec, with the worst combinations of heavy trucks and poor roadway conditions (while such trucks were moving at freeway speeds). This level coincides with the maximum recommended safe level for ruins and ancient monuments (and historic buildings)” (Caltrans 2013). Construction vibration levels have the potential to be significant when equipment such as impact and vibratory pile drivers, rock blasting, and vibratory rollers are used during construction.

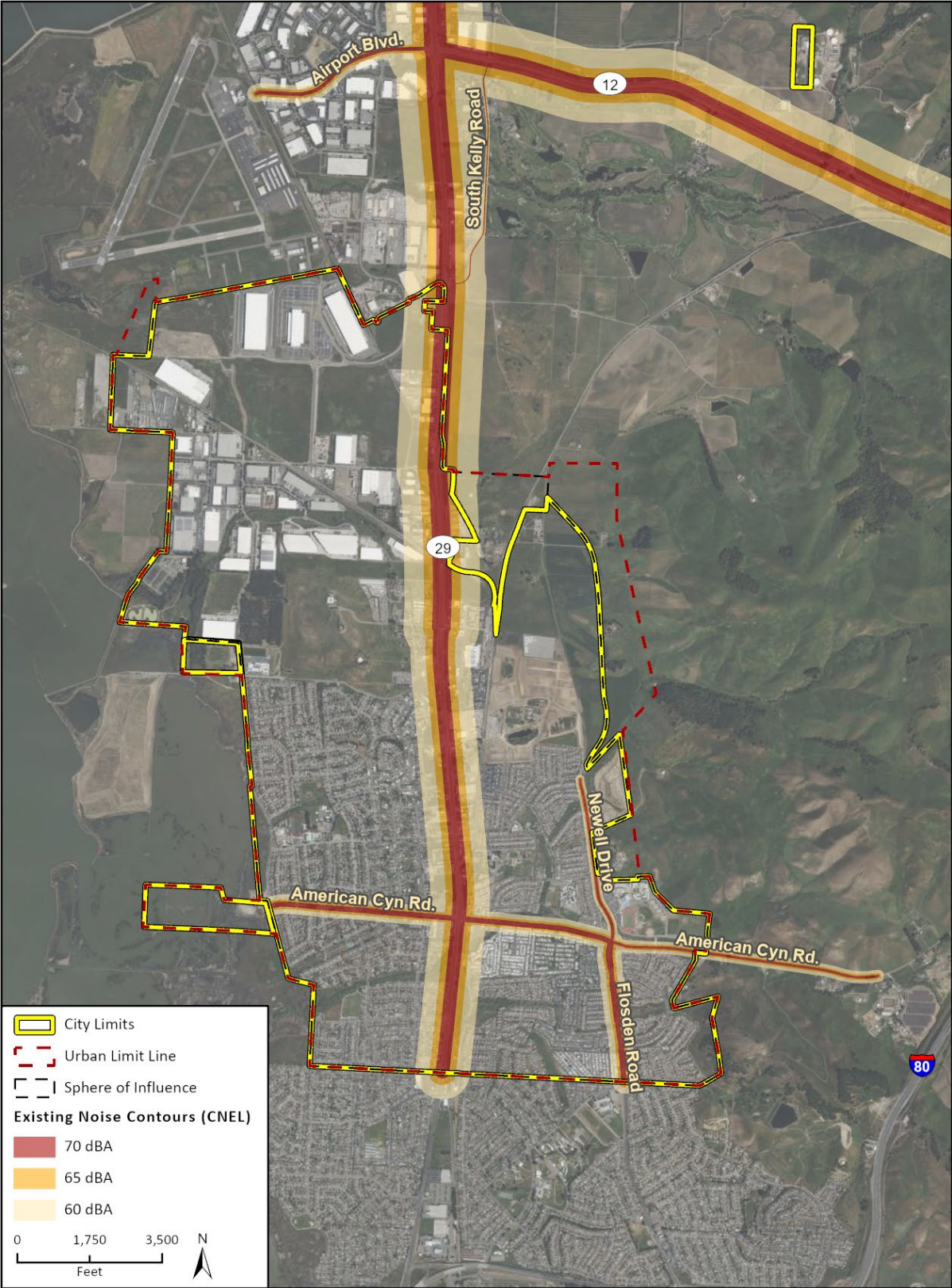
4.7.2 Regulatory Setting

a. Federal Regulations

Occupational Health and Safety Administration

The federal government regulates occupational noise exposure common in the workplace through the Occupational Health and Safety Administration (OSHA) under the United State Environmental Protection Agency. Noise limitations would apply to the operation of construction equipment and could also apply to any proposed industrial land uses. Noise exposure of this type is dependent on work conditions and is addressed through a facility’s Health and Safety Plan, as required under OSHA, and is not addressed further in this analysis. Since the federal government has preempted setting noise level standards for transportation sources, local jurisdictions are limited to regulating noise generated by the transportation system through nuisance abatement ordinances and land use planning.

Figure 4.7-1 Existing Traffic Noise Contours



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American Canyon GPU and EIR
Fig X Existing Noise Contours Overview

US Department of Housing and Urban Development

The US Department of Housing and Urban Development (HUD) has set the goal of 65 dBA Ldn as a desirable maximum exterior standard for residential units developed with HUD funding (this level is also generally accepted within the State of California). Although HUD does not specify acceptable interior noise levels, standard construction of residential dwellings typically provides 20 dBA or more of attenuation with the windows closed. Based on this premise, the interior Ldn should not exceed 45 dBA.

b. State Regulations

California General Plan Guidelines

State law requires general plans to include a Noise Element under Government Code Section 65302(f). The California General Plan Guidelines, published by the Governor's Office of Planning and Research, indicate acceptable, specific land use types in areas with specific noise exposure. The guidelines also offer adjustment factors that may be used to arrive at noise acceptability standards that reflect the noise control goals of the community, the community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution. These guidelines are advisory, and local jurisdictions have the authority to set specific noise standards based on local conditions.

California Building Code

California Code of Regulations Title 24, Building Standards Administrative Code, Part 2, Chapter 12, and the California Building Code codify the State noise insulation standards. These noise standards apply to new construction in California to control interior noise levels as they are affected by exterior noise sources and interior noise sources from separate areas. The regulations specify that interior noise levels shall not exceed 45 dB CNEL/L_{dn} in any habitable room, as well as specifying sound transmission class requirements for walls, floors, and ceilings around sleeping units.

In addition, the standards require an acoustical analysis that demonstrates the manner dwelling units will meet the interior standard, when units are proposed with exterior noise levels greater than 60 dBA CNEL. Title 24 standards are typically enforced by local jurisdictions through the building permit application process.

California Green Building Code

California Green Building Standards Code 2019 (CALGreen) Section 5.507.4, Acoustical Control, regulates construction of non-residential uses within the 65 dBA CNEL/L_{dn} contour of an airport, freeway, expressway, railroad, industrial noise source, or other fixed source. According to Section 5.507.4.1.1: buildings exposed to a noise level of 65 dB L_{eq}(1-hr) during any hour of operation shall employ sound-resistant assemblies as determined by a prescriptive method (CALGreen Section 5.507.4.1) or performance method (CALGreen Section 5.507.4.2).

Projects may demonstrate compliance through the prescriptive method if wall and roof-ceiling assemblies exposed to the noise source meet a composite sound transmission class (STC) rating of at least 50 or a composite outdoor/indoor transmission class (OITC) rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30. Projects may demonstrate compliance through the performance method if wall and roof-ceiling assemblies exposed to the noise source

are constructed to provide an interior noise environment that does not exceed 50 dB L_{eq-1Hr} in occupied areas during hours of operations.

California Airport Noise Standards

California Code of Regulations Title 21, Subchapter 6, Airport Noise Standards, establishes 65 dBA CNEL as the acceptable level of aircraft noise for persons living in the vicinity of airports. Noise-sensitive land uses are generally incompatible in locations where the aircraft exterior noise level exceeds 65 dBA CNEL. This standard remains unless an aviation easement for aircraft noise has been acquired by the airport proprietor, or the residence is a high-rise with an interior CNEL of 45 dBA or less in all habitable rooms. Assembly Bill (AB) 2776 requires any person who intends to sell or lease residential properties in an airport influence area to disclose that fact to the person buying the property.

c. Regional

Napa County Airport Land Use Compatibility Plan

The Napa County Airport Land Use Compatibility Plan (ALUCP) governs land use around the Napa County Airport. The ALUCP was adopted by the Napa County Airport Land Use Commission in April 1991 and revised in December 1999. It identifies acceptable aviation noise levels by land use.

d. Local Regulations

City of American Canyon Municipal Code

Section 8.12.070 of the American Canyon Municipal Code identifies that no person shall create any sound, or allow the creation of any sound, on any property that causes the exterior sound level on any other occupied property to exceed the sound level standards shown in Table 4.7-4 due to stationary sources.

Section 8.12.080 of the American Canyon Municipal Code identifies the following requirements.

- Section 8.12.080 (B)(2)(a). Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of 7:00 p.m. and 7:00 a.m., such that the sound therefrom creates a noise disturbance across a residential or commercial real property line, except for emergency work of public service utilities or by variance issued by the appropriate authority.
- Section 8.12.080 (B)(2)(b). Noise Restrictions at Affected Properties. Where technically and economically feasible, construction activities shall be conducted in such a manner that the maximum noise levels at affected properties will not exceed those listed in Table 4.7-5.

Table 4.7-4 Exterior Noise Limits for Stationary Sources

Zone	Time	Allowable Noise Limit (L_{50})
Residential Single and Double	Nighttime (10:00 p.m. to 7:00 a.m.)	50
	Daytime (7:00 a.m. to 10:00 p.m.)	60
Residential Multiple	Nighttime (10:00 p.m. to 7:00 a.m.)	55
	Daytime (7:00 a.m. to 10:00 p.m.)	60

Source: Section 8.12.070 of American Canyon Municipal Code

Table 4.7-5 Noise Limits for Construction Activities

Time	Noise Limit by Receiving Land Use (L_{max})		
	Residential	Commercial	Industrial
7:00 a.m. to 7:00 p.m.	75	80	85
7:00 p.m. to 7:00 a.m.	60	65	70

Source: Section 8.12.080 of American Canyon Municipal Code

4.7.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Based on Appendix G of the CEQA Guidelines a project may be deemed to have a significant impact on noise if it would:

1. 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
2. Generate excessive groundborne vibration or groundborne noise levels
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, expose people residing or working in the project area to excessive noise levels

Construction Noise Thresholds

The City has adopted construction noise limits, as shown in Table 4.7-5 above. Project impacts would be significant if construction noise exceeds these standards.

Operational Noise Thresholds

The City has adopted noise standards in the American Canyon Municipal Code that regulate stationary operational noise sources in the City. The project would result in a significant impact if it generates noise from stationary sources in excess of the standards shown in Table 4.7-4.

For traffic noise, the following thresholds of significance similar to those recommended by the Federal Aviation Administration (FAA) are used to assess traffic noise impacts at sensitive receiver locations:

- Greater than 1.5 dBA increase for ambient noise environments of 65 dBA CNEL and higher;
- Greater than 3 dBA increase for ambient noise environments of 60 - 64 CNEL; and
- Greater than 5 dBA increase for ambient noise environments of less than 60 dBA CNEL.

Groundborne Vibration Thresholds

The City has not adopted a significance threshold to assess vibration impacts. Therefore, the *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018) is used to evaluate potential construction vibration impacts. Construction vibration impacts would be significant if vibration levels exceed the FTA criteria shown in Table 4.7-1. For example, impacts would be significant if vibration levels exceed 0.2 in/sec PPV for residential structures and 0.3 in/sec PPV for commercial

structures, which is the limit where minor cosmetic (i.e., architectural) damage may occur to these buildings.

Methodology

Construction Noise

Construction noise levels that could occur with implementation of the project are based on reference noise levels published by the FTA.

Operational Stationary Noise

Stationary noise (i.e., on-site operational noise) were analyzed in context of typical mechanical equipment on commercial, industrial, residential, and mixed-use development such as heating, ventilation, and air conditioning (HVAC) units.

Operational Traffic Noise

Development facilitated by the project would generate motor vehicle trips, thereby increasing off-site traffic on area roadways. The project's traffic noise impacts are analyzed based on data provided by the City's traffic engineer GHD, which is included as Appendix C to this EIR. Traffic noise levels for existing and project conditions were estimated using the FHWA traffic noise prediction model methodology. Traffic noise impacts are analyzed based on average daily traffic (ADT) roadway volume for existing and future conditions, as well as speeds, and number of lanes data. The FHWA model predicts noise levels through a series of adjustments to a reference sound level. These adjustments account for distances from the roadway, traffic volumes, vehicle speeds, car/truck mix, number of lanes, and road width.

Groundborne Vibration

Future development facilitated by the project would not include substantial vibration sources associated with operation. Construction activities have the greatest potential to generate groundborne vibration affecting nearby noise-sensitive receivers. Construction vibration levels that could occur due to buildout of the project are based on reference vibration levels published by the FTA.

Impact of the Environment on the Project

As a result of the Supreme Court decision regarding the assessment of the environment's impacts on projects (California Building Industry Association (CBIA) v. Bay Area Air Quality Management District (BAAQMD), 62 Cal. 4th 369 (No. S 213478) issued December 17, 2015), it is generally no longer the purview of the CEQA process to evaluate the impact of existing environmental conditions on a proposed project. Therefore, this environmental analysis does not consider the potential impacts of the environment (i.e., existing noise) on the project.

b. Project Impacts and Mitigation Measures

Threshold 1: Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

IMPACT NOI-1 CONSTRUCTION OF DEVELOPMENT FACILITATED BY THE PROJECT WOULD TEMPORARILY INCREASE NOISE LEVELS, POTENTIALLY AFFECTING NEARBY NOISE-SENSITIVE LAND USES. DEVELOPMENT FACILITATED BY THE PROJECT WOULD ALSO INTRODUCE NEW NOISE SOURCES AND CONTRIBUTE TO INCREASES IN OPERATIONAL NOISE. THE CONTINUED REGULATION OF NOISE, CONSISTENT WITH THE CITY MUNICIPAL CODE AND IMPLEMENTATION OF PROPOSED POLICIES IN THE 2040 GENERAL PLAN WOULD MINIMIZE IMPACTS TO ADJACENT LAND USES. HOWEVER, CONSTRUCTION AND OPERATIONAL TRAFFIC NOISE COULD EXCEED STANDARDS EVEN AFTER IMPLEMENTATION OF MITIGATION. THIS IMPACT WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Construction

Noise from individual development facilitated by the project would temporarily increase noise levels at nearby noise-sensitive receivers. Since project-level details are not available for future development, it is not possible to determine exact noise levels, locations, or time periods for construction. However, noise estimates have been developed for typical construction activities that are expected to occur due to the 2040 General Plan.

Construction activities would generate noise from demolition, site preparation, grading, building construction, and paving activities. Each phase of construction has a specific mix of construction equipment and associated noise characteristics, depending on the equipment used during that phase. Construction noise would typically be higher during the initial phases of construction (i.e., demolition, site preparation, and grading work) and would be lower during the later construction phases (i.e., building construction and paving). Table 4.7-6 illustrates typical noise levels associated with construction equipment at 50 feet and 100 feet.

Table 4.7-6 Typical Noise Levels for Construction Equipment

Equipment	Estimated Noise Levels (dBA L _{eq})	
	50 feet	100 feet
Air Compressor	80	74
Backhoe	80	74
Concrete Mixer	85	79
Dozer	85	79
Grader	85	79
Jack Hammer	88	82
Loader	80	74
Paver	85	79
Pile-drive (Impact)	101	95
Pile-driver (Sonic)	95	89

Equipment	Estimated Noise Levels (dBA L _{eq})	
	50 feet	100 feet
Roller	85	79
Saw	76	70
Scarified	83	77
Scraper	85	79
Truck	84	78
Source: FTA 2018.		

The American Canyon Municipal Code Section 8.12 includes quantitative limits for construction noise at residential, commercial, and industrial receiving land uses. These construction noise limits are used to assess construction noise impacts.

Noise would typically drop at a rate of approximately 6 dBA per doubling of distance. Therefore, noise levels would be approximately 6 dBA lower than shown in Table 4.7-6 at 200 feet from the noise source and 12 dBA lower at a distance of 400 feet from the noise source. As shown in Table 4.7-6, construction noise may exceed the City's daytime and nighttime construction noise thresholds for residential, commercial, and industrial land uses, depending on the equipment used and the distance of equipment to noise-sensitive receivers.

The 2040 General Plan would include the following proposed goal and policy, which would minimize construction noise from individual development facilitated by the project:

Goal S-8: A comfortable community environment that is free from excessive stationary and mobile noise and vibration.

- **Policy S-8.10: Construction Noise.** Minimize exposure of sensitive receivers and enforce the limits in Section 8.12 of the municipal code for construction noise and vibration through methods such as restricting construction to daytime hours, use of sound barriers and/or other methods to dampen noise from construction equipment, and public notification prior to construction activities.

At this stage of planning, project-level details are not available for future projects and it is not possible to determine noise levels from construction of future development. Therefore, construction noise levels associated with future projects may exceed the City's construction noise limits, and impacts would be potentially significant.

Implementation of Mitigation Measure NOI-1 would reduce construction noise impacts associated with future projects in American Canyon. However, even with implementation of mitigation, there is still the possibility that future development could exceed the City's construction noise thresholds due to pile driving or other intensive construction activities, or due to construction occurring during sensitive nighttime hours. Therefore, the 2040 General Plan construction noise impacts would be significant and unavoidable.

Operational Stationary Noise

Stationary sources of noises may occur on different types of land uses. Residential uses would generate noise from landscaping, maintenance activities, and mechanical equipment such as ground-level and rooftop HVAC systems. Commercial uses would generate noise from HVAC

systems, loading docks, and other sources. Industrial uses may generate noise from HVAC systems, loading docks, and possibly machinery. Noise generated by residential or commercial uses is generally short and intermittent. Industrial uses may generate noise on a more continual basis. Nightclubs, outdoor dining areas, gas stations, car washes, fire stations, drive-throughs, swimming pool pumps, school playgrounds, athletic and music events, and public parks are other common noise sources. The proposed Safety Element contains goals, policies, and programs that require local planning and development decisions to consider noise-related impacts from stationary sources. The following proposed goal, policies, and programs in the 2040 General Plan would minimize potential adverse noise-related impacts from stationary sources:

Goal S-8: A comfortable community environment that is free from excessive stationary and mobile noise and vibration.

- **Policy S-8.1: Land Use Compatibility.** Use the land use-noise compatibility matrix in Table S-1 to guide the siting of future land uses.
- **Policy S-8.2: Sensitive Facilities.** Ensure appropriate noise mitigation is incorporated into the design of noise-sensitive facilities.
- **Policy S-8.3: Site Design.** Minimize noise impacts to adjacent noise-sensitive land uses in site planning and project design.
- **Policy S-8.12: Residential Outdoor Mechanical Equipment.** Require air conditioning units and pool equipment within residential areas be designed and sited in a manner that does not intrude upon the peace and quiet of adjacent noise-sensitive uses.
- **Program PPP: Noise Compatibility Matrix.** Continue to enforce Chapter 8.12 *Community Noise* of the municipal code.
- **Program QQQ: Acoustical Analyses.** Require applicants to submit an acoustical analysis for projects near sensitive land uses or involving new or expanded sensitive land uses and require appropriate mitigation measures to reduce noise impacts if necessary to less than significant levels.
- **Program RRR: Noise Insulation.** Require new residential development meet the California Noise Insulation Standards (Title 24 of the California Administrative Code) for interior and exterior noise levels.

Implementation of these policies and compliance with the City's exterior noise standards for stationary sources would ensure that noise from new developments is analyzed and mitigated to acceptable levels prior to the approval of future development. Therefore, noise impacts from operational use of residential-scale HVAC units, industrial equipment, and other stationary noise sources would be reduced by proposed policies and programs in the 2040 General Plan, and impacts would be less than significant.

Operational Traffic Noise

Implementation of the project would result in additional buildout, which would generate new vehicle trips that could incrementally increase operational traffic noise. Figure 4.7-2 shows the 60, 65, and 70 dBA CNEL noise contours from roadways and highways that are projected for 2040. The complete distances to the 60, 65, and 70 dBA CNEL noise contours for roadway segments are included in Appendix C. Table 4.7-7 shows the estimated roadway vehicle noise level increases on study roadway segments over existing conditions, at 50 feet from the centerline of the nearest travel lane.

In addition, the proposed Newell Drive extension would add new sources of roadway traffic noise. Traffic noise levels for 2040 Buildout conditions were estimated using the FHWA traffic noise prediction model methodology and data provided by GHD. Under 2040 Buildout conditions, the Newell Drive extension is estimated to have up to 26,519 vehicles per day. The nearest sensitive receptor to the proposed Newell Drive extension are residences adjacent to the proposed roadway extension at the north end of Newell Drive (e.g., residences on Farentino Place and Cantada Court). At a nominal distance of 50 feet from the roadway centerline, traffic noise from the proposed Newell Drive extension would result in noise levels of up to 68.4 dBA CNEL, as shown in Table 4.7-7, which would exceed the City's exterior standard of 60 dBA CNEL. Traffic noise impacts from the proposed Newell Drive extension would be potentially significant.

As shown in Table 4.7-7, significant traffic noise increases are anticipated along SR 37 east of Fairgrounds Road; American Canyon Road east of Flosden Road and west of I-80; Flosden Road south of American Canyon Road; Newell Drive north of American Canyon Road, and South Kelly Road south of SR 12. Along all other roadway study segments, roadway vehicle noise increases would be less than significant.

Figure 4.7-2 2040 Traffic Noise Contours



Table 4.7-7 Roadway Vehicle Noise Increase Along Roadway Segments

Roadway Segment	Existing ADT	2040 Buildout ADT	Existing Roadway Vehicle Noise Level at 50 feet (dBA CNEL)	2040 Roadway Vehicle Noise Level at 50 feet (dBA CNEL)	Roadway Vehicle Noise Increase (dBA CNEL)	Significant? Y/N
I-80 – South of SR 37	110,006	146,018	83.6	84.8	1.2	N
I-80 - South of American Canyon Road	109,042	147,666	83.4	84.8	1.3	N
I-80 - South of Red Top Road	112,650	149,993	83.6	84.9	1.2	N
I-80 - South of SR 12	97,782	135,651	83.0	84.4	1.4	N
I-80 - North of SR 12	136,706	183,562	84.9	86.2	1.3	N
SR 29 - South of SR 37	24,051	31,935	73.2	74.4	1.2	N
SR 29 - North of SR 37	43,483	48,337	77.1	77.5	0.5	N
SR 29 - South of Mini Drive	37,492	40,554	76.3	76.7	0.3	N
SR 29 - North of Mini Drive	43,469	46,425	76.6	76.8	0.3	N
SR 29 - North of American Canyon Road	49,579	52,117	77.1	77.3	0.2	N
SR 29 - South of Napa Junction Road	40,762	41,222	77.1	77.1	0.0	N
SR 29 - North of Napa Junction Road	59,044	66,806	78.6	79.2	0.5	N
SR 29 - North of Green Island Road	60,263	66,145	79.2	79.6	0.4	N
SR 29 - South of SR 12	59,200	66,059	78.9	79.4	0.5	N
SR 29 - North of SR 12	88,600	113,419	80.4	81.4	1.1	N
Airport Boulevard - West of SR 29	10,500	10,837	69.5	69.6	0.1	N
SR 12 - East of North Kelly Road	35,033	41,815	78.8	79.6	0.8	N
SR 12 - West of Red Top Road	37,179	43,770	78.9	79.6	0.7	N
SR 37 - West of SR 29	39,980	53,018	77.0	78.2	1.2	N
SR 37 - East of SR 29	62,495	79,835	78.8	79.9	1.1	N
SR 37 - East of Fairgrounds Road	69,800	104,578	79.4	81.1	<u>1.8</u>	Y
SR 37 - East of I-80	42,000	55,652	76.6	77.8	1.2	N
American Canyon Road - West of SR 29	15,330	18,166	69.5	70.3	0.7	N
American Canyon Road - East of Flosden Road	10,771	19,057	67.1	69.6	<u>2.5</u>	Y

Roadway Segment	Existing ADT	2040 Buildout ADT	Existing Roadway Vehicle Noise Level at 50 feet (dBA CNEL)	2040 Roadway Vehicle Noise Level at 50 feet (dBA CNEL)	Roadway Vehicle Noise Increase (dBA CNEL)	Significant? Y/N
American Canyon Road - West of I-80	4,076	16,044	66.0	71.9	6.0	Y
Hiddenbrook Parkway - East of I-80	6,023	7,962	64.5	65.7	1.2	N
Flosden Road - South of American Canyon Road	21,510	31,811	71.1	72.8	<u>1.7</u>	Y
Newell Drive - North of American Canyon Road	9,685	34,091	64.0	69.5	<u>5.5</u>	Y
Newell Drive – South of Napa Junction Road	-	26,519	-	68.4	-	N
South Kelly Road - South of SR 12	1,602	13,336	59.2	68.4	<u>9.2</u>	Y
Devlin Road - North of Green Island Road	-	10,312	-	74.7	-	N

Notes:

Neither Newell Drive – South of Napa Junction Road nor Devlin Road – North of Green Island Road exist in 2022.

ADT = average daily trips

Bold and underlined = significant increase

Source: GHD 2024

The following proposed policies in the 2040 General Plan would reduce traffic noise:

Goal S-8: A comfortable community environment that is free from excessive stationary and mobile noise and vibration.

- **Policy S-8.4: Roadway Noise.** Encourage nonmotorized transportation alternatives for local trips and decrease excessive motor vehicle noise by implementing traffic-calming road design, lateral separation, natural buffers, and setbacks.
- **Policy S-8.5: Highway Noise.** Continue to coordinate with California Department of Transportation (Caltrans) and the NVTa to complete the American Canyon SR 29 Corridor Improvement Project.
- **Policy S-8.7: Mobile Noise Sources.** Minimize exposure of sensitive receptors to noise from roads through land use decisions, by encouraging the siting of sensitive noise receptors away from high traffic roadways.
- **Policy S-8.8: Noise Mitigation Measures.** Require heavy trucks to use designated truck routes that avoid residential and other sensitive land uses to the maximum degree feasible. When not feasible, investigate noise mitigation strategies such as noise barriers or truck travel restrictions, especially in areas of concern such as along American Canyon Road.

In addition, the following proposed goals, policies, and implementation programs in the 2040 General Plan would encourage active transportation modes, such as walking and bicycling, as well as the use of public transit, thereby reducing vehicle trips and traffic noise in American Canyon:

Goal LU-1: Establish American Canyon as a "complete city" with a diversity of distinct land uses that serve the needs of residents, businesses, and visitors.

- **Policy LU-1.4: Compact Development Pattern.** Maintain a compact development pattern that fosters a walkable and bikeable urban form.

Goal MOB-1: Provide safe and convenient access throughout the community with a citywide network of complete streets that meet the needs of all users and reduce vehicle miles traveled (VMT).

- **Policy MOB-1.7: Promote Walking and Bicycling.** Promote walking and bicycling for transportation, recreation, and improvement of public health.
- **Policy MOB-1.11: Reduce the Need to Drive.** Implement land use policies designed to create a pattern of activity that makes it easy to shop, play, visit friends, and conduct personal business without driving.
- **Policy MOB-1.12: Neighborhood Context.** Support safe, complete, and well-connected neighborhood street, bicycle, and pedestrian access and connections that balance circulation needs with the neighborhood context.
- **Policy MOB-1.17: Reduce Vehicle Miles Traveled.** Through layout of land uses, improved alternate travel modes, and provision of more direct routes, strive to reduce the total vehicle miles traveled by city and non-residents traveling to American Canyon to work or shop.
- **Policy MOB-1.22: Non-motorized Circulation System.** Provide safe and direct pedestrian routes and bikeways between places.
- **Policy MOB-1.23: Pedestrian Connections to Employment Destinations.** Encourage the development of a network of continuous walkways within new commercial, town center, public, and industrial uses to improve workers' ability to walk safely around, to, and from their

workplaces. Where possible, route pedestrians to grade separated crossings over State Route 29.

- **Policy CIR-1.24: Bicycle Facilities.** Bicycle facilities shall be provided to complete a continuous bikeway system, consistent with state standards, as shown on the Bikeway Plan Map. In cases where existing right of way constraints limit development of Class II or Class IV facilities, Class III signage and demarcation may be permitted at the discretion of the City Engineer. Deviations from these standards and from the routing shown on the diagram shall be permitted with the approval of the City Engineer.
- **Policy CIR-1.27: Sustainable Roadway Expansion.** Monitor the effects of roadway expansion on air, noise, seismic and archeological resources, and nesting habitat.

Goal MOB-5: Support increased public transit to improve mobility, improve air quality, and support efforts to reduce vehicle miles traveled (VMT).

- **Policy MOB-5.2: Existing Transportation Demand Management Efforts.** Continue to support the implementation of existing local and regional efforts to manage traffic demand, such as the Napa Logistics Park trip monitoring program, and employer TDM provisions of the Bay Area Air Quality Management District (BAAQMD).
- **Policy MOB-5.3: Multi-agency Transit support.** Continue to cooperate with other agencies and jurisdictions to promote local and regional public transit, including ACT and VINE serving American Canyon.
- **Policy MOB-5.5: Transit Stops.** Work with NVRTA to situate transit stops at locations that are convenient for transit users and promote increased transit ridership through the provision of shelters, benches, bike racks on buses, and other amenities.
- **Policy CIR-5.7: Future Transit Links.** Consider orienting transit system expansion to link with other potential future commuter bus and/or rail services.
- **Program C: Active Transportation Plan.** Prepare and update every five years an Active Transportation Plan to replace the Bicycle Master Plan and include pedestrian facilities. The Plan should include a full range of facilities for bicycle travel, including Class I bike/multiuse paths, Class II bike lanes, Class III bike routes, and Class IV separated bikeway to provide a continuous system of bikeways throughout the city.
- **Program H: Bicycle Facility Development and Maintenance.** Prepare and update every five years a bike facility development and maintenance program that includes the following provisions:
 - signage consistent with according to Caltrans or City standards
 - lighting where needed;
 - bicycle paths and lanes on bridges and overpasses;
 - bicycle-safe drainage grates;
 - bikeways free of hazards such as uneven pavement or gravel;
 - merging or crossing signage where bike routes and paths make transitions into or across roadways;
 - promoting classes on bicycle safety in the schools in coordination with the Napa Valley Unified School District; and
 - sweeping debris from and repairing bicycle paths and lanes

- **Program K: Pedestrian Connections to Schools.** Continue developing the existing network of walkways between schools and residential uses, and encourage the development of new continuous walkways between schools and residential uses. Where possible, route pedestrians to grade separated crossings over State Route 29.

Implementation of these proposed policies and programs would reduce vehicle trips and associated traffic noise. However, implementation of these proposed policies and programs would not guarantee that traffic noise impacts would be less than significant. Mitigation Measure NOI-2 would be required to minimize roadway vehicle noise impacts on roadways that would generate significant traffic noise increases.

Implementation of Mitigation Measure NOI-2 would reduce operational traffic noise. Notable reductions in tire noise have been achieved via the implementation of special paving materials, such as rubberized asphalt or open-grade asphalt concrete overlays. For example, Caltrans conducted a study of pavement noise along I-80 in Davis and found an average improvement of 6 to 7 dBA reduction compared to conventional asphalt overlay (Caltrans 2011). This would reduce impacts along American Canyon Road east of Flosden Road and west of I-80; Flosden Road south of American Canyon Road; and Newell Drive north of American Canyon Road/the proposed Newell Drive Extension to less than significant.

However, SR 37 east of Fairgrounds Road and South Kelly Road south of SR 12 is outside of the City's jurisdiction and the City is not able to add physical improvements along this roadway segment to reduce traffic noise. As the City has no jurisdiction over this roadway, it would be infeasible to implement mitigation measures to reduce traffic noise on SR 37 east of Fairgrounds Road and South Kelly Road south of SR 12. Therefore, this impact is considered significant and unavoidable.

Mitigation Measures

NOI-1 Conduct Construction Noise Analysis

The City shall review future developments within 1,000 feet of a sensitive receiver, and where applicable, require the following feasible measures as standard conditions of approval to reduce construction noise levels below a level of significance:

- **Mufflers.** During excavation and grading construction phases, all construction equipment, fixed or mobile, shall be operated with closed engine doors and shall be equipped with properly operating and maintained mufflers consistent with manufacturers' standards.
- **Stationary Equipment.** All stationary construction equipment shall be placed so that emitted noise is directed away from the nearest sensitive receivers.
- **Equipment Staging Areas.** Equipment staging shall be located in areas that will create the greatest distance feasible between construction-related noise sources and noise-sensitive receivers.
- **Smart Back-up Alarms.** Mobile construction equipment shall have smart back-up alarms that automatically adjust the sound level of the alarm in response to ambient noise levels. Alternatively, back-up alarms shall be disabled and replaced with human spotters to ensure safety when mobile construction equipment is moving in the reverse direction in compliance with applicable safety laws and regulations.
- **Electrically-Powered Tools and Facilities.** Electrical power shall be used to run air compressors and similar power tools and to power any temporary structures, such as construction trailers or caretaker facilities, where feasible.

- **Noise Disturbance Coordinator.** The project applicant shall designate a “noise disturbance coordinator” responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of any noise complaint and shall require that reasonable measures be implemented to correct the problem. A telephone number for the disturbance coordinator and the City shall be posted at the construction site.
- **Temporary Noise Barriers.** Erect temporary noise barriers, where feasible, when construction noise is predicted to exceed the City’s construction standards and when the anticipated construction duration is greater than is typical (e.g., two years or greater). Temporary noise barriers shall be constructed with solid materials (e.g., wood) with a density of at least 1.5 pounds per square foot with no gaps from the ground to the top of the barrier. If a sound blanket is used, barriers shall be constructed with solid material with a density of at least 1 pound per square foot with no gaps from the ground to the top of the barrier and be lined on the construction side with acoustical blanket, curtain or equivalent absorptive material rated sound transmission class (STC) 32 or higher.

Mitigation Measure NOI-2 Implement Roadway Vehicle Noise Reduction Measures

The City shall install “quiet pavement” roadway improvements, such as rubberized asphalt or open-grade asphalt concrete overlays along impacted roadway segments (American Canyon Road east of Flosden Road and west of I-80; Flosden Road south of American Canyon Road; and Newell Drive north of American Canyon Road). The program may be funded by “fair share” developer contributions for proposed projects along impacted roadways to pay for the “quiet pavement” roadway improvements.

Significance After Mitigation

Construction noise impacts would be significant and unavoidable even with implementation of Mitigation Measure NOI-1. Operational traffic noise impact would be significant and unavoidable even with implementation of Mitigation Measure NOI-2. Operational stationary noise impacts would be less than significant without mitigation.

Threshold 2: Would the project result in generation of excessive groundborne vibration or groundborne noise levels?
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IMPACT NOI-2 CONSTRUCTION OF DEVELOPMENT FACILITATED BY THE PROJECT WOULD TEMPORARILY GENERATE GROUNDBORNE VIBRATION AND NOISE, POTENTIALLY AFFECTING NEARBY LAND USES. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION. OPERATION OF DEVELOPMENT FACILITATED BY THE PROJECT WOULD NOT RESULT IN SUBSTANTIAL GROUNDBORNE VIBRATION AND NOISE AND THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Construction

Construction of development facilitated by the proposed 2040 General Plan could intermittently generate groundborne vibration at nearby properties. Table 4.7-8 identifies groundborne vibration levels from various types of construction equipment at various distances.

As shown in Table 4.7-8, buildings and structures could experience the strongest vibration during the use of pile-drivers and vibratory rollers. Vibration levels from pile-drivers could approach 1.519 in/sec PPV at 25 feet from the source and 0.190 in/sec at 100 feet, and vibration levels from vibratory rollers could approach 0.21 in/sec PPV at 25 feet and 0.026 at 100 feet. The threshold for

historic structures is 0.12 in/sec PPV; the threshold is higher for residential buildings at 0.2 in/sec PPV.

Vibration levels from typical equipment such as bulldozers and jackhammers would not exceed FTA thresholds for historic structures and residential buildings at a distance of 25 feet or greater. However, vibration levels from pile driving equipment and vibratory rollers may exceed FTA thresholds.

Table 4.7-8 Vibration Source Levels for Construction Equipment

Equipment		Approximate Vibration Level (in/sec PPV)			
		25 feet from Source	50 feet from Source	100 feet from Source	200 feet from Source
Caisson Drilling		0.089	0.031	0.011	0.004
Jackhammer		0.035	0.012	0.004	0.002
Large Bulldozer		0.089	0.031	0.011	0.004
Loaded Truck		0.076	0.027	0.010	0.003
Pile Driver (impact)	Upper range	1.519	0.537	0.190	0.067
	Typical	0.644	0.228	0.081	0.028
Pile Driver (sonic)	Upper range	0.734	0.260	0.092	0.032
	Typical	0.170	0.060	0.021	0.008
Small Bulldozer		0.003	0.001	<0.001	<0.001
Vibratory Roller		0.21	0.074	0.026	0.009
Source: FTA 2018.					

Implementation of the following proposed goal, policy, and program in the 2040 General Plan would reduce construction vibration in residential areas:

Goal S-8: A comfortable community environment that is free from excessive stationary and mobile noise and vibration.

- **Policy S-8.13: Vibration Impacts.** Require project specific vibration impact assessments for projects involving the use of vibration generating equipment such as pile drivers and vibratory rollers that could generate groundborne vibration levels. For projects with significant vibration impacts, require feasible mitigation measures to reduce ground vibration levels and exposure to sensitive receptors.
- **Program TTT: Vibration Impact Assessment.** Require project specific vibration impact assessments and vibration impact reduction measures for new development projects using major vibration generating equipment.

Proposed policy S-8.13 and proposed Implementation Program TTT would require a vibration impact assessment be prepared to ensure that significant vibration impacts are mitigated and that vibration levels and exposure to sensitive receivers are reduced. Typical vibration minimization techniques include (1) limiting construction activities with the highest potential to produce vibration to hours with the least potential to affect nearby institutional, educational, and office uses and (2) notifying neighbors of scheduled construction activities that would generate vibration. Since at this stage of planning, project-level details are not available for individual development, it is not possible to determine which projects may use pile driving or other vibration generating equipment, or their

exact vibration levels, locations, or time periods for construction. Therefore, even after implementation of proposed policy S-8.13, construction vibration impacts may exceed the FTA's vibration levels for preventing architectural building damage, and impacts would be potentially significant. Implementation of Mitigation Measure NOI-3 would reduce construction groundborne vibration and noise impacts to less than significant.

Operation

Residential, commercial, industrial, and retail land uses facilitated by the project would not involve substantial vibration sources associated with operation such as subways and would not directly increase the amount of railroad traffic on rail lines in the plan area. Therefore, project operational groundborne vibration and noise impacts would be less than significant.

Mitigation Measures

NOI-3 Construction Vibration Control Plan

Prior to issuance of a building permit for a project that includes the following, the project applicant shall prepare a groundborne noise and vibration analysis to assess and mitigate potential noise and vibration impacts related to these construction activities:

- Pile driving within:
 - 135 feet of fragile structures such as historical resources;
 - 100 feet of non-engineered timber and masonry buildings (e.g., most residential buildings); or
 - 75 feet of engineered concrete and masonry (no plaster);
- A vibratory roller within:
 - 40 feet of fragile historical resources; or
 - 25 feet of any other structure
- A dozer or other large earthmoving equipment within:
 - 20 feet for a fragile historical structure; or
 - 15 feet of any other structure

The noise and vibration analysis shall be conducted by a qualified and experienced acoustical consultant or engineer. The vibration levels shall not exceed FTA architectural damage thresholds (e.g., 0.12 in/sec PPV for fragile or historical resources, 0.2 in/sec PPV for non-engineered timber and masonry buildings, and 0.3 in/sec PPV for engineered concrete and masonry). If vibration levels would exceed this threshold, alternative uses such as drilling piles as opposed to pile driving, static rollers as opposed to vibratory rollers, and lower horsepower earthmoving equipment shall be used. If necessary, construction vibration monitoring shall be conducted to ensure FTA vibration thresholds are not exceeded.

Significance After Mitigation

Construction vibration impacts would be less than significant with implementation of Mitigation Measure NOI-3, which requires measures to reduce construction vibration.

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 NOI-3 DEVELOPMENT FACILITATED BY THE PROJECT WOULD NOT RESULT IN A SIGNIFICANT INCREASE IN AIRPORT OR AIRSTRIp ACTIVITY. THE CONTINUED REGULATION OF AIRPORT NOISE CONSISTENT WITH STATE AND FEDERAL REGULATIONS, THE IMPLEMENTATION OF PROPOSED POLICIES IN THE 2040 GENERAL PLAN, AND COMPLIANCE WITH NAPA COUNTY AIRPORT LAND USE COMPATIBILITY PLAN WOULD MINIMIZE DISTURBANCE TO PEOPLE RESIDING OR WORKING WITHIN PROXIMITY OF THE NAPA COUNTY AIRPORT. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The Napa County Airport does not offer commercial airline service and would not serve residents and businesses associated with development facilitated by the 2040 General Plan. As such, implementation of the project would not increase airport activities or airport noise.

Existing requirements for airports would reduce the noise impacts of airport activity on residents and workers. Title 21 of the California Code of Regulations establishes noise standards for airports and the responsibilities of the regional Airport Land Use Commissions, which prepare land use compatibility plans with thorough evaluations of airport noise, as described above in Section 4.7.2, *Regulatory Setting*. Additionally, the Federal Aviation Administrative Regulation Part 150 Airport Noise Compatibility Program is designed to reduce the effect of airport noise on the surrounding communities as airports expand.

Furthermore, individual development would be subject to all development standards for each compatibility zone, and other policies contained within the Napa County ALUCP intended to reduce land use conflicts with airport operations. Lastly, the following proposed goals and policies in the 2040 General Plan would reduce noise from the Napa County Airport through airport land use consistency, mitigation, and coordination with the Napa County Airport:

Goal S-6: A community protected from loss of life, injury, and property damage from aircraft operations.

- **Policy S-6.1: Airport Land Use Consistency.** Review all applications for new development, expansion of existing uses, and re-use within Napa County Airport Compatibility Zones “A” through “E” for compliance with the appropriate use and development conditions.
- **Policy S-6.2: Adverse Airport Impact Mitigation.** Work with the Napa County Airport Authority to ensure that onsite ground activities of the Airport do not adversely impact (e.g., noise, vibration, air emissions, or other pollution) the City of American Canyon.

Goal S-9: Limit aircraft noise impacts consistent with the Napa Airport Land Use Compatibility Plan (ALUCP).

- **Policy S-9.1: Land Use Compatibility.** Restrict development of uses within the 65 CNEL contour of Napa Airport to industrial, agricultural, or other open space uses.
- **Policy S-9.2: Development Requirements.** Require development in the vicinity of Napa Airport comply with the Airport Land Use Compatibility Plan (ALUP) noise standards.
- **Policy S-9.3: Napa County Airport.** Work closely with Napa County Airport to ensure the airport’s operations do not generate adverse noise conditions in the City of American Canyon.

Given the existing regulations and implementation of proposed goals and policies in the 2040 General Plan, airport activity would not expose residents and workers to excessive noise levels, and impacts would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

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4.8 Paleontological Resources

This section summarizes the potential to encounter paleontological resources in the Planning Area and analyzes the impacts on paleontological resources due to the project.

4.8.1 Setting

a. Regional Geology

The City of American Canyon is in the Coast Ranges geomorphic province, one of the eleven geomorphic provinces of California (California Geological Survey 2002). The Coast Ranges extend along most of California's coast from the California-Oregon border to Point Arguello in Santa Barbara County, and consist of northwest-trending mountain ranges and valleys. The Coast Ranges are composed of Mesozoic and Cenozoic sedimentary, igneous, and metamorphic strata. The eastern side is characterized by strike-ridges and valleys in the Upper Mesozoic strata. The Coast Ranges province runs parallel to and overlaps the San Andreas Fault in some areas (California Geological Survey 2002). The City of American Canyon is located on the northeastern shore of San Pablo Bay on the east side of Napa Slough, the outlet of the Napa River.

Paleontological resources, or fossils, are the evidence of once-living organisms preserved in the rock record. They include both the fossilized remains of ancient plants and animals and the traces thereof (e.g., trackways, imprints, burrows, etc.). Paleontological resources are not found in "soil" but are contained within the geologic deposits or bedrock that underlies the soil layer. Typically, fossils are greater than 5,000 years old (i.e., older than middle Holocene in age) and are typically preserved in sedimentary rocks. Although rare, fossils can also be preserved in volcanic rocks and low-grade metamorphic rocks under certain conditions (SVP 2010). Fossils occur in a non-continuous and often unpredictable distribution within some sedimentary units, and the potential for fossils to occur within sedimentary units depends on several factors. It is possible to evaluate the potential for geologic units to contain scientifically important paleontological resources.

b. Geologic Units

The geology of the region surrounding the Planning Area was mapped at a scale of 1:100,000 by Graymer et al. (2002), who identified the following 12 distinct geologic units underlying the Planning Area:

- Artificial fill
- Quaternary stream channel deposits
- Bay Mud
- Quaternary alluvial fan deposits (Holocene)
- Quaternary alluvial fan deposits (Pleistocene)
- Huichica Formation
- Cierbo Sandstone, intercalated basalt
- Markley Sandstone
- Markley Sandstone, Jameson Shale Member
- Domengine Sandstone

- Great Valley Complex, sandstone and shale
- Great Valley Complex, serpentinite

The following section discusses the geographic distribution, lithologic characteristics, and paleontological sensitivity of each of these geologic units. Figure 4.8-1 identifies the geologic units in the Planning Area.

Artificial Fill (af)

Artificial fill is found in a small part of western American Canyon (Figure 4.8-1). Artificial fill consists of human-deposited sediments (Graymer et al. 2002), which have no paleontological sensitivity.

Quaternary Stream Channel Deposits (Qhc)

Quaternary stream channel deposits underlie American Canyon Creek, which primarily runs westward toward North Slough (Figure 4.8-1). Quaternary stream channel deposits consist of unconsolidated cobbles, gravel, and sand, with minor amounts of clay and silt that is deposited by active stream channels (Graymer et al. 2002). Quaternary stream channel deposits are undergoing active deposition, which means they are too young to preserve paleontological resources. Therefore, Quaternary stream channel deposits have low paleontological sensitivity.

Bay Mud (Qhbm)

Bay Mud is found in much of western American Canyon beneath North Slough (Figure 4.8-1). Bay Mud consists of blue, gray, green, or black, bedded to massive, poorly to well-consolidated, silty clay with interspersed layers of sand, gravel, peat, and preserved shells (Graymer et al. 2002). Bay Mud is Holocene in age, meaning it is likely too young (i.e., less than 5,000 years old) to preserve paleontological resources (Society of Vertebrate Paleontology [SVP] 2010). Therefore, Bay Mud has low paleontological sensitivity.

Quaternary Alluvial Fan Deposits (Holocene) (Qhf)

Quaternary alluvial fan deposits (Holocene) are found in parts of central American Canyon (Figure 4.8-1). Quaternary alluvial fan deposits (Holocene) consist of moderately to poorly sorted, moderately to poorly bedded, gravel, sand, silt, and clay (Graymer et al. 2002). Quaternary alluvial fan deposits (Holocene) are likely too young (i.e., less than 5,000 years old) to preserve paleontological resources (SVP 2010); therefore, they have low paleontological sensitivity.

Quaternary Alluvial Fan Deposits (Pleistocene) (Qpf)

Quaternary alluvial fan deposits (Pleistocene) underlie much of central American Canyon (Figure 4.8-1). Quaternary alluvial fan deposits (Pleistocene) consist of poorly sorted, moderately to poorly bedded, gravel, silt, sand, and clay (Graymer et al. 2002). Quaternary alluvial fan deposits (Pleistocene) have produced significant paleontological resources throughout the San Francisco Bay region, including mammoth (*Mammuthus*), ground sloth (*Paramylodon*), mastodon (*Mammut*), horse (*Equus*), rodents, reptiles, and birds (Jefferson 2010; Paleobiology Database [PBDB] 2022; University of California Museum of Paleontology [UCMP] 2022). Given this fossil-producing history, Quaternary alluvial fan deposits (Pleistocene) have high paleontological sensitivity.

Huichica Formation (QTh)

The Huichica Formation underlies part of northwestern American Canyon (Figure 4.8-1). The Huichica Formation consists of yellow, massively bedded siltstone; well-sorted sandstone; or poorly consolidated gravel, that is early Pleistocene to Pliocene in age (Graymer et al. 2002). There are no known significant fossil localities from the Huichica Formation; therefore, it has low paleontological sensitivity.

Cierbo Sandstone, Intercalated Basalt (Tv)

As shown in Figure 4.8-1, a small part of northwestern American Canyon is mapped as a late Miocene, black basaltic deposit within outcrops of the Cierbo Sandstone (Graymer et al. 2002). Basalt is an igneous rock, which forms through the cooling of lava at Earth's surface. Therefore, intercalated basalt of the Cierbo Sandstone cannot preserve paleontological resources and has no paleontological sensitivity.

Markley Sandstone (Tmk) and Markley Sandstone, Jameson Shale Member (Tmjk)

The Markley Sandstone and the Jameson Shale Member of the Markley Sandstone are found in eastern American Canyon (Figure 4.8-1). The Markley Sandstone consists of white to light gray, buff-weathering micaceous sandstone (Graymer et al. 2002). The Jameson Shale Member of the Markley Sandstone consists of brown, laminated, siliceous mudstone (Graymer et al. 2002). Although they differ in lithology, they are historically considered part of the same geologic formation; therefore, fossils are generally identified as coming from the 'Markley Sandstone' in general. The Markley Sandstone has produced numerous fossil localities throughout California, yielding taxa such as sharks, ray-finned fish, plants, gastropods, bivalves, and microfossils (Graymer et al. 2002; PBDB 2022; UCMP 2022). Given this fossil-producing history, the Markley Sandstone and the Jameson Shale Member of the Markley Sandstone have high paleontological sensitivity.

Domengine Sandstone (Td)

The Domengine Sandstone underlies a small part of eastern American Canyon (Figure 4.8-1). The Domengine Sandstone consists of white, gray-weathering, semi-friable, locally cross-bedded sandstone, that is also known as the Domengene Sandstone or Muir Sandstone (Graymer et al. 2002). The Domengine Sandstone is middle Eocene in age. The Domengine Sandstone (and Domengene/Muir Sandstone) have produced many bivalve, annelid, gastropod, and echinoid fossils throughout California (PBDB 2022; UCMP 2022). Given this fossil-producing history, the Domengine Sandstone has high paleontological sensitivity.

Great Valley Complex, Sandstone and Shale (Ku)

Sandstone and shale of the Great Valley Complex underlies parts of eastern and central American Canyon (Figure 4.8-1). These sandstone and shale beds are Late Cretaceous in age and consist of various interbedded lithologies, including carbonaceous biotite wacke; laminated fine sandstone; greenish-gray mudstone; greenish-gray, gray, or black shale; or white-mica sandstone (Graymer et al. 2002). Late Cretaceous sedimentary rocks of the Great Valley Complex (some of which are assigned to named units such as the Moreno, Panoche, or Yolo formations) have produced fossils throughout California, including dinosaurs (Hadrosauridae), mosasaurs, sharks, ray-finned fish, bivalves, gastropods, and cephalopods (PBDB 2022; UCMP 2022). However, the beds mapped within

American Canyon cannot be confidently assigned to these or any other named geologic unit of the Great Valley Complex. Therefore, sandstone and shale of the Great Valley Complex have undetermined paleontological sensitivity.

Great Valley Complex, Serpentinite (sp)

Serpentinite of the Great Valley Complex underlies parts of eastern American Canyon (Figure 4.8-1). Serpentinite is a metamorphic rock (Graymer et al. 2002), meaning it was formed by the alteration of pre-existing rock by intense heat or pressure. This metamorphic process would destroy any fossils that may have been present within that original rock. Therefore, serpentinite of the Great Valley Complex has no paleontological sensitivity.

Summary of Paleontological Sensitivity

The Planning Area is underlain by 12 distinct geologic units, four of which have high paleontological sensitivity and one of which has undetermined paleontological sensitivity. Table 4.8-1 summarizes the paleontological sensitivity of geologic units in the Planning Area.

Table 4.8-1 Paleontological Sensitivity in the Planning Area

Geologic Unit	Age	Paleontological Sensitivity
Artificial fill (af)	Late Holocene	Low
Quaternary stream channel deposits (Qhc)	Holocene	Low
Bay Mud (Qhbm)	Holocene	Low
Quaternary alluvial fan deposits (Holocene) (Qhf)	Holocene	Low
Quaternary alluvial fan deposits (Pleistocene) (Qpf)	Pleistocene	High
Huichica Formation (QTh)	Pleistocene to Pliocene	Low
Cierbo Sandstone, intercalated basalt (Tv)	Miocene	None
Markley Sandstone (Tmk)	Eocene	High
Markley Sandstone, Jameson Shale Member (Tmjk)	Eocene	High
Domengine Sandstone (Td)	Paleocene	High
Great Valley Complex, sandstone and shale (Ku)	Late Cretaceous	Undetermined
Great Valley Complex, serpentinite (sp)	Jurassic	None

4.8.2 Regulatory Setting

a. Federal

The following federal regulations would apply for projects that receive federal funding, are located on federal lands, or are subject to the National Environmental Policy Act.

National Historic Preservation Act of 1966

The National Historic Preservation Act applies to paleontological resources that are found in culturally-related contexts; such related materials qualify as cultural resources. Consequently, recovery and treatment protocols included in the project-specific Cultural Resources Management Plan should be followed for discoveries of paleontological resources in culturally-related contexts.

Paleontological Resources Preservation Act of 2009

The Paleontological Resources Preservation Act (PRPA) is part of the Omnibus Public Land Management Act of 2009 (PL 111-011 Subtitle D). This act directs the Secretary of the Interior or the Secretary of Agriculture to manage and protect paleontological resources on federal land and to develop plans for inventorying, monitoring, and deriving the scientific and educational use of such resources. It prohibits the removal of paleontological resources from federal land without a permit issued under this act, establishes penalties for violation of this act, and creates a program to increase public awareness about these resources. A paleontological resource use permit is required to collect paleontological resources of scientific interest. The act requires that paleontological resources collected under a permit remain United States property, preserved for the public in an approved repository, and available for scientific research and public education. The act also requires that the nature and location of paleontological resources on public lands remain confidential as a means of protecting the resources from theft and vandalism. Section 6301 of the PRPA and Departmental Proposed Rule at 43 CFR Part 49 define a paleontological resource as:

Any fossilized remains, traces, or imprints of organisms, preserved in or on the earth's crust, that are of paleontological interest and that provide information about the history of life on earth, except that the term does not include— (A) any materials associated with an archaeological resource... (B) any cultural item... (3) Resources determined in writing by the authorized officer to lack paleontological interest or not provide information about the history of life on earth, based on scientific and other management considerations.

Consistent with the definition of a paleontological resource under the PRPA, those paleontological resources that lack scientific interest (e.g., resources that are ubiquitous or do not provide information about the history of life on earth) are considered scientifically non-significant fossils.

b. State

California Public Resources Code

Section 5097.5 of the Public Resources Code states the following:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

The term "public lands" means those owned by, or under the jurisdiction of, the state or any city, county, district, authority, or public corporation, or any agency thereof. Consequently, public agencies are required to comply with Public Resources Code Section 5097.5 for their own activities, including construction and maintenance, and for permit actions (e.g., encroachment permits) undertaken by others.

c. Local

There are no local regulations related to paleontological resources.

4.8.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

According to Appendix G of the CEQA Guidelines, impacts related to paleontological resources from implementation of the project would be significant if it would:

1. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Methodology

The paleontological sensitivity of the geologic units that underlie the Planning Area were evaluated to assess the project's potential for significant impacts to scientifically important paleontological resources. The analysis was based on the results of a review of existing information in the scientific literature regarding known fossils within geologic units mapped in the Planning Area. According to the SVP (2010) classification system, geologic units can be assigned a high, low, undetermined, or no potential for containing scientifically significant nonrenewable paleontological resources. Following the literature review, a paleontological sensitivity classification was assigned to each geologic unit mapped within the Planning Area. This criterion is based on rock units within which vertebrate or significant invertebrate fossils have been determined by previous studies to be present or likely to be present. The potential for impacts to significant paleontological resources is based on the potential for ground disturbance to directly impact paleontologically sensitive geologic units.

a. Project Impacts and Mitigation Measures

Threshold 1: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Impact PAL-1 THE PROJECT HAS THE POTENTIAL TO RESULT IN IMPACTS TO PALEONTOLOGICAL RESOURCES. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.

Ground disturbance in previously undisturbed portions of the Planning Area underlain by geologic units with high paleontological sensitivity may result in potentially significant impacts to paleontological resources. The 2040 General Plan contains the following proposed policy related to reducing impacts to paleontological resources.

- **Policy ENV-5.1: Preservation.** Protect areas containing significant historic, archaeological, and paleontological resources, as defined by the California Public Resources Code.

Although this proposed policy would reduce impacts, potentially significant impacts to paleontological resources can only be determined once a specific project has been proposed. The potential effects of a project on paleontological resources are highly dependent on both the individual project site conditions (e.g., presence and depth of disturbed sediments or artificial fill) and the characteristics of the proposed ground-disturbing activity (i.e., depth of ground disturbance and construction activity). Therefore, ground disturbing construction activities in disturbed or developed areas may impact paleontological resources if previously undisturbed, high-sensitivity sediments are encountered below the surface.

Ground disturbing activities associated with construction facilitated by the project have the potential to damage or destroy paleontological resources that may be present on or below the ground surface in areas of high paleontological sensitivity. Consequently, damage to or destruction of fossils could occur due to development facilitated by the project. Impacts would be potentially significant. Mitigation Measure PAL-1 would require future projects be assessed for their potential to significantly impact paleontological resources.

Mitigation Measure

PAL-1 Retention of Qualified Professional Paleontologist

Prior to submittal of a discretionary development application in areas underlain by high or undetermined sensitivity geologic units (i.e., Pleistocene alluvial fan deposits; Markley Sandstone; Jameson Shale Member of Markley Sandstone; Domengine Sandstone; and sandstone and shale of the Great Valley Complex), the City shall require a Qualified Professional Paleontologist [as defined by the Society of Vertebrate Paleontology (SVP) (2010)] be retained to determine the project's potential to significantly impact paleontological resources according to SVP (2010) standards. If necessary, the Qualified Professional Paleontologist shall recommend mitigation measures to reduce potential impacts to paleontological resources to a less than significant level. The City shall review and approve the Qualified Professional Paleontologist's findings and recommendation. All recommendations shall be incorporated into the project plans prior to issuance of a grading permit.

Significance After Mitigation

Implementation of Mitigation Measure PAL-1 would reduce adverse effects to paleontological resources and impacts would be less than significant with mitigation.

4.9 Population and Housing

This section summarizes existing and projected population and housing in the Planning Area and analyzes the impacts on population and housing due to the project.

4.9.1 Setting

a. Population

The City of American Canyon was incorporated in 1992. American Canyon was developed following World War II, with the McKnight Acres subdivision in the 1940s and Rancho Del Mar in the 1950s (City of American Canyon 2022). In 1992, when American Canyon was incorporated, the population was 8,341 (California Department of Finance [DOF] 2000). By the year 2000, the population grew approximately 17 percent to 9,774 (DOF 2000). From 2000 to 2010, the City experienced a rapid population growth and population increased approximately 99 percent to 19,454 (DOF 2010b). Growth after 2010 slowed and experienced an approximately seven percent population increase from 2010 to 2020 (DOF 2020a). From 2020 to 2024, the City's population continued to slowly increase from 21,544 residents in 2020 to 21,758 residents in January 2024, representing an approximately one percent increase (DOF 2024).

b. Housing

A household is defined as a group of people who occupy a housing unit (U.S. Census Bureau 2021). A household differs from a dwelling unit because the number of dwelling units includes both occupied and vacant dwelling units. Typically, not all the population in a given area lives in households. A portion of the population lives in group quarters, such as board and care facilities, while others are homeless.

Housing Units

Table 4.9-1 shows the growth in number of housing units in the City, County, and State between 2010 and 2024. As shown in Table 4.9-1, between 2010 and 2024, 643 units were added to the City's housing inventory resulting in an overall growth of 10.2 percent during this period. Between 2010 and 2024, the County grew at a slower rate of 2.6 percent. The State also grew at a slower rate of 8.1 percent.

Table 4.9-1 Housing Inventory in the City, County, and State

	American Canyon		Napa County		California	
	2010	2024	2010	2024	2010	2024
Total Housing Units	5,982	6,625	54,759	56,181	13,670,304	14,824,827
Occupied	5,657	6,473	48,876	50,544	12,568,167	13,880,371
Vacancy Rate	5.4%	2.3%	10.7%	10%	8.1%	6.4%
Percent Change in Total Housing Units from 2010 to 2024	10.2%		2.6%		8.1%	

Note: The number of housing units added to American Canyon exceeds that of the total number of housing units added to Napa County. This can be attributed to the removal of housing units in Napa County between 2010-2022.

Source: DOF 2010a (for 2010 data) and DOF 2024 (for 2024 data)

In January 2024, approximately 5,174 of the housing units in the City were single-family detached homes, approximately 51 units were single-family attached homes, approximately 572 units were multi-family units (buildings of at least two units), and approximately 828 units were mobile homes (DOF 2024).

Household Size

Small households (one to two persons per household [pph]) traditionally occupy units with zero to two bedrooms; family households (three to four pph) normally occupy units with three to four bedrooms. Large households (five or more pph) typically occupy units with four or more bedrooms. The number of units in relation to the household size may reflect preference and economics. Many small households obtain larger units, and some large households live in small units, for economic reasons. Table 4.9-2 compares the size of households in the City, County, and State in 2010 and 2024.

Table 4.9-2 Household Size in the City, County, and State

	American Canyon		Napa County		California	
	2010	2024	2010	2024	2010	2024
Household Size (pph)	3.43	3.35	2.69	2.55	2.90	275
Percent Change from 2010 to 2022	2.4%		5.3%		5.4%	
Source: DOF 2020b (for 2010 data) and DOF 2024 (for 2024 data)						

As shown in Table 4.9-2 the average household size in American Canyon decreased from 3.43 pph in 2010 to 3.35 in 2024. Over the same period, household size in the County decreased from 2.69 to 2.55, a decrease of approximately 5.3 percent. Household size in the State decreased from 2.90 to 2.75, a decrease of approximately 5.4 percent. Between 2010 and 2024, the City maintained a higher average household size in comparison to the County and State average household sizes.

c. Jobs Housing Ratio

Information on the jobs-housing ratio is provided for informational purposes only. The jobs-household ratio in a jurisdiction is an overall indicator of jobs availability within the area. A balance of jobs and housing can give residents an opportunity to work locally and avoid employment commutes to other places in the region. DOF estimates that American Canyon has a ratio of 0.95 jobs per dwelling unit. The Association of Bay Area Governments’ (ABAG) regional map depicting projected household and job growth also illustrates a 1 percent job growth in south Napa County, including American Canyon, as a share of the regional job growth (ABAG 2021). That amounts to more than one job per household, which means that workers do not have to travel to other communities to find employment. Most households have more than one worker; therefore, a ratio of jobs to housing should be above 1:1 to have a balance of jobs to households.

d. Projections

Table 4.9-3 presents population, dwelling units, and employment projections by DOF and ABAG through 2040 for American Canyon. It is estimated the population of American Canyon will grow approximately 15 percent between 2024 and 2040 (DOF 2024, ABAG 2019). This translates to an estimated 3,522 new residents by 2040. The available data shows dwelling units decreasing in American Canyon; however, this is unlikely the case because the American Canyon Regional Housing Needs Allocation (RHNA) is 622 residential units and the city anticipates 1,055 new dwelling units in

the next 8 years. The City's Housing Element is the 6th Cycle State requirements for the 2023-2031 planning horizon. The City's Housing Element will help facilitate the development of housing. Jobs are expected to increase 31 percent between 2021 and 2040. American Canyon's jobs-housing ratio would increase by approximately 0.32. However, these projections included within this Setting do not represent the projections that the City of American Canyon anticipates from implementation of its updated General Plan. A discussion of the City's anticipated projections is included within Section 2, *Project Description*, and discussed in Impact POP-1.

Table 4.9-3 American Canyon Estimated Population, Dwelling Units, and Employment

American Canyon	2022	2040	Change 2022 to 2040	Percent Change 2022 to 2040
Population	21,758	25,280	3,522	15%
Dwelling Units	6,625	6,420	-205	-3.1%
Jobs	6,210 ¹	8,165	1,955	31%
Jobs-Housing Ratio	0.95	1.27	0.32	14%

Source: ABAG 2019, DOF 2024

¹ Data is from most recent projections for the year 2020 (ABAG 2019)

4.9.2 Regulatory Setting

a. Federal Regulations

There are no federal regulations that would be applicable to the project.

b. State Regulations

California Relocation Assistance Act

The California Relocation Assistance Act of 1971 (Government Code Section 7260 et seq.) applies to State and local program that receive State funding. This Act requires notification, counseling, social services, and financial assistance for persons displaced by transportation and land redevelopment projects. These procedural protections and benefits apply when the project causing the displacement has received State funding during any phase of the program or project.

Housing Element Law

First enacted in 1969, housing element law (Government Code Sections 65580–65589.8) mandates that local governments adequately plan to meet the existing and projected housing needs of all economic segments of the community. The law acknowledges that in order for the private market to adequately address housing needs and demand, local governments must adopt land use plans and regulatory systems that provide opportunities for, and do not unduly constrain, housing development. As a result, housing policy in the State rests largely upon the effective implementation of local general plans and, in particular, local housing elements. Housing element law also requires the California Department of Housing and Community Development (HCD) to review local housing elements for compliance with State law and to report its written findings to the local government.

California Government Code Section 65583 specifies the State Housing Element requirements. The Housing Element is one of the State-mandated elements of the General Plan and is updated every eight years. HCD is responsible for reviewing Housing Elements to ensure compliance with State law.

Senate Bill 375

Senate Bill 375 (SB 375) is summarized in Section 4.6, *Land Use and Planning*.

c. Regional and Local Regulations

City of American Canyon Housing Element

The Housing Element is one of the seven State-mandated elements of the General Plan (Government Code Sections 65300 through 65303.4). The Housing Element serves as a tool to identify and provide for the housing needs of the community. It identifies recent demographic and employment trends that may affect existing and future housing demand and supply. California law requires the Housing Element to establish policies and programs that will support the provision of an adequate housing supply for citizens of all income levels. The Housing Element is the only element that requires review by the State. The element addresses the city's ability to meet the regional housing needs as determined by the State of California. American Canyon's 6th cycle Housing Element was adopted on January 31, 2023 and certified by the State Department of Housing and Community Development (HCD) on June 30, 2023.

4.9.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Based on Appendix G of the CEQA Guidelines a project may be deemed to have a significant impact on population and housing if it would:

1. Induce substantial unplanned population growth in an area either directly or indirectly; or
2. Displace substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere.

For purposes of this analysis, substantial population growth is defined as growth exceeding ABAG population forecasts for American Canyon. Substantial displacement would occur if implementation of the project would displace more residences than would be accommodated through growth accommodated by the project.

Methodology

Population and housing trends in the City were evaluated by reviewing the most current data available from the DOF, ABAG, and the City's Housing Element. Impacts related to population are generally social or economic in nature. Under CEQA, a social or economic change generally is not considered a significant effect on the environment unless the changes are directly linked to a physical change.

b. Project Impacts and Mitigation Measures

Threshold 1: Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Impact POP-1 IMPLEMENTATION OF THE PROJECT WOULD FACILITATE THE CONSTRUCTION OF NEW HOUSING IN AMERICAN CANYON AND WOULD INCREASE POPULATION. THE 2040 GENERAL PLAN WOULD ACCOMMODATE AND PLAN FOR POPULATION GROWTH AND INCLUDES POLICIES TO MANAGE GROWTH AND DEVELOPMENT. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

This EIR identifies a maximum buildout for the project and is a conservative assumption developed for this analysis, not meant to be a predictor of future growth. Overall, maximum buildout will be dependent on multiple factors, including local economic conditions, market demand, and other financing considerations. The maximum buildout scenario for this EIR is estimated to be approximately 3,204 net new residential units by the year 2040 (see Section 2, *Project Description*). According to the California Department of Finance's population estimates, the average persons per household in American Canyon was 3.35 in 2022 (DOF 2024). Assuming 3.35 persons per household, the 3,204 additional residential units could generate approximately 10,734 residents. According to Plan Bay Area 2040¹, the population of American Canyon is expected to increase to 25,280 residents by the year 2040 (ABAG 2019). As described in Section 4.9.1, *Setting*, the population of the City of American Canyon in January 2024 was approximately 21,758 residents. Therefore, the addition of roughly 10,734 residents by the year 2040 would exceed ABAG projections by roughly 7,212 residents or 25 percent.

However, the population growth associated with the project would not be considered unplanned for several reasons. Buildout under the General Plan consists of projected growth facilitated by several approved plans and projects including the Broadway District Specific Plan, Watson Ranch Specific Plan, and Oat Hill Residential General Plan Amendment. These projects have undergone separate CEQA review and have been approved by the City of American Canyon. Cumulatively, these planned projects result in most of the projected growth. Furthermore, the State requires that all local governments adequately plan to meet the housing needs of their communities. Given that the State is currently in an ongoing housing crisis due to an insufficient housing supply, the additional residential units under the project would further assist in addressing the existing crisis and meeting the housing needs of the City's communities.

Finally, the following policies from the 6th Cycle Housing Element support the goals to direct future development to minimize the impacts of growth by emphasizing the intensification and reuse of already developed areas and redevelopment to infill areas:

- **Policy H-1.1: Sufficient Lower-Income Capacity.** Designate sufficient vacant land and underutilized sites with maximum densities to facilitate housing development affordable to lower-income households.
- **Policy H-1.3: Existing Residential Capacity.** Protect residentially designated sites from reclassification to nonresidential designations or downzoning to lower densities.

¹ Plan Bay Area 2040 population estimates were used instead of Plan Bay Area 2050 because the latter did not include population estimates at the city level.

- **Policy H-2.1: Diversity of Housing Types.** Promote a diversity of housing types, including large-lot development, single family detached and attached residences, mobile homes, manufactured homes, townhomes, multi-family rental and ownership units, accessory dwelling units, and units combined with nonresidential uses.
- **Policy H-2.2: Housing Type Flexibility.** Allow flexibility in the type of units developed on vacant, residentially designated properties in master-planned communities and other planned developments.
- **Policy H-2.6: Mixed Use Development.** Encourage development of residential uses in association with compatible nonresidential uses in commercial zones.

Therefore, because the project is designed for planned and orderly growth, as mandated by the State, development in accordance with the project would not indirectly induce growth in the City. Impacts would be less than significant.

In addition, the Mobility Element for the 2040 General Plan identifies major street improvements that the City has proposed. The street improvements include extension of roadways, such as Newell Drive and new pedestrian overcrossing. The roadway extensions would serve the existing population of American Canyon, as well as development that has already been planned and would not induce unplanned growth. For example, the Newell Drive Extension would serve the planned development for both the Watson Ranch Specific Plan and the Watson Lane Annexation Project. As such, the roadway improvement associated with the project would serve already planned growth. Impacts on indirect population growth due to roadway infrastructure would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?
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Impact POP-2 IMPLEMENTATION OF THE PROJECT WOULD NOT RESULT IN THE DISPLACEMENT OF SUBSTANTIAL NUMBERS OF HOUSING OR PEOPLE. THE PROJECT WOULD FACILITATE THE DEVELOPMENT OF NEW HOUSING IN ACCORDANCE WITH STATE AND LOCAL HOUSING REQUIREMENTS, WHILE PRESERVING EXISTING RESIDENTIAL NEIGHBORHOODS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

As described in Impact POP-1, the conservative estimate of the maximum residential buildout for the project is an additional 3,204 housing units. In addition, as described in Chapter 2, *Project Description*, the conservative estimate of the maximum non-residential buildout (i.e., commercial, retail, hotel, industrial, warehouse, and research and development uses) is 5,704,000 square feet. It is not currently known whether future development projects would result in the displacement of housing. Nonetheless, the Housing Element includes the following proposed policies to minimize displacement of housing:

- **Policy H-1.3: Existing Residential Capacity.** Protect residentially designated sites from reclassification to nonresidential designations or downzoning to lower densities.

- **Policy H-2.9: Missing Middle Housing.** Encourage development of missing middle and workforce housing appropriate for households with incomes between 80 and 140 percent of the median household income.
- **Policy H-3.4: Older Neighborhood Infrastructure.** Through the Capital Improvement Program, as a social justice program measure maintain infrastructure of older neighborhoods in good condition.
- **Policy H-4.2: Neighborhood Rehabilitation.** Support rehabilitation in older residential neighborhoods and low resource areas.
- **Policy H-4.6 Housing Balance.** Promote a balance of rental and affordable ownership housing.
- **Policy H-6.3 Affordable Unit Replacement.** Require applicants to replace housing as a condition of development approval when discretionary development applications convert or remove housing units occupied by, and are affordable to, very low- or low-income households.
- **Policy H-6.5 Mobile Home Park Protection.** Protect mobile home park residents from involuntary displacement and unreasonable rent increases.

Overall, the Housing Element would promote infill development; the redevelopment of abandoned, obsolete, or underutilized properties; and the adaptation of existing residential units to support multi-family use. These development patterns would minimize displacement. Additionally, the Housing Element includes policies, such as those above, which would reduce the impacts of future development on existing neighborhoods and residents within the city. Furthermore, the California Relocation Assistance Act of 1971 would apply to potential future development facilitated by the General Plan and requires notification, counseling, social services, and financial assistance for persons displaced by transportation and land redevelopment projects. These procedural protections and benefits apply when the project causing the displacement has received State funding during any phase of the program or project. Through this program as well as the project objectives and policies stated above, the General Plan would not result in the net loss or displacement of housing and would not require the construction of replacement housing elsewhere. Impacts would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

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4.10 Public Services and Recreation

This section summarizes the public services, including recreational resources in the Planning Area and analyzes the potential effects on public services and recreation related to implementation of the project.

4.10.1 Setting

a. Fire Protection

Fire protection, emergency medical services, and technical rescue services in the City of American Canyon are provided by the American Canyon Fire Protection District (ACFPD). The ACFD provides a wide range of programs, including fire suppression, training, emergency medical services, hazardous materials cleanup, public education, and urban search and rescue. The ACFD provides a response to an approximately 15 square mile area that includes the city limits of the City of American Canyon and nearby unincorporated areas of southern Napa County (ACFD 2020). ACFPD is a subsidiary special District of the City of American Canyon, with the elected City Council members serving as the ex-officio Board of Directors. ACFPD is funded primarily through property taxes and voter approved special taxes, ACFPD’s budget is separate and distinct from the City of American Canyon.

Personnel, Facilities, and Equipment

The ACFPD currently employs 23 career fire personnel (City of American Canyon 2022a) and is staffed daily with a minimum of six personnel, of which a minimum of two firefighters are Paramedics. Staffing is accomplished by having twenty-one career firefighters assigned to three platoons referred to as “A,” “B,” and “C” shift. All sworn ACFPD employees are trained to the level of Emergency Medical Technician or as an Emergency Medical Technician-Paramedic. ACFPD employees are able to provide advanced live support. In 2021, the ACFPD responded to 1,689 incidents in their jurisdiction, as well as 98 incidents in Napa County and 61 incidents in Vallejo (ACFPD 2022a). The typical response time by the ACFPD is approximately 5 minutes or less (ACFPD 2022a).

The ACFPD operates out of two stations located at 225 James Road and 911 Donaldson Way East, both located centrally within the City. Across the two locations, the ACFD is equipped with firefighting apparatuses and support vehicles. A fire engine is staffed by at least one firefighter who is also a licensed paramedic on a 24-7 basis. The ACFPD and American Medical Response (AMR) have established a public- private partnership that enhances the emergency medical system in Napa County and are working together to provide shorter response times. Table 4.10-1 details ACFPD equipment (ACFPD 2022a).

Table 4.10-1 ACFPD Equipment

Equipment	Equipment Features
Engine 211	<ul style="list-style-type: none">▪ Spartan Cab and Chassis▪ 1,500 Gallons Per Minute Single Stage Pump▪ 500 Gallon Water Tank▪ 20 Gallon of Class A Foam Tank▪ Advanced Life Support

Equipment	Equipment Features
Engine 411	<ul style="list-style-type: none">▪ 500 Gallon Water Tank▪ 750 Gallon Per Minute Darley Pump
Truck 11	<ul style="list-style-type: none">▪ 1,500 Gallon Per Minute Single Stage Pump▪ 500 Gallon Water Tank▪ 20 Gallons of Class A & B Foam
Rescue 11	<ul style="list-style-type: none">▪ 25 Kilowatt Power Take Off Generator▪ LED Telescopic Lighting System▪ Cascade Self Contained Breathing Apparatus Breathing Air Fill System
Brush 11	<ul style="list-style-type: none">▪ 350 Gallon Water Tank▪ 10 Gallon Class A Foam▪ 180 Gallon Per Minute Darley Pump▪ Advanced Life Support
Engine 11	<ul style="list-style-type: none">▪ 2018 Pierce Enforcer Cab and Chassis▪ 1,500 Gallon per minute single stage pump▪ 500 gallon water tank▪ 20 gallon class A foam tank▪ Advanced Life Support

Source: City of American Canyon 2022b

Services Provided

The Fire District provides emergency operations, fire suppression, advanced life support emergency medical care, and rescue in a public-private partnership with American Medical Response. Other services and functions include fire prevention, public education, business fire safety inspections, plan review, construction site inspection, code enforcement, fire investigation, public education outreach programs, disaster preparedness, emergency operations plan development, emergency operations center operations, and coordination of disaster preparedness training. The Fire District is also recognized by California Emergency Management Agency as a Type 1 (heavy) rescue single resource.

Aid Agreements

The ACFPD participates in the Napa Interagency Hazard Team which responds to hazardous materials incidents that occur within the County (ACFPD 2022a). The ACFPD also participates in the Napa Interagency Rescue Team which is a joint search and rescue team comprised of fire department personnel from other agencies within Napa County (ACFPD 2022a). The ACFPD also participates in both mutual aid and automatic aid agreements to multiple agencies in Napa and Solano Counties (City of American Canyon 2022a).

Incidents and Response Times

ACFPD responded to 1,868 incidents in 2021 (ACFPD 2022a). Rescues and emergency services accounted for 63 percent of the incidents (ACFPD 2022a). ACFPD has an established response time standard of first unit arrival within 5 minutes (total travel time) for 90 percent of all incidents (ACFPD 2022a).

Insurance Services Office Rating

ACFPD has an Insurance Services Office (ISO) rating of Class 2 on a scale of 1 to 10, with 1 being the best (City of American Canyon 2022a). An ISO rating accounts for factors such as emergency communication systems, personnel, training, equipment, and water supply.

b. Police Protection

The American Canyon Police Department (ACPD) provides police protection services within the City through a contract with the Napa County Sheriff's Office. As a result of this contract, the ACPD is staffed by Napa County Sheriff's Office personnel who wear ACPD uniforms. ACPD officers serve a variety of roles including patrol, K-9, D.A.R.E., investigations, communications, and School Resource Officers.

The ACPD operates out of one station located at 911 Donaldson Way East. For the Fiscal Year 2021/2022 the ACPD was staffed with 24 sworn officers, two police technicians, and one administrative clerk (ACPD 2022). At a minimum, there are three officers on duty 24 hours a day, 7 days a week and the ACDP ratio is 1.1 officers per 1,000 residents (County of Napa 2022a). Sworn staffing was comprised of the following: 1 chief; 4 sergeants; 2 traffic officers; 2 k-9 handlers; 2 school resource officers; 1 community resource officer; and 12 patrol officers. Between 2014 and 2021, ACPD responded to between 15,903 and 18,698 calls for service annually (ACPD 2022).

c. Schools

Napa Valley Unified School District (NVUSD) provides elementary school (Kindergarten through 12th grade), Transitional Kindergarten, independent study, and one adult education program that serve the residents of the City. There are 27 schools in NVUSD, five of which are in the City: American Canyon High, American Canyon Middle, Canyon Oaks Elementary, Donaldson Way Elementary, and Napa Junction Elementary (National Center for Education Statistics [NCES] 2022a). Table 4.10-2 shows enrollment trends for these five schools. As shown in Table 4.10-2, enrollment at all middle and elementary schools has decreased and enrollment at American Canyon High school has increased between the 2017-2018 and 2020-2021 school years.

Table 4.10-2 Enrollment Trends for NVUSD Schools in American Canyon

School Name	Grades	2017-2018	2018-2019	2019-2020	2020-2021	Percent Change 2017-2018 to 2020-2021
American Canyon High	9-12	1,572	1,617	1,670	1,707	8.6%
American Canyon Middle	6-8	1,041	1,013	1,025	1,011	-2.9%
Canyon Oaks Elementary	K-5	682	682	681	674	-1.2%
Donaldson Way Elementary	K-5	602	591	574	524	-13.0%
Napa Junction Elementary	K-5	446	409	417	420	-5.8%

Source: California Department of Education [CDE] 2022; NCES 2022b, 2022c, 2022d, 2022e, 2022f

d. Parks and Recreation

American Canyon has multiple recreational opportunities. The Planning Area has three mini-parks¹, fifteen neighborhood parks², and five community parks³. These 23 parks total approximately 102 acres and are identified in Table 4.10-3. Amenities at these parks include picnic areas, diamond baseball fields, rectangle fields, outdoor basketball multi-use courts, tennis courts, playgrounds, dog parks/off leash areas, skate parks, swimming pool, and trails.

The City of American Canyon's Parks and Recreation Department is responsible for the maintenance of park land and City recreation facilities as well as planning all City-sponsored recreation classes, programs, and special events. The City also jointly manages 10 miles of the Napa River Bay Trail with the California Department of Fish and Wildlife, and the Napa County Parks and Open Space District (City of American Canyon 2022c). Additionally, the Newell Open Space Preserve includes 642 acres of open space east of the City and is connected via Newell Creek (City of American Canyon 2022d). In addition, American Canyon also has Wetlands Edge Park, which provides trails and offers opportunities to view marshland and the Napa River. Furthermore, the Napa County Regional Parks and Open Space District is in the process of acquiring the Suscol Ridge Regional Park, which totals 711 acres. According to the Bay Area Open Space Council, there are almost 1.4 million acres of regional trails and open space areas that are currently provided in the Bay Area (Bay Area Open Space Council 2014). By 2027, the Bay Open Space Council predicts that 2 million acres of regional trails and open space areas would be available for users.

There are also several additional nearby open space areas, including Lynch Canyon Open Space, Napa-Sonoma Marshes Wildlife Area, Fagan Marsh Ecological Reserve, and Bull Island. Beyond the nearby open space areas and trails provided in Napa and Solano Counties, there are also other nearby regional parks in Sonoma and Marin counties, as well as park and open space amenities provided through the East Bay Regional Parks District, California State Parks system, and the National Parks Service lands.

In December 2015, the City published a Parks and Recreation Needs Assessment that compared the City's park system to other similar cities nearby and determined the City ranks higher in terms of total park acreage, but ranks lower in terms of total park and facility sites due to its lack of indoor facilities (City of American Canyon 2015). The assessment determined that residents of the City have an unmet need for outdoor exercise and fitness areas, covered picnic areas, adventure areas, Napa River access, mountain biking trails, sports complexes, off-leash dog parks, community gardens, and community center space. Specifically, the assessment concluded that by 2030 the City should develop 77 additional acres of community parkland, four adult softball diamonds, three basketball multi-use outdoor courts, two off-leash dog parks, 23,305 square feet of indoor recreation space, and 3,927 square feet of indoor recreation space dedicated to senior citizens (City of American Canyon 2015).

¹ As identified in the Environment, Parks and Recreation Element of the 2040 General Plan, mini-parks are not designed for active recreational uses but do provide passive open space.

² As identified in the Environment, Parks and Recreation Element of the 2040 General Plan, neighborhood Parks are usually two and a half to five acres in size and primarily planned for children five to fourteen years of age.

³ As identified in the Environment, Parks and Recreation Element of the 2040 General Plan, community Parks are designed to serve several neighborhoods and parks are planned for youths and adults and provide for a wider range of activities than the neighborhood park or playground.

Table 4.10-3 Parks in the Planning Area

Name	Address/Location	Acreage
Mini Parks		
Bedford & Kensington	323 Bedford Lane	0.14
Nottingham & Bently	270 Nottingham Lane	0.10
Danrose Sports Court	785 Danrose Drive	1.24
Neighborhood Parks		
Banbury Park	100 Banbury Way	8.83
Elliott Park	2234 Elliott Drive	2.83
Gadwall Park	161 Gadwall Street	2.0
Linwood Park	285 Linwood Lane	1.32
Main Street Park	5050 Main Street	3.0
Melvin Park	19 Melvin Road	1.3
Montecarlo Park	54 Montecarlo Way	2.75
Northampton Park	243 Northampton Drive	4.0
Pelleria Park	54 Pelleria Drive	1.0
Quarry Park (Proposed)	N/A	7.1
Shenandoah Park	100 Sonoma Creek Way	6.0
Silver Oak Park	485 Silver Oak Drive	5.0
Via Bellagio Park	100 Via Bellagio	1.0
Watson Ranch Center Park (Proposed)	Marcus Road	3.8
Watson Ranch Newell Park (Proposed)	Newell Drive	7.4
Community Parks		
Community Park I	1400 Rio Grande Drive	8.0
Community Park II	20 Benton Way	6.3
Kimberly Park	600 Kimberly Way	10.0
Little League Complex	280 Napa Junction Road	10.0
Veterans Memorial Park	2801 Broadway	9.0

e. Library Services

Library services in the City are provided by the Napa County Library system at the American Canyon Library. This library, located at 300 Crawford Way, is part of the four libraries within the Napa County Library system. The library consists of a 55,550-piece collection (books, DVDs, music CDs, audiobooks, magazines, and subscriptions to area newspapers), a group study area that can accommodate 18 people, 28 computers, and a meeting room, which can seat up to 100 people for a total of 16,000 sf of usable space. During fiscal year 2017/2018, the library had approximately 8,669 registered users (County of Napa 2022b).

4.10.2 Regulatory Setting

a. Federal Regulations

There are no federal regulations that would be applicable to the project.

b. State Regulations

Fire Protection

California Fire and Building Codes

The State of California provides minimum standards for building design through the California Building Code (CBC), which is located in Part 2 of Title 24, California Building Standards Code, of the California Code of Regulations. The CBC is based on the International Building Code but has been amended for California conditions. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Commercial and residential buildings are plan-checked by local building officials for compliance with the CBC. Typical fire safety requirements of the CBC include: the installation of sprinklers in all high-rise buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

California Code of Regulations

The California Code of Regulations, Title 5 Education Code, governs all aspects of education within the State. California State Assembly Bill 2926 (AB 2926) – School Facilities Act of 1986 – was enacted by the State of California in 1986 and added to the California Government Code (Section 65995). It authorizes school districts to collect development fees, based on demonstrated need, and generate revenue for school districts for capital acquisitions and improvements. It also established that the maximum fees which may be collected under this and any other school fee authorization are \$1.50 per square foot for residential development and \$0.25 per square foot for commercial and industrial development. AB 2926 was expanded and revised in 1987 through the passage of AB 1600, which added Section 66000 et seq. of the Government code. Under this statute, payment of statutory fees by developers serves as total mitigation under CEQA to satisfy the impact of development on school facilities. However, subsequent legislative actions have alternatively expanded and contracted the limits placed on school fees by AB 2926.

California Senate Bill 50

As part of the further refinement of the legislation enacted under AB 2926, the passage of SB 50 in 1998 defined the Needs Analysis process in government Code Sections 65995.5-65998. Under the provisions of SB 50, school districts may collect fees to offset the costs associated with increasing school capacity as a result of development. SB 50 generally provides for a 50/50 State and local school facilities match. SB 50 also provides for three levels of statutory impact fees. The application level depends on whether State funding is available; whether the school district is eligible for State funding; and whether the school district meets certain additional criteria involving bonding capacity, year-round schools, and the percentage of moveable classrooms in use.

California Government Code sections 65995-65998 sets forth provisions to implement SB 50. Specifically, in accordance with section 65995(h), the payment of statutory fees is “deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization...on the provision of adequate school facilities.” The school district is responsible for implementing the specific methods for mitigating school impacts under the Government Code.

Pursuant to Government Code section 65995(i), “A State or local agency may not deny or refuse to approve a legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization as defined in section 56021 or 56073 on the basis of a person's refusal to provide school facilities mitigation that exceeds the amounts authorized pursuant to this section or pursuant to section 65995.5 or 65995.7, as applicable.”

California Education Code section 17620(a)(1) states that the governing board of any school district is authorized to levy a fee, charge, dedication, or other requirement against any construction within the boundaries of the district, for the purpose of funding the construction or reconstruction of school facilities. NVUSD has developed an impact fee schedule with requires a payment of \$0.66 per square foot of commercial and industrial development.

Quimby Act

The Quimby Act (California Government Code Section 66477) establishes guidelines for developers' exactions and in-lieu fees that may be used for parkland development. The act authorizes local governments to establish ordinances requiring developers of new subdivisions to dedicate land for parks, pay an in-lieu fee, or perform a combination of the two. The Quimby Act provides two standards for the dedication of land for use as parkland (1) if the existing area of parkland in a community is three acres or more per 1,000 persons, then the community may require dedication based on a standard of 5 acres per 1,000 persons residing in the subdivision, (2) if the existing amount of parkland in a community is less than three acres per 1,000 persons, then the community may require dedication based on a standard of only three acres per 1,000 persons residing in the subdivision. The Quimby Act also requires a city or county to adopt standards for recreational facilities in its general plan recreation element if it is to adopt a parkland dedication/fee ordinance. The amount of land dedicated, or fees paid, shall be based upon the residential density, determined based on the approved or conditionally approved tentative map or parcel map and the average number of persons per household.

c. Local Regulations

City of American Canyon General Plan

The City's Public Services and Facilities Element of the General Plan include the following policies (City of American Canyon 1994):

- **Policy 6.3.1:** Require that City planning staff work closely with Fire District officials to ensure that fire facilities and personnel are expanded commensurably to serve the needs of the City's growing population and development base.
- **Policy 6.3.3:** Continue to respond to 90% of all calls within five minutes or less.
- **Policy 6.7.1:** Periodically evaluate population growth, development characteristics, level of service (response time and staffing), and incidence of crime in the City to ensure that an adequate level of police protection is maintained.
- **Policy 6.8.1:** Annually monitor the adequacy of policing services to ensure that they are commensurate with the needs of the City, as judged by response times, types and quality of service, personnel skills, the crime rate and other relevant criteria.

American Canyon Fire Protection District Long-Range Master Plan

The ACFPD Long-Range Master Plan, (LRMP) guides the efficient future growth and development of the Fire District to provide the community of American Canyon with the highest possible level of service balanced with long term financial sustainability. Adopted in October 2022, (Resolution 2022-26) the LRMP identifies recommendations to improve long-range planning and delivery of fire and emergency services to the community (ACFPD 2022b).

The Plan recommendations relate to operations, procedures, and community involvement to deliver desired levels of service at the most efficient cost. To maintain long-range service levels, the LRMP recommends construction of a new relocated Fire Station 211.

City of American Canyon Impact Fees

Measure B, 1980 and Resolution 83-4 as amended by Resolution 2022-11

In 1980, voters approved Measure B, a special tax assessment to maintain levels of fire protection services in American Canyon. All property and mobile homeowners in American Canyon are required to pay this fee. The fee is calculated based on the physical building characteristics of a project, its use, and its immediate surroundings, to determine the gallons per minute that would be utilized to put out the most serious fire likely to occur near the development. Currently, single-family residential pays \$0.2585 per square foot, multi-family residential pays \$0.3154 per square foot, commercial uses pay \$0.4731 per square foot, and industrial uses pay \$0.5738 per square foot.

American Canyon Municipal Code Chapter 15.08

Chapter 15.08 of the American Canyon Municipal Code establishes the Civic Facility and Park Impact Fee for all residential, accessory dwelling unit, commercial, office, and industrial developments. The fee is calculated by unit or by square foot depending on the type of development. The Civic Facility and Park Impact Fees collected are utilized for the expansion of City Hall, provision of additional support for the police station, support for the Aquatic Center offices, construction of the City library, corporate yard expansion, public parks, park facilities, and other offsite improvements.

4.10.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Based on Appendix G of the CEQA Guidelines a project may be deemed to have a significant impact on public services and recreation if it would:

1. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:
 - a. Fire protection;
 - b. Police protection;
 - c. Schools;

- d. Parks;
 - e. Other public facilities.
2. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated;
 3. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Methodology

The assessment of potential environmental impacts related to public services and recreation is based on a review of existing services within the Planning Area. As a programmatic document, this Program EIR presents a City-wide assessment of the project. Because the Program EIR is a long-term document intended to guide actions for many years into the future, this analysis relies on program-level and primarily qualitative evaluation.

Threshold 1a:	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?
Threshold 1b:	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?
Threshold 1e:	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered public facilities, or the need for new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

Impact PS-1 DEVELOPMENT FACILITATED BY THE PROJECT WOULD INCREASE THE POPULATION IN THE PLANNING AREA, WHICH WOULD RESULT IN AN INCREASE IN DEMAND FOR FIRE, POLICE, AND LIBRARIES. COMPLIANCE WITH PROPOSED POLICIES IN THE 2040 GENERAL PLAN AND CONTINUED ENVIRONMENTAL REVIEW WOULD MINIMIZE ADVERSE ENVIRONMENTAL EFFECTS ASSOCIATED WITH THE PROVISION OF NEW OR PHYSICALLY ALTERED FIRE, POLICE, OR LIBRARY FACILITIES. THESE IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Future development facilitated by the project would result in an increase in the Planning Area's population, which would result in an incremental increase in demand for fire protection, police protection, and other public services such as libraries.

The Planning Area would be served with fire protection and emergency medical services provided by ACFPD. As future buildout occurs in accordance with the project, the City would evaluate operations and deployment of fire protection services. Future development would be required to meet the standard fire code safety and access requirements administered by the City of American Canyon Building Division and specified by the California Building Code. In accordance with standard practices, ACFPD would review project plans before permits are issued to ensure compliance with all applicable fire and building code standards and ensure adequate emergency access is provided to

the site. The project would be required to pay two separate special assessments to fund fire protection and emergency medical services. The first is the “Fire Mitigation Fee,” a one-time assessment to all new development. The second is the “Fire Service Fee” and an annual assessment for each parcel based on a formula that includes structure construction type, the fire flow area (square feet), proximity of other structures, the type of occupancy, and the presence of fire protection devices. In addition, the Public Services and Facilities Element includes policies 6.3.1 and 6.3.3, which requires that planning staff work closely with Fire District officials to ensure that fire facilities and personnel are expanded commensurably to serve the needs of the City’s growing population and development base and that 90 percent of calls are responded to within five minutes or less.

The Planning would be served with police protection provided by the ACPD. The Police Department is staffed by the Napa County Sheriff’s Office, which provides law enforcement services on a contract basis to the City of American Canyon. Development facilitated by the project would increase the number of annual incidents. The Police Department will have the opportunity to review and comment on security measures during the plan check review process for future development. In addition, the Public Services and Facilities Element includes policies 6.7.1 and 6.8.1, which required periodically evaluating population growth, development characteristics, level of service (response time and staffing), and incidence of crime in the City to ensure that an adequate level of police protection is maintained and annually monitoring the adequacy of policing services to ensure that they are commensurate with the needs of the City.

Future development facilitated by the project would result in an increase in population which could result in an increased demand for library services. Pursuant to the City’s 2022 Civic Facilities Fees, future development would be required to pay fees that are collected and used to fund expanded library services in the City.

The City has identified the requirements for additional personnel and equipment as functions of fees implemented through Resolution 2022-11 and American Canyon Municipal Code Chapter 15.08. New development is required to pay impact fees and contribute their fair share to the cost of funding fire protection, police protection, and library services in American Canyon. The 2040 General Plan Land Use Element provides the following proposed policy that would ensure adequate fire and police protection is provided in American Canyon:

- **Policy LU-1.8: Infrastructure Coordination.** Ensure that new development consistent with the Land Use Plan is coordinated with the provision of adequate public infrastructure (e.g., transportation facilities, capital improvements, wastewater collection and treatment, water supply, electrical, natural gas, telecommunications, solid waste disposal, and storm drainage) and public services (e.g., governmental administrative, police, fire, recreation)

Given the demand for fire, police, and library services in the City, fire and police staffing needs in American Canyon are likely to increase, which could require the construction of new facilities. Future facilities could be located within the Planning Area but would require adherence to all applicable building and zoning codes and additional CEQA review to analyze project and location specific impacts. It is not possible to identify the specific nature, extent, and significance of physical impacts on the environment that could result from the construction and operation of future fire facilities without knowing the size and nature of the facility, or its location. For example, future facilities could feasibly be housed in an existing building, which would have less of a physical impact on the environment than the construction of a new facility. As such, impacts related to fire, police, and library services would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 1c: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

Impact PS-2 FUTURE DEVELOPMENT FACILITATED BY THE PROJECT WOULD BE REQUIRED TO PAY IMPACT FEES THAT WOULD PROVIDE FUNDING FOR THE PROVISION OR EXPANSION OF NEW SCHOOL FACILITIES, PURSUANT TO GOVERNMENT CODE SECTION 65995(B). IMPACTS FROM THE PROJECT WOULD BE OFFSET BY THE PAYMENT OF IMPACT FEES AND IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Future development facilitated by the project would result in an increase in population in the Planning Area, which would contribute to an increase in students who would be served by NVUSD. Future residential, commercial, and industrial development in American Canyon would be required to pay state-mandated impact mitigation fees to provide funding for additional schools to serve the area, pursuant to Senate Bill 50. Pursuant to Section 65995(h) of the California Government Code the payment of statutory fees "... is deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization." The mandatory payment of impact mitigation fees would serve as full and complete mitigation for future development. Therefore, future development facilitated by the project would not result in substantial adverse physical impacts associated with the provision of or need for new or physically altered schools, the construction of which could cause significant environmental impacts. This impact would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 1d:	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?
Threshold 2:	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
Threshold 3:	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Impact PS-3 DEVELOPMENT FACILITATED BY THE PROJECT WOULD INCREASE THE POPULATION IN THE PLANNING AREA, WHICH WOULD INCREASE THE USE OF PARKS AND RECREATIONAL FACILITIES. ADHERENCE TO AMERICAN CANYON MUNICIPAL CODE REGULATIONS AND PROPOSED 2040 GENERAL PLAN POLICIES WOULD ENSURE IMPACTS RELATED TO PARKS AND RECREATIONAL FACILITIES WOULD BE LESS THAN SIGNIFICANT.

Future development facilitated by the project would result in an increase to the Planning Area's population, which would result in an incremental increase in demand on existing public parks or other recreational facilities. The City's existing service ratio is approximately 34.4 acres per 1,000 residents for the existing population of 21,758.⁴ With the project, the addition of a maximum of 10,734 residents would decrease the service ratio to 22.9 acres per 1,000 residents.⁵ Although there would be a reduction, this would still be consistent with the City's proposed goal of 5 acres of parkland per 1,000 residents (see proposed Policy ENV-6.1 below). The population growth associated with the project would not require the need for new recreational facilities.

The 2040 General Plan provides the following proposed policies that would ensure adequate park and recreation facilities are provided in the Planning Area:

- **Policy LU-1.8: Infrastructure Coordination.** Ensure that new development consistent with the Land Use Plan is coordinated with the provision of adequate public infrastructure (e.g., transportation facilities, capital improvements, wastewater collection and treatment, water supply, electrical, natural gas, telecommunications, solid waste disposal, and storm drainage) and public services (e.g., governmental administrative, police, fire, recreation).
- **Policy ENV-6.1: Park Standards.** Provide a variety of mini, neighborhood, community, and regional park facilities to achieve a minimum standard of 5 acres of parkland per 1,000 residents.
- **Policy ENV-6.3: Parks System.** Work toward the establishment of a of public parks system interconnected by off-street trails or bicycle lanes.
- **Policy ENV-6.9: Broadway District Specific Plan Parks.** Evaluate feasible locations for public parks to serve residents in the Broadway District Specific Plan area.
- **Policy ENV-6.10: Watson Ranch Specific Plan.** Incorporate by reference the Watson Ranch Specific Plan recreation program which includes private recreation facilities, public parks, trails, and community center and plaza.
- **Policy ENV-6.12: Park Dedications.** Review the Subdivision Ordinance as necessary to ensure park dedication requirements remain consistent with the Subdivision Map Act.

⁴ 34.4 acres per 1,000 residents = (744 acres of parks / 21,758 persons) * 1,000 persons

⁵ 22.4 acres per 1,000 residents = (744 acres of parks / 32,492 persons) * 1,000 persons

- **Policy ENV-6.14: Park Fee Revenue.** Periodically review the parks and recreation fee structure to ensure it is meeting established cost-recovery objectives without placing an excessive financial burden on residents. (Source: Existing Policy 7.8.5 modified)
- **Policy ENV-6.15: Park Impact Fee.** The City shall update, as needed and appropriate, the park in-lieu fee assessed to all new development.
- **Policy ENV-6.26: Park Maintenance.** Rehabilitate existing American Canyon parks based on such measures as increased public access, lower maintenance costs and increased service delivery.

In addition, pursuant to Chapter 15.08 of the American Canyon Municipal Code, future development facilitated by the project would be required to pay impact fees, which would promote the maintenance and expansion of public parks. The project does not include any specific development proposals for parks or recreational facilities; however, any future development proposals for parks and/or recreational facilities would be subject to City review, including environmental analysis pursuant to CEQA. Therefore, development facilitated by the project would not result in substantial adverse physical impacts associated with the provision of or need for new or physically altered parks or result in substantial adverse impacts due to the construction or expansion of recreational facilities. These impacts would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

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4.11 Transportation

This section summarizes the transportation network that serves the Planning Area and analyzes the impacts on transportation due to the project.

4.11.1 Setting

a. Streets and Highways

The City of American Canyon is located in southern Napa County, approximately 35 miles northeast of San Francisco. Adjacent and south of the City limits is the City of Vallejo in Solano County. North of the City limits, a succession of cities in Napa County are located along State Route (SR) 29, which serves the main commercial corridor through the center of American Canyon. SR 29 is a main route to wine country destinations. These cities include Napa, Yountville, St. Helena, and Calistoga. As with American Canyon, these cities are bisected by SR 29.

The transportation network serving the area includes a network of city and county-maintained streets and state-maintained highways. SR 29 bisects the City at grade with one bridge over the Union Pacific Railroad. SR-29 serves as a main thoroughfare for local and pass-through traffic to regional connections and access to local properties. In addition, the City of American Canyon streets serve a variety of users, including pedestrians, bicyclists, transit riders, passenger cars, and heavy trucks for freight with a mix of local, recreational, and regional trips. American Canyon Road is a major east-west arterial street that connects with the Interstate (I-) 80 freeway to the east. The City lies generally northwest of the I-80/ SR 37 interchange.

b. Pedestrian and Bicycle Facilities

The Highway Design Manual, published by the California Department of Transportation (Caltrans), classifies bikeways into four categories:

- Class I Multiuse Path: a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- Class II Bike Lane: a striped and signed lane for one-way bike travel on a street or highway.
- Class III Bike Route: signing only for shared use with motor vehicles within the same travel lane on a street or highway.
- Class IV Bikeway: also known as a separated bikeway, a Class IV Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and the motor vehicle traffic lane. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

There are currently over 13 miles of bicycle network within the City of American Canyon, including over 8 miles of Class I multiuse paths, 2.8 miles of Class II bike lanes, and over 2 miles of Class III designated bicycle routes on public roadways. While most of the City has sidewalks, several older neighborhoods of the City have limited or lack pedestrian infrastructure. There is minimal sidewalk infrastructure along SR 29.

c. Transit Services

Public transportation within the City is provided by American Canyon Transit, which is a part of the Napa Valley Transportation Authority (NVTa) Vine Transit system. American Canyon Transit is a fixed route and on-demand, door-to-door, transit service within specific areas of the city. Vine Transit's Route 29 (Napa-BART) Express connects the BART Station in El Cerrito to the Redwood Park-n-Ride in the City of Napa and stops in American Canyon at the Post Office on Crawford Way.

d. Taxi and On-demand Ride-hailing

On-demand private taxi services are available in the project site 24 hours a day. Taxis can be used for trips within the Planning Area and farther destinations, including nearby airports. Other ride-hailing applications are also available in the Planning Area and provide transportation throughout the Bay Area.

e. Rail Transportation

Rail transportation in the City is currently limited to freight service only. No commuter rail service exists in the City or County. The main rail line in the City is owned by Union Pacific Railroad Company and enters the City parallel to and on the east side of SR 29 at the Solano County line.

f. Aviation

The Napa County Airport is northwest of the City limits in unincorporated lands. It is a General Aviation airport with charter flights available, but no scheduled commercial flights. The airport can accommodate most private aircraft including jets, up to 120,000 pounds. The airport was built by the United States Army Air Force in 1942 and was deeded to Napa County after World War II for civilian use. In 1971 International Air Services Company opened a flight training school at the airport.

4.11.2 Regulatory Setting

a. Federal Regulations

Americans with Disabilities Act of 1990

The Americans with Disabilities Act (ADA) of 1990 provides comprehensive rights and protections to individuals with disabilities. The goal of the ADA is to assure equality of opportunity, full participation, independent living, and economic self-sufficiency for people with disabilities. To implement this goal, the United States Access Board, an independent Federal agency created in 1973 to ensure accessibility for people with disabilities, has created accessibility guidelines for public rights-of-way. While these guidelines have not been formally adopted, they have been widely followed by jurisdictions and agencies nationwide in the last decade. The guidelines, last revised in July 2011, address various issues, including roadway design practices, slope and terrain issues, pedestrian access to streets, sidewalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public rights-of-way. The guidelines apply to all proposed roadways in the City.

Federal Highway Administration

The Federal Highway Administration (FHWA) is the agency of the U.S. Department of Transportation (DOT) responsible for the federally funded roadway system, including the interstate highway network and portions of the primary state highway network. FHWA funding is provided through the Moving Ahead for Progress in the 21st Century Act (MAP-21). MAP-21 can be used to fund local transportation improvement projects, such as projects to improve the efficiency of existing roadways, traffic signal coordination, bikeways, and transit system upgrades.

b. State Regulations

California Department of Transportation

Caltrans is responsible for planning, designing, constructing, and maintaining all state highways. The jurisdictional interest of Caltrans includes state highways and facilities and extends to improvements to roadways at the interchange ramps serving area freeways. Any federally funded transportation improvements would be subject to review by Caltrans staff and the California Transportation Commission.

Circulation Element

California law mandates the development of a Circulation Element as part of General Plans (often titled as the “Transportation Element” or “Mobility Element”). The Circulation Element must contain the “general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, any military airports and ports, and other local public utilities and facilities,” all correlated with the land use element of the General Plan per Government Code Section 65302 (b). In addition, the General Plan must incorporate “Complete Streets” policies, as described in the section below.

Complete Streets Act

The California Complete Streets Act (AB 1358) adopted in 2008, requires that cities and other public agencies incorporate “Complete Street” policies when updating their General Plan Circulation Element. The term “Complete Streets” refers to a balanced, multimodal transportation network that meets the needs of all users of streets, including bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, public transportation, and seniors. A “Complete Street” is one that provides safe and convenient travel in a manner that is suitable to the local context. Complete Streets make travel safe for all users, including bicyclists, pedestrians, motorists, transit vehicles, and people of all ages and abilities. Each street does not need to provide dedicated space to all users, but the network must accommodate the needs of all users.

Capital Improvement Programs

California Government Code Section 65401 specifies that public works projects must be in conformity with the General Plan. In practice, this requires that the City, during each adoption of the Five-Year Capital Improvement Program (CIP), make findings that the proposed City of American Canyon Five-Year CIP is in conformance with the General Plan, including the Mobility Element.

California Public Utilities Commission

The California Public Utilities Commission (CPUC) is the State agency responsible for rail safety. The CPUC's jurisdiction includes railroad interlocking plants and public highway grade crossings. CPUC approval is required to modify a railroad interlocking plant (including construction of a new spur track) or modification to an existing public railroad grade crossing. Completion and submittal of a General Order 33-B is required for any proposed work to a railroad interlocking plant (e.g., spur track), and a General Order 88-B is required for any proposed work to a public highway grade crossing.

Senate Bill 743

California Senate Bill (SB) 743, passed in 2013, addresses a range of topics and aims to better promote statewide policies that (a) combat climate change by reducing greenhouse gas emissions and particulates; (b) encourage infill development and a diversity of uses instead of sprawl; and (c) promote multi-modal transportation networks, providing clean, efficient access to destinations and improving public health through active transportation.

SB 743 changed the way transportation impact analyses are conducted as part of compliance with the California Environmental Quality Act (CEQA). These changes eliminated automobile delay, level of service (LOS), and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant impacts under CEQA. Prior rules treated automobile delay and congestion as an environmental impact. SB 743 required the CEQA Guidelines to prescribe an analysis that better accounts for transit and reducing greenhouse gas emissions. In December 2018, Office of Planning and Research (OPR) released the final update to CEQA Guidelines consistent with SB 743 that went into effect statewide on July 1, 2020, which state that vehicle miles traveled (VMT) is “generally” the most appropriate metric of transportation impacts to align local environmental review under CEQA with California’s long-term greenhouse gas emissions reduction goals. At the same time as the release of the updated CEQA Guidelines, OPR also released a non-binding *Technical Advisory on Evaluating Transportation Impacts in CEQA*, which outlines potential VMT analysis methodologies and thresholds of significance for use by agencies in California based on substantial evidence developed by OPR related to achievement of the State’s greenhouse gas emissions reductions targets.

Although OPR provides recommendations for adopting new impact analysis guidelines, lead agencies have the final say in designing their methodology, provided that the selected analysis methodology aligns with the SB 743 goals to promote infill development, reduce greenhouse gases, and reduce VMT. The City’s approved methodology and thresholds for transportation impacts consistent with SB 743 are described in Section 4.11.3, *Impact Analysis*.

c. Regional Transportation Plans

Plan Bay Area 2050

The Regional Transportation Plan and Sustainable Community Strategy (RTP/SCS) for the San Francisco Bay Area, named Plan Bay Area 2050 was jointly produced and adopted by the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) on October 21, 2021. Plan Bay Area 2050 is the strategic update to Plan Bay Area 2040, and it connects the elements of housing, the economy, transportation, and the environment through 35 strategies that will make the Bay Area more equitable for all residents and more resilient in the face

of unexpected challenges. It is a roadmap to help Bay Area cities and counties preserve the character of our diverse communities while adapting to the challenges of future population growth. The SR 29 corridor has been designated by MTC and ABAG as a Priority Development Area (PDA), meaning that it is recognized as an area with substantial opportunity for infill development near transit. PDAs play a critical role in accommodating future growth in the regional agencies' SCS plans.

Countywide Transportation Plan

The NVTA oversees the countywide transportation plan for Napa County. The countywide transportation plan outlines priorities for the NVTA and Napa County's transportation system to relieve congestion, improve traffic safety, create more active transportation infrastructure, provide more reliable and frequent bus service, and maintain and repair the existing transportation system. Local planning efforts led by NVTA have resulted in the development of preliminary concepts for SR 29 that have been presented to the public through workshops for input and comment. Some of these initial concepts were evaluated in more detail through the regional NVTA study and subsequent public workshops. Options already discussed with the community include creative intersection capacity enhancements, including roundabout options.

d. Local Regulations

American Canyon Bicycle Plan

The City of American Canyon updated the Bicycle Plan in February 2020. The Bicycle Plan was prepared in accordance with the California Bicycle Transportation Act as part of the Napa Countywide Bicycle Plan and was coordinated with existing City and Regional Plans at the time of its adoption. The Bicycle Plan adoption was one of several City actions implementing SB 375, the Sustainable Communities Strategy Act (City of American Canyon 2020).

American Canyon Pedestrian Plan

The City of American Canyon adopted a Pedestrian Plan in June 2017. Together with the Bicycle Plan, the Pedestrian Plan creates an Active Transportation Plan that will position American Canyon to effectively compete for project funding. This plan follows the Caltrans Active Transportation Program (ATP) Guidelines, which outline statewide requirements for what should be included in active transportation plans (City of American Canyon 2017).

American Canyon Vehicle Miles Travelled Policy

SB 743 also requires local jurisdictions to reduce automobile travel by replacing LOS from transportation analysis under CEQA with Vehicle Miles Traveled ("VMT"), or another measure that "promote(s) greenhouse gas emissions reduction, development of multimodal transportation networks, and a diversity of land uses." In August 2023, the City of American Canyon adopted a Vehicle Miles Travelled (VMT) policy (Resolution 2023-72).

The City's Traffic Model calculates the existing rate of residential VMT per capita to be 16.6 miles and the existing daily rate of VMT per employee is estimated to be 34.1 miles. The VMT policy requires new development to improve the existing citywide VMT rate by 19 percent, consistent with the California Air Resources Board (CARB) 19 percent reduction target in per capita greenhouse gas emissions from passenger vehicles by 2035, when compared to 2005 for the nine-county San Francisco Bay Area region. The VMT threshold standard applies to all General Plan amendments, long-range plans, discretionary development applications, and transportation projects.

4.11.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Based on Appendix G of the CEQA Guidelines a project may be deemed to have a significant impact on transportation if it would:

1. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities;
2. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b);
3. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment); or
4. Result in inadequate emergency access

Methodology

The methodology for assessing impacts under thresholds 1, 3 and 4 is qualitative in nature and considers the existing regulations in place that would minimize potential impacts related to transit, roadway, bicycle and pedestrian facilities; geometric design features; and emergency access.

Impact TRA-2 evaluates whether the project would conflict or be inconsistent with CEQA Guidelines Section 15064.3(b), which describes specific considerations for analyzing transportation impacts as amended on July 1, 2020 pursuant to SB 375. CEQA Guidelines Section 15064.3(b) states that VMT is “generally” the most appropriate measure of transportation impacts. No particular methodology or metric is mandated by Section 15064.3(b) and the methodology or metric is left to the lead agency, bearing in mind the criteria the legislature had in mind for determining the significance of transportation impacts in SB-743. These were expressed in Public Resource Code section 21099(b)(1), which states: “[t]hose criteria shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.”

The assessment of VMT impacts for this EIR under Impact TRA-2 was determined by utilizing the American Canyon travel demand model to forecast the typical daily weekday rates of VMT per capita attributable to the residential population of American Canyon, and VMT per employee attributable to jobs in American Canyon. The American Canyon travel demand model is a trip-based model and identifies the following estimates:

- Residential VMT per capita was estimated based on the VMT attributable to home-based trip productions, to and from residences in American Canyon.
- VMT per employee was estimated based on the VMT associated with home-based work (HBW) trips, to and from places of employment in American Canyon.

VMT impacts would be considered potentially significant if the forecasted rate of residential VMT per capita or VMT per employee for the project were to exceed 81 percent of the existing rate of VMT in each category for American Canyon, based on the American Canyon travel demand model.

Table 4.11-1 summarizes the existing weekday daily rates of VMT and corresponding significance thresholds. There are an estimated 22,959 residents¹ and 4,442 jobs in American Canyon under existing conditions according to the City's Traffic Model (based on U.S. Census Bureau estimates for the years 2017 and 2018, which were adjusted to reflect land use changes since 2018). The existing rate of residential VMT per capita is estimated to be 16.6 miles and the existing daily rate of VMT per employee is estimated to be 34.1 miles per employee. VMT impacts resulting from the proposed 2040 General Plan would therefore be considered significant if the forecasted year 2040 rate of residential VMT per capita under the proposed General Plan were to exceed 13.4 miles, or if the forecasted year 2040 rate of VMT per employee were to exceed 27.6 miles.

Table 4.11-1 VMT Impact Thresholds

Scenario	Residential VMT per Capita	VMT per Employee
Existing Conditions	16.6	34.1
Significant Impact Threshold (81 percent of Existing rate)	13.4	27.6

Source: American Canyon Travel Demand Model, GHD, December 2022

b. Project Impacts and Mitigation Measures

Threshold 1: Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Impact TRA-1 THE PROJECT WOULD NOT CONFLICT WITH A PROGRAM, PLAN, ORDINANCE OR POLICY ADDRESSING THE CIRCULATION SYSTEM AND IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The 2040 General Plan would be consistent with the California Complete Streets Act (AB 1358), which requires that cities and other public agencies incorporate "Complete Street" policies when updating their General Plan Circulation Element. Complete Streets make travel safe for all users, including bicyclists, pedestrians, motorists, transit vehicles, and people of all ages and abilities. The Mobility Element incorporates the recommendations of the American Canyon Bicycle Plan and American Canyon Pedestrian Plan. The circulation network plan identified in the Mobility Element is consistent with recent regional planning efforts for SR 29 that would maintain its current 4-lane configuration. The proposed Mobility Element includes the following proposed policies that are relevant to ensuring consistency with other applicable programs and plans that emphasize multi-modal transportation, including the Complete Streets Act, American Canyon Bicycle Plan, and American Canyon Pedestrian Plan:

- **MOB-1.1: Complete Streets.** Maintain and update street standards that that serves not just automobile operations, but also multi-modal movement and adjacent land uses, including pedestrians, motorists, bicyclists, and transit riders of all ages and abilities, in a form that is compatible with and complementary to adjacent land uses, and promotes connectivity between uses and areas.
- **MOB-1.4: Development Review.** Evaluate new development to ensure that the safety, comfort, and convenience of pedestrians, bicyclists and transit users are given equal level of consideration to motor vehicle operators.

¹ These estimates are based on the City's Traffic Model, which included some properties outside the City limits. For this reason, this population number does not match the population number identified in other sections of this environmental impact report. Nonetheless, both estimates are similar.

- **MOB-1.6: Transportation Facility Construction and Modification.** When constructing or modifying transportation facilities, strive to provide for the movement of vehicles, commercial trucks, alternative and low energy vehicles, transit, bicyclists, and pedestrians appropriate for the road classification and adjacent land use.
- **MOB-1.7: Promote Walking and Bicycling.** Promote walking and bicycling for transportation, recreation, and improvement of public health.
- **MOB-1.9: SR 29 Mobility.** Work with regional partners, including Caltrans, NVTa, and other agencies to explore a complete streets approach that will expand the travel capacity of SR 29.
- **MOB-1.16: Agency Coordination.** Coordinate with State, Regional, County, and neighboring agencies to ensure highway improvements (i.e.: SR-12, SR-29, and SR-37) appropriately consider impacts to American Canyon.
- **MOB-1.17: Reduce Vehicle Miles Traveled.** Through layout of land uses, improved alternate travel modes, and provision of more direct routes, strive to reduce the total vehicle miles traveled by city and non-residents traveling to American Canyon to work or shop.
- **MOB-1.20: Bicycle Plan Funding.** Include funding for the City's Bicycle Plan updates and bikeway improvements consistent with the Bicycle Plan in the City's transportation financing program and TIF, recognizing the multi-modal travel needs of the City.
- **MOB-1.21: Address Mobility Needs.** Recognize and meet the mobility needs of persons using wheelchairs and those with other mobility limitations.
- **MOB-1.22: Non-motorized Circulation System.** Provide safe and direct pedestrian routes and bikeways between places.
- **MOB-1.23: Pedestrian Connections to Employment Destinations.** Encourage the development of a network of continuous walkways within new commercial, town center, public, and industrial uses to improve workers' ability to walk safely around, to, and from their workplaces. Where possible, route pedestrians to grade separated crossings over State Route 29.
- **MOB-1.24: Bicycle Facilities.** Bicycle facilities shall be provided to complete a continuous bikeway system, consistent with state standards, as shown on the Bikeway Plan Map. In cases where existing right of way constraints limit development of Class II or Class IV facilities, Class III signage and demarcation may be permitted at the discretion of the City Engineer. Deviations from these standards and from the routing shown on the diagram shall be permitted with the approval of the City Engineer.
- **MOB-1.26: Universal Design.** Provide pedestrian facilities that are accessible to persons with disabilities and ensure that roadway improvement projects address accessibility by using universal design concepts such as bus pullouts and shelters, street lighting, and curbside management features such as pickup/drop-off locations for shared ride/ transit network companies and spaces for delivery vehicles to park safely for short durations. *(Source: Modified Existing Policy 2.7)*
- **MOB-1.28: Coordination with Adjacent Jurisdictions.** Coordinate with adjacent jurisdictions to ensure connected and consistent non-vehicular facilities, including bridges, grade-separate crossings, as appropriate.

Compliance with these proposed policies would ensure that the project is consistent with other applicable programs and plans that emphasize multi-modal transportation and impacts would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 2: Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Impact TRA-2 THE FUTURE (2040) CITYWIDE RATE OF RESIDENTIAL VMT PER CAPITA WITH THE PROPOSED 2040 GENERAL PLAN WOULD BE HIGHER THAN THE SIGNIFICANCE THRESHOLD. THE PROJECT WOULD THEREFORE CONFLICT WITH OR BE INCONSISTENT WITH CEQA GUIDELINES 15064.3(B) AND IMPACTS WOULD BE SIGNIFICANT.

As described in the Methodology subsection of Section 4.15.3, *Impact Analysis*, VMT impacts from the project were analyzed using the City of American Canyon travel demand model. VMT impacts would be considered potentially significant if the forecasted rate of VMT per employee for the project exceed 27.6 miles or the rate of residential VMT per capita of the project exceeded 13.4 mile.

Currently, the existing rate of residential VMT per capita exceeds the significance thresholds for both VMT per Resident and VMT per Employee. Overall, future development is anticipated to add significant employment opportunities to an area that currently has fewer jobs than employed residents. As such, a larger share of future residents of American Canyon and adjacent communities would be able to reduce their work commute distance by being employed closer to their residence, supporting regional efforts to reduce VMT. Table 4.11-2 compares the model-forecasted rates of residential VMT per capita and VMT per employee under both Existing and Future (Year 2040) conditions. As shown the citywide rate of residential VMT per capita would be reduced by more than four percent from Existing/Baseline Conditions but would continue to exceed the significance threshold. VMT per employee would be reduced by more than 24 percent from Existing/Baseline Conditions and would be below the significance threshold. Therefore, transportation impacts associated with VMT would be potentially significant since the forecasted rate of 15.9 VMT per resident would exceed the significance threshold of 13.4.

Table 4.11-2 Project VMT

Scenario	VMT per Resident	VMT per Employee
Existing/Baseline Conditions	16.6	34.1
Future (2040) Conditions	15.9	25.7
Significance Threshold	13.4	27.6
Impact Finding	Significant	Less than Significant

Source: American Canyon Travel Demand Model, GHD, July 2024.

The 2040 General Plan also includes the following proposed policies that are potentially self-mitigation by increasing the use of multi-modal transportation which would reduce VMT:

- **MOB-1.1: Complete Streets.** Maintain and update street standards that that serves not just automobile operations, but also multi-modal movement and adjacent land uses, including

pedestrians, motorists, bicyclists, and transit riders of all ages and abilities, in a form that is compatible with and complementary to adjacent land uses, and promotes connectivity between uses and areas.

- **MOB-1.4: Development Review.** Evaluate new development to ensure that the safety, comfort, and convenience of pedestrians, bicyclists and transit users are given equal level of consideration to motor vehicle operators.
- **MOB-1.6: Transportation Facility Construction and Modification.** When constructing or modifying transportation facilities, strive to provide for the movement of vehicles, commercial trucks, alternative and low energy vehicles, transit, bicyclists, and pedestrians appropriate for the road classification and adjacent land use.
- **MOB-1.7: Promote Walking and Bicycling.** Promote walking and bicycling for transportation, recreation, and improvement of public health.
- **MOB-1.9: SR 29 Mobility.** Work with regional partners, including Caltrans, NVTa, and other agencies to explore a complete streets approach that will expand the travel capacity of SR 29.
- **MOB-1.16: Agency Coordination.** Coordinate with State, Regional, County, and neighboring agencies to ensure highway improvements (i.e.: SR-12, SR-29, and SR-37) appropriately consider impacts to American Canyon.
- **MOB-1.17: Reduce Vehicle Miles Traveled.** Through layout of land uses, improved alternate travel modes, and provision of more direct routes, strive to reduce the total vehicle miles traveled by city and non-residents traveling to American Canyon to work or shop.
- **MOB-1.20: Bicycle Plan Funding.** Include funding for the City's Bicycle Plan updates and bikeway improvements consistent with the Bicycle Plan in the City's transportation financing program and TIF, recognizing the multi-modal travel needs of the City.
- **MOB-1.21: Address Mobility Needs.** Recognize and meet the mobility needs of persons using wheelchairs and those with other mobility limitations.
- **MOB-1.22: Non-motorized Circulation System.** Provide safe and direct pedestrian routes and bikeways between places.
- **MOB-1.23: Pedestrian Connections to Employment Destinations.** Encourage the development of a network of continuous walkways within new commercial, town center, public, and industrial uses to improve workers' ability to walk safely around, to, and from their workplaces. Where possible, route pedestrians to grade separated crossings over State Route 29.
- **MOB-1.24: Bicycle Facilities.** Bicycle facilities shall be provided to complete a continuous bikeway system, consistent with state standards, as shown on the Bikeway Plan Map. In cases where existing right of way constraints limit development of Class II or Class IV facilities, Class III signage and demarcation may be permitted at the discretion of the City Engineer. Deviations from these standards and from the routing shown on the diagram shall be permitted with the approval of the City Engineer.
- **MOB-1.26: Universal Design.** Provide pedestrian facilities that are accessible to persons with disabilities and ensure that roadway improvement projects address accessibility by using universal design concepts such as bus pullouts and shelters, street lighting, and

curbside management features such as pickup/drop-off locations for shared ride/ transit network companies and spaces for delivery vehicles to park safely for short durations. (Source: Modified Existing Policy 2.7)

- **MOB-1.28: Coordination with Adjacent Jurisdictions.** Coordinate with adjacent jurisdictions to ensure connected and consistent non-vehicular facilities, including bridges, grade-separate crossings, as appropriate.

Compliance with these proposed policies combined with the increased provision of jobs in American Canyon would support efforts to reduce VMT. However, VMT would still exceed the significance threshold of 13.4. Typical VMT mitigation would require the implementation of transportation demand management (TDM) programs as a condition of approval for new residential development projects to achieve specific reductions in VMT. However, most successful TDM programs focus on employment sites rather than residential development. TDM programs are intended to maximize travel choices, while focusing on trip reduction and parking needs. These types of VMT reduction programs, when focused on residential development are challenging to implement and monitor. Further, the General Plan policies identified above already encompass those policies and programs that may have some likelihood of success that would otherwise be incorporated into a TDM.

As discussed above, VMT per employee would be below the significance threshold but VMT per resident would exceed the significance threshold by 2.5. As such, it is unlikely that such measures would be effective in lowering the citywide rate of VMT per resident below the applicable threshold. “an EIR need not analyze every imaginable alternative or mitigation measure, its concern is with feasible means of reducing environmental effects.” *League to Save Lake Tahoe Mountain etc. v. County of Placer* (2022) 75 Cal.App.5th 63, 159–161. Here, there are no additional known policies or mitigations measures that could feasibly be implemented that would further reduce the citywide rate of VMT per resident, more than it has already been reduced, to a less than significant level.

Mitigation Measures

Potentially self-mitigating measures are included within the 2040 General Plan which would increase the use of multi-modal transportation and could reduce VMT. However, measures to reduce specific VMT per resident are challenging to implement and monitor in a meaningful way. Other than the self-mitigating measures and policies outlined above, there is no known additional feasible mitigation that is likely to further reduce the citywide rate of VMT per resident.

Significance After Mitigation

The 2040 General Plan includes policies which would reduce VMT. However, because there is no specific mitigation to reduce VMT per resident and the General Plan policies cannot realistically enforce mitigation programs or policies that might reduce VMT below the threshold, impacts would remain significant and unavoidable.

Threshold 3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?
--

Impact TRA-3 THE PROJECT WOULD NOT SUBSTANTIALLY INCREASE HAZARDS DUE TO A GEOMETRIC DESIGN FEATURE AND IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project is a program-level planning effort which does not directly address geometric design features. The 2040 General Plan includes proposed policies that would ensure efficient circulation and adequate access are provided in the city, which would minimize hazards.

Future development would be required to comply with street design standards, Manual of Uniform Traffic Control Devices (MUTCD) requirements, fire code requirements and zoning regulations, ensuring that the adoption of the 2040 General Plan would minimize design hazards. In addition, the Mobility Element includes Vision Zero goals and policies. Vision Zero aims to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, and equitable mobility for all. The proposed Mobility Element includes the following key policies focusing on safety:

- **MOB-2.1: Vision Zero.** Strive for the elimination of all traffic fatalities and severe injuries while increasing safe, healthy, and equitable mobility for all.
- **MOB-2.2: Context Sensitive Design.** Improve multimodal transportation safety by expanding the City's non-motorized transportation infrastructure using context sensitive design.
- **MOB-2.3: Bicycle Safety.** Increase the safety of those traveling by bicycle by sweeping debris from and repairing bicycle paths and lanes.
- **MOB-2.4: Improved Bikeway Visibility.** Use visual cues, such as brightly colored paint on bike lanes or a one-foot painted buffer strip, along bicycle routes to provide a visual signal to drivers to watch out for bicyclists and nurture a "share the lane" ethic, prioritizing bikeways with recent automobile-bicycle collisions.
- **MOB-2.5: Speeds on Residential and Arterial Streets.** Explore innovative ways to reduce vehicular speeds through residential neighborhoods to posted speed limits, such as implementing traffic calming strategies such as: enhanced cross walks, lighted crosswalks, reducing lane widths, and others).
- **MOB-2.6: Site Designs and Safety.** Ensure, through the development review process, that development projects follow best design practices to reduce conflicts between multiple travel modes.

Compliance with these proposed policies, as well as compliance with existing design standards, MUTCD requirements, fire code requirements, and zoning regulations, would ensure that implementation of the project would not substantially increase hazards due to a geometric design feature or incompatible use. Impacts would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 4: Would the project result in inadequate emergency access?
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Impact TRA-4 THE PROJECT WOULD NOT RESULT IN INADEQUATE EMERGENCY ACCESS AND IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Implementation of the project would result in increased development and facilitate population growth, which would increase the number of users on the City's transportation system. The existing street and highway system (including SR 29, American Canyon Road, and streets connecting to

Vallejo streets) has sufficient capacity to ensure adequate emergency access provisions to accommodate increased population and growth. Future development would be required to comply with existing regulations, including fire code, building code, street design standards, and zoning regulations that address site-specific provisions related to emergency access. This will further ensure that the adoption of the proposed General Plan would minimize impacts on emergency access. In addition, the proposed Mobility Element includes the following policies to support a key goal of ensuring adequate evacuation routes in the event of an emergency:

- **MOB 3.1: Parallel North-South Roadway.** Prioritize construction of roadways that provide alternate vehicle access parallel to Highway 29 through American Canyon and coordinate continuation of parallel routes outside the City with Regional Agencies.
- **MOB-3.2: Evacuation Routes.** Identify important roadways that would serve as evacuation routes in the event of an emergency.
- **MOB-3.3: Natural Hazard Awareness Week.** Coordinate with the American Canyon Fire Protection District to conduct outreach to the community on emergency evacuation routes in our community.
- **MOB-3.4: Evacuation Route Obstacles.** Evaluate potential physical conditions that could impede an evaluation route. Examples include overhead utility poles, dead/ dying trees, aging infrastructure.

Compliance with these proposed policies, as well as compliance with existing regulations (i.e., fire code, building code, street design standards, and zoning regulations) that address site-specific provisions related to emergency access, would ensure that implementation of the project would not result in inadequate emergency access. Impacts would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

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4.12 Tribal Cultural Resources

This section summarizes the potential tribal cultural resources in the Planning Area and analyzes the impacts on tribal cultural resources due to the project.

4.12.1 Setting

a. Ethnographic Overview

The Planning Area is in the traditional tribal territory of the Patwin, members of the larger Wintun Tribe. Patwin territory extends from Clear Lake to the San Pablo and Suisun bays. The Patwin may be further separated into River Patwin along Sacramento River, as well as in the Sacramento and Suisun valleys towards the San Pablo and Suisun bays; and the Hill Patwin along the northern Coast Ranges, closer to Clear Lake Basin (Elliott 2011). Patwin language is a subgroup of the Penutian language family along with Wintun (Johnson 1978). Historically, the southern Patwin were distinguished from the northern Wintun, based on the linguistically distinct words for people: Wintun or Win-tu in the north and Pat-win in the south (Kroeber 1925). For this discussion, Patwin refers to both Patwin and Wintun peoples.

Political organization consists of small tribelets and several satellite settlements. A male chief would head each tribelet and direct activities. Their main purpose was to govern ceremonial and economic activities of the village. His administration included tree grove and fishing ownership, how food would be distributed among the villagers, and what ceremonies would be held and who would be invited to join (McKern 1922, Johnson 1978). This position typically passed down patrilineally. Yet, the village could determine a chief to be incompetent and village elders would then elect a new Chief based on qualifications (McKern 1922).

The Patwin family unit had three levels. The first is the paternal family, which includes the extended family following male blood relations. The second is the family social group that dictated marital matrilocality, with the husband moving to the area of his wife. On the third level, the household of the nuclear family would situate in proximity of the family social group. Other types of family-like units would take part in specific activities. Paternal families participated in one of four practices that passed down secret medicines and charms. Trade families engaged in producing or consolidating resources, such as hunted animals or musical instruments for distribution. Shamanistic families utilized supernatural powers to influence the spirits. Official families held one individual that served in an official capacity, such as ceremonial song leader or hesi dance fire tender (McKern 1922). Additionally, a series of ceremonial dances took place from October to May related to the Kuku Cult. These dances would take place in a small and secret ceremonial dance hall with an earth-covered roof (Kroeber 1925).

Patwin residential structures were typically elliptical or circular shaped and earth-covered or semi-subterranean. The earth covering was imported from outside the villages. Villages consisted of family homes, a ceremonial dance house, menstrual hut, and a sweat lodge.

Patwin subsistence practices centered on the use of acorns and other seeds as a primary food source. River Patwin would process these foods with wooden log mortars, while Hill Patwin preferred flat stone slab-and-basket hopper mortars (Elliott 2011). Both groups engaged in hunting of deer, tule elk, antelope, bear, turtles, and various species of waterfowl. Hunting was done typically with a sinew-backed bow and arrow. Fishing was a particularly important activity for the Patwin, using gates and pens to catch salmon and sturgeon, while pike, steelhead, trout, and smaller

salmon were caught with nets. Additionally, tobacco was collected from along the river and dried for smoking but not cultivated (Johnson 1978).

The Patwin made both twined and coiled basketry, usually from willow and redbud. Baskets were an important tool in their daily lives for transporting, preparing, and storing foods and burial remains. They utilized animal hides for bedding, floor mats, skirts, burial robes, and tobacco sacks. Tule balsa rafts were crafted and used to navigate rivers. Bone, mussel shell, and stone tools were used as knives (Johnson 1978).

4.12.2 Regulatory Setting

a. Federal Regulations

Archaeological Resources Protection Act

The Archaeological Resources Protection Act (ARPA) amended the Antiquities Act of 1906 (16 United States Code [USC] 431–433) and set a broad policy that archaeological resources are important to the nation and should be protected, and required special permits before the excavation or removal of archaeological resources from public or Indian lands. The purpose of the ARPA was to secure, for the present and future benefit of the American people, the protection of archaeological resources and sites that are on public lands and Indian lands, and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals having collections of archaeological resources and data that were obtained before October 31, 1979.

American Indian Religious Freedom Act

The American Indian Religious Freedom Act (AIRFA) established federal policy to protect and preserve the inherent rights of freedom for Native groups to believe, express, and exercise their traditional religions. These rights include but are not limited to access to sites, use and possession of sacred objects, and freedom to worship through ceremonials and traditional rites.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act of 1990 sets provisions for the intentional removal and inadvertent discovery of human remains and other cultural items from federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains and associated funerary objects and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any federally-funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation.

b. State Regulations

Assembly Bill 52

As of July 1, 2015, California Assembly Bill 52 of 2014 (AB 52) was enacted and expands the California Environmental Quality Act (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 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.

Senate Bill 18

California Government Code Section 65352.3 (adopted pursuant to the requirements of Senate Bill [SB] 18) requires local governments to contact, refer plans to and consult with tribal organizations prior to making a decision to adopt or amend a general or specific plan. The tribal organizations eligible to consult have traditional lands in a local government’s jurisdiction and are identified, upon request, by the Native American Heritage Commission (NAHC). As noted in the California Office of Planning and Research’s Tribal Consultation Guidelines (2005), “The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places.”

CEQA Guidelines 15064.5(c)—Effects on Archaeological Resources

CEQA Guidelines state that a resource need not be listed on any register to be found historically significant. CEQA Guidelines direct lead agencies to evaluate archaeological sites to determine whether they meet the criteria for listing in the CRHR. If an archaeological site is a historical resource, in that it is listed or eligible for listing in the CRHR, potential adverse impacts to it must be considered. If an archaeological site is considered not to be a historical resource but meets the definition of a “unique archaeological resource” as defined in PRC Section 21083.2, then it would be treated in accordance with the provisions of that section.

CEQA Guidelines Section 15064.5(d)—Effects on Human Remains

Native American human remains and associated burial items may be significant to descendant communities and/or may be scientifically important for their informational value. They may be significant to descendant communities for patrimonial, cultural, lineage, and religious reasons. Human remains may also be important to the scientific community, such as prehistorians, epidemiologists, and physical anthropologists. The specific stake of some descendant groups in ancestral burials is a matter of law for some groups, such as Native Americans (CEQA Guidelines Section 15064.5(d); PRC Section 5097.98). CEQA and other State regulations regarding Native American human remains provide the following procedural requirements to assist in avoiding potential adverse effects on human remains within the contexts of their value to both descendant communities and the scientific community:

- When an initial study identifies the existence or probable likelihood that a project would affect Native American human remains, the lead agency is to contact and work with the appropriate Native American representatives identified through the NAHC to develop an agreement for the

treatment and disposal of the human remains and any associated burial items (CEQA Guidelines Section 15064.5(d); PRC Section 5097.98).

- If human remains are accidentally discovered, the County Coroner must be contacted. If the County Coroner determines that the human remains are Native American, the Coroner must contact the NAHC within 24 hours. The NAHC must identify the Most Likely Descendant (MLD) to provide for the opportunity to make recommendations for the treatment and disposal of the human remains and associated burial items.
- If the MLD fails to make recommendations within 24 hours of notification or the project applicant rejects the recommendations of the MLD, the Native American human remains and associated burial items must be reburied in a location not subject to future disturbance within the project site (PRC Section 5097.98).

c. Local Regulations

City of American Canyon General Plan

The City's Housing Element of the General Plan includes the following policy(City of American Canyon 2023):

- **H-8.12 Yocha Dehe Wintun Nation Treatment Protocol.** In the event any Native American human remains, grave goods, ceremonial items, and items of cultural patrimony are found in conjunction with development, including archaeological studies, excavation, geotechnical investigations, grading, and any ground disturbing activity, the "Yocha Dehe Wintun Nation Treatment Protocol for Handling Human Remains and Cultural Items Affiliated with the Yocha Dehe Wintun Nation" shall be implemented as included as Appendix A to the Housing Element Background Report.

4.12.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Appendix G of the CEQA Guidelines identifies the following criteria for determining whether a project's impacts would have a significant impact to tribal cultural resources:

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.

Methodology

The presence and significance of a potential tribal cultural resource is determined through consultation between lead agencies and local California Native Americans. Impacts to tribal cultural resources are highly dependent on the nature of the resource but, in general, could occur if there is destruction or alteration of the resource and its surroundings, access restrictions to the resource, or other disturbances.

b. Project Impacts and Mitigation Measures

Threshold 1a: Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is 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)?

Threshold 1b: Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is 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?

Impact TCR-1 THE PROJECT COULD ADVERSELY IMPACT TRIBAL CULTURAL RESOURCES. IMPACTS WOULD BE LESS THAN SIGNIFICANT THROUGH CONSULTATION CONDUCTED PURSUANT TO AB 52.

On August 16, 2022 the City mailed and emailed out letters to the Cortina Band of Indians, Federated Indians of Graton Rancheria, and Yocha Dehe Wintun Nation to inform them of the proposed General Plan Update. To date, one response dated September 14, 2022 was received on from the Yocha Dehe Wintun Nation which stated that the project is within the aboriginal territories of the Yocha Dehe Wintun Nation. The Tribe requested formal consultation with the lead agency, a project timeline, detailed project information, and the latest cultural study conducted for the project. On November 16, 2022; December 9, 2022; and December 12, 2022, the City communicated with the Tribe to coordinate a date and time to meet regarding the General Plan Update. A consultation meeting was held on January 12, 2023 between City staff and representatives of the Yocha Dehe Wintun Nation. During the consultation meeting, the representatives of the Yocha Dehe Wintun Nation identified their want to take a proactive approach related to tribal cultural resources, considering that the area around American Canyon is sensitive and tribal cultural resource finds have occur. City staff identified that the 2040 General Plan would include a policy to follow the Yocha Dehe Wintun Nation Treatment Protocol in the event tribal cultural resources are found. On January 13, 2023, City staff emailed the Yocha Dehe Wintun Nation with the policies that are proposed in the 2040 General Plan to minimize impacts on tribal cultural resources.

The Environment Element of the 2040 General Plan contains the following proposed goals and policies, which would minimize impacts to tribal cultural resources within the City of American Canyon:

Goal ENV-4: Protect cultural and tribal resources.

- **Policy ENV-4.1: Preservation.** Protect areas containing significant historic, archaeological, and paleontological resources, as defined by the California Public Resources Code.

- **Policy ENV-4.2: Development.** Ensure that human remains are treated with sensitivity and dignity and ensure compliance with the provisions of California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.98.
- **Policy ENV-4.3: Yocha Dehe Wintun Nation Treatment Protocol.** In the event any Native American human remains, grave goods, ceremonial items, and items of cultural patrimony are found in conjunction with development, including archaeological studies, excavation, geotechnical investigations, grading, and any ground disturbing activity, the “Yocha Dehe Wintun Nation Treatment Protocol for Handling Human Remains and Cultural Items Affiliated with the Yocha Dehe Wintun Nation” shall be implemented as included as Appendix A to the Housing Element.

It remains a possibility that tribal cultural resources may be present within geographic areas affiliated with tribal organizations. In compliance with AB 52, a determination of whether project-specific substantial adverse effects on tribal cultural resources would occur, along with identification of appropriate project-specific avoidance, minimization, or mitigation measures. Due to the programmatic nature of the environmental analysis, it is not possible to fully determine impacts on tribal cultural resources. The project would have a less than significant impact to tribal cultural resources because project-specific tribal cultural resource consultation would occur when specific projects are implemented and because the approved 2023 Housing Element and proposed 2040 General Plan includes policies to comply with the Yocha Dehe Wintun Nation Treatment Protocol (Policy ENV-4.3).

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

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4.13 Utilities and Service Systems

This section analyzes the potential effects on utilities and service system related to implementation of the project.

4.13.1 Setting

a. Water Supply and Delivery

The City of American Canyon supplies water service to residential, commercial, and industrial users within the City and its sphere of influence (SOI). The City's potable water service area is approximately 30 square miles. The City water supply is provided from purchased or imported water sources, mainly State Water Project (SWP) water and the City of Vallejo, in addition to supplemental imported water sources. Table 4.13-1 identifies the City's current sources of water, which are discussed in detail after the table.

Table 4.13-1 Current and Projected Sources of Water Supply

Source		Contracted Volume/Capacity (Acre feet/Year)
State Water Project (Table A Allotment) ^a		5,200
Vallejo Permit Water ^b		500
Vallejo Treated Water	2011-2015	2,074
	2016-2021	2,640
	2021-Onward	3,206
Vallejo Emergency Water ^c		500
Groundwater ^d		0
American Canyon Recycled Water ^e		1,241
Napa Sanitation District-Produced Recycled		591

Notes:

^a Includes allotment for American Canyon and additional supply from Kern County Water Agency

^b Raw Water delivered pursuant to Vallejo's appropriative right (License 007848), provided pursuant to Addendum 2 dated June 4, 1998.

^c Available only in dry years

^d No groundwater is used for citywide supply

^e As reported 2020 Urban Water Management Plan (UWMP), approximately 1,241 AFY of recycled water are projected by 2035. Maximum capacity of the City's recycled water treatment system by 2035.

Source: City of American Canyon 2023

State Water Project

A significant portion of the City's water supply is obtained through various indirect contracts for water from the SWP. The Napa County Flood Control and Water Conservation District is the State Water Contractor with the California Department of Water Resources (DWR), and the City receives its water through subcontracts with the Napa County Flood Control and Water Conservation District.

Table A Allocation

In January 1967, the American Canyon County Water Agency¹ entered into an agreement with the Napa Flood Control and Water Conservation District for water supply from the North Bay Aqueduct. In 2010, the agreement allowed for the delivery of up to 5,200 acre-feet of water per year.² This contract runs through 2035 with provisions for extension. The actual amount of SWP water available to the City under the “Table A” allocation process (the method used by the DWR to allocate water in the SWP system) varies from year-to-year due to hydrologic conditions, water demands of other contractors, SWP facility capacity, and environmental/regulatory requirements. Deliveries have varied between 5 percent (in 2014) and 100 percent (last occurring in 2006) of the contracted amount.

City of Vallejo

In 1996, the City of American Canyon entered into an agreement with the City of Vallejo to allow the purchase of additional water supply. Vallejo receives its water from a variety of sources, including SWP water and an appropriative water right.

Licensed Vallejo Water (Raw)

The City of Vallejo holds an appropriative right for Sacramento Bay-Delta water from the California State Water Resources Control Board (State Water Board) that pre-dates the construction of the SWP (License 7848). The City of American Canyon has an agreement with the City of Vallejo for delivery of up to 500 acre-feet of water per year under this permit. This source of water is more reliable than the City’s Table A supply, but the agreement with Vallejo still allows for reductions. Addendum 2 to the 1996 Vallejo Agreement states that “[i]n the event the State Water Resources Control Board, or any other agency, restricts Vallejo’s diversion of water [under the appropriative pre-SWP permit] for any reason whatsoever, American Canyon’s diversions will be reduced in the same proportion.” As such, curtailment of this supply occurs less often than reductions of the City’s Table A supply due to environmental or other constraints. Nevertheless, it is possible that the City may not receive its full allotment under this agreement during dry years.³

Vallejo Treated Water (Potable)

In 1996, the City of American Canyon entered into an agreement with the City of Vallejo to purchase up to 629 acre-feet per year of potable treated water supply.⁴ This agreement included the option for additional (cumulative) purchases in 5-year increments through 2021. Ultimately, this results in a total of 3,206 acre-feet of treated water available for purchase each year by the City from Vallejo for 2021-2040. Under certain conditions, the maximum delivery of this supply may be “reduced in the same proportions as any reduction to Vallejo customers inside the Vallejo city limits.”⁵

¹ A predecessor local agency to the City of American Canyon, which was not incorporated until 1992.

² A total of 500 acre-feet of this water was obtained through a purchase of water, by the Napa Sanitation District, from Kern County Water Agency in 2000.

³ For example, Vallejo Permit Water delivery was curtailed in both 2014 and 2015 as well as in 2021 and 2022.

⁴ The 1996 Vallejo Agreement is currently the subject of litigation pending in Sacramento Superior Court (Case No. 34-2022-00327471-CU-CO-GDS). While it is speculative to discuss any potential outcome from the litigation, it should be noted that neither party seeks rescission of the underlying agreement.

⁵ Vallejo Water Service Agreement. May 1, 1996 (Page 7-7 in the 2015 American Canyon UWMP).

Vallejo Emergency Water (Raw)

When the City's Table A water allotment is curtailed, the City of American Canyon has the option to purchase up to 500 acre-feet of emergency raw water supply from Vallejo under an addendum to the 1996 Vallejo Agreement. The 2020 Urban Water Management Program (UWMP) assumes that this water would be available under dry year and multiple dry year scenarios but not during a normal year. During consecutive dry years 3 to 5, the 2020 UWMP assumes a reduction to 400 AF.

Groundwater

The City of American Canyon does not currently rely on groundwater as a source of water, though the 2020 UWMP states that the City remains open to the possibility and will consider potential supply opportunities as they present themselves.

Other Sources of Potable Supply

Dry Year Water Bank

In 2009, the City of American Canyon (along with other SWP contractors) entered into an agreement with DWR to obtain emergency supplies if rice farmers in the Sacramento Valley are willing to make their supplies available. The year-to-year availability of this supply is not known.

Turn-Back Water Pool Program

DWR has a program for interested SWP contractors called the Turn-back Water Pool Program. SWP contractors may choose to sell Table A water or purchase turn-back pool water that is available through the program. The amount of pool water available to the City of American Canyon is not a significant amount. For example, during 2010 the City purchased 17 acre-feet, and in 2012 it purchased 64 acre-feet. The City of American Canyon has not purchased water through this program since 2016.

Napa Treated Water

The City has an agreement with the City of Napa for the purchase of treated (potable) water under emergency conditions, or when the North Bay Aqueduct system is off-line for maintenance or other reasons. Napa treated water provides operational flexibility (such as providing water to customers even when the City's water treatment plant is off-line for an extended period of time). During 2010, the City purchased 306 acre-feet of treated water when the plant was off-line for maintenance-related issues. Under this informal arrangement, the Napa treated water purchase counts against the City's SWP Table A allotment. The City of American Canyon has not purchased water through this program since 2014.

Dry Year Transfer Program

During dry years, varying amounts of additional water may be made available to SWP contractors through DWR's Dry Year Transfer Program, which allows for transfers through a combination of crop idling, groundwater substitution, and changes in reservoir operation. For example, in 2015 the City of American Canyon purchased 92 acre-feet of additional supply (for that year) through this program. Because this option is available to the City on a per year authorization, the long-term reliability of this supply is not known. The City of American Canyon has not purchased water through this program since 2015.

Single Year Transfers

Single year water transfers, typically between agricultural water users and urban suppliers, are commonly used to supplement municipal supplies during dry years. Such transfers are negotiated between parties and may be subject to State Water Board approval, which is routinely granted. In adopting the most recent amendments to the Bay Delta Water Quality Control Plan, the State Water Board assumed such transfers would be employed to meet municipal demand during times of shortage.

Yuba Accord

In 2008, the DWR adopted the Lower Yuba River Accord, an agreement to settle issues related to instream flows in the Yuba River and fisheries habitat. As part of that agreement, the DWR is able to purchase water from the Yuba River Water Agency to, in part, offer to participating SWP contractors as a transfer during dry years. The Napa County Flood Control and Water Conservation District has authorized the execution of Yuba Accord Dry-year Water Purchase Agreement, and the City of American Canyon has the option to purchase water through this agreement in dry years, though at a cost that is considerably higher than under normal conditions. In 2015, the City authorized the purchase of 124 acre-feet through this program to cover projected water supply shortfalls during the drought. The City of American Canyon has not purchased water through this program since 2015.

Recycled Water

American Canyon Recycled Water

The City of American Canyon completed the first phase of its Recycled Water Distribution System Project in 2010, which included a 1-million-gallon reservoir, distribution piping, and associated improvements at the City's water treatment plant. Initially, 13 users were connected to the system and 73 acre-feet of water was delivered in 2010. The Recycled Water Master Plan projected over 1,200 acre-feet of water demand at buildout in 2035 for landscaping and agricultural irrigation (City of American Canyon 2016a). However, utilization of this supply is dependent on connection of additional users and completion of additional distribution pipe segments. Currently, the City produces recycled water to meet demand on an as needed basis. The 2020 UWMP identifies 1,241 acre-feet per year (AFY) as the full system capacity by 2035. In 2022, the Recycled Water Delivery Program allowed American Canyon to conserve more than 3-million gallons of potable water during emergency drought conditions (City of American Canyon 2024). However, due to plentiful rain and increased Sierra snowpack during the winter of 2023, the Department of Water Resources announced a 100 percent allocation from the State Water Project this year. As such, American Canyon did not continue the Recycled Water Delivery Program into 2023 or 2024 (City of American Canyon 2024).

Water Treatment Plant

The City owns, maintains, and operates the Water Treatment Plant (WTP), which has a maximum capacity of 5.5 million gallons per day (mgd) with an average daily demand of approximately 3 mgd. Treated water is delivered by gravity to the 2.5-million-gallon (MG) water storage tank located at the WTP and flows from the tank to the distribution system. The potable water distribution system consists of approximately 102 miles of water mains, 3 storage tanks, and 2 booster pump stations.

The total demand (potable and non-potable) in 2020 was approximately 2,613 acre-feet (AF) (City of American Canyon 2023). Residential demands account for 1,454 AF (56 percent) of the total demand; while commercial, industrial, and institutional demands account for 763 AF (29 percent); and landscape irrigation demands account for 139 AF (5 percent) (City of American Canyon 2023). Raw water for agricultural irrigation was 63 AF (2 percent). The remaining balance is attributed to other uses (fire hydrants, construction) at 73 AF (3 percent) and water loss of 121 AF (5 percent) (American Canyon 2023). The per capita water demand was 116 gallons per capita per day in 2020.

b. Wastewater

Introduction

The City and NapaSan provide municipal wastewater and recycled water services within the City's water service area. The City's wastewater collection system consists of gravity pipelines, two force mains (the Main and Industrial Basins from the southern and northern ends of the City, respectively) and a series of pump stations. The wastewater is conveyed to the City's Water Reclamation Facility (WRF) for treatment. Wastewater collected in the NapaSan systems is conveyed to NapaSan's Socol Water Recycling Facility, which produces treated wastewater and recycled water. The City's recycled water distribution system includes approximately 13 miles of pipeline, a pump station, and two storage tanks with capacities of 1 million gallons and 1.5 million gallons. The City's and relevant portions of the NapaSan's sewer/recycled water service area is shown in Figure 4.13-1.

Water Reclamation Facility

The City owns, maintains, and operates the Water Reclamation Facility (WRF) located near the Napa River. The WRF treats both domestic and industrial wastewater flows and is a secondary/tertiary treatment plant. It began operations in 2002 and employs a Membrane Bio Reactor and ultraviolet light disinfection. Treated wastewater discharges are regulated under National Pollutant Discharge Elimination System (NPDES) Waste Discharge Requirements Order No. R2-2022-2019. The WRF has a total wastewater treatment capacity of 2.5 mgd at average dry weather flow conditions and 5.0 mgd at peak wet weather flow conditions. In 2020, the City treated 1,625 AF of wastewater, which is equivalent to 1.45 mgd (City of American Canyon 2023).⁶ In 2020, there was 1.05 mgd of remaining capacity for wastewater treatment.

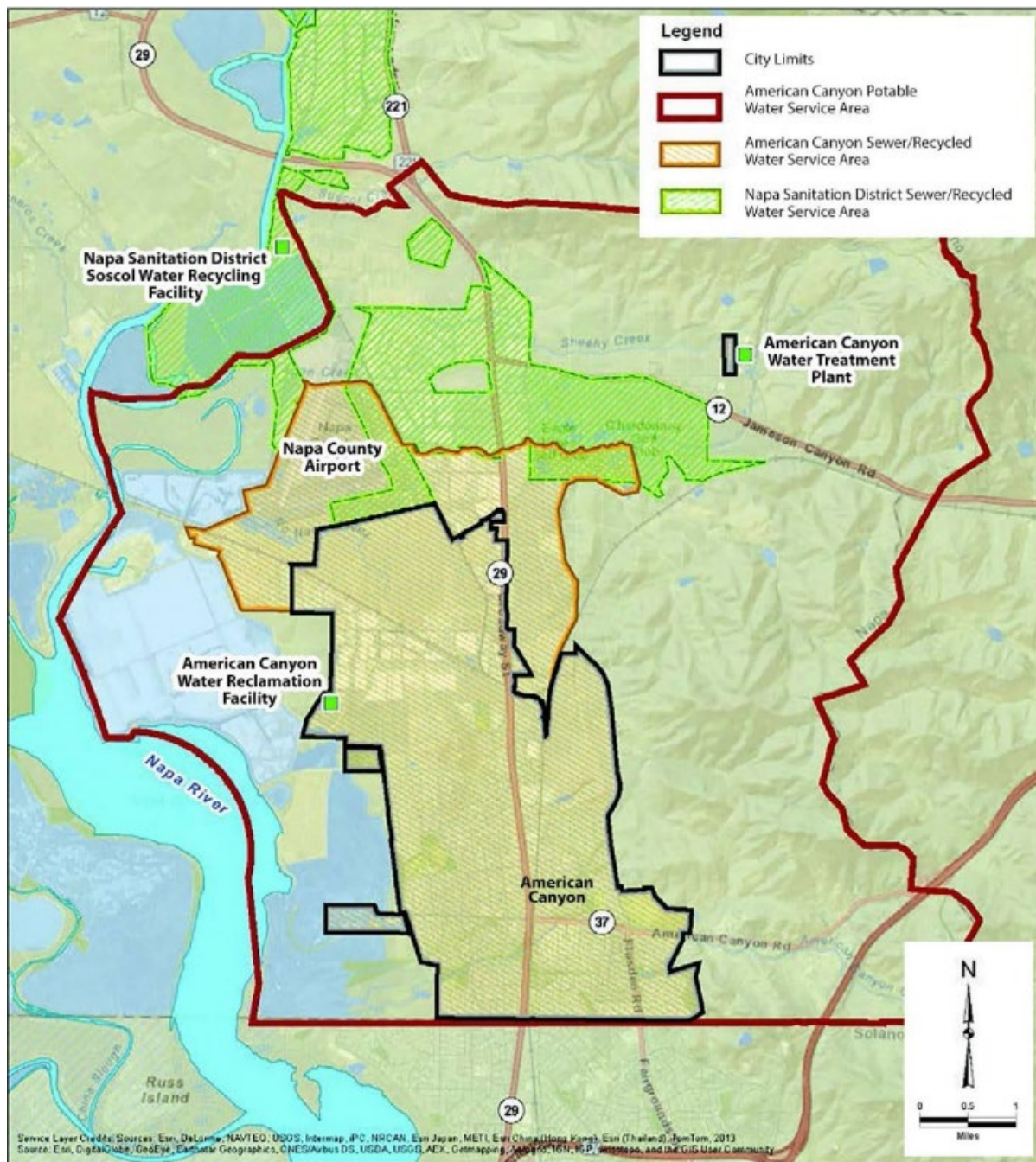
Approximately 17 percent of total influent inflow received at the WRF becomes recycled water. In 2019, 282 acre-feet of recycled water were delivered to various users for non-potable use. The remaining effluent is treated and discharged to the Napa River.

Collection System

The City's wastewater collection system consists of gravity pipelines (53 miles), force mains (5 miles), and five pump stations that convey wastewater to the City's WRF. The City's system operates its collection system to segregate domestic water from high strength industrial wastewater flows. The Kimberly Pump Station and the Sunset Meadows Pump Station collect wastewater from residential areas and deliver 75 percent of the flow to the wastewater treatment plant. The Tower Road and Green Island Sewer Pump Stations transport wastewater from industrial areas in the northern part of the City. These two stations discharge a combination of domestic and industrial wastewater to a common force main and deliver the remaining 25 percent of the flow to the WRF.

⁶ 1.45 mgd = [1,625 AF * (325,851 gallons per 1 acre foot) / 1,000,000 gallons] / 365 days per year

Figure 4.13-1 Water Service Area



a. Storm Drainage

The City of American Canyon is located along the alluvial marshlands of the east bank on the Napa River and the lower slopes of the Sulphur Springs Mountain Range. The watersheds within the City include tributary areas of five creeks. The creeks all drain in a westerly direction from the rolling hills in the east to the Napa River on the west. The existing drainage system in the City consists of natural creeks in the hilly areas, with improved channels in the upland areas and levied channels and sloughs in the lower marshlands near the Napa River.

Developed subdivisions in the City are served by piped drainage facilities that discharge into the creek channels. Watershed boundaries follow ridgelines in the upper elevations, and follow levees, roadways, and other manmade obstructions in the upland and lower watershed areas. The watershed drainages of the five primary creeks in the City are American Canyon Creek, Walsh Creek, North Slough, Fagan Creek, and Sheehy Creek.

An overview of the natural drainage systems and man-made drainage systems are provided in Section 4.15, *Effects Found To Be Less Than Significant* (see subsection 4.15.5). Major storm drainage infrastructure within the City is owned and operated by the City of American Canyon and maintained by the City's Department of Public Works. Storm drainage infrastructure includes drainpipes, concrete channels, culverts, and swales, which convey storm drainage to Rio Del Mar Creek, American Canyon Creek or North Slough before joining Napa River in the west, and then to San Francisco Bay.

The City maintains a Storm Drainage Master Plan and engineering standards that guide the development of the municipal storm drainage system (City of American Canyon 1996). The City requires stormwater discharges to comply with San Francisco Bay Regional Water Quality Control Board (San Francisco Bay RWQCB) permit requirements and establishes non-point source pollution control measures as required by federal and State law. Stormwater pollution prevention measures for new development projects, such as bioswales, detention ponds, erosion, and sedimentation control, are incorporated in the planning, design, construction, and operation of projects with the potential to create pollutants in stormwater runoff.

b. Solid Waste and Recycling

Residential and commercial trash and recycling services in the City are provided by American Canyon Recology through a franchise waste hauling agreement with the City of American Canyon. Recology transports solid waste from American Canyon to the Devlin Road Recycling & Transfer Facility (DRRTF) where it is loaded into trucks and sent to Potrero Hills Landfill (PHLF) in Suisun (Solano County).

The DRRTF is a 35-acre regional transfer station operated by the Napa-Vallejo Waste Management Authority (NVWMA), a joint powers agency. NVWMA members include the cities of Napa, American Canyon, and Vallejo (in Solano County), and County of Napa. The DRRTF is permitted by the Napa County Local Enforcement Agency as Large Volume Transfer Processing Facility. DRRTF receives solid waste primarily from NVWMA member jurisdictions and a much smaller portion of the waste stream is received from twenty to thirty non-member jurisdictions in the surrounding area. The DRRTF is permitted to receive 1,440 tons of solid waste per day (County of Napa 2008).

According to the Solid Waste Facility Permit for the PHLF, the peak tonnage of incoming waste is not to exceed 4,330 tons per day. The maximum permitted capacity of the landfill is 83.1 million cubic yards or 87.1 million tons. According to the California Department of Resources Recycling and Recovery (CalRecycle), the remaining capacity of the landfill is 13.9 million tons (CalRecycle 2022a).

PHLF is designated as a Class III landfill. This means that the landfill can accept only nonhazardous waste for disposal. The San Francisco Bay RWQCB may also, at its discretion, allow Class III landfills to accept certain types of “designated wastes.” Designated waste is defined (in the California Water Code, Section 13173) as either: (1) non-hazardous waste that consists of or contains pollutants that, under ambient environmental conditions at a waste management unit could be released in concentrations exceeding applicable water quality objectives, or that could reasonably be expected to affect beneficial uses of the waters of the state as contained in the appropriate state water quality control plan; or (2) hazardous waste that has been granted a variance from hazardous waste management requirements pursuant to Section 25143 of the Health and Safety Code.

c. Natural Gas/Electricity

Since 2016, the City has been enrolled in the Marin Clean Energy (MCE) Light Green Program, MCE’s default energy plan that offers 60 percent renewable energy. Before switching to MCE, the City was enrolled in the Pacific Gas and Electric (PG&E) 29 percent renewable option. MCE is an alternative to PG&E for energy generation. All residents and local businesses are automatically enrolled in the Light Green Program and have the option to opt up to the Deep Green Program, which offers 100 percent renewable energy. In 2021, American Canyon City Council voted to supply the City’s facilities with MCE Deep Green 100 percent renewable energy.

Some electrical and all natural gas service in the City of American Canyon is provided by PG&E. The company provides natural gas and electric service to approximately 16 million people throughout a 70,000-square-mile service area in northern and central California. PG&E maintains and services all transmission and distribution lines within the region. These transmission lines traverse the plan area, both underground and above ground. Of particular note are the high-power electrical transmission lines which run northeast by southwest through the plan area. (PG&E 2022a). A natural gas transmission pipeline runs north to south through the eastern part of the Planning Area along Newell Drive and Flosden Road (PG&E 2022b).

d. Telecommunications

Telecommunication utilities, including phone, internet, and television, are mainly a privately owned enterprise and are offered by a variety of companies in the City and its surrounding area. The number of providers offering the service, the type of service available, and the transmission speed of the service all affect the quality of telecommunications. This approach differs from that of most other utilities, which are generally publicly owned or offered by limited or individual service providers in a given area. Telecommunications providers will usually complete infrastructure and other service improvements for an area as the need arises to meet customer demand.

4.13.2 Regulatory Setting

a. Protection of Underground Infrastructure

California Government Code Section 4216

California Government Code Section 4216 et seq. requires that persons planning to conduct any excavation first contact the regional notification center. Section 4216 includes several related

requirements, including requirements for excavations near “high priority utilities,”⁷ which include high-pressure natural gas pipelines and other pipelines that are potentially hazardous to workers or the public if damaged or ruptured. Underground Service Alert North (USA North) is the regional notification center for the areas where the project would be located. USA North receives planned excavation reports and transmits the information to all participating members that may have underground facilities at the location of excavation. The USA North members then mark or stake their facility, provide information about the location, or advise the excavator of clearance.

b. Water Supply and Quality

Federal

National Pollutant Discharge Elimination System

Pursuant to Section 402 of the Clean Water Act and the Porter-Cologne Water Quality Control Act, municipal stormwater discharges in American Canyon are regulated under the San Francisco Bay Region Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit, MS4 Order No. 2013-001 (General Permit). In 1987, Congress amended the Clean Water Act to mandate controls on discharges from Municipal Separate Storm Sewer Systems (MS4s). Acting under the federal mandate and the California Water Code, RWQCBs require cities, towns, and counties to regulate activities that can result in pollutants entering their storm drains. All municipalities prohibit non-stormwater discharges to storm drains and require residents and businesses to use Best Management Practices (BMPs) to minimize the amount of pollutants in runoff. The Municipal Regional Permit is overseen by the San Francisco Bay RWQCB. On February 5, 2013, the State Water Board reissued the Phase II Stormwater NPDES Permit for small MS4s. Provision E.12, “Post-Construction Stormwater Management Program,” mandates municipalities to require specified features and facilities—to control pollutant sources, to control runoff volumes, rates, and durations, and to treat runoff before discharge from the site—be included in development plans of projects that create or replace 5,000 square feet or more impervious surface as conditions of issuing approvals and permits. The new requirements continue a progression of increasingly stringent requirements since 1989.

Provision E.12 requires all municipal permittees to implement these requirements by June 30, 2015, to the extent allowed by applicable law. This includes projects requiring discretionary approvals that have not been deemed complete for processing and discretionary permit projects without vesting tentative maps that have not requested and received an extension of previously granted approvals. In July of 2014, the Bay Area Stormwater Management Agencies Association (BASMAA), through the BASMAA Phase II Committee, created the BASMAA Manual to assist applicants for development approvals to prepare submittals that demonstrate their project complies with the NPDES permit requirements. Applicants who seek development approvals for applicable projects should follow the manual when preparing their submittals. The manual is designed to ensure compliance with the requirements and promote integrated Low Impact Development (LID) design.

Section E.12.c of the NPDES Permit pertains to LID and how it relates to hydromodification management. This permit provision requires that stormwater discharges not cause an increase in the erosion potential of the receiving stream over the existing condition. Increases in runoff flow

⁷ Consistent with California Government Code Section 4216(e), high priority utilities include natural gas pipelines carrying petroleum with normal operating pressures greater than 415kPA (60 pounds per square inch gauge); petroleum pipelines; pressurized sewage pipelines; high voltage electric supply lines, conductors, or cables that have a potential to ground of greater than 60 kilovolt; and hazardous materials pipelines that are potentially hazardous to workers or the public if damaged.

and volume must be managed so that the post-project runoff does not exceed estimated pre-project rates and durations, where such increased flow and/or volume is likely to cause increased potential for erosion of creek beds and banks, silt pollutant generation, or other adverse impacts on beneficial uses due to increased erosive force.

State

Sustainable Groundwater Management Act

In September 2014, the governor signed legislation requiring that California's critical groundwater resources be sustainably managed by local agencies. The Sustainable Groundwater Management Act gives local agencies the power to sustainably manage groundwater and requires groundwater sustainability plans to be developed for medium- and high-priority groundwater basins, as defined by the California Department of Water Resources. American Canyon underlies the Napa Sonoma Lowlands Subbasin, which is classified as a Very Low Priority basin by the DWR (DWR 2022).

California Water Code

The California Water Code contains regulations including, but not limited to water supply, safe drinking water, clean water, and water quality. More specifically, Division 24, Chapter 6, contains provisions for water supply reliability through water conservation and groundwater recharge, local projects, feasibility projects, management of Sacramento Valley water and habitat protection measures, and implementation of the river parkway program.

California Plumbing Code

The California Plumbing Code is codified in Title 24, California Code of Regulations, Part 5. The Plumbing Code contains regulations including, but not limited to, plumbing materials, fixtures, water heaters, water supply and distribution, ventilation, and drainage. More specifically, Part 5, Chapter 4, contains provisions requiring the installation of low flow fixtures and toilets. Existing development will also be required to reduce its wastewater generation by retrofitting existing structures with water efficient fixtures (Senate Bill [SB] 407 [2009] Civil Code Sections 1101.1 et seq.).

Urban Water Management Planning Act

In 1983, the California Legislature enacted the Urban Water Management Planning Act (Water Code, Section 10610 et seq.), which requires urban water suppliers to develop water management plans to actively pursue the efficient use of available supplies. Every five years, water suppliers are required to develop Urban Water Management Plans to identify short-term and long-term water demand management measures to meet growing water demands.

In preparing a UWMP, an urban water supplier must describe or identify the following, among other things (as set forth in Water Code Section 10631):

- "The service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning."
- "Projected population estimates" based on "data from the State, regional, or local service agency population projections within the service area," in "five-year increments to 20 years or as far as data is available."
- "Past and current water use" and "projected water use."

- “Existing and planned sources of water” for each five-year increment of the 20-year planning period.
- Specific detailed information about groundwater where it is identified as “an existing or planned source of water available to the supplier.”
- “All water supply projects and water supply programs” that may be undertaken to meet “total projected water use,” including “specific projects” and the “increase in water supply” expected from each project.
- An estimate of “the implementation timeline for each project or program.”
- “Plans to supplement or replace” any “water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors” with “alternative sources or water demand management measures, to the extent practicable.”
- “The reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable,” for (i) an “average water year,” (ii) a “single dry water year,” and (iii) “[m]ultiple dry water years.”
- “Opportunities for exchanges or transfers of water on a short-term or long-term basis.”
- “Opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.”
- “Water demand management measures.”

Senate Bill 610: Water Supply Assessments

As revised by Senate Bill (SB) 610 (Stats. 2002, ch. 643), Section 10910, *et seq.* of the California Water Code set forth the circumstances in which California Environmental Quality Act (CEQA) lead agencies must seek preparation of, or prepare themselves, “water supply assessments” for defined proposed “projects.” At the time a lead agency determines that a proposed project requires an Environmental Impact Report (EIR), the lead agency shall identify any “public water system” that would serve the project site and shall request that any such entity prepare a WSA for the project. In the absence of such a public water system, the city or county lead agency must prepare its own WSA. SB 610 functions together with CEQA, in that a WSA must be included in “any environmental document” for any “project” subject to SB 610 (Water Code Section 10911(b); see also State CEQA Guidelines Section 15155(e); see also *Id.* Section 15361 [defines “environmental documents” to include “Negative Declarations...[and] draft and final EIRs”]).

One of the fundamental tasks of a WSA is to determine whether “total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system’s existing and planned future uses, including agricultural and manufacturing uses” (Water Code Section 10910 (c)(3), (c)(4)). In making such a determination, the authors of the WSA must address several factors. Specifically, the WSA must contain information regarding existing water supplies, projected water demand, and dry year supply and demand. In *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 433 (“*Vineyard*”), the California Supreme Court briefly summarized the key content requirements as follows:

With regard to *existing* supply entitlements and rights, a water supply assessment must include assurances such as written contracts, capital outlay programs and regulatory approvals for facilities construction . . . but as to additional *future* supplies needed to serve the project, the assessment need include only the public water system’s plans for acquiring the additional

supplies, including cost and time estimates and regulatory approvals the system anticipates needing (Water Code §§ 10910, subd. (d)(2), and 10911, subd. (a)). (Original italics.)

“Existing” water supplies can be based on different kinds of legal rights or arrangements, including entitlements, water rights, and water service contracts. In many cases, these supplies are likely already described in detail in the supplier’s UWMP (Water Code Section 10631(b)). Suppliers are expressly permitted to rely on information contained in the most recently adopted UWMPs, provided that the water needed for proposed development project was accounted for therein (Water Code Section 10910(c)(2)).

In preparing a WSA, the public water system must disclose and document the quantity of water received from these various sources. Such supplies must be demonstrated by providing the following:

- Written contracts or other proof of entitlement to an identified water supply.
- Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system.
- Federal, State, and local permits for construction of necessary infrastructure associated with delivering the water supply.
- Any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply.

A finding of insufficiency in a WSA does not require a city or county to deny or downsize a proposed development project. Rather, after identifying a shortfall, the public water system must provide its plans for acquiring “additional supplies” (or what the California Supreme Court called “future” supplies) (Water Code Section 10911(a)). These plans should include information concerning the following:

1. The estimated total costs, and the proposed method of financing the costs, associated with acquiring the additional water supplies.
2. All federal, State, and local permits, approvals, or entitlements that are anticipated to be required in order to acquire and develop the additional water supplies.
3. Based on the considerations set forth in bullet points (1) and (2), the estimated timeframes within which the public water system, or the city and county . . . expects to be able to acquire additional water supplies.

These particular Water Code requirements for assessments are action-forcing, in that they require the public water system to lay out a roadmap for obtaining new water supplies once it becomes aware that existing supplies are insufficient for the proposed project together with other foreseeable planned growth.

Regardless of the information provided to a city or county in a WSA, SB 610 stops short of preventing cities and counties from approving the “projects” at issue absent “sufficient” water supplies. But where “existing water supply entitlements, water rights, or water service contracts” are “insufficient” to serve proposed projects, SB 610 does require that, in approving projects in the face of insufficient supplies, cities and counties must “include” in their “findings for the project[s]” their “determination[s]” regarding water supply insufficiency. SB 610 functions together with CEQA, in that a water supply assessment must be included in “any environmental document” for any “project” subject to SB 610. (*Id.* subd. (b); Guidelines, Section 15155, subd. (e); see also *id.* Section

15361 [defines “environmental documents” to include “Negative Declarations. . . [and] draft and final EIRs”]).

When a project is proposed in the Planning Area, the applicant may need to submit a WSA per SB 610 depending on the size of the project.

Recycled Water Policy

On February 3, 2009, by Resolution No. 2009-0011, the State Water Board adopted a Recycled Water Policy in an effort to move toward a sustainable water future. The Recycled Water Policy states “we declare our independence from relying on the vagaries of annual precipitation and move toward sustainable management of surface waters and groundwater, together with enhanced water conservation, water reuse and the use of stormwater.” The following goals were included in the Recycled Water Policy:

- Increase use of recycled water over 2002 levels by at least 1 million AFY by 2020 and at least 2 million AFY by 2030.
- Increase the use of stormwater over use in 2007 by at least 500,000 AFY by 2020 and at least 1 million AFY by 2030.
- Increase the amount of water conserved in urban and industrial areas by comparison to 2007 by at least 20 percent by 2020.
- Included in these goals is the substitution of as much recycled water for potable water as possible by 2030.

The Recycled Water Policy provides direction to the RWQCBs regarding issuing permits for recycled water projects, addresses the benefits of recycled water, addresses a mandate for use of recycled water and indicates the State Water Board will exercise its authority to the fullest extent possible to encourage the use of recycled water.

The Recycled Water Policy also indicates that some groundwater basins contain salts and nutrients that exceed or threaten to exceed water quality objectives established in basin plans and states that it is the intent of this Recycled Water Policy that all salts and nutrients be managed on a basin-wide or watershed-wide basis through development of regional or subregional management plans. Finally, the Recycled Water Policy addresses the control of incidental runoff from landscape irrigation projects, recycled water groundwater recharge projects, anti-degradation, control of emerging constituents and chemicals of emerging concern and incentives for use of recycled water.

In accordance with the provisions of the Recycled Water Policy, a Constituents of Emerging Concerns Advisory Panel was established to address questions about regulating constituents of concern (COCs) with respect to the use of recycled water. The Advisory Panel’s primary charge was to provide guidance for developing monitoring programs that assess potential COC threats from various water recycling practices, including groundwater recharge/reuse and urban landscape irrigation. On June 25, 2010, the Advisory Panel provided recommendations to the State Water Board and California Department of Public Health in their Final Report “Monitoring Strategies for Chemicals of Emerging Concern in Recycled Water – Recommendations of a Scientific Advisory Panel”. The State Water Board used those recommendations to amend the Recycled Water Policy in 2013 (State Water Board Resolution No. 2013-003).

The April 2013 amendment provides direction to the RWQCBs on monitoring requirements for COCs in recycled water. The monitoring requirements pertain to the production and use of recycled water

for groundwater recharge reuse by surface and subsurface application methods, and for landscape irrigation. The amendment identifies three classes of constituents to monitor:

- Human health-based COCs: COCs of toxicological relevance to human health.
- Performance indicator COCs: An individual COC used for evaluating removal through treatment of a family of COCs with similar physicochemical or biodegradable characteristics.
- Surrogates: A measurable physical or chemical property, such as chlorine residual or electrical conductivity, that provides a direct correlation with the concentration of an indicator compound. Surrogates are used to monitor the efficiency of COC treatment.

Only groundwater recharge reuse facilities would be required to monitor for COCs and surrogates. Surface application and subsurface application facilities would have different mandatory COCs and a different monitoring schedule. Monitoring is not required for recycled water used for landscape irrigation projects that qualify for streamlined permitting unless monitoring is required under the adopted salt and nutrient management plan. Streamlined permitting projects must meet the criteria specified in the Policy including compliance with Title 22, application at agronomic rates, compliance with any applicable salt and nutrient management plan, and appropriate use of fertilizers.

Water Conservation Act of 2009

Requirements regarding per capita water use targets are defined in the Water Conservation Act of 2009, which was signed into law in November 2009 as part of a comprehensive water legislation package. Known as SB X7-7, the legislation sets a goal of achieving a 20 percent reduction in urban per capita water use Statewide by 2020. SB X7-7 requires that retail water suppliers define in their 2010 UWMPs the gallons per capita per day targets for 2020, with an interim 2015 target.

Assembly Bill 1881

Assembly Bill (AB) 1881 expanded previous legislation related to landscape water use efficiency. AB 1881, the Water Conservation in Landscaping Act of 2006, enacted landscape efficiency recommendations of the California Urban Water Conservation Council for improving the efficiency of water use in new and existing urban irrigated landscapes in California. AB 1881 required the DWR to update the existing Model Local Water Efficient Landscape Ordinance and local agencies to adopt the updated model ordinance or an equivalent. The law also requires the California Energy Commission (CEC) to adopt performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

Assembly Bill 2882

AB 2882 was passed in 2008 and encourages public water agencies throughout California to adopt conservation rate structures that reward consumers who conserve water. AB 2882 clarifies the allocation-based rate structures and establishes standards that protect consumers by ensuring a lower base rate for those who conserve water.

Local

American Canyon Municipal Code

Section 13.06.090 of American Canyon Municipal Code establishes that at the time of submission of an application for a building permit for connection to the city water system, an applicant shall be required to pay a water capacity fee, in proportion to the new connection's impact on the water system.

Section 13.10 of the American Canyon Municipal Code limits new industrial water users within the City's water service area to a net use of 650 gallons per acre per day (GPAD) and requires dual-plumbing with purple pipe.⁸ For use greater than 650 GPAD, offset options include, but are not limited to, retrofit of existing residences with low flow fixtures, purchase of otherwise developable land as permanent open space, or acquisition of other water supply resources as provided for by a water supply analysis that follows the Zero Water Footprint (ZWF) methodology (see below).

American Canyon 2020 Urban Water Management Plan

The City's 2020 Urban Water Management Plan identifies the following policies that would apply to the project:

- **ZWF Policy:** This policy has a goal of no loss in reliability or increase in water rates for existing water service customers due to new demand for water within the City's water service area. Developers must ensure that all new developments offset the amount of increased potable water that will be consumed by their project on a one-to-one basis. Developers are required to minimize their demand for new potable water by using water efficient fixtures, consuming recycled water for non-potable uses when available, dual plumbing buildings, installing water wise landscaping and irrigation, and other appropriate measures. Methods for offsetting the increase in potable water consumption might include contributing to the City's existing conservation programs, converting an existing public use of potable water to recycled water, contributing to projects that reduce potable water demand, increase capacity to produce recycled water, or expand the reclaimed water system, or acquiring water supply from another source.

c. Wastewater

Federal

Federal Clean Water Act

In 1972, the 1948 Federal Water Pollution Control Act was amended to require that the discharge of pollutants into waters of the U.S. from any point source be effectively prohibited unless the discharge follows a National Pollutant Discharge Elimination System (NPDES) permit. This amendment became the basis for what was by 1977 referred to as the Clean Water Act (CWA). In 1987, the CWA was again amended to require that the USEPA establish regulations for the permitting of stormwater discharges (as a point source) by municipal and industrial facilities and construction activities under the NPDES permit program. The regulations require that discharges to

⁸ Purple pipe allows for use of recycled water for landscaping.

surface waters from municipal separate storm sewer system (MS4)⁹ be regulated by an NPDES permit.

Regulations on storm water discharges from MS4s were implemented with a two-phased program. Phase I, promulgated by USEPA in November 1990, requires NPDES permits for storm water discharges from MS4s serving populations of 100,000 or greater, construction sites disturbing greater than 5 acres of land, and ten categories of industrial activities. The USEPA recognized that smaller construction projects (disturbing less than 5 acres) and small MS4s (serving populations smaller than 100,000) were also contributing substantially to pollutant discharges nationwide. Therefore, to further improve storm water quality, the USEPA promulgated the NPDES Phase II program (*Federal Register* Vol. 64, No. 235, December 8, 1999). The Phase II regulations became effective on February 7, 2000, and require NPDES permits for storm water discharges from regulated small MS4s and for construction sites disturbing between 1 acre and 5 acres of land.

State and Regional

Standards for wastewater treatment plant effluent are established using State and federal water quality regulations. After treatment, wastewater effluent is either disposed of or reused as recycled water. The Regional Water Quality Control Board (RWQCBs) set the specific requirements for community and individual wastewater treatment and disposal and reuse facilities through the issuance of Waste Discharge Requirements, required for wastewater treatment facilities under the California Water Code Section 13260.

The California Code of Regulations Title 22, Division 4, Chapter 3, Sections 60301 through 60355 are used to regulate recycled wastewater and are administered by the RWQCBs. Title 22 contains effluent requirements for four levels of wastewater treatment, from un-disinfected secondary recycled water to disinfected tertiary recycled water. Higher levels of treatment have higher effluent standards, allowing for a greater number of uses under Title 22, including irrigation of freeway landscaping, pasture for milk animals, parks and playgrounds, and vineyards and orchards for disinfected tertiary recycled water.

Local

American Canyon Municipal Code

Section 14.06.020 establishes that at the time of submission of application for building permit for connection to the city wastewater collection system, an applicant shall pay a wastewater capacity fee in proportion to use of the capacity of the wastewater system.

d. Stormwater

Federal

Federal Clean Water Act

The federal Clean Water Act is described above.

⁹ An MS4 is a conveyance or system of conveyances designed or used to collect or convey stormwater (e.g., storm drains, pipes, ditches) that are that owned by a state, city, town, or other public entity and discharge to waters of the United States.

State

General Construction Activity Storm Water Permit

The *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*, Order No. 2009-0009-DWQ, NPDES No. CAS000002, as amended by Order Nos. 2010-0014-DWQ and 2012-0006-DWQ (Construction General Permit), adopted by the State Water Board, regulates construction activity that includes clearing, grading, and excavation resulting in soil disturbance of at least one acre of total land area. The Construction General Permit authorizes the discharge of stormwater to surface waters from construction activities. The Construction General Permit requires that all developers of land where construction activities will occur over more than 1 acre do the following:

- Complete a Risk Assessment to determine pollution prevention requirements pursuant to the three risk levels established in the General Permit;
- Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the United States;
- Develop and implement a construction Storm Water Pollution Prevention Plan (SWPPP) that specifies Best Management Practices (BMPs) that will reduce pollution in stormwater discharges to the Best Available Technology/ Economically Achievable/Best Conventional Pollutant Control Technology standards;
- Perform inspections and maintenance of all BMPs; and
- Conduct stormwater sampling, if required based on risk level.

To obtain coverage under the Construction General Permit, a project applicant must electronically file all permit registration documents with the State Water Board prior to the start of construction. Permit registration documents must include a:

- Notice of Intent (NOI),
- Risk Assessment,
- Site map,
- Construction SWPPP,
- Annual fee, and
- Signed certification statement.

Typical BMPs contained in construction SWPPPs are designed to minimize erosion during construction, stabilize construction areas, control sediment, and control pollutants from construction materials. The construction SWPPP must also include a discussion of the program to inspect and maintain all BMPs.

Local

American Canyon Municipal Code

Section 14.28.082 of the American Canyon Municipal Code identifies that the City may establish volume and rate of stormwater controls from new developments and redevelopment as may be appropriate to minimize peak flows or total runoff volume, and to mimic the pre-development site

hydrology. This section also includes the requirement that qualifying projects prepare a SCP that meets the criteria in the BASMAA Post Construction Manual.

e. Solid Waste

Federal

Title 40 of the Code of Federal Regulations

Title 40 of the Code of Federal Regulations, Part 258 (Resource Conservation and Recovery Act, Subtitle D), contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the Federal landfill criteria.

State

California Code of Regulations Title 14

The California Code of Regulations Title 14, Division 7, outlines current CalRecycle regulations pertaining to non-hazardous waste management in California, which includes minimum standards for solid waste handling and disposal; compostable materials handling operations and facilities regulatory requirements; standards for handling and disposal of asbestos containing waste; resource conservation programs; enforcement of solid waste standards and administration of solid waste facility permits; special waste standards; used oil recycling program; electronic waste recovery and recycling; mandatory commercial recycling; and short-lived climate pollutants.

Assembly Bill 341

The purpose of Assembly Bill (AB) 341 of 2011 (Public Resource Code [PRC] Chapter 476, Statutes of 2011) is to reduce greenhouse gas emissions by diverting commercial solid waste to recycling efforts and to expand the opportunity for additional recycling services and recycling manufacturing facilities in California. In addition to Mandatory Commercial Recycling, AB 341 sets a statewide goal for 75 percent disposal reduction by the year 2020.

Senate Bill 1383

SB 1383 of 2016 (PRC Chapter 395, Statutes of 2016) established the following goals: a 50-percent reduction in the level of the statewide disposal of organic waste from 2014 levels by 2020, and a 75-percent reduction in the level of the statewide disposal of organic waste from 2014 levels by 2025. This bill also authorized CalRecycle to adopt regulations, to take effect on or after January 1, 2022, to achieve these targets.

Assembly Bill 939

AB 939 (PRC 41780) requires cities and counties to prepare integrated waste management plans and to divert 50 percent of solid waste from landfills beginning in calendar year 2000 and each year thereafter. AB 939 also requires cities and counties to prepare source reduction and recycling elements as part of the integrated waste management plans. These elements are designed to develop recycling services to achieve diversion goals, stimulate local recycling in manufacturing, and stimulate the purchase of recycled products.

Assembly Bill 1826

AB 1826 of 2014 (PRC Chapter 727, Statutes of 2014) requires businesses that generate a specified amount of organic waste per week to arrange for recycling services for that waste, and that jurisdictions implement a recycling program to divert organic waste from businesses subject to the law. The jurisdictions must report to CalRecycle on their progress in implementing an organic waste recycling program. As of January 1, 2017, businesses that generate four cubic yards or more of organic waste per week shall arrange for organic waste recycling services.

Senate Bill 1016

SB 1016 requires that the 50 percent solid waste diversion requirement established by AB 939 be expressed in pounds per person per day. SB 1016 changed the CalRecycle review process for each municipality's integrated waste management plan. After an initial determination of diversion requirements in 2006 and establishing diversion rates for subsequent calendar years, the Board reviews a jurisdiction's diversion rate compliance in accordance with a specified schedule. Since January 1, 2018, the Board is required to review a jurisdiction's source reduction and recycling element and hazardous waste element once every two years.

Local

American Canyon Municipal Code

Section 8.20 of the American Canyon Municipal Code includes requirements for mandatory municipal solid waste, recycling, and composting material disposal reductions. Section 8.20.030 includes the requirements for commercial businesses, which would apply to the project. Section 8.20.100 requires new buildings to comply with California Green Building Standards (CALGreen), including the requirements for new commercial buildings to provide readily accessible areas identified for blue container and green container material storage and collection, consistent with the three-container collection program offered by the city, as well as compliance with CALGreen requirements for diverting construction and demolition debris.

f. Electric Power and Natural Gas

State

California Energy Commission

As the State's primary energy policy and planning agency, the CEC collaborates with State and federal agencies, utilities, and other stakeholders to develop and implement State energy policies. Since 1975, the CEC has been responsible for reducing the State's electricity and natural gas demand, primarily by adopting new Building and Appliance Energy Efficiency Standards that have contributed to keeping California's per capita electricity consumption relatively low. The CEC is also responsible for the certification and compliance of thermal power plants 50 megawatts and larger, including all project-related facilities in California (CEC 2022).

California Public Utilities Commission

The California Public Utilities Commission (CPUC) regulates investor-owned electric and natural gas utilities operating in California. The energy work responsibilities of the CPUC are derived from the California State Constitution, specifically Article XII, Section 3 and other sections more generally, numerous State legislative enactments and various Federal statutory and administrative

requirements. The CPUC regulates natural gas utility service for approximately 10.8 million customers that receive natural gas from PG&E and other natural gas utilities across California (CPUC 2022a).

Local

American Canyon Municipal Code

Section 18.40.120 of the American Canyon Municipal Code requires that all utilities be installed underground in accordance with the provisions of the American Canyon Municipal Code. It also requires that all underground utilities be installed before preparation of subgrade for paving or any other site improvements that may affect the orderly installation of the underground utilities.

4.13.3 Impact Analysis

a. Significance Thresholds and Methodology

Based on Appendix G of the CEQA Guidelines a project may be deemed to have a significant impact on utilities and service systems if it would:

1. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
2. Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years;
3. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
4. 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; or
5. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Methodology

This analysis considers the existing capacity of utilities serving the City, estimates qualitatively and quantitatively the potential additional demand on utilities, and identifies whether the existing system can serve the demand of the existing demand plus the project's estimated demand.

b. Project Impacts and Mitigation Measures

Threshold 1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

IMPACT UTL-1 DEVELOPMENT FACILITATED BY THE PROJECT WOULD INCREASE DEMAND FOR WATER, WASTEWATER, ELECTRIC POWER, TELECOMMUNICATIONS, AND STORMWATER DRAINAGE; HOWEVER, NO ADDITIONAL RELOCATION OR CONSTRUCTION OF UTILITY SERVICES WOULD BE REQUIRED TO SERVICE THE PROJECT BEYOND CONNECTIONS TO EXISTING UTILITIES. THE PROJECT WOULD RESULT IN A MINIMAL INCREASE IN NATURAL GAS DEMAND. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Water and Wastewater

Growth and development facilitated by the 2040 General Plan would create additional demand for water. Development facilitated by the 2040 General Plan would occur within developed areas of the City, generally as infill development or redevelopment. Therefore, water infrastructure exists and is available for new development. Water infrastructure, such as pipelines, could require upgrades for future development. Installation of upgraded infrastructure would result in ground disturbance. Generally, this ground disturbance would occur in previously disturbed or developed areas, reducing the potential for environmental impacts. Such facilities would be installed during individual project construction and generally within the disturbance area of such projects or the rights-of-way of previously disturbed roadways; therefore, the construction of these infrastructure improvements would not substantially increase the project's disturbance area or otherwise cause significant environmental effects beyond those already identified throughout this EIR.

In addition, the City of American Canyon has several policies to address and minimize additional water demand, as well as wastewater. Sections 13.06.090 and 14.06.020 of the American Canyon Municipal Code require any applicants for development within the City or its sphere of influence that will be served by the City to pay a water capacity fee and wastewater capacity fee, respectively in proportion to the new connection's impact on the water and wastewater system. The payment of this fee will help ensure that the City has sufficient capacity within its water and wastewater system to accommodate the project. In addition, and as described in further detail in Impact UTL-2, all projects must implement the ZWF policy to have a net zero water demand. Furthermore, the 2040 General Plan includes the following proposed policies related to water and wastewater facilities:

Goal U-1: Water Reliability. Establish and maintain a secure water supply and treatment, distribution, and storage system to serve the land uses proposed under the general plan.

- **Policy U-1.2: Facility Upgrades.** Require construction of upgraded and expanded, distribution, storage, and treatment facilities to support existing and new development.
- **Policy U-1.3: Upgrade Responsibilities.** Ensure that improvements to the existing water supply, distribution, storage, and treatment facilities are borne by project proponent in proportion to benefit; either through the payment of fees, or by the actual construction of the improvements.
- **Policy U-1.5: Adequate Supply Prior to Occupancy.** Implement a Will Serve Process to ensure adequate water supply, distribution, storage, and treatment facilities is available to serve a project prior to the issuance of certificates of occupancy.

Goal U-2: Water Conservation. Establish policies that make the most efficient use of our water resources to for a variety of public benefits, such as: improve water reliability, reduce greenhouse gas emissions, and minimize environmental impacts from drawing water from the environment.

- **Policy U-2.1: Zero Water Footprint.** Ensure new development offsets potable water demand by funding or constructing potable water conservation efforts elsewhere in the water delivery system.
- **Policy U-2.2: City Facilities Retrofits.** Improve water use efficiency at City facilities through retrofits, recycled water usage, and employee education.
- **Policy U-2.3: Retrofits Existing Buildings.** Promote existing buildings upgrades to support water conservation by encouraging owners of residential, commercial, and industrial properties to replace inefficient plumbing fixtures, install drought-tolerant and water-wise landscaping, and harvest rainwater for landscaping and other household uses.

Goal U-3: Wastewater Treatment Capacity. Establish and maintain adequate planning, construction, maintenance, and funding for wastewater collection and treatment facilities to support land uses; upgrading existing deficient systems, and expanding, where necessary, in the City's service area.

- **Policy U-3.1: Demand Requirements for Facilities.** Through the Capital Improvement Plan process, ensure wastewater collection and treatment facilities are installed, maintained, and upgraded in a timely manner to meet usage requirements and maximize cost efficiency.
- **Policy U-3.2: Capacity Demand.** Require all new development to evaluate sewer capacity demand during the discretionary review process.

Implementation of the 2040 General Plan would result in new connections to the existing water and wastewater system but would not create a substantial water demand (due to implementation of the American Canyon Municipal Code and policies), such that new or expanded water or wastewater facilities would be needed. The water connections associated with the project would not cause significant environmental effects beyond those already identified throughout this EIR. As such, impacts related to potential new water and wastewater facilities would be less than significant.

Stormwater

As discussed in Section 4.15, *Effects Found To Be Less Than Significant*, runoff associated with future development and mobility improvements would be regulated by Section 14.28 of the American Canyon Municipal Code, which ensure compliance with the Phase II MS4 Permit. Compliance with these regulations would ensure that future development facilitated by the 2040 General Plan would mimic the pre-development site hydrology, which would ensure that there is proper stormwater drainage on the project site and would minimize any operational impacts related to water quality or flooding. The project would not require any new or expanded stormwater facilities, beyond what would be installed pursuant to the regulatory requirements in Section 14.28 of the American Canyon Municipal Code. Furthermore, the 2040 General Plan includes the following proposed policies related to stormwater facilities:

Goal U-4: Flood Control. Establish and maintain adequate planning, construction, maintenance, and funding for storm drain and flood control facilities to support permitted land uses and preserve public safety.

- **Policy U-4.1: Storm Drainage Maintenance.** Maintain existing public storm drains and flood control facilities and construct upgraded and expanded storm drain and flood control facilities, where necessary, to protect existing and accommodate new permitted development.

- **Policy U-4.3: Financial Obligations.** Ensure new storm drain and flood control facility costs are borne by the project proponent in proportion to benefit; either through the payment of fees, or by constructing new improvements.
- **Policy U-4.9: Floodwater Diversions.** Implement engineering standards that prevent new development from increasing historical stormwater flows onto neighboring properties.

Goal U-5: Stormwater Quality. Maintain the quality of surface and subsurface water resources within the City of American Canyon and its Planning Area.

- **Policy U-5.1: Passive Treatment Systems.** Consistent with engineering standards and water quality regulations, reduce pollutant loading through passive treatment systems such as vegetated filter strips, grass swales, and infiltration/sedimentation areas in suitable open space areas and incorporated into landscaping adjacent to parking lots and streets.
- **Policy U-5.2: Water Detention Facilities.** Consistent with engineering standards and water quality regulations, require new and existing development to include drainage detention facilities that enhance the quality of water discharges from the facility.
- **Policy U-5.4: Storm Water Permitting.** Require industrial operations to obtain coverage under the State Storm Water Permit For Industrial Activities, and comply with provisions of the Permit, through notification and educational activities.

These policies would ensure current and future development in the City of American Canyon would comply with stormwater facilities. Therefore, impacts related to potential new stormwater facilities would be less than significant.

Electricity/Natural Gas

The project would require connections to existing electrical transmission and distribution systems in the City to serve development facilitated by the project. This service would be provided in accordance with the rules and regulations of both MCE and PG&E and under the authority of the CPUC. Based on the availability of existing electrical infrastructure, it is not anticipated that the construction of new electrical transmission and distribution lines would be required, and all sites would be able to connect to existing infrastructure. Furthermore, the 2040 General Plan includes the following proposed policies related to electrical facilities:

Goal U-9: Energy Resilience and Conversation. Improve energy system resilience with energy conservation and access to renewable energy sources.

- **Policy U-9.2: Electric Energy Systems.** Coordinate with Pacific Gas and Electric Company (PG&E) to ensure that electrical energy systems do not adversely impact land uses and population in the City of American Canyon.
- **Policy U-9.3: Resilient Grid.** Cooperate with PG&E to obtain applicable City permit approvals that improve electric grid resilience to natural hazards (seismic events, flooding, wildfires, extreme wind events).
- **Policy U-9.4: Overhead Utility Undergrounding.** Develop a comprehensive strategy to underground existing overhead utilities.

These policies would ensure current and future development in the City of American Canyon would lessen impacts on electrical facilities. In addition, as required by proposed Policy U-9.4, future

development would be subject to review for utility undergrounding which would further reduce impacts such as wildfire. Therefore, there would be adequate electrical facilities to serve development facilitated by the project. Impacts related to potential new electrical facilities would be less than significant.

The following proposed policy from the Utilities element would reduce demand on natural gas:

- **Policy U-9.1: Reach Building Code.** Reduce energy use in new development by considering a local amendment that requires a 15% energy efficient standard improvement over the California Building Code.

If future development requires natural gas, then development facilitated by the project would connect to existing natural gas infrastructure to meet the needs of residents and tenants. Based on the availability of existing natural gas infrastructure, construction of new natural gas pipelines would not be required, and development would be able to connect to existing infrastructure. Therefore, there would be adequate natural gas facilities to serve the development facilitated by the project and impacts related to potential new natural gas facilities would be less than significant.

Telecommunications

Implementation of the project would require connections to existing utility infrastructure to meet the needs of future development. Based on the availability of existing telecommunications infrastructure, construction of new telephone and cable lines would not be required, and all sites would be able to connect to existing infrastructure. Development facilitated by the project would be required to adhere to applicable laws and regulations related to the connection to existing telecommunication infrastructure. Therefore, there would be adequate telecommunications facilities to serve the development facilitated by the project and impacts related to potential new telecommunications facilities would be less than significant.

Conflicts with Existing Utilities

Existing underground utilities are located within the Planning Area. Because development facilitated by the project would require excavation, construction could result in conflicts to underground utilities. As required by Government Code Section 4216, applicants for development would be required to contact USA North to avoid underground utilities during construction. As such, impacts on underground utilities would be less than significant.

Mitigation Measure

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 2: Would the project have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

IMPACT UTL-2 THE PROJECT WOULD INCREASE DEMAND FOR WATER. WATER SUPPLY FOR THE PROJECT WOULD BE PROVIDED BY THE CITY OF AMERICAN CANYON FROM EXISTING AND PLANNED SUPPLY SOURCES INCLUDING IMPORTED WATER AND SUPPLEMENTAL WATER PURCHASED FROM THE CITY OF VALLEJO AS WELL AS LOCALLY DEVELOPED RECYCLED WATER. POTENTIAL IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Development facilitated by the project would create additional demand for water. The water demand for the project was estimated using water demand rates for land use types identified in the American Canyon Potable Water Master Plan and the Broadway District Specific Plan EIR (City of American Canyon 2016, 2019). Each development type has its own associated water use factor by unit, which were used to calculate projected water demand volumes for each type of development. Table 4.13-2 summarizes the estimated water demand from the project. Overall, the project is estimated to increase annual water demand by 0.18 mgd or 207 AFY, in addition to existing demand.

Table 4.13-2 Projected Water Demand

Development Type	Estimated Project Buildout ^b	Water-use factor ^c	Projected Water Demand ^a		
			gpd	mgd	AFY ^d
Residential					
Single-Family	238 units	266 gpd/unit	63,308	0.05	56
Multi-Family ^e	513 units	160 gpd/unit	82,080	0.07	78
Non-Residential					
Office	65,000 sf	0.21 gpd/sf	13,650	0.01	11
Commercial	4 acres ^f	1,445 gpd/acre	5,780	0.005	6
Industrial	99 acres ^g	650 gpd/acre	64,350	0.05	56
Total			229,168	0.18	207

Source: City of American Canyon 2016, 2023

Notes:

a. gpd = gallons per day; sf = square foot; mgd = million gallons per day; AFY = acre feet per year

b. The total estimated project buildout has been revised to exclude two projects previously evaluated in the 2020 UWMP: the Watson Ranch Project and the Broadway District Specific Plan because these two projects were considered within total projects demand and supply for the city through 2040. Therefore, the estimated project buildout reflects the net additional projected water demand of the project.

c. The single-family, multi-family, and office water use factors are from the Broadway District Specific Plan EIR (City of American Canyon 2019). The commercial and industrial water use factors are from the City of American Canyon Potable Water Master Plan (City of American Canyon 2016).

d. AFY Calculated by dividing mgd by 0.000892, which is the amount of mgd that are in 1 AFY.

e. Moderate- and high-density residential water-use rate.

f. The acreage of commercial buildout was calculated by 189,000 sf / 43,560

g. The acreage of industrial buildout was calculated by 4,310,000 sf / 43,560

The City's UWMP identifies the existing and projected supply and water demand for normal, dry, and multiple dry years. These projections are summarized in Table 4.13-3, which accounts for water supply sources including imported SWP water purchased from the City of Vallejo and supplemental water supply purchased from the City of Vallejo (City of American Canyon, 2023).

Table 4.13-3 2020 UWMP Projected Water Supply and Demand

	2025	2030	2035	2040
Normal Years				
Supply Totals (af/yr)	4,959	4,959	5,575	5,575
Demand Totals (af/yr)	3,543	3,785	4,580	4,822
Difference	1,416	1,174	994	753
Single-Dry Year				
Supply Totals (af/yr)	1,897	1,897	2,132	2,132
Demand Totals (af/yr)	3,543	3,785	4,580	4,822
Difference	-1,646	-1,888	-2,448	-2,689
Multiple Dry Years (First Year)				
Supply Totals (af/yr)	3,359	3,359	3,776	3,776
Demand Totals (af/yr)	3,543	3,785	4,580	4,822
Difference	-184	-426	-804	-1,046
Multiple Dry Years (Second Year)				
Supply Totals (af/yr)	3,359	3,359	3,776	3,776
Demand Totals (af/yr)	3,543	3,785	4,580	4,822
Difference	-184	-426	-804	-1,046
Multiple Dry Years (Third Year)				
Supply Totals (af/yr)	3,251	3,251	3,655	3,655
Demand Totals (af/yr)	3,543	3,785	4,580	4,822
Difference	-291	-534	-925	-1,167
Multiple Dry Years (Fourth Year)				
Supply Totals (af/yr)	3,251	3,251	3,655	3,655
Demand Totals (af/yr)	3,543	3,785	4,580	4,822
Difference	-291	-534	-925	-1,167
Multiple Dry Years (Fifth Year)				
Supply Totals (af/yr)	3,251	3,251	3,655	3,655
Demand Totals (af/yr)	3,543	3,785	4,580	4,822
Difference	-291	-534	-925	-1,167

Source: City of American Canyon 2023

As shown in Table 4.13-2, the proposed project would increase water demands projected in the City's UWMP by approximately 207 AFY; as shown in Table 4.13-3, which accounts for imported water and supplemental water purchased from the City of Vallejo, the UWMP projects water supply shortages during single-dry and multiple-dry year conditions. As discussed in Chapter 8 of the UWMP and Municipal Code Chapter 13.14, the City addresses dry-year conditions through implementation of its Water Shortage Contingency Plan (WSCP) to conserve water and reduce demand such that available water supply is sufficient to meet demands.

In addition to purchased water and water savings from conservation, the City also produces recycled water and plans to produce up to 1,000 AFY of recycled water with buildout of 15 capital improvement projects to expand its existing recycled water capabilities. Table 6-2 of the UWMP shows that approximately 1,625 acre-feet of wastewater was collected within the City of American

Canyon in 2020; Table 6-5 of the UWMP shows that 513 acre-feet of recycled water was projected for use in 2020, while only 151 acre-feet of recycled water was used in 2020 (City of American Canyon, 2023). These rates demonstrate there is capacity to expand the existing recycled water system and increase existing rates of recycled water use. This would occur through implementation of recycled water projects listed in Table 6-6 of the UWMP, which would provide up to 988 AFY of additional water supply as recycled water. Recycled water can be used for non potable purposes including landscaping and irrigation, offsetting demands for potable water uses.

As discussed above, the proposed project would increase local water demands by approximately 207 AFY beyond the demands accounted for in the UWMP, which projects water supply shortages during single-dry and multiple-dry years. However, the supply projections shown above do not account for buildout of the City's planned recycled water projects, which would provide approximately 988 AFY of recycled water that can be used to offset potable water demands. In addition, implementation of the City's existing WSCP during dry year conditions reduces water demands through conservation to ensure supply reliability from existing sources including imported water and supplemental water purchased from the City of Vallejo.

Furthermore the City's ZWF Policy requires the potable water demands of new development within the City's service area to be offset on a one-to-one basis, ensuring no net increase of potable water demands. This may be accomplished by using water efficient fixtures, using recycled water for non-potable uses when available, dual plumbing buildings, installing water wise landscaping and irrigation, and other appropriate measures (City of American Canyon 2023). Other methods for offsetting potable water use under the ZWF Policy include contributing to the City's existing conservation programs; converting an existing public use of potable water to recycled water; contributing to projects that reduce potable water demand; increasing capacity to produce recycled water; expanding the reclaimed water system; or acquiring water supply from another source.

In addition, the American Canyon Municipal Code Chapter 13.10 (New Water and Sewer Connections and Services) limits new industrial water users within the City's water service area to a maximum of 650 gallons per acre per day and requires dual plumbing with purple pipe.¹⁰ For use greater than 650 gallons per acre per day, offset options include but are not limited to, retrofit of existing residences with low flow fixtures, purchase of otherwise developable land as permanent open space, or acquisition of other water supply resources as provided for by a water supply analysis that follows the ZWF methodology (City of American Canyon 2023).

The 2040 General Plan also includes the following proposed policies related to water supply:

Goal U-1: Water Reliability. Establish and maintain a secure water supply and treatment, distribution, and storage system to serve the land uses proposed under the general plan.

- **Policy U-1.1: Supplemental Surface Water.** Support efforts to increase water supply from a variety of sources, such as participation in programs with other NBA users to obtain supplemental surface water through a water transfer from another area, investment in the Sites Reservoir, local rainwater capture, and other feasible sources.
- **Policy U-1.4: Urban Water Management Plan.** Prepare a framework for long-term water planning consistent with the State Urban Water Management Planning Act (UWMP Act), by preparing and adopting an Urban Water Management Plan (UWMP) once every five years.

¹⁰ Purple pipe allows for use of recycled water for landscaping.

- **Policy U-1.5: Adequate Supply Prior to Occupancy.** Implement a Will Serve Process to ensure adequate water supply, distribution, storage, and treatment facilities is available to serve a project prior to the issuance of certificates of occupancy.
- **Policy U-1.6: Water Service Priority.** Consistent with State Law, in times of constrained water service expansion capacity, prioritize affordable housing developments as defined in California Government Code 65589.7 or any successor statute. The second priority is provided to water connections and services to residences and businesses located within the city corporate boundaries.

Goal U-2: Water Conservation. Establish policies that make the most efficient use of our water resources for a variety of public benefits, such as: improve water reliability, reduce greenhouse gas emissions, and minimize environmental impacts from drawing water from the environment.

- **Policy U-2.1: Zero Water Footprint.** Ensure new development offsets potable water demand by funding or constructing potable water conservation efforts elsewhere in the water delivery system.
- **Policy U-2.3: Retrofit Existing Buildings.** Promote existing buildings upgrades to support water conservation by encouraging owners of residential, commercial, and industrial properties to replace inefficient plumbing fixtures, install drought-tolerant and water-wise landscaping, and harvest rainwater for landscaping and other household uses.
- **Policy U-2.5: Recycled Water Use.** Subject to State regulations and organizational capacity, consider new ways that recycled water can replace potable water.

As discussed above, the proposed project would increase local water demands by approximately 207 AFY beyond the demands accounted for in the 2020 UWMP, which projects water supply shortages during single-dry and multiple-dry years. However, the supply projections shown above do not account for buildout of the City's planned recycled water projects or implementation of the City's existing WSCP during dry year conditions to reduce dry-year water demands. Further, compliance with the existing ZWF Policy and proposed General Plan policies related to water supply further support reliable water supply availability for the proposed project. In addition to the aforementioned programs, the City is participating in the Sites Reservoir project, a potential future source that would provide an additional 4,000 AFY of supply to the City, which has been approved and funded and is proceeding to obtain required permits. Although not necessary to support development under the project, the successful completion of the Sites project would provide additional water security for the City. Therefore, potential impacts associated with water supply availability would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 3: Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

IMPACT UTL-3 DEVELOPMENT FACILITATED BY THE PROJECT WOULD INCREASE DEMAND FOR WASTEWATER TREATMENT. THE TIMING, INTENSITY, AND LOCATION OF AN EXPANSION OF WASTEWATER TREATMENT FACILITIES IS UNKNOWN AT THIS TIME, BUT AN EXPANSION WOULD REQUIRE ADDITIONAL CEQA REVIEW AND COMPLIANCE WITH EXISTING BUILDING AND ZONING CODES. AS SUCH, IMPACTS RELATED TO EXPANSION OF WASTEWATER TREATMENT FACILITIES AS A RESULT OF THE 2040 GENERAL PLAN WOULD BE LESS THAN SIGNIFICANT.

The amount of wastewater generated by the project was estimated based on the estimated water demand calculated in Impact UTL-2 and the principle that water demand is 120 percent of wastewater generation (due to evaporation and system losses, meaning that not all water that is used ends up going to the wastewater treatment plant). The total wastewater demand due to the project is estimated to be approximately 4.3 mgd.¹¹ However, this is a conservative calculation that does not account for the reductions in wastewater demand from implementing the ZWF Policy. It is expected that the project's demand on wastewater would be substantially less than 4.3 mgd. Nonetheless, this number is used to provide a conservative analysis.

The WRF had an existing wastewater treatment capacity of 2.5 mgd in 2020 at average dry weather flow conditions. In 2020, the City treated 1,625 AF of wastewater, which is equivalent to 1.45 mgd (City of American Canyon 2015). In 2020 there was 1.05 mgd of remaining capacity for wastewater treatment. As such, there is not currently sufficient capacity in the WRF to accommodate the additional demand from the maximum buildout scenario in the 2040 General Plan.

Nonetheless, the Utilities Element of the 2040 General Plan contains the following proposed goals and associated proposed policies to ensure new development is connected to the existing sanitary sewer system and that wastewater service is adequate.

Goal U-3. Wastewater Treatment Capacity: Establish and maintain adequate planning, construction, maintenance, and funding for wastewater collection and treatment facilities to support land uses; upgrading existing deficient systems, and expanding, where necessary, in the City's service area.

- **Policy U-3.1: Demand Requirements for Facilities.** Through the Capital Improvement Plan process, ensure wastewater collection and treatment facilities are installed, maintained, and upgraded in a timely manner to meet usage requirements and maximize cost efficiency.
- **Policy U-3.2: Capacity Demand.** Require all new development to evaluate sewer capacity demand during the discretionary review process.
- **Policy U-3.3: Fiscal Obligations.** Ensure wastewater infrastructure impact fees reflect the proportional increase in demand from new development.
- **Policy U-3.4: Alternatives Sustainable Approaches.** Consistent with best practices, evaluate environmentally and economically efficient wastewater treatment systems, such as the artificial marshland wastewater treatment system.

¹¹ 4.3 mgd = 5.24 mgd / 1.2

- **Policy U-3.5: Wastewater Service Priority.** Consistent with State Law, in times of constrained wastewater service expansion capacity, prioritize affordable housing developments as defined in California Government Code 65589.7 or any successor statute. The second priority is provided to sewer connections and services to residences and businesses located within the city corporate boundaries.

As shown through 2040 General Plan proposed Goal U-3 and its corresponding proposed policies, the City would maintain wastewater treatment infrastructure to accommodate additional growth from the 2040 General Plan. However, there are no new facilities proposed at this time. Generally, it is anticipated that construction of new facilities would result in similar physical impacts discussed throughout this EIR (i.e., impacts to biological resources, water quality and hydrology, air quality, etc.), but impacts could also be reduced depending on location and intensity. As such, it is not possible to identify the specific nature, extent, and significance of physical impacts on the environment that could result from the construction and operation of an expanded WRF without knowing the size and nature of the facility, or its location. Regardless, new facilities would require adherence to all applicable building and zoning codes, and additional CEQA review to analyze project and location specific impacts. As such, impacts related to wastewater facilities would be less than significant.

Mitigation Measure

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 4:	Would the General Plan 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?
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Threshold 5:	Would the General Plan comply with federal, State, and local management and reduction statutes and regulations related to solid waste?
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IMPACT UTL-4 THE PROJECT WOULD NOT GENERATE SOLID WASTE IN EXCESS OF STATE OR LOCAL STANDARDS, WOULD NOT EXCEED THE CAPACITY OF LOCAL INFRASTRUCTURE, AND WOULD NOT IMPAIR THE ATTAINMENT OF SOLID WASTE REDUCTION GOALS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Implementation of the project would generate additional solid waste. Construction of future development would create construction debris, such as scrap lumber and flooring materials. Operation of future development would create typical household wastes associated with residential, office, and commercial uses. Future industrial development would also generate solid waste.

As described in Section 4.13.1, *Setting*, the DRRTF is permitted to receive 1,440 tons of solid waste per day (County of Napa 2008). Between 2020 and 2021, the City of American Canyon disposed a total of approximately 17,128 tons (CalRecycle 2022d). Per capita waste disposal averaged averages 4.40 pounds per person per day (CalRecycle 2022e). As described in Section 4.9, *Population and Housing*, the project is expected to generate 3,204 net new residential units and result in approximately 10,734 new residents by the year 2040. The total additional waste generation, based

on the number of residents, would be approximately 23.6¹² tons per day, which would represent approximately 1.6 percent of the permitted daily solid waste allowed at the DRRTF.¹³ While it is anticipated that the project would increase solid waste generation, it is expected that solid waste facilities would have enough capacity.

AB 939 requires the City to divert 50 percent of solid waste from landfills, and SB 1383 would require the City to reduce organic waste disposal by 75 percent by 2025. New development would be required to comply with Section 8.20 of the American Canyon Municipal Code, which includes requirements for mandatory municipal solid waste, recycling, and composting material disposal reductions, as well as compliance with CALGreen requirements for diverting construction and demolition debris.

Furthermore, the 2040 General Plan includes proposed goals and policies to support the provision of adequate service, reduction, and diversion of waste from landfills, and expansion of recycling programs for residents and businesses. Although the DRRTF currently has sufficient landfill capacity for the growth facilitated by the project, the policies in the 2040 General Plan are consistent with American Canyon's desire to promote sustainability and reduce the need for landfills. These proposed policies are provided in the Utilities Element of the 2040 General Plan and are listed below:

Goal U-7. Solid Waste Collection: Maximize source reduction, recycling, and composting in the solid waste disposal programs.

- **Policy U-7.1: Waste Management Services.** Continue waste management service contracts to provide quality and cost-effective solid waste removal throughout the city and require all residents and businesses to comply with solid waste collection and recycling service requirements.
- **Policy U-7.2: Levels of Service.** Conduct monitoring solid waste collection contractor operations to ensure franchise agreement service levels are maintained.
- **Policy U-7.3: Landfill Coordination.** Coordinate with the Napa-Vallejo Waste Management Authority (NVWMA) concerning the City's continuing use of the Potrero Hills Landfill.

Goal U-8. Solid Waste Source Reduction: Achieve maximum public participation in source reduction, recycling, and composting activities through outreach programs.

- **Policy U-8.1: Recycling Education and Information.** Coordinate with Napa-Vallejo Waste Management Authority (NVWMA) and Recology to expand public information and education programs to complement source reduction, recycling, and composting efforts.
- **Policy U-8.2: Expansion of Recycling Programs.** Expand recycling programs through the local waste hauler.
- **Policy U-8.3: Promotion of Recycling.** Promote the recycling of solid waste including but not limited to paper, metals, aluminum cans, green waste, cardboard, plastic and glass.
- **Policy U-8.4: Outreach to Schools.** Coordinate efforts at the local elementary and intermediate school level to provide youth education programs.
- **Policy U-8.5: Recycling Receptacles and Biodegradable/Recycled-Materials Products.** Require the availability of recycling and composting receptacles and use biodegradable or recycled-

¹² 23.6 tons per day = (4.4 lbs. per person per day * 10,734 persons) / 2,000 lbs. per ton

¹³ 1.6 percent = (23.6 tons per day / 1,440 tons per day) * 100

material products instead of single-use plastic products at all City facilities and City-sponsored events.

- **Policy U-8.6: Zero Waste Community.** Support American Canyon in implementing policies and programs to become a Zero Waste Community.
- **Policy U-8.7: Food Waste Collection.** Ensure food waste collection is available and convenient to residents and businesses.
- **Policy U-8.8: Green Business Program.** Encourage local businesses to participate in the Napa County Green Business Program to minimize waste generation and create recycling and composting programs to reduce waste.
- **Policy U-8.9: Demolition and Construction Waste.** Require all new development to comply with the current CALGreen requirements for construction and demolition waste diversion.

Proposed Goals U-7 and U-8, as well as their corresponding proposed policies would ensure that solid waste is disposed of in an environmentally sound manner, and that State solid waste diversion goals and County recycling and composting requirements are met. Overall, local infrastructure would have the capacity to accommodate solid waste generated by development facilitated by the project. With adherence to Section 8.20 of the American Canyon Municipal Code and the 2040 General Plan proposed policies, impacts related to solid waste would be less than significant.

Mitigation Measure

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

4.14 Wildfire

This section summarizes the wildfire risks in and near the Planning Area and analyzes the impacts related to wildfire risks due to the project.

4.14.1 Setting

a. Overview of Wildfire

Wildfires are a regular feature of the ecosystem in large parts of California and many of the State's native species have evolved to cope with the natural fire cycle, although increasing development into wildfire-prone areas makes wildfires a hazard of concern. A wildfire is an uncontrolled fire in an area of combustible vegetation that is generally extensive in size. Wildfires differ from other fires in that they take place outdoors in areas of grassland, woodlands, brush land, scrubland, peatland, and other wooded areas that act as a source of fuel, or combustible material. Buildings may become involved if a wildfire spreads to adjacent communities.

Wildland-urban interface fires are hazards because they threaten areas located near the border between urban and wildlands. The primary factors that increase an area's susceptibility to wildfire include slope and topography, vegetation type and condition, and weather and atmospheric conditions. Factors such as narrow, winding roads and vegetation also can slow response to fire, increasing risk of spread. Wildfires that burn exclusively in natural areas generally pose little risk to lives or property, although the smoke from such fires may cause respiratory problems for people nearby. The fire season in the State of California is starting earlier and ending later each year, with climate change considered to be a key factor for this phenomenon (California Department of Forestry and Fire Protection [CalFire] 2022a).

b. Wildfire Factors

Slope and Aspect

According to CalFire, sloping land increases susceptibility to wildfire because fire typically burns faster up steep slopes (CalFire 2018). Additionally, steep slopes may hinder firefighting efforts. Following severe wildfires, sloping land is also more susceptible to landslide or flooding from increased runoff during substantial precipitation events. Aspect is the direction that a slope faces, and it determines how much radiated heat the slope will receive from the sun. Slopes facing south to southwest will receive the most solar radiation. As a result, such slopes are warmer and the vegetation drier than on slopes facing a northerly to northeasterly direction, increasing the potential for wildfire ignition and spread (CalFire 2018).

Generally, the urbanized area of the City is located west of Newell Drive/Flosden Road. Topography in this area of the City is nearly flat with a slight westward slope towards the Napa-Sonoma Marshes Wildlife Area (U.S. Geological Survey [USGS] 2022). The La Vigne neighborhood, American Canyon High School, and Canyon Estates neighborhood are located east of Newell Drive/Flosden Road, closer to the hillside areas just outside of the City. In this area the topography is slightly sloping upwards to the rolling hills east of the City.

Vegetation

Vegetation is “fuel” to a wildfire and it changes over time. The relationship between vegetation and wildfire is complex, but generally some vegetation is naturally fire resistant, while other types are very flammable. For example, cured grass is much more flammable than standing trees (CalFire 2018). Grass is considered an open fuel, in which oxygen has free access to promote the spread of fire. Additionally, weather and climate conditions, such as drought, can lead to increasing dry vegetation with low moisture content, increasing its flammability. In addition, wildfire behavior depends on the type of fuel present, such as ladder, surface, and aerial fuels. Ladder fuels provide a path for a surface fire to climb upward, into the crowns of trees. Surface fuels include grasses, logs, and stumps low to the ground. Aerial fuels include limbs, foliage, and branches not in contact with the ground (CalFire 2022b).

Naturally occurring (native and exotic non-native) vegetation cover within the City, consists of wetlands, and annual grasslands at the western edge of the City along the Napa-Sonoma Marshes Wildlife Area. This vegetation cover does not present a high risk of wildland fire fuel because of the wet conditions typical of marshes. Along the hillside area on the eastern edge of the city, the two dominant vegetation communities are Oak Woodlands and Annual/Native Grasslands. Both of these vegetation communities, as well as the other minor vegetation communities mapped within the hillside area are susceptible to wildfire.

Weather and Atmospheric Conditions

Wind, temperature, and relative humidity are the most influential weather elements in fire behavior and susceptibility (CalFire 2018). Fire moves faster under hot, dry, and windy conditions. Wind may also blow embers ahead of a fire, causing its spread. Drought conditions also lead to extended periods of excessively dry vegetation, increasing the fuel load and ignition potential.

According to the Western Regional Climate Center, average annual precipitation in American Canyon is 20.26 inches. Generally, in an average or typical year, most precipitation is received from October through April (Western Regional Climate Center 2016). May through September are the driest parts of the year and coincide with what has traditionally been considered the fire season in California. However, increasingly persistent drought and climatic changes in California have resulted in drier winters and fires during the autumn, winter, and spring months are become more common.

Power Lines

Above-ground power lines have the potential to contribute to wildfire risk, especially when they are near or traverse wilderness areas. In some instances, high winds can blow nearby trees and branches into powerlines, sparking fires. Wind can also snap wooden poles, causing live wires to fall onto nearby grass or other fuel, igniting it. While the California Public Utilities Commission estimates only about 10 percent of California’s wildfires are triggered by power lines, the frequency and severity of these wildfires has spurred the agency to make new requirements for power line safety practices.

Pacific Gas and Electricity (PG&E) transmission lines traverse the City, both underground and above ground. Of note are the high-power electrical transmission lines which run northeast by southwest through the City (California Energy Commission 2022).

c. Wildfire Hazards

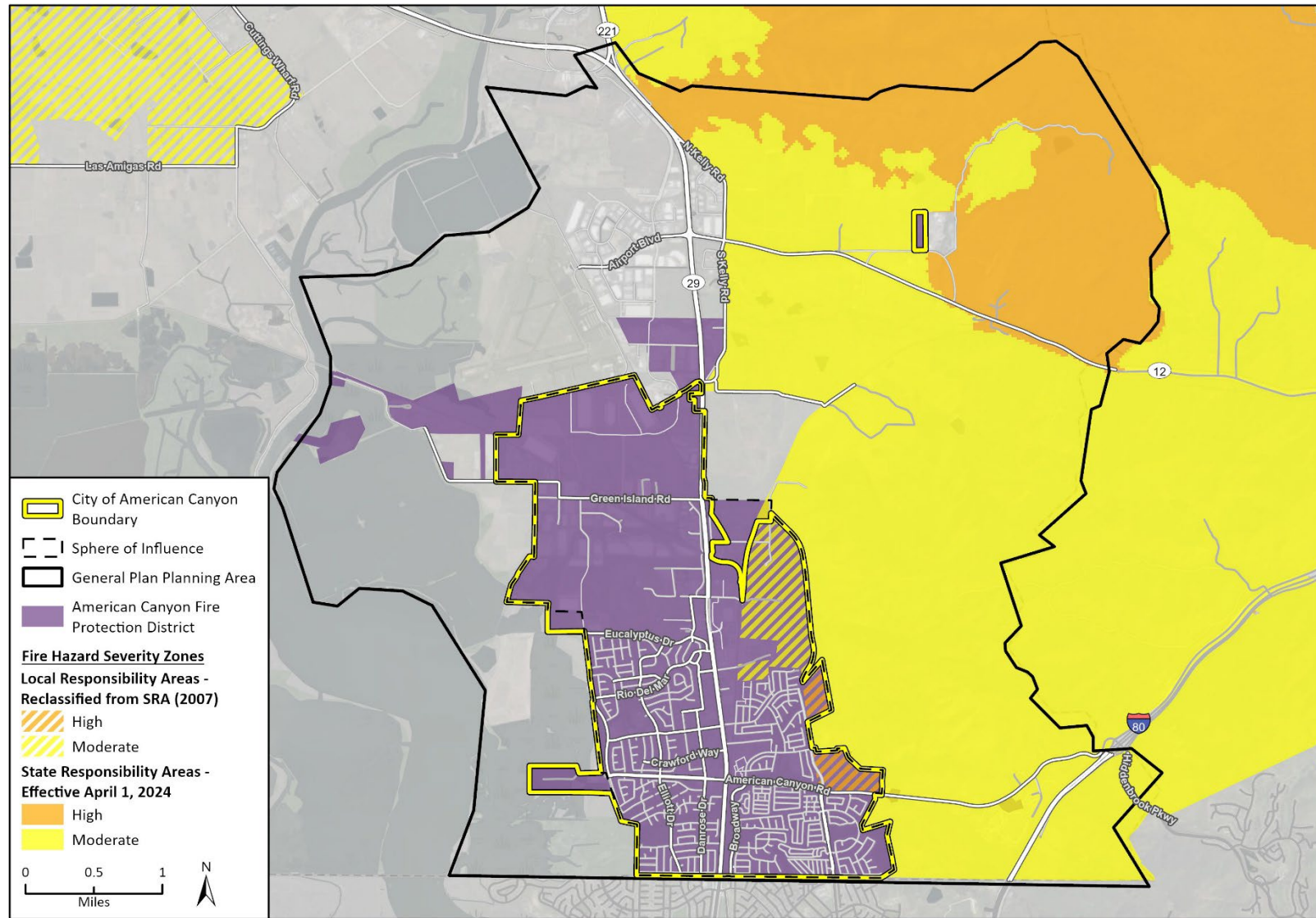
Once a fire is started, the spread and behavior of a fire become a function of fuel characteristics, terrain, and weather conditions. Fires are typically classified by type and intensity. Fire types may include understory fires, crown fires, surface fires, and broadcast fires, among others. Fire intensity, or severity, is the heat energy released by a fire either during a smoldering or raging fire event (CalFire 2022b).

Wildfire activity is closely related to temperature and drought conditions, and in recent decades, increasing drought frequency and warming temperatures have resulted in increased fire activity and the largest, most destructive, and deadliest wildfires in the State's history. Climate change will continue to produce conditions that facilitate a longer fire season, which, when coupled with human-caused changes in the seasonality of ignition sources, will produce more, longer, and bigger fires during more times of the year. According to California's Fourth Climate Change Assessment, Statewide Summary Report (OPR 2018), if greenhouse gas emissions continue to rise, the frequency of extreme wildfires burning over 25,000 acres could increase by 50 percent by 2100, and the average area burned Statewide could increase by 77 percent by the end of the century.

CalFire has mapped areas of significant fire hazards in the state through its Fire and Resources Assessment Program. These maps place areas of the state into different Fire Hazard Severity Zones (FHSZ) based on a hazard scoring system using subjective criteria for fuels, fire history, terrain influences, housing density, and occurrence of severe fire weather. Typically, these classifications include Non-Wildland, Non-Urban, Moderate, High and Very High. As part of this mapping system, land where CalFire is responsible for wildland fire protection and generally located in unincorporated areas is classified as a State Responsibility Area (SRA), which are managed by CalFire. Where local fire protection agencies are responsible for wildfire protection, the land is classified as a Local Responsibility Area (LRA) (CalFire 2020). CalFire responds to wildland fires from several fire stations, depending on their proximity and availability. The closest station to the Planning Area is the Napa County Fire Department at 1820 Monticello Road in Napa, California, approximately 10 miles north of the Planning Area.

CalFire maps three zones within SRA: 1) Moderate FHSZ; 2) High FHSZ; and 3) Very High FHSZ. Each of the zones influence recommended methods of building construction and property protection to reduce risk associated with wildland fires. Under state regulations, areas within very high fire hazard risk zones must comply with specific building and vegetation management requirements intended to reduce property damage and loss of life within these areas. Figure 4.14-1 shows the FHSZs in the General Plan Planning Area. Recent CalFire mapping displays adopted Fire Hazard Severity Zones (FHSZ) in the State Responsibility Area (SRA), effective April 1st 2024. It also displays recommended FHSZ in the Local Responsibility Area (LRA) from 2007-2011. For that reason, Figure 4.14-1 identifies areas within the ACFPD Service Area that are within a LRA. Due to regulatory processes, there are lands that are no longer classified as SRA and have become classified as LRA yet had a FHSZ designation from the 2007 SRA FHSZ map adoption. These areas are shown on the map with hatched symbology.

Figure 4.14-1 Fire Hazard Severity Zones



American Canyon Safety Element
Fig 3 Fire Hazard Severity Zones in American Canyon

4.14.2 Regulatory Setting

a. Federal Regulations

The Disaster Mitigation Act of 2000

The Disaster Mitigation Act of 2000 requires a state-level mitigation plan as a condition of disaster assistance. There are two different levels of state disaster plans: “Standard” and “Enhanced.” States that develop an approved Enhanced State Plan can increase the amount of funding available through the Hazard Mitigation Grant Program. The Act also established new requirements for local mitigation plans.

National Fire Plan

The National Fire Plan was developed in August 2000, following a historic wildfire season. Its intent is to establish plans for active response to severe wildfires and their impacts to communities while ensuring sufficient firefighting capacity. The plan addresses firefighting, rehabilitation, hazardous fuels reduction, community assistance, and accountability.

b. State Regulations

California Board of Forestry

The Board of Forestry maintains fire safe road regulations, as part of Title 14 of the California Code of Regulations (CCR). This includes requirements for road width, surface treatments, grade, radius, turnarounds, turnouts, structures, driveways, and gate entrances. These regulations are intended to ensure safe access for emergency wildland fire equipment and civilian evacuation.

California Fire Code

The California Fire Code (Fire Code) is Chapter 9 of CCR Title 24. It establishes the minimum requirements consistent with nationally-recognized best practices to safeguard public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structure, and premises, and to provide safety and assistance to firefighters and emergency responders during emergency operations. The Fire Code is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The Fire Code regulates the use, handling and storage requirements for hazardous materials at fixed facilities. The Fire Code and the California Building Code (CBC) use a hazard classification system to determine what protective measures are required to protect property and life from fire hazards. These measures may include construction standards, separations from property lines and specialized equipment. To ensure that these safety measures are met, the Fire Code employs a permit system based on hazard classification. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure or any appurtenances connected or attached to such building structures throughout California.

More specifically, the Fire Code is included in Title 24 of the CCR. Title 24, part 9, Chapter 7 addresses fire-resistance-rated construction; CBC (Part 2), Chapter 7A addresses materials and construction methods for exterior wildfire exposure; Fire Code Chapter 8 addresses fire related

Interior finishes; Fire Code Chapter 9 addresses fire protection systems; and Fire Code Chapter 10 addresses fire related means of egress, including fire apparatus access road width requirements. Fire Code Section 4906 also contains existing regulations for vegetation and fuel management to maintain clearances around structures. These requirements establish minimum standards to protect buildings located in all FHSZs within SRAs and Wildland-Urban Interface Fire Areas. This Fire Code includes provisions for ignition-resistant construction standards for new buildings.

The City adopted the most recent 2019 California Fire Code under Ordinance No. 2019-03.

California Fire Plan

The Strategic Fire Plan for California is the State's road map for reducing the risk of wildfire. The most recent version of the Plan was finalized in August 2018 and directs each CalFire Unit to prepare a locally specific Fire Management Plan (CalFire 2018). In compliance with the California Fire Plan, individual CalFire units are required to develop Fire Management Plans for their areas of responsibility. These documents assess the fire situation within each of the 21 CalFire units and six contract counties. The plans include stakeholder contributions and priorities, and identify strategic areas for pre-fire planning and fuel treatment as defined by the people who live and work with the local fire problem. The plans are required to be updated annually.

California Office of Emergency Services

The California Office of Emergency Services (OES) prepares the State of California Multi-Hazard Mitigation Plan (SHMP). The SHMP identifies hazard risks, and includes a vulnerability analysis and a hazard mitigation strategy (OES 2018). The SHMP is federally required under the Disaster Mitigation Act of 2000 in order for the State to receive Federal funding. The Disaster Mitigation Act of 2000 requires a State mitigation plan as a condition of disaster assistance (Federal Emergency Management Agency 2022).

State Emergency Plan

The foundation of California's emergency planning and response is a statewide mutual aid system, which is designed to ensure that adequate resources, facilities, and other support is provided to jurisdictions whenever their own resources prove to be inadequate to cope with an emergency situation.

The California Disaster and Civil Defense Master Mutual Aid Agreement (California Government Code Sections 8555–8561) requires signatories to the agreement to prepare operational plans to use within their jurisdiction, and outside their area. These operational plans include fire and non-fire emergencies related to natural, technological, and war contingencies. The State of California, all State agencies, all political subdivisions, and all fire districts signed this agreement in 1950.

Section 8568 of the California Government Code, the "California Emergency Services Act," (Act) states that "the State Emergency Plan shall be in effect in each political subdivision of the state, and the governing body of each political subdivision shall take such action as may be necessary to carry out the provisions thereof." The Act provides the basic authorities for conducting emergency operations following the proclamations of emergencies by the Governor or appropriate local authority, such as a City Manager. The provisions of the act are further reflected and expanded on by appropriate local emergency ordinances. The Act further describes the function and operations of government at all levels during extraordinary emergencies, including war.

All local emergency plans are extensions of the State of California Emergency Plan. The State Emergency Plan conforms to the requirements of California's Standardized Emergency Management System (SEMS), which is the system required by Government Code 8607(a) for managing emergencies involving multiple jurisdictions and agencies. The SEMS incorporates the functions and principles of the Incident Command System (ICS), the Master Mutual Aid Agreement, existing mutual aid systems, the operational area concept, and multi-agency or inter-agency coordination. Local governments must use SEMS to be eligible for funding of their response-related personnel costs under state disaster assistance programs. The SEMS consists of five organizational levels that are activated as necessary, including: field response, local government, operational area, regional, and state. OES divides the state into several mutual aid regions. The City is located in Mutual Aid Region II, which includes Del Norte, Humboldt, Mendocino, Sonoma, Lake, Napa, Marin, Solano, Contra Costa, San Francisco, San Mateo, Alameda, Santa Clara, Santa Cruz, San Benito, and Monterey counties (OES 2018).

Government Code Sections 65302 and 65302.5, Senate Bill 1241 (Kehoe) of 2012

Senate Bill (SB) 1241 requires cities and counties to address fire risk in SRAs and Very High FHSZs in the safety element of their general plans. The bill also amended CEQA to direct amendments to the *CEQA Guidelines* Appendix G environmental checklist to include questions related to fire hazard impacts for projects located in or near lands classified as SRAs and Very High FHSZs. In adopting these Guidelines amendments, the Governor's Office of Planning and Research recognized that generally, low-density, leapfrog development may create higher wildfire risks than high-density, infill development.¹ Zoning around the project site is low density housing, allowing up to six dwelling units per acre.

California Public Utilities Commission General Order 166

General Order 166 Standard 1.E requires that investor-owned utilities develop a Fire Prevention Plan which describes measures that the electric utility will implement to mitigate the threat of power-line fires generally. Additionally, this standard requires that investor-owned utilities outline a plan to mitigate power line fires when wind conditions exceed the structural design standards of the line during a Red Flag Warning in a high fire threat area. Fire Prevention Plans created by investor-owned utilities are required to identify specific parts of the utility's service territory where the conditions described above may occur simultaneously. Standard 11 requires that utilities report annually to the California Public Utilities Commission regarding compliance with General Order 166. In compliance with Standard 1.E of this General Order, PG&E adopted a Fire Prevention Plan dated October 31, 2018.

c. Regional and Local Regulations

Napa County Operational Area Multi-Jurisdictional Hazard Mitigation Plan

In 2020, the Napa County prepared an updated Multi-Jurisdictional Hazard Mitigation Plan (HMP) to guide County and City Officials and Special Districts Managers in protecting the people and property within the County from the effects of natural disasters and hazards events. The HMP provides an explanation of prevalent hazards within the County and how hazards may affect the County and

¹ "Leapfrog development" describes the construction of new development at a distance from existing developed areas, with undeveloped land between the existing and new development.

participating cities and special districts differently based upon proximities to natural hazards. The HMP also identifies risks to vulnerable assets, both people and property. Most importantly, the mitigation strategy presented in the HMP responds to the identified vulnerabilities within each community and provides prescriptions or actions to achieve the greatest risk reduction based upon available resources.

The City of American Canyon (Resolution No. 2020-44) and the American Canyon Fire Protection District adopted the HMP on June 2, 2020 (Resolution No. 2020-08). The HMP includes an Annex that details the hazard mitigation planning elements specific to the City. The Annex identifies that American Canyon is required to update building codes to meet the minimum standards to those required in the California Building Code last updated in 2019, which reduce risk from wildfire. Chapter 16.02 of the American Canyon Municipal Code adopts the 2019 California Building Code.

Sonoma-Lake-Napa Unit Strategic Fire Plan

The CalFire Strategic Fire Plan for the Sonoma-Lake-Napa Unit, last updated in 2020, applies to Napa County as well as neighboring Sonoma and Lake counties. This plan documents an assessment of wildfire hazards in the Sonoma-Lake-Napa Unit and identifies strategic targets to minimize fire risks, such as fire prevention and vegetation management.

American Canyon Fire Protection District Strategic Plan

The ACFPD Long-Range Master Plan (LRMP) guides the efficient future growth and development of the Fire District to provide the community of American Canyon with the highest possible level of service balanced with long term financial sustainability. Adopted in October 2022 (Resolution 2022-26), the LRMP identifies recommendations to improve long-range planning and delivery of fire and emergency services to the community (ACFPD 2022a).

The LRMP recommendations relate to operations, procedures, and community involvement, to deliver desired levels of service at the most efficient cost. To maintain long-range service levels, the LRMP recommends construction of a new relocated Fire Station 211.

American Canyon Municipal Code

Chapter 8.08 of the American Canyon Municipal Code contains ordinances relating to fire regulations including fire protection district regulations and the authority of the designated fire chief to enforce the Uniform Fire Code within city limits.

Section 18.40.120 of the American Canyon Municipal Code requires that all utilities be installed underground in accordance with the provisions of the American Canyon Municipal Code. It also requires that all underground utilities be installed before preparation of subgrade for paving or any other site improvements that may affect the orderly installation of the underground utilities.

Ordinance 2022-02

The ACFPD Board adopted the most recent 2022 California Fire Code under Ordinance No. 2022-02. Section 4904 of the California Fire Code calls for a fire protection plan that addresses water supply, access, building ignition and fire-resistance factors, fire protection systems and equipment, defensible space, and vegetation management for any new residential building within a wildland-urban interface fire area.

4.14.3 Impact Analysis

a. Methodology and Thresholds of Significance

Significance Thresholds

Based on Appendix G of the CEQA Guidelines a project may be deemed to have a significant impact on wildfire if it would:

1. Substantially impair an adopted emergency response plan or emergency evacuation plan.
2. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.
3. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.
4. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.
5. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

Methodology

The assessment of impacts related to wildfire hazards and risks were evaluated using FHSZ mapping for Napa County, aerial imagery, and topographic mapping. Additionally, weather patterns related to prevailing winds and precipitation trends were evaluated as they relate to the spread and magnitude of wildfire.

In addition, on October 10, 2022, the State's Office of the Attorney General issued guidance for analyzing wildfire impacts in a document titled *Best Practices for Analyzing and Mitigating Wildfire Impacts of Development Projects under the California Environmental Quality Act* (State's Office of the Attorney General 2022). This analysis in this section used the following guidance from State's Office of the Attorney General in considering the potential impacts of the project.

- **Project Density:** Project density influences how likely a fire is to start or spread, and how likely it is that the development and its occupants will be in danger when a fire starts.
- **Project Location:** Project placement in the landscape relative to fire history, topography, and wind patterns also influences wildfire risk.
- **Water Supply and Infrastructure:** The analysis should consider the adequacy of water supplies and infrastructure to address firefighting within the project site.
- **Evacuation and Emergency Access:** Local governments should consider placing developments close to existing road and evacuation infrastructure, and where appropriate, constructing additional roads to facilitate evacuations.
- **Fire Hardening Structures:** Home hardening has been shown to be an extremely effective measure for preventing structure loss during a wildfire. Local governments should require developers to upgrade building materials and use installation techniques to increase the development's resistance to heat, flames, and embers beyond what is required in applicable building codes.

b. Project Impacts and Mitigation Measures

Threshold 1: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Impact W-1 THE 2040 GENERAL PLAN PROPOSED POLICIES ADDRESS EMERGENCY ACCESS, RESPONSE, AND PREPAREDNESS. THEREFORE, THE PROJECT WOULD NOT IMPAIR AN EMERGENCY RESPONSE PLAN OR EMERGENCY EVACUATION PLAN. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

As shown in Figure 4.14-1, there are portions of the Planning Area where development could occur (i.e., City limits and SOI) that are mapped within an LRA with moderate and high fire risk. In addition, there are areas mapped within an SRA with moderate and high fire risk, adjacent to the eastern City limits. However, development would not occur within any areas mapped within an SRA or within a very high FHSZ. The nearest very high FHSZ is located approximately 5.7 miles northeast of the Planning Area.

Nonetheless, development facilitated by the project could introduce new residents or employees who would require emergency response evacuation in the case of a wildfire. The Safety Element of the 2040 General Plan includes the following proposed goals and policies to ensure safe and efficient evacuation and emergency response.

Goal S-1: Prepare and equip American Canyon to minimize loss of life, injury, property damage, and disruption of vital services from disasters and emergencies.

- **Policy S-1.7: Public Awareness.** Increase public awareness of City and Fire District emergency response plans, evacuation routes and shelters, and ways to reduce risks at the home and office, focusing on the most vulnerable populations such as older adults and individuals with chronic health conditions. Offer informational materials in multiple languages.
- **Policy S-1.8: Emergency Access.** Work with the American Canyon Fire Protection District (ACFPD) and the Napa County Sheriff's Department to identify and regularly evaluate emergency access routes to improve accessibility throughout the city in the event of a disaster.
- **Policy S-1.9: Essential Facilities.** Work with service providers to maintain the reliability of essential facilities, such as communications towers, electrical substations, water services, and first-response buildings in the event of an emergency through promoting grid resilience and energy independence. Work to implement on-site power generation through solar photovoltaic systems and battery storage.
- **Policy S-1.10: Communication.** Evaluate the potential to utilize a comprehensive emergency communication system to ensure effective communication between City departments, outside organizations and agencies, and with the community before, during, and to accelerate recovery following a disaster.
- **Policy S-1.11: City Employee Emergency Preparedness.** Increase City employee capacity to respond to emergencies through the Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS) compliant training drills to identify hazards and assist in emergency preparedness, response and recover.
- **Policy S-1.12: Local Partnerships.** Coordinate with citizen groups and organizations, such as the American Canyon Community Response team (CERT) to identify, prepare for, and respond to emergency assistance in the event of a natural disaster.

- **Policy S-1.13: Emergency Evacuation Protocols for Single Access Neighborhoods.** Update emergency evacuation protocols and relevant evacuation plans to address and support neighborhoods with fewer than two ingress/egress routes.
- **Policy S-1.14: Communication and Outreach for Single Access Neighborhoods.** Establish and maintain communication and outreach protocols with the public that include tailored evacuation messaging to residents that live in identified neighborhoods with fewer than two ingress/egress routes. Outreach should include support for preventative home hardening and defensive space standards and conduct emergency preparedness and response trainings.
- **Policy S-1.15: Expand Access for Single Access Neighborhoods.** Assess options for expanding **Policy** ingress/egress options for residents in the identified access-limited areas in coordination, as necessary, with Napa Valley Transportation Authority, Caltrans, California Highway Patrol, adjacent cities, and Napa County.
- **Policy S-1.16: Zone-Based Evacuation Plans.** Establish specific “zone-based” evacuation plans and protocols that address the specific needs of residents in identified areas with fewer than two ingress/egress routes.
- **Policy S-1.17: Critical Infrastructure Siting.** Whenever feasible, locate the following critical facilities outside of flood, seismic, and high fire hazard zones: health care facilities, schools, emergency shelters, fire stations, emergency command centers, and emergency communications facilities.
- **Policy S-1.18: Emergency Operations Plan.** Update the City’s Emergency Operations Plan every five years and maintain consistency with the County’s Emergency Operations Plan.
- **Policy S-1.19: Multi-Jurisdictional Hazard Mitigation Plan Updates.** Continue to fully participate in, support, and implement the five-year updates of the Napa County Multi-Jurisdictional Hazard Mitigation Plan.
- **Policy S-1.20: Funding for Critical Facilities.** Direct the dedication of funds to upgrade and maintain City owned critical facilities, including the Emergency Operations Center, fire and police departments, and City Hall, to make them more resilient to the potential impacts of natural disasters.
- **Policy S-2.4: Residential Evacuation Routes.** Require that all new residential development have at least two emergency evacuation routes.
- **Policy S-2.13: Emergency Roadways.** Maintain roadways used for emergency access by emergency response vehicles as necessary and appropriate to ensure ongoing serviceability.

Furthermore, the Napa County Emergency Operations Plan (EOP) provides a framework for Napa County to use in performing emergency functions before, during, and after an emergency event (County of Napa 2020). The EOP aims to protect and preserve life, property, and the environment in Napa County, as well as the City. The project would not conflict with this plan and would not impair evacuation, as described in detail below.

The City has identified evacuation procedures in the event of a natural disaster, including a wildfire. During an emergency, individuals would receive notifications from emergency sirens, alarms, or local radio stations. In addition, the City has partnered with the Napa County Office of Emergency Services to provide residents with official evacuation order notifications supported by Zonehaven, a California-based company under contract with Napa County. The City identifies the following three different evacuation alerts that would be provided to residents and employees in the City:

- **Evacuation Warning:** This is a precautionary notice designed to give residents time to prepare for a possible evacuation.
- **Evacuation Order:** This is a notice where danger is imminent and a person should find their emergency supply kit and leave the area immediately.

The roadway that would primarily be used for evacuation in the event of a wildfire would be SR 29. The City would review and approve development facilitated by the project to ensure that emergency access meets City standards. Development facilitated by the project, as well as all development in the city, must comply with road standards, and are reviewed by the ACFPD to ensure development would not interfere with evacuation routes or impede the effectiveness of evacuation plans. In addition, the 2040 General Plan identifies mobility improvements that would provide additional emergency access. Because the City would review development facilitated by the project to ensure that emergency access meets City standards, impacts related to impairing an adopted emergency response plan or emergency evacuation plan would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 2:	Would the General Plan, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?
Threshold 5:	Would the proposed project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Impact W-2 THE PROJECT COULD EXPOSE PEOPLE AND STRUCTURES TO WILDFIRE RISK; HOWEVER, WILDFIRE RISKS WOULD BE REDUCED WITH MITIGATION AND IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Development could be in LRA lands with moderate and high fire risk. Wildfire risk in American Canyon is generally concentrated on the hillside area east of the City. This area is largely undeveloped and contains large tracts of vegetation cover that can act as fire fuel. This area is also adjacent to large areas of vegetation cover and open space outside of the City limits, which further increases the potential for wildfires. A total of 526 acres of land burned in 2019 during a wildfire known as the American Fire incident (CalFire 2019; ACFPD 2019). This fire was located east of the City limits.

Prevailing winds in American Canyon generally blow from the west during the summer months, which is typically fire season, moving west to east across the city (Western Regional Climate Center 2022). Therefore, the prevailing winds would move wildfire in the hillside area and the related smoke and air pollutants, eastward, away from the urbanized areas of the city. Additionally, fire tends to burn and spread uphill, and the hillside area generally slopes uphill toward the east, away from the developed areas of the city.

Construction of development facilitated by the project would use equipment with combustion engines, which are known to create fires. As such, there is a potential wildfire risk, especially during

dry months, that could result in a potentially significant impact. Therefore, Mitigation Measure WF-1 would be required to reduce wildfire risk from construction activities.

Development could be located in proximity to agricultural and undeveloped areas with flammable vegetation. As such, operation of development facilitated by the project could result in potentially significant wildfire impacts, including exposure of people to pollutant concentrations from a wildfire or a significant risk from a wildfire. New structures would be constructed following the current fire and building codes and safety standards. Construction of development would be subject to the California Fire Code, which includes safety measures to minimize the threat of fire, including ignition-resistant construction with exterior walls of noncombustible or ignition resistant material from the surface of the ground to the roof system and sealing any gaps around doors, windows, eaves and vents to prevent intrusion by flame or embers. In addition, American Canyon Municipal Code Section 16.02.130 requires the installation of fully automatic fire sprinkler systems for new buildings. The Board of Forestry, via California Code of Regulations Title 14, sets forth the minimum development standards for emergency access, fuel modification, setback, signage, and water supply, which help prevent loss of structures and life by reducing wildfire hazards in areas designated as VHFHSZs. These codes and regulations would reduce the risk of loss, injury, or death from wildfire for new developments facilitated by the project in VHFHSZs. In addition, any electrical lines associated with development would be undergrounded, pursuant to Section 18.40.120 of the American Canyon Municipal Code, as well as the following proposed policy in the 2040 General Plan.

- **Policy U-9.4: Overhead Utility Undergrounding.** Develop a comprehensive strategy to underground existing overhead utilities.

In addition, the 2040 General Plan would also include the following proposed policies that would minimize potential wildfire risks through structural hardening, updating development standards, ensuring that there is adequate water supply, and encouraging the development of fire breaks:

- **Policy S-2.7: Building and Fire Code Compliance.** Require new development to meet or exceed structural hardening requirements in the most current version of the California Building Codes and California Fire Code.
- **Policy S-2.8: Development Standards Update.** Incorporate relevant new legislative requirements and best practices into the City's development standards.
- **Policy S-2.11: Fire Suppression.** Coordinate with the Fire District to ensure adequate, water supply to suppress wildfire, as part of the next Napa County Multi-jurisdictional Hazard Mitigation Plan update.
- **Policy S-2.12: Peakload Water Supply.** Support measures to provide adequate water availability throughout the city to meet future peak fire demand during times of peak domestic demands.
- **Policy S-2.14: Community Fire Breaks.** Coordinate with the American Canyon Fire Protection District to encourage property owners to maintain fire breaks and fuel modification/reduction zones on their property.

Finally, Mitigation Measure WF-2 would include a requirement for the landscaping in development to be consistent with applicable Building and Fire Codes.

Mitigation Measures

WF-1 Wildfire Risk Reduction During Construction

For projects located in proximity to agricultural or undeveloped areas (including hillside areas) with flammable vegetation, prior to issuance of a grading or building permit, whichever occurs first, the applicant shall submit documentation that they will implement the following measures to reduce risk of loss, injury, or death from wildfire during construction:

1. Construction equipment powered by internal combustion engines shall be equipped with spark arresters. The spark arresters shall be maintained pursuant to manufacturer recommendations to ensure adequate performance.
2. Certain project construction activities with potential to ignite wildfires during red-flag warnings issued by the National Weather Service for the project site location shall be prohibited. Example activities that shall be prohibited during red-flag warnings include welding and grinding outside of enclosed buildings, mowing, chain sawing, chipping, the use of any equipment with the potential to introduce sparks.
3. Fire extinguishers shall be required to be onsite during construction. Construction vehicles shall be equipped with at least one (1) functioning fire extinguisher and one (1) shovel or McLeod firefighting tool. Heavy machinery or equipment (e.g., tractors, grinders, tree chippers, excavators, bulldozers) shall be equipped with one (1) shovel, McLeod firefighting tool, or Pulaski; one (1) functioning fire extinguisher; and at least one 5-gallon backpack pump or larger capacity water (or CAFS) pump/delivery system. Fire extinguishers shall be maintained to function according to manufacturer specifications. Construction personnel shall receive training on the proper methods of using a fire extinguisher.

WF-2 Fire Resistant Vegetation and Landscaping

For projects located in proximity to agricultural or undeveloped areas (including hillside areas) with flammable vegetation, prior to issuance of a building permit for development located within or adjacent to a VHFHSZ, the applicant shall submit landscape plans prepared by a registered Landscape Architect that are consistent with applicable Building and Fire Codes.

Significance After Mitigation

With implementation of Mitigation Measures WF-1 and WF-2 the risk of loss of structures and the risk of injury or death due to wildfires would be reduced. These measures would make structures more fire resistant and less vulnerable to loss in the event of a wildfire. These mitigation measures would also reduce the potential for construction to inadvertently ignite a wildfire and require the use of fire-resistant native vegetation. Given the risk for wildfires in the Planning Area and that mitigation would be implemented to reduce the risk, impacts would be less than significant.

Threshold 3: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Impact W-3 THE PROJECT WOULD INCLUDE THE INSTALLATION OF UTILITIES AND FUTURE MOBILITY IMPROVEMENTS; HOWEVER, COMPLIANCE WITH THE HMP AND PROPOSED POLICIES IN THE 2040 GENERAL PLAN WOULD REDUCE IMPACTS TO LESS THAN SIGNIFICANT.

As discussed in Section 4.13, *Utilities and Service Systems*, development facilitated by the project would require connections to existing utilities. The only utility that poses a potential wildfire risk are electrical lines; however, electrical lines associated with development would be undergrounded, pursuant to Section 18.40.120 of the American Canyon Municipal Code, as well as the following proposed policy in the 2040 General Plan.

- **Policy U-9.4: Overhead Utility Undergrounding.** Develop a comprehensive strategy to underground existing overhead utilities.

As such, the project would not exacerbate fire risk from the installation of electrical lines. In addition to utility connections, the 2040 General Plan also envisions future mobility improvements as discussed within Section 4.11, *Transportation*. Mobility improvements facilitated by the project, including improvements to roadways, and bicycle and pedestrian facilities would primarily consist of improvements such as repaving roads and bicycle lanes, installing roundabouts, and repainting median strips. Such projects would provide egress in the case of a wildfire or other emergency and would be designed in such a way to allow for simultaneous egress and ingress during an evacuation which would not exacerbate a fire risk. Furthermore, the 2040 General Plan includes the following proposed goals and policies to ensure safe and adequate preparation for wildfires:

Goal S-2: A City safe and adequately prepared for urban and wildfire emergencies.

- **Policy S-2.1: Fire Safe Site Design.** Develop site design and ongoing maintenance standards for new development in the moderate and high fire hazard zones to mitigate wildfire risk.
- **Policy S-2.2: Utility Undergrounding.** Develop a comprehensive plan to underground overhead utilities in new development projects and throughout the City.
- **Policy S-2.4: Residential Evacuation Routes.** Require that all new residential development have at least two emergency evacuation routes.
- **Policy S-2.7: Building and Fire Code Compliance.** Require new development to meet or exceed hardening requirements in the most current version of the California Building Codes and California Fire Code.
- **Policy S-2.8: Development Standards Update.** Incorporate relevant new legislative requirements and best practices into the City's development standards.
- **Policy S-2.10: Fire Protection Plans.** Coordinate with the American Canyon Fire Protection District to consider developing fire protection plan guidelines and standards for new construction projects.

For the reasons mentioned above, impacts related to the installation of infrastructure would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 4: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Impact W-4 THE PLANNING AREA IS RELATIVELY FLAT AND COMPLIANCE WITH PROPOSED POLICIES IN THE 2040 GENERAL PLAN AND THE AMERICAN CANYON MUNICIPAL CODE WOULD ENSURE THAT RISKS FROM FLOODING OR LANDSLIDES DUE TO A WILDFIRE WOULD BE LESS THAN SIGNIFICANT.

Topography in the city is relatively flat with hills to the east. Severe wildfires damage the forest or shrub canopy, the plants below, as well as the soil. In general, this can result in increased runoff after intense rainfall, which can put residences and other structures below a burned area at risk of localized floods and landslides. As discussed in Section 4.15, *Effects Found To Be Less Than Significant*, development facilitated by the project within flood hazard zones or areas at risk of landslides would adhere to the requirements of the American Canyon Municipal Code and the following 2040 General Plan Policies:

Goal S-4: A community adequately prepared for natural hazards related to landslides, geologic instability, and seismic activity.

- **Policy S-4.1: Geologic Hazard Identification.** Reference current local and California Geologic Survey seismic and geologic hazards map surveys.
- **Policy S-4.3: Structure Protection.** Develop inventories of at-risk public buildings and infrastructure and seek funding to bring existing City-owned structures into compliance with updated seismic safety standards.
- **Policy S-4.7: Geotechnical Review.** Continue to require preliminary investigations of tract sites by State-registered geotechnical engineers and certified engineering geologists (Chapter 70 County Building Code) and ensure regular inspection of grading operations.
- **Policy S-4.8: Landslide Activity.** Restrict new development in areas of known landslide activity unless adequate mitigation is incorporated.

Furthermore, development would be required to develop a Stormwater Control Plan, which is discussed in detail in Section 4.15, *Effects Found To Be Less Than Significant* (subsection 4.15.5, *Hydrology and Water Quality*), and would further minimize adverse impacts of flooding following a wildfire. The city's generally flat grade and drainage policies would prevent exposure of people or residences to downslope landslides and flooding. Therefore, impacts would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

4.15 Effects Found To Be Less Than Significant

During evaluation of the project, certain impact areas included in the California Environmental Quality Act (CEQA) Appendix G checklist were found to have a less than significant impact or no impact. As allowed under CEQA Guidelines Section 15128, this section discusses why impacts to these environmental topics were determined to have a less than significant impact or no impact and therefore are not discussed in detail in the Draft Environmental Impact Report (EIR) as individual sections.

4.15.1 Agriculture and Forestry Resources

Based on Appendix G of the CEQA Guidelines a project may be deemed to have a significant impact on agricultural and forestry resources if it would:

- 1 Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use; or
- 2 Conflict with existing zoning for agricultural use, or a Williamson Act Contract; or
- 3 Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)); or
- 4 Result in the loss of forest land or conversion of forest land to non-forest use; or
- 5 Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

Based on the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program, the current City limits are mapped as primarily as Urban and Built-Up land, with small pockets of Farmland of Local Importance and grazing land (DOC 2018). The current City limits do not contain any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Pursuant to the CEQA Guidelines, Farmland of Local Importance is not considered agricultural land and the conversion of Farmland of Local Importance would not trigger a substantial adverse impact (California Public Resources Code Division 13, Chapter 2.5, Section 21060.1). No land within the current City limits is zoned for agricultural use. The City does not contain forest land, timberland, or land zoned for timberland production (City of American Canyon 2015). In order to qualify for a Williamson Act contract in Napa County, a parcel must be zoned Agricultural Preserve or Agricultural Watershed, be 40 acres in size for non-prime agricultural land or 10 acres in size for prime agricultural land, and contain current agricultural use (County of Napa 2022a). Accordingly, there are no lands under Williamson Act contract within the current City limits.

There is land within the City's Sphere of Influence (SOI) and Urban Limit Line zoned as Agricultural Watershed and under a Williamson Act contract (County of Napa 2022b; County of Napa 2018). In addition, Prime and Unique Farmland is present within the Urban Limit Line, east of Watson Lane (DOC 2018). Annexation of land within these areas would be consistent with the planned development anticipated in the Napa County General Plan because the Napa County General Plan Policy AG/LU-130 supports the City's annexation of unincorporated land located with the City's growth boundary (County of Napa 2009). The lands within the City's SOI and proposed Urban Limit Line are within Napa County's jurisdiction and would need to be incorporated into the City prior to

development occurring in these areas. The potential environmental effects from future development within the City's SOI and proposed Urban Limit Line are speculative. Pursuant to CEQA Guidelines Section 15145, speculative impacts should not be discussed. Potential environmental effects associated with development on land within the City's SOI and proposed Urban Limit Line would be evaluated and mitigated as necessary as part of the County, City, and Napa County Local Agency Formation Commission review of individual development applications. Accordingly, the project would not result in the conversion of Farmland, conflict with existing zoning or Williamson Act contracts, result in the loss of forest land, or involve other changes which could result in the conversion of Farmland to non-agricultural use or the conversion of forest land to non-forest use.

4.15.2 Energy

Based on Appendix G of the CEQA Guidelines a project may be deemed to have a significant impact on energy if it would:

- 1 Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation;
- 2 Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

Since 2016, the City has been enrolled in the Marin Clean Energy (MCE) Light Green Program, MCE's default energy plan that offers 60 percent renewable energy. Before switching to MCE, the City was enrolled in the Pacific Gas and Electric (PG&E) 29 percent renewable option. MCE is an alternative to PG&E for energy generation. All residents and local businesses are automatically enrolled in the Light Green Program and have the option to opt up to the Deep Green Program, which offers 100 percent renewable energy. In 2021, American Canyon City Council voted to supply the City's facilities with MCE Deep Green 100 percent renewable energy. Some electrical service in Planning Area is still provided by PG&E.

Construction activities associated with development facilitated by the project would require energy resources in the form of fuel consumption to operate heavy equipment, light-duty vehicles, machinery, and generators. It is reasonable to assume that manufacturers of concrete, steel, lumber, or other building materials would employ energy conservation practices to minimize their cost of doing business. It also is reasonable to assume that non-custom building materials, such as drywall and standard-shaped structural elements, would be manufactured regardless of the project and, if not used for the project, would be used elsewhere. Development facilitated by the project would be required to comply with a variety of statewide, regional, and local renewable energy and energy efficiency plans, including the following:

- **Assembly Bill 2076: Reducing Dependence on Petroleum.** Pursuant to AB 2076, the California Energy Commission (CEC) and California Air Resources Board prepared and adopted a joint-agency report in 2023: *Reducing California's Petroleum Dependence*. Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita vehicle miles traveled. One of the performance-based goals of AB 2076 is to reduce petroleum demand to 15 percent below 2003 demand.
- **California Renewable Portfolio Standard.** California's Renewable Portfolio Standard obligates investor-owned utilities, energy service providers, and community choice aggregators to procure 33 percent total retail sales of electricity from renewable energy sources by 2020, 60 percent by 2030, and 100 percent by 2045.

- **Energy Action Plan.** In the October 2005, the CEC and California Public Utilities Commission updated their energy policy vision by adding some important dimensions to the policy areas included in the original Energy Action Plan (EAP), such as the emerging importance of climate change, transportation-related energy issues, and research and development activities. The CEC adopted an update to the EAP II in February 2008 that supplements the earlier EAPs and examines the State's ongoing actions in the context of global climate change. The nine major action areas in the EAP include energy efficiency, demand response, renewable energy, electricity adequacy/reliability/infrastructure, electricity market structure, natural gas supply/demand/infrastructure, transportation fuels supply/demand/infrastructure, research/development/demonstration, and climate change.
- **AB 1007: State Alternative Fuels Plans.** The State Alternative Fuels Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce greenhouse gas emissions, and increase in-State production of biofuels without causing a significant degradation of public health and environmental quality.
- **Bioenergy Action Plan, Executive Order S-06-06.** The Executive Order establishes the following targets to increase the production and use of bioenergy, including ethanol and biodiesel fuels made from renewable resources: produce a minimum of 20 percent of its biofuels in California by 2010, 40 percent by 2020, and 75 percent by 2050.
- **California Code of Regulations Title 24 – Part 6 (Building Energy Efficiency Standards) and Part 11 (CALGreen).** The 2022 Building Energy Efficiency Standards move toward cutting energy use in new homes by more than 50 percent and will require installation of solar photovoltaic systems for single-family homes and multi-family buildings of three stories and less.

The CALGreen Standards establish green building criteria for residential and nonresidential projects. The 2022 Standards include the following: increasing the number of parking spaces that must be prewired for electric vehicle chargers in residential development; requiring all residential development to adhere to the Model Water Efficient Landscape Ordinance; and requiring more appropriate sizing of heating, ventilation, and air conditioning ducts.

Development in the Planning Area would need to comply with the energy efficiency and reduction policies within the 2040 General Plan, which would include the following proposed policies:

- **Policy U-8.9: Demolition and Construction Waste.** Require all new development to comply with the current CALGreen requirements for construction and demolition waste diversion.
- **Policy U-9.1: Reach Building Code.** Reduce energy use in new development by considering a local amendment that requires a 15% energy efficient standard improvement over the California Building Code.
- **Policy U-9.2: Electric Energy Systems.** Coordinate with Pacific Gas and Electric Company (PG&E) to ensure that electrical energy systems do not adversely impact land uses and population in the City of American Canyon.
- **Policy U-9.3: Resilient Grid.** Cooperate with PG&E to obtain applicable City permit approvals that improve electric grid resilience to natural hazards (seismic events, flooding, wildfires, extreme wind events).
- **Policy U-9.5: Electric Energy Systems.** Coordinate with Pacific Gas and Electric Company (PG&E) to ensure that electrical energy systems do not adversely impact land uses and population in the City of American Canyon.

- **Policy U-9.6: Passive Solar Heating and Cooling.** Consistent with the California Subdivision Map Act, require new subdivisions to examine the feasibility of incorporating site layouts that allow passive solar heating and cooling.
- **Policy U-9.7: Residential Energy Efficiency.** Seek grant funds that help low and moderate-income residents obtain low or no-cost loans to increase energy efficiency of their homes through weatherization, insulation, solar energy generation and energy battery backup storage; and assist utility providers with outreach on home energy efficiency rebates and programs for all residents, regardless of income.
- **Policy ENV-10.6: Reach Building Code.** Consider feasibility of adopting a “reach” local amendment to the California building code to require a 15% or greater energy efficiency than the State standard.
- **Policy ENV-10.8: Building Electrification.** Consider a Reach Building Code that would prohibit installation of natural gas in all new construction.
- **Policy ENV-11.1: Energy Efficiency.** Require developers employ energy-efficient site planning methods and building design, including building orientation, shading, landscaping, building reflectance, and passive solar heating and hot water systems.
- **Policy ENV-11.1: Renewable Energy Sources.** Work with other agencies and utility companies to develop safe, economical, and renewable energy resources.
- **Policy ENV-11.2: Renewable Energy Program.** Support installation of renewable energy and battery storage for homes and businesses.
- **Policy ENV-11.3: Energy Retrofit Program.** Develop an energy retrofit program and incentives for homeowners and building owners to encourage energy efficiency improvements such as fixture and appliance upgrades.
- **Policy ENV-11.4: Energy Efficiency City Operations.** Increase energy efficiency of City operations and evaluate the feasibility of installing renewable energy at city facilities.

Energy use would be reduced further by General Plan policies that encourage reductions in inefficient energy allocations related to transportation, which include:

- **Policy MOB-1.7: Promote Walking and Bicycling.** Promote walking and bicycling for transportation, recreation, and improvement of public health.
- **Policy MOB-1.11: Reduce the Need to Drive.** Implement land use policies designed to create a pattern of activity that makes it easy to shop, play, visit friends, and conduct personal business without driving.
- **Policy MOB-1.17: Reduce Vehicle Miles Traveled.** Through layout of land uses, improved alternate travel modes, and provision of more direct routes, strive to reduce the total vehicle miles traveled by city and non-residents traveling to American Canyon to work or shop.
- **Policy MOB-1.20: Bicycle Plan Funding.** Include funding for the City's Bicycle Plan updates and bikeway improvements consistent with the Bicycle Plan in the City's transportation financing program and TIF, recognizing the multi-modal travel needs of the City.
- **Policy MOB-1.22: Non-motorized Circulation System.** Provide safe and direct pedestrian routes and bikeways between places.
- **Policy MOB-1.23: Pedestrian Connections to Employment Destinations.** Encourage the development of a network of continuous walkways within new commercial, town center, public, and industrial uses to improve workers' ability to walk safely around, to, and from their

workplaces. Where possible, route pedestrians to grade separated crossings over State Route 29.

- **Policy MOB-1.24: Bicycle Facilities.** Bicycle facilities shall be provided to complete a continuous bikeway system, consistent with state standards, as shown on the Bikeway Plan Map. In cases where existing right of way constraints limit development of Class II or Class IV facilities, Class III signage and demarcation may be permitted at the discretion of the City Engineer. Deviations from these standards and from the routing shown on the diagram shall be permitted with the approval of the City Engineer.
- **Policy MOB-4.1: Transit Electrification.** Support NVTa in its efforts to electrify the transit fleet.
- **Policy MOB-4.2: Municipal Fleet.** Prepare a plan to systematically replace the City's vehicle fleet to electric.
- **Policy MOB-4.3: Effects of New Technologies.** Monitor and evaluate the development of convenient new electric mobility technologies (e.g., scootershare and bikeshare).
- **Policy MOB-4.4: Expand Electric Charging Stations.** Evaluate regulatory and incentivized processes and funding mechanisms to streamline new electric vehicle charging stations at the lowest possible cost.
- **Policy MOB-6.1: VMT Thresholds.** Establish vehicle miles traveled (VMT) thresholds and Transportation Demand Management (TDM) mitigation requirements for the purposes of environmental review under the California Environmental Quality Act (CEQA). The City shall continue to maintain LOS standards for the purposes of planning and designing street improvements on Green Island Road, Devlin Road, and American Canyon Road.
- **Policy ENV-10.3: Gas Station Limits.** Recognizing that the transportation sector is the largest source of GHG emissions in American Canyon and in California more broadly, prohibit construction of new fossil-fuel stations in American Canyon.
- **Policy ENV-10.4: Expand Zero Emission Vehicles.** Consider feasible methods to foster widespread use of Zero Emission Vehicles (ZEVs) to improve air quality and help meet California's GHG reductions targets by expanding availability of non-fossil vehicle fuel infrastructure, such as public and private electric vehicle charging stations, and hydrogen facilities for fuel cell electric vehicles throughout American Canyon.
- **Policy ENV-10.5: Vehicle Miles Travelled Reduction.** Reduce vehicle miles travelled by encouraging future land uses that feature a compact mixed-use urban form connected with pedestrian and bicycle trails.
- **Policy ENV-10.7: Vehicle Idling.** Reduce vehicle engine idling in American Canyon by educating the broader community (i.e.: businesses, commuters, residents) on the greenhouse gas impacts caused by engine idling and implementing feasible commercial vehicle regulations.
- **Policy ENV-12.4: EV Charging Station Requirements.** Consider adopting voluntary measures from CalGreen Tier 1 and/or Tier 2 to implement stricter electric vehicle charging requirements for new development.
- **Policy ENV-12.6: City Vehicle Fleet.** Transition the municipal fleet to electric or alternative-fuel vehicles.
- **Policy ENV-12.8: Commute Reduction.** Support programs that reduce commuter vehicle trips.

The project would encourage the development of modern buildings, which would consume less energy in the forms of electricity than existing, older buildings in the Planning Area. The project would also support transportation systems that rely less heavily on internal combustion vehicles and

more on active transportation, transit, and electric vehicles, which would consume less energy in the form of petroleum. The development facilitated by the project would not result in a wasteful, inefficient, or unnecessary consumption of energy, and would not result in potentially significant environmental effects due to the wasteful, inefficient, or unnecessary consumption of energy. Impacts would be less than significant.

4.15.3 Geology and Soils

Based on Appendix G of the CEQA Guidelines a project may be deemed to have a significant impact on geology and soils if it would:

- 1 Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault?
 - ii. Strong seismic ground shaking?
 - iii. Seismic-related ground failure, including liquefaction?
 - iv. Landslides?
- 2 Result in substantial soil erosion or the loss of topsoil?
- 3 Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potential result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?
- 4 Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?
- 5 Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?
- 6 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

An analysis of impacts to paleontological resources and unique geologic features resulting from project implementation is contained in Section 4.8, *Paleontological Resources*. The significance criterion related to paleontological resources is addressed in Section 4.8, *Paleontological Resources*.

Earthquake Fault Rupture

American Canyon is in a seismically active region of northern California. Moderate to strong earthquakes can occur on numerous local faults. Alquist-Priolo earthquake fault zones are regulatory zones that surround the surface traces of active faults in California, created in the Alquist-Priolo Earthquake Fault Zoning Act (Department of Conservation [DOC] 2019). For the purposes of the Alquist-Priolo Earthquake Fault Zoning Act, an active fault is defined as a fault that has ruptured in the past 11,000 years (DOC 2019).

The Planning Area is intersected by the West Napa Fault Zone, an identified Alquist-Priolo Earthquake Fault Zone (DOC 2022). Development facilitated by the project could occur in areas with the potential for fault rupture and associated risk of loss, injury and death. However, development facilitated by the project would not involve mining operations that require deep excavations thousands of feet into the earth, or boring of large areas that could create unstable seismic

conditions or stresses in the Earth's crust. In addition, the following 2040 General Plan proposed policies would reduce impacts by identifying and investigating sites prone to fault ruptures and reducing impacts of fault rupture by protecting new and expanded development, including infrastructure, within areas known to experience fault ruptures:

- **Policy S-4.1: Geologic Hazard Identification.** Reference current local and California Geologic Survey seismic and geologic hazards map surveys.
- **Policy S-4.3: Structure Protection.** Develop inventories of at-risk public buildings and infrastructure and seek funding to bring existing City-owned structures into compliance with updated seismic safety standards.
- **Policy S-4.4: Infrastructure Protection.** Support earthquake strengthening and provision of alternative or backup services, for at-risk infrastructure such as water, sewer, electricity, and natural gas pipelines and connections, for critical facilities especially in areas of high seismic or geologic high hazard or where weak segments are identified by existing or future studies. =
- **Policy S-4.5: Earthquake Protection.** Enforce seismic design provisions all relevant building codes reduce the risk of damage associated with seismic activity in all new and expanded development and ensure adequate review and inspection.
- **Policy S-4.6: Alquist-Priolo Act.** Implement mandatory development restrictions and investigation requirements (by the state, under the Alquist-Priolo Act, or by the City) on the West Napa fault zone located within American Canyon and its Planning Area.
- **Policy S-4.7: Geotechnical Review.** Continue to require preliminary investigations of tract sites by State-registered geotechnical engineers and certified engineering geologists (Chapter 70 County Building Code) and ensure regular inspection of grading operations.

As such, development facilitated by the project would not directly or indirectly cause or increase potential substantial adverse effects involving the rupture of a known earthquake fault. Impacts would be less than significant.

Seismic Ground Shaking

The West Napa Fault Zone runs through the Planning Area and would be capable of producing strong seismic ground shaking in the event of an earthquake. Additionally, the Planning Area is in a seismically active region of northern California where several fault systems are considered to be active or potentially active. Development within the Planning Area may be subject to ground shaking in the event of an earthquake originating along one of the faults designated as active in the vicinity of American Canyon. Nearby active faults include the Cuttings fault (approximately 1.7 miles west), Green Valley fault (approximately 6.2 miles east), Cordelia fault (approximately 6.7 miles northeast), Concord fault (11.5 miles southeast), Hayward fault (approximately 12.4 miles southwest), and the Rodgers Creek fault (approximately 10.4 miles west) (DOC 2022).

Development facilitated by the project would not exacerbate a risk to public safety or destruction of property than what is already present in the region. Residential development would be required to adhere to the standards of the California Building Code (CBC) which provides earthquake design requirements, including earthquake loading specifications for design and construction to resist effects of earthquake motions in accordance with the American Society of Civil Engineers Standard 7-05. The CBC also regulates the design and construction of excavations, foundations, building frames, retaining walls, and other building elements to mitigate the effects of seismic shaking. The impact to people, buildings, or structures from strong seismic ground shaking would be reduced by

mandatory conformance with applicable building codes, and accepted engineering practices. In addition, 2040 General Plan proposed Policies S-4.1, S-4.6, and S-4.7 would reduce impacts by identifying and investigating sites prone to seismic ground shaking. 2040 General Plan proposed policies S-4.3, S-4.4, and S-4.5 would reduce impacts of seismic ground shaking by protecting new and expanded development, including infrastructure, within areas known to experience seismic ground shaking. Therefore, impacts would be less than significant.

Liquefaction

Liquefaction is a phenomenon in which loose, saturated, granular soils behave similarly to a fluid when subjected to high-intensity ground shaking. Liquefaction occurs when three general conditions exist: shallow groundwater; low density, fine, clean sandy soils; and strong ground motion. Liquefaction-related effects include loss of bearing strength, amplified ground oscillations, lateral spreading, and flow failures.

According to the DOC, the Planning Area has not been evaluated for seismically-induced liquefaction risk (DOC 2022). However, according to the United States Geologic Survey (USGS), most of the Planning Area is within low susceptibility liquefaction zones; portions of the city south of American Canyon Road are within moderate susceptibility liquefaction zones; and a small portion of the city along American Canyon Road is classified as very high susceptibility (USGS 2006). Development facilitated by the project is required to adhere to the standards of the CBC, which includes mandatory site-specific geotechnical investigations for individual projects. Compliance with applicable building codes would reduce seismic ground shaking impacts with current engineering practices, and the project would not exacerbate liquefaction potential in the Planning Area. In addition, the following 2040 General Plan proposed policies would minimize impacts from liquefaction:

- **Policy S-4.2: Liquefaction.** Require special site-specific studies in areas potentially subject to liquefaction to determine engineering mitigations and development siting measures for new development.

Compliance with the CBC and the proposed policy in the 2040 General Plan would ensure that impacts related to liquefaction would be less than significant.

Landslides

The geologic character of an area determines its potential for landslides. Steep slopes, the extent of erosion, and the rock composition of a hillside all contribute to the potential for slope failure and landslide events. In order to fail, unstable slopes need to be disturbed; common triggering mechanisms of slope failure include undercutting slopes by erosion or grading, saturation of marginally stable slopes by rainfall or irrigation; and, shaking of marginally stable slopes during earthquakes. Due to the varied topography of the Planning Area, there is potential for landslides within the city and to the immediate east (City of American Canyon 1994).

Pursuant to the City of American Canyon Municipal Code Section 18.02.070, development facilitated by the project would be required to perform soils tests within thirty days prior to the issuance of a building permit. If future development under the project were to occur in a landslide area, it would be subject to further study and approval. In addition, the following 2040 General Plan proposed policies would minimize impacts from landslides:

- **Policy S-4.8: Landslide Activity.** Restrict new development in areas of known landslide activity unless adequate mitigation is incorporated.

Compliance with the City of American Canyon Municipal Code and the proposed policy in the 2040 General Plan would ensure that impacts related to landslides would be less than significant.

Erosion

Soil erosion or the loss of topsoil may occur when soils are disturbed but not secured or restored, such that wind or rain events mobilize disturbed soils, resulting in their transport offsite. Ground disturbing activities associated with development facilitated by the project would have the potential to result in the removal and erosion of topsoil during grading and excavation. Construction activities that disturb one or more acres of land are subject to the National Pollutant Discharge Elimination System (NPDES) Construction General Permit, which would require development of a Stormwater Pollution Prevention Plan (SWPPP) that outlines project-specific Best Management Practices (BMPs) to control erosion, sediment release, and otherwise reduce the potential for discharge of pollutants from construction into stormwater. Typical BMPs include, but are not limited to, installation of silt fences, erosion control blankets, and anti-tracking pads at site exits to prevent off-site transport of soil material.

For construction activities, the City of American Canyon Municipal Code Chapter 14.28 requires implementation of stormwater pollution control requirements for construction activities. Construction activities would also be required to comply with CBC Chapter 70 standards, which are designed to ensure implementation of appropriate measures during grading and construction to control erosion and storm water pollution.

Therefore, erosion from ground-disturbing activities associated with future development from the project would be controlled through implementation of the requirements and BMPs in existing regulations, including the Construction General Permit and City of American Canyon Municipal Code. Compliance with the regulations discussed above would reduce the risk of soil erosion from construction activities and impacts would be less than significant.

Geologic or Soil Instability and Expansive Soils

Impacts related to landslides and liquefaction are discussed above; therefore, this discussion focuses on impacts related to unstable or expansive soils because of lateral spreading, subsidence, or collapse. Lateral spreading occurs because of liquefaction; accordingly, liquefaction-prone areas would also be susceptible to lateral spreading. Subsidence occurs at great depths below the surface when subsurface pressure is reduced by the withdrawal of fluids (e.g., groundwater, natural gas, or oil) resulting in sinking of the ground. Soils that volumetrically increase (swell) or expand when exposed to water and contract when dry (shrink) are considered expansive soils. A soil's potential to shrink and swell depends on the amount and types of clay in the soil. Highly expansive soils can cause structural damage to foundations and roads without proper structural engineering and are generally less suitable or desirable for development than non-expansive soils.

Development facilitated by the project would not affect existing conditions (unless development is improperly constructed) related to unstable or expansive soils since the land use pattern emphasizes infill development. Implementation of 2040 General Plan proposed Policy S-4.7 would require a geotechnical investigation to ensure geologic stability prior to ground disturbance, which would reduce impacts of unstable soils. Future development would be required to comply with the CBC's minimum standards for structural design and site development. The CBC provides standards for excavation, grading, and earthwork construction; fills and embankments; expansive soils; foundation investigations; and liquefaction potential and soils strength loss. Thus, CBC-required incorporation of soil treatment programs (replacement, grouting, compaction, drainage control,

etc.) in the excavation and construction plans can achieve an acceptable degree of soil stability to address site-specific soil conditions. Adherence to these requirements would achieve accepted safety standards for unstable geologic units or soils. In addition, although reasonably foreseeable development under the project would potentially be subject to these hazards, it would not increase the potential for lateral spreading, subsidence, or collapse. Therefore, impacts would be less than significant.

Septic Systems

The project would emphasize development within the Planning Area where existing infrastructure exists. New development under the project is not anticipated to include the use of septic systems. Therefore, there would be no impact related to the use of septic tanks or alternative wastewater disposal systems.

4.15.4 Hazards and Hazardous Materials

Based on Appendix G of the CEQA Guidelines a project may be deemed to have a significant impact on hazards and hazardous materials if it would:

- 1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- 2 Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- 3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- 4 Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- 5 For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area;
- 6 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- 7 Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

An analysis of the risk of exposure to wildland fires resulting from project implementation is contained in Section 4.14, *Wildfire*. The significance criterion related to wildfire is addressed in Section 4.14, *Wildfire*.

Hazardous Materials Transport, Use, and Disposal

Future development facilitated by the project would involve the use of potentially hazardous materials, such as vehicle fuels and fluids, which could be released, should a spill or leak occur. Contractors of individual development projects would be required to implement standard construction BMPs for the use or handling of such materials to avoid or reduce the potential for such conditions to occur. Any transport, use, or disposal of hazardous materials would be carried out in accordance with applicable local, State, and federal regulations regarding the handling of

potentially hazardous materials. These include the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act, the California Hazardous Materials Management Act, and California Code of Regulations Title 22. Hazardous materials transported on State highways, such as State Route 29, would be subject to California Department of Transportation (Caltrans) requirements, as described in Title 49 of the Code of Federal Regulations. The American Canyon Municipal Code Chapter 19.14.040 requires all operations in industrial districts, which involve the storage, use, or transport of flammable or explosive materials or gases obtain adequate safety devices to prohibit hazard release and adequate firefighting equipment. Mandatory compliance with all applicable local, State, and federal laws and regulations relating to the transport, use, and disposal of hazardous materials during construction and operation of future development facilitated by the project would minimize the potential to create a significant hazard to the public or the environment through the routine transport, use, and disposal of hazardous materials. Therefore, this impact would be less than significant.

Upset and Accident Conditions

As described above in the *Hazardous Materials Transport, Use, and Disposal* section, the transport, use, and disposal of hazardous material would be conducted in accordance with all applicable laws and regulations, including the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act, the California Hazardous Materials Management Act, California Code of Regulations Title 22, and Title 49 of the Code of Federal Regulations. Additionally, the Napa County Office of Emergency Services has protocols to remedy the accidental release of hazardous materials, as set forth in the County of Napa Emergency Operations Plan (County of Napa 2016). These regulatory safeguards minimize exposure of the public and environment to a potential release of hazardous materials.

Future development facilitated by the project that requires demolition or redevelopment of existing structures, particularly old structures, has the potential to expose workers and the public to asbestos. The California Health and Safety Code Section 19827.5 requires local agencies not issue a demolition or alteration permits until an applicant has assessed the potential for a structure to contain asbestos and demonstrated compliance with notification requirements under federal regulations involving hazardous air pollutants, including asbestos. California Code of Regulations Section 1532.1 requires testing, monitoring, containment, and disposal of lead-based materials, such that exposure levels do not exceed California Occupational Safety and Health Administration (CalOSHA) standards. Similarly, California Code of Regulations Section 1529 sets requirements for asbestos exposure assessments and monitoring, methods of complying with exposure requirements, safety wear, communication of hazards, and medical examination of workers. The control of asbestos-containing material during demolition or renovation activities is regulated under the federal Clean Air Act which requires thorough inspection for asbestos where demolition will occur and specifies work practices to control emissions, such as removing all asbestos-containing materials, adequately wetting all regulated asbestos-containing materials, sealing the material in leak tight containers, and disposing of the asbestos-containing waste material as expediently as practicable (United States Environmental Protection Agency [U.S. EPA] 2022). Furthermore, demolition, renovation, and manufacturing activities would be regulated by the Bay Area Air Quality Management District (BAAQMD) through adherence to Regulation 11 Rule 2 which sets standard procedures to prevent emissions from asbestos-containing materials (BAAQMD 1998). As such, the potential for release of asbestos would be minimized.

Future development facilitated by the project could involve the use, storage, disposal, or transportation of hazardous materials. Some potential commercial, residential, and visitor-serving uses do not generally involve the use, storage, disposal, or transportation of significant quantities of hazardous materials. Hazardous material use and storage would primarily consist of common household hazardous materials such as solvents, paints, and chemicals used for cleaning and building maintenance, and landscaping supplies. These materials would not be different from household hazardous materials currently in use throughout the Planning Area. Residents and workers are anticipated to use limited quantities of products that could contain hazardous materials routinely for periodic cleaning, repair, and maintenance, or for landscaping and pest control. The disposal of household hazardous materials would be conducted in compliance with applicable regulations, pursuant to American Canyon Municipal Code 14.16.400.

Future development facilitated by the project could include industrial uses which could sell, use, store, transport, or release substantial quantities of hazardous materials. Businesses that handle certain chemicals over threshold quantities are required to abide by the Napa County Division of Environmental Health programs, such as preparation of a Hazardous Materials Business Plan (HMBP). The HMBP consists of basic information on the location, type, quantity, and health risks of hazardous materials, and emergency response and training plans (California Environmental Protection Agency [CalEPA] 2022). Hazardous materials must be reported in a HMBP if they are handled in quantities equal or greater than 55 gallons of a liquid, 200 standard cubic feet of a compressed gas, or 500 pounds of a solid (CalEPA 2022). Mandatory reporting in HMBPs would reduce potential hazards to workers and the general public near industrial development from reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Overall, applicable federal, State, and local regulations would minimize the potential for future development facilitated by the project to create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, this impact would be less than significant.

Schools

Future development facilitated by the project could include facilities which transport, use, handle, or dispose of hazardous materials. There are three elementary schools, one middle school, and one high school that serve American Canyon (Napa Valley Unified School District 2022). As described under the *Hazardous Materials Transport, Use, and Disposal* discussion, any transport of hazardous materials would be required to comply with applicable regulations for the use, transport, and disposal of hazardous materials. Future development facilitated by the project, which would be reasonably anticipated to emit hazardous air emissions or would handle a hazardous substance within 0.25-mile of an existing school would be required to notify the affected school district, pursuant to Public Resources Code Section 21151.4. Compliance with existing regulations would reduce the potential for a school to be exposed to hazardous materials.

The project would involve land use changes that could result in the construction of up to 25 residential units near Napa Junction Elementary School and up to 150 residential units near American Canyon High School. Housing is not a land use typically associated with the use, transportation, storage, or generation of significant quantities of hazardous materials. Operation of new housing development in accordance with the proposed land use changes may result in an incremental release in the use of common household hazardous materials such as cleaning and degreasing solvents, but these materials are not anticipated to be used in substantial quantities

such that their use poses a hazard to students at Napa Junction Elementary School or American Canyon High School. Furthermore, the construction of residences would occur in accordance with applicable regulations for the use, transport, and disposal of hazardous materials and would be subject to City-review, which would minimize the potential for temporary construction-related impacts regarding hazardous materials. Therefore, the proposed land use changes would not result in a hazard to school facilities.

Regarding future schools that may be developed to accommodate forecasted population increases in American Canyon, provisions of the California Education Code Section 17213 would apply. Section 17213 requires the City to ensure the chosen site for a proposed school is not built on current or hazardous waste disposal sites, is not on a hazardous substance release site identified by the California Department of Toxic Substances Control (DTSC), and does not contain pipelines that carry hazardous substances. Assessment of any contamination is conducted in coordination with the DTSC's Brownfields Restoration and School Evaluation Branch which is responsible for assessing, investigating, and cleaning up proposed school sites (DTSC 2022a). The DTSC ensures that selected sites are free of hazardous materials, or if the sites were previously contaminated, have been remediated to a level that protects future students and staff who will occupy a new school. Therefore, the project would not result in the handling of hazardous or acutely hazardous materials substances or waste within 0.25 mile of an existing or proposed school. This impact would be less than significant.

Hazardous Materials Sites

The DTSC's EnviroStor database and the State Water Resource Control Board's (SWRCB) GeoTracker database were reviewed to determine the locations of potentially hazardous materials sites in the Planning Area. The results of this search are provided in Table 4.15-1 below.

Table 4.15-1 Identified Hazardous Materials Sites in American Canyon

Site Name	Address	Site Type	Status
Beacon #3710 (Former) and Tesoro # 67050, Case #2	3438 Hwy 29	LUST Cleanup Site	Completed - Case Closed
Arco	3462 Hwy 29	LUST Cleanup Site	Completed - Case Closed
Caltrans Route 29 Post Mile 1.13 (At Napa Valley Casino)	3466 Broadway Street	LUST Cleanup Site	Completed - Case Closed
Doshier Property	5365 Hwy 29	LUST Cleanup Site	Completed - Case Closed
Evan Athan Enterprises	4381 Hwy 29	LUST Cleanup Site	Completed - Case Closed
Golden State Lumber Inc	150 Napa Junction Road	LUST Cleanup Site	Completed - Case Closed
Golden State Lumber Inc	150 Napa Junction Road - South	LUST Cleanup Site	Completed - Case Closed
Independent Stave Company	4391 Hwy 29	LUST Cleanup Site	Completed - Case Closed
Jaeger Vineyards	658 Napa Junction Road	LUST Cleanup Site	Completed - Case Closed
Medeiros Property	289 Napa Junction Road	LUST Cleanup Site	Completed - Case Closed
Sunshine Auto Salvage	1578 Green Island Road	Cleanup Program Site	Completed - Case Closed
American Canyon High School	3000 Newell Drive	School Cleanup	Certified/Operation & Maintenance
Canyon Crossings	Napa Junction Road	Voluntary Cleanup	Active

LUST = Leaking Underground Storage Tank

Source: DTSC 2022b; SWRCB 2022

Future development facilitated by the project could occur on sites with underground storage tanks (USTs). Tank removal activities could pose both health and safety risks from tank contents or vapors to workers, tank handling personnel, and the public. Potential risks, if any, posed by USTs could be minimized by managing the tank according to existing standards contained in California Health and Safety Code Division 20, Chapters 6.7 and 6.75 (UST Program), as enforced and monitored by the Environmental Programs Division. The extent to which groundwater may be affected by an UST or other potential contamination source depends on the type of contaminant, the amount released, the duration of the release, distance from source, and depth to groundwater. If contamination exceeds regulatory action levels, future developers would be required to undertake remediation procedures prior to grading and development under the supervision of the San Francisco Bay Regional Water Quality Control Board, depending on the nature of any identified contamination. Furthermore, the 2040 General Plan would include the following proposed policy and Implementation Program to minimize impacts related to hazardous materials.

- **Policy S-5.6: Hazardous Material Review.** Review new development sites for potential presence of hazardous materials.
- **Implementation Program TT: Environmental Site Assessment.** If determined by the City to be necessary, a Phase I Environmental Site Assessment in accordance with ASTM International methodologies shall be completed for a development proposal prior to project approval. If the Phase I Environmental Site Assessment determines hazardous materials may be present, a Phase II Environmental Site Assessment may be required. If the Phase II ESA for the development site indicates that contaminants are detected in the subsurface at the project site, the project applicant shall prepare a Soil Management Plan for impacted soils prior to the start of construction.

Future development facilitated by the project would be required to identify hazardous materials sites in accordance with proposed Policy S-5.6 and Implementation Program TT and remove such hazardous materials in accordance with applicable State and local regulations. As a result, the project would not create a significant hazard to the public or the environment due to being located on a hazardous materials site. This impact would be less than significant.

Airport Land Use Hazards

The Napa County Airport is located approximately 0.4 mile north of American Canyon. Development within the Napa County Airport's sphere of influence is governed by the Napa County Airport Land Use Compatibility Plan (ALUCP) (Napa County Airport Land Use Commission [ALUC] 1991). Future development facilitated by the project could occur within the noise contours delineated in the ALUCP. In accordance with California Public Utilities Code 21676, ALUCs must review general plans for consistency with the ALUCP.

The ALUC would review the 2040 General Plan for consistency with the Noise Compatibility Guidelines provided in the ALUCP, which indicates light industrial and commercial noise exposure is normally or clearly acceptable at under 65 A-weighted decibels (dBA) Community Noise Equivalent Level (CNEL) and marginally acceptable at under 75 dBA CNEL. Within the ALUCP's sphere of influence zones, identified as Zone D in the ALUCP, a 35-foot height restriction for development is implemented which ensures safety hazards from building heights are minimized. A permit to exceed the height limit may be obtained after approval from the ALUC. However, specific future development that may affect navigable airspace would still be subject to Federal Aviation Administration review, pursuant to the Code of Federal Regulations, Parts 77.5, 77.7, and 77.9.

In addition to review by the ALUC, the 2040 General Plan proposed policies would minimize loss of life, injury, and property damage resulting from aircraft operations. Specifically, 2040 General Plan proposed policies include the following:

- **Policy S-6.1: Airport Land Use Consistency.** Review all applications for new development, expansion of existing uses, and re-use within Napa County Airport Compatibility Zones “A” through “E” for compliance with the appropriate use and development conditions.
- **Policy S-6.2: Adverse Airport Impact Mitigation.** Work with the Napa County Airport Authority to ensure that onsite ground activities of the Airport do not adversely impact (e.g., noise, vibration, air emissions, or other pollution) the City of American Canyon.
- **Policy S-6.3: Airport Traffic Impacts.** Work with the Napa County Airport Authority to ensure that airport vehicular access does not adversely impact the City of American Canyon.

Compliance with the ALUCP, review by the ALUC, and implementation of 2040 General Plan proposed policies would ensure the project would not result in a safety hazard or excessive noise for people residing or working in the project area. Therefore, this impact would be less than significant.

Impairment of Emergency Response Plans

Construction activities associated with future development facilitated by the project could interfere with adopted emergency response or evacuation plans because of temporary construction activities within rights-of-way, temporary construction barricades, or other obstructions that could impede emergency access. Any temporary construction barricades or other obstructions that could impede emergency access on State highway systems would be subject to the standards set forth in the California Manual of Uniform Traffic Control Devices (Manual) (Caltrans 2021). The Manual requires the creation and approval of temporary traffic control plans to be used for facilitating road users through a work zone (Caltrans 2021). Adherence to the Manual requirements for construction activities would minimize potential impacts associated with the impairment or physical interference of an adopted emergency response plan or evacuation procedures for State highways. Construction that would occur within a public easement or right-of-way would be required to obtain an encroachment permit. In order to obtain an encroachment permit, traffic control plans would need to be submitted to the City’s Public Works Department for review and approval (City of American Canyon 2015). These regulations would ensure construction activities associated with future development would not impair emergency evacuation or emergency response plans.

Increased future development could result in additional traffic. However, 2040 General Plan proposed policies would support safe evacuation routes in the event of an emergency. Proposed policies include the following:

- **Policy MOB-3.1: Parallel North-South Roadway.** Prioritize construction of roadways that provide alternate vehicle access parallel to Highway 29 through American Canyon and coordinate continuation of parallel routes outside the City with Regional Agencies.
- **Policy MOB-3.2: Evacuation Routes.** Identify important roadways that would serve as evacuation routes in the event of an emergency.
- **Policy MOB-3.3: Natural Hazard Awareness Week.** Coordinate with the American Canyon Fire Protection District to conduct outreach to the community on emergency evacuation routes in our community.

- **Policy MOB-3.4: Evacuation Route Obstacles.** Evaluate potential physical conditions that could impede an evacuation route. Examples include overhead utility poles, dead/ dying trees, aging infrastructure.

Furthermore, development facilitated by the project must comply with road standards and would be reviewed by the American Canyon Fire Protection District to ensure development would not interfere with evacuation routes or impede the effectiveness of evacuation plans. Implementation of the 2040 General Plan would not introduce new features or policies that would preclude implementation of or alter these plans or procedures. Therefore, the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. This impact would be less than significant.

4.15.5 Hydrology and Water Quality

Based on Appendix G of the CEQA Guidelines a project may be deemed to have a significant impact on hydrology and water quality if it would:

- 1 Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
- 2 Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- 3 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
 - i. Result in a substantial erosion or siltation on- or off-site;
 - ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
 - iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
 - iv. impede or redirect flood flows.
- 4 In a flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
- 5 Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Water Quality Standards or Waste Discharge Requirements

Future development facilitated by the project and future mobility improvements (i.e., improvements to roadways, bicycle facilities, and pedestrian facilities) could result in construction activities which may contribute to soil erosion and degraded water quality. Pursuant to the Clean Water Act, construction activities that disturb one or more acres of land are subject to the NPDES Construction General Permit, which requires the development of a SWPPP developed by a certified Qualified SWPPP Developer. The SWPPP includes project-specific BMPs to control erosion, sediment release, and otherwise reduce the potential for discharge of pollutants from construction into stormwater. Typical BMPs include, but are not limited to, installation of silt fences, erosion control blankets, and anti-tracking pads at site exits to prevent off-site transport of soil materials. Chapter 14.28 of the American Canyon Municipal Code requires any construction activities in the City to

implement appropriate BMPs to prevent the discharge of sediment. The American Canyon Municipal Code Section 14.28.080 requires implementation of erosion and sediment control BMPs to further reduce discharge of sediment and other particulate matter into the City's water systems. In addition, future development facilitated by the project would be subject to the following 2040 General Plan proposed policy:

- **Policy U-4.1: Storm Drainage Maintenance.** Maintain existing public storm drains and flood control facilities and construct upgraded and expanded storm drain and flood control facilities, where necessary, to protect existing and accommodate new permitted development.

Compliance with the NPDES Construction General Permit, SWPPP, and City regulations would ensure BMPs are implemented during new construction to minimize potential impacts to water quality. Impacts would be less than significant during construction of future development and mobility improvements.

Operation of future development facilitated by the project would be required to comply with the provisions of California's Phase II Small Municipal Separate Storm Sewer System (MS4) Storm Water Permit. In addition, American Canyon Municipal Code Section 14.28.082 requires implementation of a Stormwater Control Plan (SCP) for all new development and redevelopment projects subject to post-construction stormwater control measure requirements. The SCP requires implementation of site design measures and treatment facilities meeting the criteria established by the Bay Area Stormwater Management Agencies Association (BASMAA), including minimization of impervious surfaces, retainment or detainment of stormwater, slow runoff rates, and a reduction in pollutants in post-development runoff (BASMAA 2019). If future development facilitated by the project were to be categorized under Standard Industrial Classification (SIC) codes, it would be subject to the Industrial General Permit, which requires development of a site-specific operational SWPPP. Implementation of the operational SWPPP would reduce the risk of water degradation on site and off site from soil erosion and other pollutants related to project operation because an operational SWPPP requires the design, installation, and maintenance of post-construction stormwater controls. The operational SWPPP identifies the site-specific sources of pollutants and describes the best management practices implemented at the facility to prevent dry weather runoff and to reduce pollutants in storm water discharges. In addition, future development facilitated by the project would be subject to the following 2040 General Plan proposed policy:

- **Policy U-4.8: Low Impact Development.** Require new developments to install green infrastructure consistent with the best management practices of the State and the San Francisco Bay Regional Water Quality Control Board, including but not limited to pervious pavement, infiltration basins, raingardens, green roofs, rainwater harvesting systems, and other types of low impact development (LID).

Implementation of permit requirements and 2040 General Plan proposed policies would minimize impacts related to water quality and ensure development facilitated by the project would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Therefore, this impact would be less than significant.

Groundwater Supplies and Recharge

American Canyon underlies the Napa Sonoma Lowlands Subbasin which is classified as a Very Low Priority basin by the California Department of Water Resources (DWR) (DWR 2022). Development facilitated by the project would be served with potable water from the City, which does not utilize

local groundwater for municipal purposes (City of American Canyon 2016). Accordingly, development facilitated by the project would not substantially decrease groundwater supplies.

Future development facilitated by the project could introduce new impervious surfaces through the construction of paved areas; however, implementation of the SCP requires introduction of low-impact development site design measures, which would assist in groundwater recharge. These measures include, but are not limited to limiting impervious surfaces, routing runoff to bioretention facilities for groundwater storage, or requiring the use of pervious pavements (BASMAA 2019). Future development facilitated by the project would implement design standards pursuant to BASMAA standards and as a result, minimize the potential for substantial prevention of groundwater recharge. Furthermore, 2040 General Plan would implement proposed Policy U-4.8, as well as the following proposed policy that would promote groundwater recharge:

- **Policy U-4.2: Maximize Pervious Surfaces.** Consistent with engineering standards, minimize storm water runoff from new development with pervious surface materials (grass, ground cover, and other).

The project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. This impact would be less than significant.

Alteration of Existing Drainage Patterns

Future mobility improvements facilitated by the project, including improvements to roadways, bicycle facilities, and pedestrian facilities would primarily consist of repaving roads, adding bicycle lanes, installing roundabouts, and repainting median strips. Such projects would not involve the addition of substantial impervious surfaces or alternation of the course of a stream or river. However, future development facilitated by the project could alter the existing drainage patterns on individual project sites by adding impervious surfaces. Chapter 14.28 of the American Canyon Municipal Code requires any construction activities in the City to implement appropriate BMPs to prevent the discharge of sediment. An Erosion and Sediment Control Plan is required for any project that is:

- Subject to a grading permit;
- Subject to a building permit that has the potential for significant erosion and/or significant non-stormwater discharges of sediment and/or construction site waste;
- Any other project as required by the authorized enforcement official considering factors such as whether the project involves hillside soil disturbance, rainy season construction, construction near a watercourse, or any other condition or construction site activity that could lead to a non-stormwater discharge to a storm drain.

The Erosion and Sediment Control Plan is required to include a description of soil disturbing activity, site-specific construction-phase BMPs, rationale for selecting BMPs, list of applicable permits, proof the applicant has obtained applicable permits, and project information consistent with the most recent version of the Napa Countywide Erosion and Sediment Control Plan Model Template checklist. For projects subject to the NPDES Construction General Permit, a SWPPP may be submitted in lieu of an Erosion and Sediment Control Plan. The SWPPP includes project-specific BMPs to control erosion, sediment release, and otherwise reduce the potential for discharge of pollutants from construction into stormwater. As stated in the *Flood, Tsunami, or Seiche Zones* discussion, American Canyon Municipal Code Chapter 8.16 requires flood control measures to be

implemented during construction for projects in flood hazard areas, including development to be elevated above the base flood elevation. Furthermore, the 2040 General Plan would include proposed Policy U-4.1 and the following proposed policy for storm and flood control:

- **Policy S-3.1: Regulatory Compliance.** Coordinate with local, state, and federal agencies to ensure the City's flood control regulations comply with federal, State, and local standards.

Runoff during operation of the development facilitated by the project would be regulated under the Phase II MS4 Storm Water Permit, implemented by the American Canyon Municipal Code 14.28. American Canyon Municipal Code Section 14.28.082 requires an SCP. The SCP requires implementation of site design measures and treatment facilities meeting the criteria established by BASMAA, including minimization of impervious surfaces, retainment or detainment of stormwater, slow runoff rates, and a reduction in pollutants in post-development runoff (BASMAA 2019). In addition, the 2040 General Plan would implement proposed Policy U-4.8, which would require green infrastructure. Compliance with existing City regulations and 2040 General Plan proposed policies would ensure development facilitated by the project would not substantially alter the existing drainage pattern of a site or area such that substantial erosion or siltation on- or off-site; flooding on- or off-site; exceedance of the capacity of existing or planned stormwater drainage systems or provision of additional sources of polluted runoff; or impediment or redirection of flood flows would occur. Therefore, impacts would be less than significant.

Flood, Tsunami, or Seiche Zones

The nearest body of water subject to seiche is Lake Frey, located approximately 6.9 miles northeast of the northern border of the City limits. Given the proximity to Lake Frey, American Canyon is not at risk of seiche. American Canyon contains flood hazard zones designated by the Federal Emergency Management Agency (FEMA) which traverse east to west along American Canyon Creek and at the western border of the City limits near the Napa River (FEMA 2022). In addition, the southwestern portion of Planning Area is in a Tsunami Hazard Area as mapped by the California Department of Conservation (DOC) (DOC 2022).

Future mobility improvements facilitated by the project, including improvements to roadways, bicycle facilities, and pedestrian facilities would not create substantial pollutant risk due to inundation. The amount of pollution washed off a roadway in a flood would typically be the same as pollution washed off in a heavy rain, as most pollutants on roads, bicycle and pedestrian facilities consist of motor oil, metals from brake pads, and trash. While it is possible floodwaters could rise high enough to overcome drainage ditches, bioswales, and similar pollution-capturing systems alongside roadways, the 2040 General Plan would implement proposed Policies S-3.1 and U-4.1, which require storm drains be maintained and improved where necessary. As a result, inundation risk associated with mobility improvements facilitated by the project would be minimal.

Future development facilitated by the project in flood hazard zones or tsunami hazard areas could risk pollutant release due to inundation. However, American Canyon Municipal Code Chapter 8.16 sets floodplain management regulations that implement requirements for flood hazard reduction in flood hazard zones. Section 8.16.160 requires all new construction and substantial improvements in all areas of special flood hazards to be adequately anchored to prevent flotation, collapse, or lateral movement resulting from flood waters. All new construction and substantial improvements are required to utilize flood resistant materials as specified in FEMA Technical Bulletin 2-93, and both residential and nonresidential construction are required to be elevated above the base flood elevation. All development within a flood hazard zone is required to receive a certification by a

registered professional engineer or architect which states the City's floodplain requirements have been satisfied. Furthermore, the 2040 General Plan would include the following proposed policies for flood control:

- **Policy S-3.2: FEMA Coordination.** Coordinate with the Federal Emergency Management Agency (FEMA) to ensure that Federal Insurance Rate Maps correctly depict flood hazards in the City.
- **Policy S-3.5: Private Preventive Maintenance.** Require property owners keep natural drainage courses on their sites free of obstructions such as structures, dams, and debris, which may adversely affect flooding on the site or downstream properties.

Future development facilitated by the project within flood hazard zones or tsunami hazard areas would adhere to the requirements of the American Canyon Municipal Code and the 2040 General Plan. With adherence to applicable regulations, the project would not risk release of pollutants due to inundation. Therefore, this impact would be less than significant.

Conflicts with a Water Quality Control Plan or Sustainable Groundwater Management Plan

American Canyon underlies the Napa Sonoma Lowlands Subbasin which is classified as a Very Low Priority basin by the DWR (DWR 2022). The Sustainable Groundwater Management Act requires local agencies to form groundwater sustainability agencies to manage groundwater resources in high and medium priority basins. Accordingly, the Napa Sonoma Lowlands Subbasin is not subject to a sustainable groundwater management plan. Therefore, the project would not conflict with or obstruct implementation of a sustainable groundwater management plan.

The City is within the jurisdiction of the San Francisco Bay RWQCB. The San Francisco Bay RWQCB implements the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan), which functions as a master water quality control planning document. The Basin Plan includes programs of implementation to achieve water quality objectives (San Francisco Bay RWQCB 2019). As previously discussed, future development facilitated by the project and future mobility improvements would implement State and local regulatory requirements, including the provisions of the Construction General Permit, the Industrial General Permit, and Chapter 14.28 of the American Canyon Municipal Code. Furthermore, 2040 General Plan proposed Policy U-4.8 requires new development to install green infrastructure consistent with BMPs of the State and the San Francisco Bay RWQCB. 2040 General Plan proposed Policy U-4.8 would ensure future development facilitated by the project, including future mobility improvements, implement design features which promote the water quality goals of the Basin Plan. Therefore, the project would not conflict with or obstruct implementation of a water quality control plan. This impact would be less than significant.

4.15.6 Mineral Resources

Based on Appendix G of the CEQA Guidelines a project may be deemed to have a significant impact on mineral resources if it would:

- 1 Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state;
- 2 Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

There are no areas within the Planning Area that contain known mineral resources (DOC 1983). Project implementation would not preclude mineral extraction or would result in development in areas with mineral resources. Therefore, the project would not result in the loss of availability of a known mineral resources that would be of value to the region or the loss of availability of a locally important mineral resource recovery site. No impacts would occur.

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5 Other CEQA Required Discussions

This section discusses other issues for which the California Environmental Quality Act (CEQA) requires, in addition to the specific issue areas discussed in Section 4, *Environmental Impact Analysis*. These additional issues include the project's potential to induce growth, create significant and irreversible impacts on the environment, and significant environmental effects which cannot be avoided if the project is implemented.

5.1 Growth Inducement

CEQA Guidelines Section 15126(d) requires a discussion of a project's potential to foster economic or population growth, including ways in which a project could remove an obstacle to growth. Growth does not necessarily create significant physical changes to the environment. However, depending upon the type, magnitude, and location of growth, it can result in significant adverse environmental effects. A project's growth inducing potential is therefore considered significant if project-induced growth could result in significant physical effects in one or more environmental issue areas.

5.1.1 Population and Economic Growth

This environmental impact report (EIR) identifies a maximum buildout for the project, which is a conservative assumption developed for this analysis. Overall, maximum growth is dependent on multiple factors, including local economic conditions, market demand, and other financing considerations. The following conservative estimate of population growth is based on the project's maximum buildout scenario, which would accommodate approximately 3,204 additional housing units and 10,734 additional residents. The City has planned for the addition of new residences to the City through several plans which have undergone environmental review, including the Broadway District Specific Plan and Watson Ranch Specific Plan. Under the maximum buildout scenario, the project could result in an increase of approximately 5.7 million square feet of non-residential development that would generate permanent employment opportunities in American Canyon for residents. Though implementation of new and updated policies in the 2040 General Plan, the City would reduce significant physical effects on the environment resulting from population and economic growth. For example, as described in Section 4.10, *Public Services and Recreation* and Section 4.13, *Utilities and Service Systems*, the implementation of proposed policies in the 2040 General Plan would ensure that there are sufficient public services and utilities to meet the demand associated with population and economic growth. As such, the impacts from population and economic growth would be less than significant.

In addition, the project would generate temporary employment opportunities during construction of future residential and nonresidential projects. As construction workers would be expected to be drawn from the existing regional work force, construction of future development projects would not be considered growth-inducing. Therefore, the project would not induce uncontrolled population or economic growth and associated environmental impacts.

5.1.2 Removal of Obstacles to Growth

Development facilitated by the project would require new utility connections, including connections to water, hydrants, sewers, electricity, telecommunications, or other utilities like stormwater facilities. However, these connections would generally occur within individual footprints or rights-of-way that were previously disturbed, minimizing the impact of development on existing infrastructure and services. Development would use existing facilities and major infrastructure extensions would not occur in or be designed to serve areas beyond the sites analyzed in this EIR.

The project would result in some land use designation changes; however, these changes primarily resolve inconsistencies between existing land uses and land use designations in the General Plan. As such, the project would generally preserve the existing land use pattern in American Canyon. The project does not facilitate development within the sphere-of-influence (SOI) or urban limit line. Any future proposals to develop within the SOI or urban limit line would be subject to annexation to the City of American Canyon in compliance with procedures identified by the Napa County Local Agency Formation Commission, as well as additional environmental documentation.

In addition, as described in Chapter 2, *Project Description*, the 2040 General Plan includes mobility improvements, including roadway extensions. These roadway extensions would serve approved or pending development. For example, the Newell Drive Extension would serve, in part, the future development associated with the Watson Ranch Specific Plan.

For the reasons identified above, the project would not result in significant growth inducement due to the removal of an obstacle to growth.

5.2 Significant Irreversible Environmental Effects

CEQA Guidelines Section 15126(c) requires a discussion of significant irreversible environmental changes that would be involved in the project, should the project be implemented. This section addresses non-renewable resources, the commitment of future generations to the proposed uses, environmental accidents, and irreversible impacts associated with the project.

The project would irreversibly increase local demand for non-renewable energy resources such as petroleum products and potentially natural gas. However, increasingly efficient building design would offset this demand to some degree by reducing energy demands of future development. As described in Section 4.15, *Effects Found to Be Less Than Significant*, development facilitated by the project would be subject to the energy conservation requirements of the California Energy Code (Title 24, Part 6, of the California Code of Regulations, *California's Energy Efficiency Standards for Residential and Nonresidential Buildings*) and the California Green Building Standards Code (Title 24, Part 11 of the California Code of Regulations). The California Energy Code provides energy conservation standards for all new and renovated buildings, and the Green Building Standards Code requires solar access, natural ventilation, and stormwater capture. Furthermore, the project would implement several policies which would require efficient energy use and promote renewable energy programs. Consequently, development facilitated by the project would not use unusual amounts of energy or construction materials and impacts related to consumption of non-renewable and renewable resources would be less than significant. Consumption of these resources would occur with any development in the region and is not unique to the project.

Growth facilitated by the project would require an irreversible commitment of fire protection, law enforcement, water supply, wastewater treatment, and solid waste disposal services. As discussed in Section 4.10, *Public Services and Recreation*, and Section 4.13, *Utilities and Service Systems*,

potential impacts to public services and utilities and service systems would be less than significant following implementation of 2040 General Plan proposed policies, as well as future project-specific environmental review that would be required for any future facilities constructed in accordance with the project.

Furthermore, as discussed in Section 4.15, *Effects Found to Be Less Than Significant*, regulatory requirements, including those from the Napa County Division of Environmental Health would minimize potential accidents related to the spills of hazardous materials. Therefore, the project would not lead to significant irreversible environmental changes due to environmental accidents.

The anticipated increase in vehicle trips associated with the project would incrementally contribute to local traffic, air quality emissions, and noise. As described in Section 4.11, *Transportation*, VMT-related impacts would be less than significant because the project would facilitate reduced work commute distances. As described in Section 4.2, *Air Quality*, the project would not result in a cumulatively considerable net increase of any criteria pollutant, and implementation of Mitigation Measures AQ-1 through AQ-3 would ensure the project would not result in people being exposed to substantial irreversible exposure to toxic air contaminants. However, as described in Section 4.7, *Noise*, the project would result in substantial increases in noise due to vehicle traffic. Although Mitigation Measure NOI-2 would reduce noise through implementation of roadway vehicle noise reduction measures, implementation of the project would result in an irreversible increase in noise due to vehicle traffic.

The project would cause an irreversible increase in greenhouse gas emissions. As discussed in Section 4.5, *Greenhouse Gas Emissions*, although implementation of Mitigation Measures GHG-2 and GHG-3 would ensure development facilitated by the project after 2024 would be consistent with the state's greenhouse gas emissions reduction goals, individual projects that may occur prior to 2024 would not be guaranteed to be consistent with State emissions goals, nor are exact emissions reductions known at the time of adoption of the 2040 General Plan. As a result, the project would cause a substantial irreversible increase in greenhouse gas emissions which may be inconsistent with Bay Area Air Quality Management District greenhouse gas emissions thresholds and the state's greenhouse gas emissions reduction goals, until the adoption and implementation of greenhouse gas emissions thresholds and a Climate Action Plan.

5.3 Significant Unavoidable Impacts

CEQA Guidelines Section 15126(b) requires a discussion of the significant environmental effects which cannot be avoided if the project is implemented. These significant and unavoidable impacts are identified in Section 4, *Environmental Impact Analysis* and summarized below. The project would have the following significant and unavoidable impacts:

- Impact GHG-1: Development facilitated by the project would make progress towards achieving state goals but would not necessarily meet State 2030 or 2045 goals. Mitigation Measures GHG-2 and GHG-3 would require implementation of CEQA thresholds and a Climate Action Plan (CAP); however, development facilitated by the project would not meet the 2030 or 2045 goals until the CAP is updated and adopted. This impact would be significant and unavoidable.
- Impact NOI-1: Construction of individual projects facilitated by the project would temporarily increase noise levels, potentially affecting nearby noise-sensitive land uses. Development facilitated by the project would also introduce new noise sources and contribute to increases in operational noise. Construction and operational traffic noise could exceed standards. This impact would be significant and unavoidable.

- Impact TRA-2: The 2040 General Plan includes policies which would reduce VMT. However, because there is no specific mitigation to reduce VMT per resident and the General Plan policies cannot realistically enforce mitigation programs or policies that might reduce VMT below the threshold, impacts would remain significant and unavoidable.

6 Alternatives

As required by California Environmental Quality Act (CEQA) Guidelines Section 15126.6, this environmental impact report (EIR) examines a range of reasonable alternatives to the project that would attain most of the basic project objectives but would avoid or substantially lessen the significant adverse impacts.

As discussed in Section 2, *Project Description*, the 2040 General Plan will serve as a long-term framework for future growth and development, represent the community's view of its future, and contain the goals and policies upon which the City Council, Planning Commission, and the entire community will base land use and resource decisions. The 2040 General Plan will provide a contemporary plan that will guide American Canyon through the next 20 years. The primary objective of this project is to update the existing American Canyon General Plan in order for it to be compliant with State law.

The 2040 General Plan would implement the vision of the existing General Plan. The City identifies the following three fundamental roles of the City:

1. The City should be home for a residential population, internally accommodating a sufficient range of uses to support the needs of residents (including a mix of housing types, commercial services, entertainment, employment, recreation, education, health, religious, cultural facilities, transportation services, and open space). At the present time, many of these uses are located outside the City, which necessitates extensive travel by residents to access these services.
2. The City should be a center of employment and commerce for regional, as well as local residents. This will provide an opportunity to capitalize upon (1) the cluster of uses which have developed in the Green Island Industrial Park; (2) the proximity of the City to the Napa County Airport and Southern Pacific railroad, and (3) the relationship of the City to the agricultural and vineyard industries of Napa County.
3. The City can capture visitors to the Napa Valley by providing uses which capitalize on the unique environmental setting of the foothills, river valleys, and agriculture. Environmental educational facilities, such as wetlands interpretative centers, overnight camping and recreational vehicle facilities, river recreational facilities such as boating, golf courses, and hotel/motels and restaurants are representative of the range of uses which may be considered.

In addition, the City identifies the following ten visions and principles to guide development:

1. Existing residential neighborhoods should be preserved. Neighborhoods that deteriorate or decline should be improved or revitalized.
2. A variety of housing types should be provided to meet the diverse needs of existing and future residents. Multi-family units should be dispersed to prevent an overcrowding of density in isolated areas and improve the character of development.
3. New residential neighborhoods should incorporate a mixture of uses, services, and pedestrian amenities and corridors to reduce the use of the automobile.
4. Adequate open space and recreational amenities should be incorporated in new residential subdivisions to ensure that the needs of the residents are adequately served.

5. A "town center" should be established in proximity to the closed basalt plant which functions as the symbolic center of American Canyon. A wide diversity of uses characterized by a high level of activity should be accommodated, including government, retail, office, service, entertainment, housing, and open space. The center should be developed as a pedestrian-oriented village that is physically linked by pedestrian and bicycle trails and other elements to surrounding neighborhoods and districts.
6. Additional villages need to be established to accommodate the basic commercial uses necessary to support existing and future residents (grocery stores, household supplies, clothing, and similar uses). These would be located at two primary sites: the intersection of American Canyon Road and Highway 29 and adjacent to the Town Center on Highway 29.
7. Highway 29 should be reconfigured in a more effective land use pattern. The clustering of commercial uses would establish a critical mass of development that would improve the quality and economic viability of the area. The current pattern of dispersal substantially diminishes these areas.
8. Opportunities should be provided for the expansion of the existing industrial development at Green Island Industrial Park and in the vicinity of the Napa Airport and Southern Pacific Railroad.
9. Areas adjacent to the Napa River should afford the opportunity for the establishment of a wetlands interpretative and conference center, nature observation, hiking, camping, and water recreational (boating) uses.
10. Oat Hill offers the opportunity for the development of a restaurant or hotel that would take advantage of views of the Napa River and San Francisco Bay.

This analysis presents two alternatives, including the CEQA-required "no project" alternative, that involve changes to the project that may reduce the project-related environmental impacts identified in this EIR. These Alternatives have been developed to provide a reasonable range of options that would help decision-makers and the public understand the general implications of revising or eliminating certain components of the proposed project. The following alternatives are evaluated in this EIR:

1. Alternative 1: No Project
2. Alternative 2: Watson Ranch Natural Alternative
3. Alternative 3: Limited Growth

Table 6-1 provides a summary comparison of the proposed project and each of the alternatives considered. Detailed descriptions of the alternatives are included in the impact analysis for each alternative. The potential environmental impacts of each alternative are analyzed in Sections 6.1 through 6.3.

Table 6-1 Comparison of Alternatives

	Proposed Project	Alternative 1: No Project	Alternative 2: Watson Ranch Natural Alternative	Alternative 3: Limited Growth
Total Allowable Dwelling Units Under ¹ Alternative	3,204	3,204	3,975	2,971
Change in Total Maximum Dwelling Units Compared to Proposed Project	N/A	-175	+596	-408
Total Additional Residents Under Alternative ¹	10,734	10,990	12,790	10,190
Change in Population Potential Compared to Proposed Project (Number of Residents)	N/A	-600	+2,056	-1,400
Total Additional Non-Residential Square Footage Under Alternative ²	5,704,000	5,704,000	5,704,000	5,639,000
Change in Total Additional Non-Residential Square Footage Compared to Proposed Project	N/A	N/A	N/A	-65,000
Updated Policies in General Plan	Yes	No	Yes	Yes

¹ The estimates for additional dwelling units, residences, and non-residential square footage are a conservative estimate based on the maximum buildout scenario. Overall, maximum growth will be dependent on multiple factors, including local economic conditions, market demand, and other financing considerations. These numbers are not meant to be a predictor of future growth.

² Non-residential square footage in Alternative 2 was assumed to be the same as the existing General Plan and only residential densities were changed.

6.1 Alternative 1: No Project Alternative

6.1.1 Description

The CEQA Guidelines (Section 15126.6[e][2]) require that the alternatives discussion include an analysis of a No Project Alternative. Pursuant to CEQA, the No Project Alternative refers to the analysis of existing conditions and what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. The No Project Alternative typically will proceed along one of two lines: (1) when a project is a revision of an existing regulatory plan or policy, the No Project Alternative will be continuation of the existing plan or policy; or (2) if a project is a development project on identifiable property, the No Project Alternative is the circumstance under which the project does not proceed. In this case, the No Project Alternative represents the continuation of existing zoning and General Plan designations within the City.

Assuming a maximum buildout scenario, buildout for the No Project Alternative would allow for 3,204 housing units and approximately 5.7 million square feet of additional non-residential land uses. Compared to the proposed project, the No Project Alternative would not include updated General Plan policies.

The No Project Alternative would not accomplish the primary objective of the project, which is to update the existing American Canyon General Plan in order for it to be compliant with State law. In addition, the No Project Alternative would not include the updated 2040 General Plan policies and programs pertaining to community development, preservation of natural resources, sustainability, and improvement of American Canyon's circulation network.

6.1.2 Impact Analysis

a. Aesthetics

Development under the No Project Alternative would continue the land use pattern that currently exists in American Canyon. Impacts to aesthetics would be similar to the proposed project. Development under the No Project Alternative could affect aesthetics compared to existing conditions due to buildout and would be required to comply with the same American Canyon Municipal Code regulations as the proposed project. Furthermore, the proposed project includes Mitigation Measures AES-1 and AES-2, which would require measures to minimize lighting impacts during construction and operation of projects. Both these mitigation measures would reduce impacts to light and glare to less than significant. However, the No Project Alternative would not include these mitigation measures and could result in a significant impact on light and glare. Therefore, the severity of the impact on aesthetics for the No Project Alternative would be greater than the proposed project.

b. Air Quality

Like the proposed project, the No Project Alternative would not preclude planned transit or bike pathways and would not disrupt regional planning efforts to reduce vehicle miles traveled (VMT) and meet federal and State air quality standards. The No Project Alternative would be consistent with applicable 2017 Clean Air Plan control measures, although not to the extent as the proposed project, as the No Project Alternative would not include 2040 General Plan proposed policies designed to reduce criteria pollutant emissions such as proposed Policy ENV-8.2, which would reduce construction pollutants as well as proposed Goal MOB-1 and its corresponding policies which would reduce transportation emissions:

- **Policy ENV-11.2: Construction Management Plans.** Require new development and redevelopment projects to prepare and implement a construction management plan that incorporates Best Available Control Measures and all best management practices in accordance with the Air District standards to reduce criteria pollutants.

Goal MOB-1: Provide safe and convenient access throughout the community with a citywide network of complete streets that meet the needs of all users and reduce vehicle miles traveled (VMT).

Impacts regarding conflict with applicable air quality plans would be less than significant, albeit greater than the proposed project.

Buildout under the existing General Plan land use and zoning designations would involve a similar amount of construction emissions as compared to the proposed project. . Like the proposed project, mitigation may be applied to individual projects that require CEQA review to comply with the Bay Area Air Quality Management District's (BAAQMD) current recommended basic control measures. The No Project Alternative would have similar overall construction-related impacts to air quality.

As stated in Section 4.2, *Air Quality*, the greatest source of criteria pollutants in American Canyon is from transportation sources, specifically mobile emissions from roadway traffic. The No Project Alternative would result in similar VMT impacts as compared to the proposed project. However, the No Project Alternative would not include proposed 2040 General Plan proposed policies MOB-1.17 and MOB-5.1, which both support VMT reduction.

- **Policy MOB-1.17: Reduce Vehicle Miles Traveled.** Through layout of land uses, improved alternate travel modes, and provision of more direct routes, strive to reduce the total vehicle miles traveled by city and non-residents traveling to American Canyon to work or shop.
- **Policy MOB-6.1: VMT Thresholds.** Establish vehicle miles traveled (VMT) thresholds and Transportation Demand Management (TDM) mitigation requirements for the purposes of environmental review under the California Environmental Quality Act (CEQA). The City shall continue to maintain LOS standards for the purposes of planning and designing street improvements on Green Island Road, Devlin Road, and American Canyon Road.

These policies would ultimately reduce VMT per capita. Overall, operational air quality impacts for the No Project Alternative would also be less than significant, similar to the proposed project.

The No Project Alternative would result in similar amounts of toxic air contaminants (TAC) near sensitive receptors when compared to the proposed project. However, as described in Section 4.2, *Air Quality*, the proposed project includes 2040 General Plan proposed goals and policies designed to promote clean air quality, protect public health and safety, and mitigate adverse air quality impacts, such as proposed policies ENV-11.1 and ENV-11.3.

- **Policy ENV-11.1: Regional Air Quality Efforts.** Support and coordinate with BAAQMD and State and Federal planning efforts aimed at reducing air pollution and management of major pollutants affecting American Canyon and the region, including the Clean Air Plan.
- **Policy ENV-11.3: Separate Sensitive Land Uses.** Separate sources of air pollution from sensitive land uses, such as residences, schools, day care centers, hospitals, and nursing homes.

The No Project Alternative would not implement these policies. Similar to the proposed project, mitigation may be applied to individual projects that require CEQA review to prepare a construction health risk assessment. The No Project Alternative would have similar overall construction-related TAC impacts to air quality as compared to the proposed project.

Like the proposed project, construction activities under the No Project Alternative would generate odors, which would be temporary and limited to the constructed period. Similar to the proposed project, mitigation may be applied to individual projects that require CEQA review. Similar to the proposed project, the No Project Alternative would have a less than significant with mitigation impact regarding creation of objectionable odors.

Overall, the No Project Alternative would have similar impacts to air quality as the proposed project but would not have the benefits associated with implementing the updated policies in the 2040 General Plan. As such, for the purposes of this analysis, the impacts from the No Project Alternative would be greater to the impacts from the proposed project.

c. Biological Resources

As described in Section 4.3, *Biological Resources*, potential habitat suitable for special-status species occurs in streams, grasslands, riparian woodland, and forests within the Planning Area. The No Project Alternative may still potentially impact special-status species or their habitat, including

riparian habitat and wildlife corridors. Furthermore, in contrast to the proposed project, the No Project Alternative would not include updated General Plan goals and policies, such as proposed Policy ENV-1.2 and Policy ENV-1.3 which are designed to preserve and protect biological resources in American Canyon.

- **Policy ENV-1.2: Sensitive Habitat Assessment and Impact Mitigation.** Require new development and redevelopment located within sensitive habitats, including coastal saltmarsh, mixed hardwood forest, oak savannah, vernal pools, and riparian habitats to provide a detailed assessment of the potential for impacts on these resources, and include measures to reduce any identifiable impacts.
- **Policy ENV-1.3: Habitat Conservation.** Support habitat conservation efforts to set aside and preserve suitable habitats, with priority given to habitats for rare and endangered species in American Canyon in accordance with state and federal resource agency requirements.

Nonetheless, similar to the proposed project, mitigation may be applied to individual projects that require CEQA review. Overall, the No Project Alternative would have similar impacts compared to the proposed project; however, the No Project Alternative would also not have the benefits associated with implementing the updated policies in the 2040 General Plan. As such, for the purposes of this analysis, the impacts from the No Project Alternative would be greater than to the impacts from the proposed project.

d. Cultural Resources

The No Project Alternative would have the potential to impact historic and archaeological resources in American Canyon through development of individual projects.. In contrast to the proposed project, the No Project Alternative would not include updated General Plan goals and policies designed to preserve and protect historic and archaeological resources in American Canyon such as proposed Goal ENV-5 and its corresponding policies.

Goal ENV-4: Protect cultural and tribal resources.

- **Policy ENV-4.1: Preservation.** Protect areas containing significant historic, archaeological, and paleontological resources, as defined by the California Public Resources Code.
- **Policy ENV-4.2: Development.** Ensure that human remains are treated with sensitivity and dignity and ensure compliance with the provisions of California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.98.
- **Policy ENV-4.3: Yocha Dehe Wintun Nation Treatment Protocol.** In the event any Native American human remains, grave goods, ceremonial items, and items of cultural patrimony are found in conjunction with development, including archaeological studies, excavation, geotechnical investigations, grading, and any ground disturbing activity, the “Yocha Dehe Wintun Nation Treatment Protocol for Handling Human Remains and Cultural Items Affiliated with the Yocha Dehe Wintun Nation” shall be implemented as included as Appendix A to the Housing Element.

Nonetheless, similar to the proposed project, mitigation may be applied to individual projects that require CEQA review. Overall, the No Project Alternative would have similar impacts compared to the proposed project; however, the No Project Alternative would not have the benefits associated with implementing the updated policies in the 2040 General Plan. As such, for the purposes of this

analysis, the impacts from the No Project Alternative would be greater than the impacts from the proposed project.

e. Greenhouse Gas Emissions

The No Project Alternative would result in the same buildout as the proposed project. Temporary construction-related greenhouse gas (GHG) emissions from grading and construction of new housing and non-residential development, as well as long-term impacts resulting from building operation (such as energy use, maintenance, and traffic) would be similar to the proposed project. However, the No Project Alternative would not include Mitigation Measures GHG-2 or GHG-3 which would require the adoption of a GHG threshold and Climate Action Plan (CAP) to meet the State's 2030 and 2045 GHG emissions goals.

American Canyon's existing General Plan does not outline how the City would meet State-mandated goals to reduce emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045. Therefore, the No Project Alternative would not be consistent with the California Executive Order B-55-18 goal of carbon neutrality by 2045 and would not include a qualified GHG reduction plan to guide progress towards State goals. Consequently, impacts related to generation of GHG emissions and consistency with State GHG reduction plans under the No Project Alternative would be potentially significant. Under the No Project Alternative, the CEQA GHG emissions threshold of significance and updated Climate Action Plan would not be implemented. As such, the No Project Alternative would result in greater impacts on GHG emissions compared to the proposed project, because CEQA GHG emissions threshold of significance and an updated Climate Action Plan would not be implemented.

f. Land Use and Planning

Under the No Project Alternative, there would be no changes to land use designations, zoning, or policies in the General Plan. The No Project Alternative would not alter connectivity with adjacent areas or divide established communities. Like the proposed project, future development under existing zoning would be required to comply with regulatory goals and policies, including Plan Bay Area 2050, as discussed in Impact LU-2 in Section 4.6, *Land Use and Planning*. Overall, impacts regarding land use and planning would be less than significant, like the proposed project.

g. Noise

Buildout under the No Project Alternative would result in the same amount of development as the proposed project. Therefore, similar levels of construction and associated construction noise and vibration would occur from the No Project Alternative, compared to the proposed project. Like the proposed project, construction noise under the No Project Alternative could temporarily increase noise levels, potentially affecting nearby noise-sensitive land uses and leading to a significant and unavoidable impact. Similar to the proposed project, mitigation may be applied to individual projects that require CEQA review to implement construction noise reduction measures. However, construction noise could still exceed the significance thresholds and like the project, impacts would be significant and unavoidable.

Noise generated by on-site stationary equipment for new development would be subject to the City's noise limits, like the proposed project. Adherence to American Canyon Municipal Code noise limits for heating, ventilation, and air conditioning (HVAC) units and other stationary noise sources associated with future development would ensure that operational stationary noise under the No Project Alternative is less than significant. However, the No Project Alternative would not include

2040 General Plan proposed policies designed to reduce operational noise impacts such as proposed Policies S-8.1, S-8.3, and S-8.12 which include requirements for considering noise in land use compatibility and site design.

- **Policy S-8.1: Land Use Compatibility.** Use the land use-noise compatibility matrix in Table S-1 to guide the siting of future land uses.
- **Policy S-8.2: Sensitive Facilities.** Ensure appropriate noise mitigation is incorporated into the design of noise- sensitive facilities.
- **Policy S-8.3: Site Design.** Minimize noise impacts to adjacent noise-sensitive land uses in site planning and project design.

Stationary source noise impacts due to the No Project Alternative would be greater than the proposed project because the proposed policies and programs listed above would not be implemented.

Implementation of the No Project Alternative would result in buildout, which would generate new vehicle trips that could incrementally increase the exposure of land uses along roadways to traffic noise. The No Project Alternative would result in an increase in VMT compared to existing conditions and it is anticipated that a significant and unavoidable traffic noise impact would occur.

Development facilitated under the No Project Alternative could temporarily generate groundborne vibration during construction, potentially affecting nearby land uses. Similar to the proposed project, mitigation may be applied to individual projects that require CEQA review to prepare a construction vibration control plan. Operation of future development under the No Project Alternative would not involve substantial vibration or groundborne noise. Thus, impacts involving groundborne vibration and noise would be similar to the impacts of the proposed project.

Residents and businesses facilitated by the No Project Alternative would not be served by the Napa County Airport. Thus, development facilitated under this alternative would not result in significantly increased airport or airstrip activity. Continued regulation of airport noise consistent with State and federal regulations would minimize disturbance to people residing or working within proximity of the Napa County Airport. Impacts would be less than significant, like the proposed project.

Overall, the No Project Alternative would not have the benefits associated with implementing the updated policies in the 2040 General Plan. As such, for the purposes of this analysis, the impacts from the No Project Alternative would be greater than to the impacts from the proposed project.

h. Paleontological Resources

As discussed in Section 4.8, *Paleontological Resources*, portions of the city are underlain by geologic units with high paleontological sensitivity. Under the No Project Alternative, ground disturbance could still result in potentially significant impacts to paleontological resources. Similar to the proposed project, mitigation may be applied to individual projects that require CEQA review to minimize impacts on paleontological resources. The No Project Alternative would involve similar impacts to paleontological resources as compared to the proposed project.

i. Population and Housing

Assuming a maximum buildout scenario, implementation of the No Project Alternative would accommodate the same amount of housing units and residents as the proposed project. The No Project Alternative would result in similar population growth and would not induce substantial

unplanned population growth. The displacement of people or housing units under the No Project Alternative would be minimal, as development in American Canyon would continue in accordance with the existing General Plan. Impacts would be less than significant. When compared to the proposed project, the No Project Alternative would have equal impacts to population and housing.

j. Public Services and Recreation

Development allowed by existing land use and zoning regulations would occur under the No Project Alternative, which would result in an increase to emergency calls in the area, as well as an increase in additional demand for schools, parks, libraries, recreational facilities, or other public services. Assuming a maximum buildout scenario, the No Project Alternative would add approximately 11,590 which is the same as the proposed project. Thus, impacts to public services and recreation would be less than significant, similar to the proposed project.

k. Transportation

The No Project Alternative would result in development that follows the existing land use and zoning regulations. Goals and policies within the existing General Plan would apply under this alternative. Given the compliance with existing General Plan goals and policies that pertain to provision of “complete streets,” increased connectivity, adequate emergency access, and safety design, the No Project Alternative would have a less than significant impact regarding conflict with circulation programs, plans, ordinances, or policies. The No Project Alternative would also have a less than significant impact regarding substantially increased transportation hazards and inadequate emergency access. Nonetheless, the proposed project prioritizes the provisions of “complete streets” to a greater extent than the No Project Alternative since the proposed project includes proposed Goal MOB-1 and its corresponding policies, which would provide a citywide network of complete streets. As such, the No Project Alternative would have greater impacts related to consistency with plans and safety, compared to the project.

In addition, the No Project Alternative would result in similar buildout as compared to the proposed project. As described in Section 4.11, *Transportation*, American Canyon currently has fewer jobs than employed residents. As such, the No Project Alternative would result in similar per capita VMT compared to the proposed project. However, the No Project Alternative would not include proposed 2040 General Plan policies MOB-1.17 and MOB-6.1 that support VMT reduction, which would ultimately reduce VMT per capita.

Overall, because the No Project Alternative would not include the proposed policies in the 2040 General Plan, the impacts from the No Project Alternative would be slightly greater compared to the proposed project.

l. Tribal Cultural Resources

As discussed in Section 4.12, *Tribal Cultural Resources*, impacts on tribal cultural resource (TCR) are highly dependent on the individual project site conditions and the characteristics of the proposed activity, including level of ground disturbance. Under the No Project Alternative, existing land use designations and zoning would continue to define the type of development that occurs throughout American Canyon. Development facilitated under the No Project Alternative may involve excavation, which could potentially impact previously unidentified TCRs. The No Project Alternative would not include updated General Plan policies designed to preserve and protect TCRs, which were developed in part through consultation with Native American Tribes, such as proposed Goal ENV-4 and Policy ENV-4.3, which requires the implementation of the Yocha Dehe Wintun Nation

Treatment Protocol for Handling Human Remains and Cultural Items Affiliated with the Yocha Dehe Wintun Nation. Overall, because these policies would not be included in the No Project Alternative, impacts, the severity of the impact on TCRs for the No Project Alternative would be greater than the proposed project.

m. Utilities and Service Systems

Development facilitated under the No Project Alternative would create additional demand for water, wastewater, electricity, natural gas, telecommunication, and stormwater drainage facilities. Any utility expansion within City limits would be subject to existing General Plan policies, which are intended to reduce potential impacts of utility expansion. Although the No Project Alternative would not include 2040 General Plan proposed policies that require implementation of low impact development, energy conservation, and energy efficiency strategies, there are existing regulations that would require similar measures. Impacts involving utility expansion under the No Project Alternative would be less than significant, and similar to the proposed project.

As discussed in Section 4.13, *Utilities and Service Systems*, the City's Public Works Department would have adequate water supply to service the City's anticipated growth under the proposed project. Considering that development under the No Project Alternative would be the same as the proposed project, the No Project Alternative would also be accommodated by the City's existing water system. Although development under the No Project Alternative would increase water demand, the City would continue to have sufficient water supply during normal, dry, and multiple dry years, and impacts to water supply would be less than significant.

Development facilitated under the No Project Alternative would increase demand for wastewater treatment. Like the proposed project, the timing, intensity, and location of an expansion of wastewater treatment facilities is unknown at this time. Like the proposed project, wastewater expansion for the No Project Alternative would require additional CEQA review, would be advanced when the wastewater expansion is advanced, and impacts would be less than significant. Considering the No Project Alternative would add the same number of residents as the proposed project (assuming a maximum buildout scenario), demand for wastewater and overall wastewater impacts of the No Project Alternative would be similar to the proposed project.

Implementation of the No Project Alternative would generate solid waste from construction and operation of development (including typical residential, commercial, and office solid waste). As discussed in Section 4.13, *Utilities and Service Systems*, the Devlin Road Recycling & Transfer Facility (DRRTF) would have adequate capacity to serve the population growth under the proposed project. Considering the No Project Alternative would result in the same number of residents as the proposed project (assuming a maximum buildout scenario), the DRRTF would also accommodate population growth under this alternative. Like the proposed project, impacts involving solid waste under the No Project Alternative would be less than significant.

n. Wildfire

Under the No Project Alternative, development could still occur within or near fire risks in an LRA. In addition, under the No Project Alternative, development could still occur near fire risks in an SRA, which are located east of the city limits. Although the No Project Alternative would not include 2040 General Plan proposed policies S-2.7, S-2.8, and S-2.14, which include measures to reduce the risk of wildfire on persons and property, it would still be subject to the same regulations as described for the proposed project, including the American Canyon City Code.

- **Policy S-2.7: Building and Fire Code Compliance.** Require new development to meet or exceed structural hardening requirements in the most current version of the California Building Codes and California Fire Code.
- **Policy S-2.8: Development Standards Update.** Incorporate relevant new legislative requirements and best practices into the City's development standards.
- **Policy S-2.14: Community Fire Breaks.** Coordinate with the American Canyon Fire Protection District to encourage property owners to maintain fire breaks and fuel modification/reduction zones on their property.

Similar to the proposed project, mitigation may be applied to individual projects that require CEQA review to reduce construction and design wildfire risk. Overall, the No Project Alternative would have a similar impact on wildfire than the proposed project.

6.2 Alternative 2: Watson Ranch Natural Alternative

6.2.1 Description

Alternative 2 would assume maximum density on the Watson Ranch property which would result in an additional 596 dwelling units. Alternative 2 assumes that the General Plan would be updated like for the proposed project, (including the updated policies that make the General Plan consistent with State law). Overall Alternative 2 assumes increased residential densities (3, units total) when compared to the proposed project (3,975 total units). In addition, because Alternative 2 would maintain the same designations as the General Plans for non-residential spaces, the buildout of non-residential space would be the same as the proposed project. Buildout under Alternative 2, assuming a maximum buildout scenario, would allow for 3,975 housing units and approximately 5,704,000 square feet of additional non-residential land uses. Alternative 2 would meet the objectives of the proposed project as it would increase residential buildout while accommodating the same amount of non-residential buildout as the proposed project.

6.2.2 Impact Analysis

a. Aesthetics

Development under Alternative 2 would continue the land use pattern that currently exists in American Canyon. Impacts to scenic vistas under this alternative would be increased when compared to the proposed project, as this alternative would involve more development. Development under Alternative 2 could affect aesthetics and would be required to comply with the same American Canyon City Code regulations as the proposed project. Impacts to aesthetics, including light and glare would be increased when compared to the proposed project, as Alternative 2 would entail more overall residential development.

b. Air Quality

Like the proposed project, buildout under Alternative 2 would not preclude planned transit or bike pathways and would not disrupt regional planning efforts to reduce VMT and meet federal and State air quality standards. Alternative 2 would be consistent with applicable 2017 Clean Air Plan control measures. Impacts regarding conflict with applicable air quality plans would be less than significant, the same as the proposed project.

Buildout from Alternative 2 would accommodate approximately 596 additional housing units than under the proposed project. Construction of these additional units could result in increased short-term emissions. Alternative 2 would implement Mitigation Measures AQ-1 through AQ-3, which would reduce construction impacts to air quality. Like the proposed project, air quality impacts from construction of Alternative 2 would be less than significant with mitigation; however, Alternative 2 would have more overall construction-related impacts to air quality due to the increased buildout.

As stated in Section 4.2, *Air Quality*, the greatest source of criteria pollutants in American Canyon is from transportation sources, specifically mobile emissions from roadway traffic. Considering 596 additional residential units would be constructed in American Canyon under this alternative, the long-term on-site emissions from vehicle use would be increased when compared to the proposed project. Like the proposed project, updates to the 2040 General Plan, including the new proposed policies to be consistent with State law would reduce operational impacts to air quality. These policies would ultimately reduce VMT per capita. Overall, like the proposed project, operational air quality impacts for Alternative 2 would be less than significant.

Overall, Alternative 2 would result in more development than the proposed project and would result in higher TAC near sensitive receptors when compared to the proposed project. Furthermore, Alternative 2 would include the 2040 General Plan proposed goals and policies designed to promote clean air quality, protect public health and safety, and mitigate adverse air quality impacts. Alternative 2 would implement these policies and would also require Mitigation Measure AQ-3 (Conduct Construction Health Risk Assessment) to reduce impacts to a less than significant level.

Like the proposed project, construction activities under Alternative 2 would generate odors, which would be temporary and limited to the constructed period. Alternative 2 would implement Mitigation Measure AQ-4 which would further reduce operational odor impacts. Similar to the proposed project, Alternative 2 would have a less than significant impact regarding creation of objectionable odors.

Overall, impacts from Alternative 2 would be increased compared to the proposed project due to the increase in buildout.

c. Biological Resources

As described in Section 4.3, *Biological Resources*, potential habitat suitable for special-status species occurs in streams, grasslands, riparian woodland, and forests within the Planning Area. Alternative 2 would result in overall increased development when compared to the proposed project.

Development under Alternative 2 may potentially impact special-status species or their habitat, including riparian habitat and wildlife corridors. Like the proposed project, Mitigation Measures BIO-1 (Biological Resources Screening and Assessment), BIO-2 (Special-status Plant Species Surveys), BIO-3 (Special-status Plant Species Avoidance, Minimization, and Mitigation), BIO-4 (Habitat Restoration Plan), BIO-5 (Endangered/Threatened Special-status Species Habitat Assessments and Protocol Surveys), BIO-6 (Endangered/Threatened Animal Species Avoidance and Minimization), BIO-7 (Pre-Construction Bird Surveys, Avoidance, and Notification), BIO-8 (Roosting Bat Surveys and Avoidance Prior to Removal), and BIO-9 (Conduct Pre-construction Crotch's Bumblebee Surveys and Implement Avoidance Measures)), would be implemented for Alternative 2 and would help reduce associated biological resource impacts. Overall, impacts to biological resources under Alternative 2 would be less than significant with mitigation incorporated, like the proposed project. Impacts from Alternative 2 would be slightly increased compared to the proposed project due to the increase in buildout.

d. Cultural Resources

Under Alternative 2, more residential development would occur compared to the proposed project. Individual projects would have the potential to impact historic and archaeological resources. Alternative 2 would have potentially significant impacts to historic and archaeological resources. Like the proposed project, Alternative 2 would include Mitigation Measures CUL-1 (Historic Built Environment) and CUL-2 (Archaeological Resources Assessment), which require project applicants to investigate the potential to disturb historic or archaeological resources. Additionally, Alternative 2 would include Mitigation Measures CR-3 (Unanticipated Discoveries) and CR-4 (Human Remains) which would require applicants to pause work and investigate subsurface discoveries. Like the proposed project, Alternative 2 would include 2040 General Plan proposed goals and policies designed to preserve and protect historic and archaeological resources in American Canyon. Impacts from Alternative 2 would be increased as compared to the proposed project due to the increase in buildout.

e. Greenhouse Gas Emissions

Alternative 2 would result in more development, as well as more temporary construction-related GHG emissions (from grading and construction of new development) and long-term GHG emissions resulting (from building operations such as energy use, maintenance, and traffic), compared to the proposed project.

Under existing conditions, American Canyon's General Plan does not outline how the City would meet State-mandated goals to reduce emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045. Like the proposed project, Alternative 2 would implement Mitigation Measure GHG-2, which would require the City to implement a CEQA GHG emissions threshold of significance; and Mitigation Measure GHG-3, which would require the City to update American Canyon's Climate Action Plan to meet State goals of 40 percent below 1990 emissions levels and 2045 goal of carbon neutrality. Implementation of these mitigation measures would ensure development under Alternative 2 would be consistent with State emissions goals; however, individual projects that occur prior to adoption of the Climate Action Plan may not be consistent. Overall GHG emissions impacts under Alternative 2 would be increased when compared to the proposed project, and such impacts would remain significant and unavoidable.

f. Land Use and Planning

Under the Alternative 2, there would be no changes to land use designations, zoning, or policies in the General Plan. Alternative 2 would not alter connectivity with adjacent areas or divide established communities. Like the proposed project, future development under existing zoning would be required to comply with regulatory goals and policies, including Plan Bay Area 2050, as discussed in Impact LU-2 in Section 4.6, *Land Use and Planning*. Alternative 2 would provide 596 more housing units than the proposed project. Overall, impacts regarding land use and planning would be less than significant, like the proposed project.

g. Noise

Buildout under the Alternative 2 would result in increased development compared to the proposed project. Therefore, more construction and associated construction noise and vibration would occur from the Alternative 2, compared to the proposed project. Like the proposed project, construction noise under Alternative 2 could temporarily increase noise levels, potentially affecting nearby noise-

sensitive land uses and leading to a significant and unavoidable impact. Alternative 2 would implement Mitigation Measure NOI-1 (Conduct Construction Noise Analysis), which would reduce construction noise. However, construction noise could still exceed the significance thresholds and like the project, impacts would be significant and unavoidable.

Noise generated by on-site stationary equipment for new development would be subject to the City's noise limits, like the proposed project. Adherence to American Canyon Municipal Code noise limits for HVAC units and other stationary noise sources associated with future development would ensure that operational stationary noise under Alternative 2 is less than significant.

Implementation of Alternative 2 would result in increased buildout, which would generate new vehicle trips that could incrementally increase the exposure of land uses along roadways to traffic noise. Alternative 2 would implement Mitigation Measure NOI-2 (Implement Roadway Vehicle Noise Reduction Measures) which would reduce operational traffic noise. Alternative 2 would result in an increase in noise compared to existing conditions and a significant and unavoidable traffic noise impact would occur.

Development facilitated under Alternative 2 could temporarily generate groundborne vibration during construction, potentially affecting nearby land uses. Mitigation Measure NOI-3 (Construction Vibration Control Plan) would require implementation of measures to reduce vibration impacts during construction. Operation of future development under Alternative 2 would not involve substantial vibration or groundborne noise. Thus, like the proposed project, impacts involving groundborne vibration and noise would be less than significant with mitigation incorporated.

Residents and businesses facilitated by Alternative 2 would not be served by the Napa County Airport. Thus, development facilitated under this alternative would not result in significantly increased airport or airstrip activity. Continued regulation of airport noise consistent with State and federal regulations would minimize disturbance to people residing or working within proximity of the Napa County Airport. Like the proposed project, impacts would be less than significant. In addition, Alternative 2 would include 2040 General Plan proposed policies designed to reduce noise from the Napa County Airport through disclosure, attenuation, and studies. Impacts would be the same under this alternative as the proposed project.

Overall, impacts from Alternative 2 would be increased, compared to the proposed project due to the increase in buildout.

h. Paleontological Resources

As discussed in Section 4.8, *Paleontological Resources*, portions of the city are underlain by geologic units with high paleontological sensitivity. Alternative 2 would increase development by approximately 596 residential units on one site with high paleontological sensitivity [Quaternary alluvial fan deposits (Pleistocene) (Qpf)] based on the mapping provided in Figure 4.8-1 in Section 4.8, *Paleontological Resources*. Under Alternative 2, ground disturbance elsewhere could still result in potentially significant impacts to paleontological resources. Alternative 2 would implement Mitigation Measure PAL-1 (Retention of Qualified Professional Paleontologist) which would reduce effects to paleontological resources and impacts would be less than significant. Alternative 2 would involve more overall development than the proposed project, and thus would be more likely to impact paleontological resources.

i. Population and Housing

Under Alternative 2, existing General Plan land use designations would continue to define American Canyon's development pattern. Assuming a maximum buildout scenario, implementation of Alternative 2 would accommodate approximately 2,056 additional residents and 596 additional housing units than would be accommodated by implementation of the proposed project (refer to Table 6-1). Thus, compared to the proposed project, Alternative 2 would result in more population growth, however, this alternative would not induce substantial unplanned population growth. Displacement impacts for Alternative 2 would be the same as the impacts for the proposed project. Overall, when compared to the proposed project, Alternative 2 would have similar, but slightly increased impacts to population and housing.

j. Public Services and Recreation

Increased development would occur under Alternative 2, which could result in an increase to emergency calls in the area, as well as an increase in additional demand for schools, parks, libraries, recreational facilities, or other public services. Assuming a maximum buildout scenario, Alternative 2 would add approximately 12,790 new residents to American Canyon, which is 2,056 more residents than the proposed project's 10,734 new residents. Thus, the increased demand for public services under Alternative 2 would be more than the proposed project's increase in demand. Impacts to public services and recreation would be increased as compared to the proposed project.

k. Transportation

For the same reasons as the proposed project, Alternative 2 would have a less than significant impact regarding conflict with circulation programs, plans, ordinances, or policies; substantially increased transportation hazards; and inadequate emergency access. In addition, the Alternative 2 would result in an increase in residential growth by 596 units. This increase would likely result in increased per capita VMT because Watson Ranch is on the edge of the city center and adding additional units here would result in the need for more residents to make trips into the city center. Additionally, American Canyon currently has fewer jobs than employed residents, therefore it is likely additional residents will need to make trips outside the city for employment opportunities compared to the proposed project. As such, impacts from Alternative 2 would be increased compared to the proposed project and the impacts from Alternative 2 could be significant.

l. Tribal Cultural Resources

Like the proposed project, development facilitated under Alternative 2 may involve excavation, which could potentially impact previously unidentified TCRs. Alternative 2 would include 2040 General Plan proposed Goal ENV-5 and its corresponding policies, which protect cultural and tribal cultural resources. Implementation of these policies would reduce potential impacts to TCRs from development facilitated by this alternative by requiring avoidance and monitoring in areas identified as sensitive for TCRs (Policy ENV-5.3). Alternative 2 would include the same mitigation as the proposed project' therefore, impacts to TCRs would be less than significant with mitigation. Overall because Alternative 2 would result in more development than the proposed project, the severity of impacts would be slightly increased as compared to the proposed project.

m. Utilities and Service Systems

Like the proposed project, development facilitated under Alternative 2 would create additional demand for water, wastewater, electricity, natural gas, telecommunication, and stormwater drainage facilities. Any utility expansion would be subject to 2040 General Plan proposed policies and mitigation measures identified throughout the Alternative 2 analysis, which would reduce potential impacts from utility expansion. Thus, impacts involving utility expansion under Alternative 2 would be less than significant, the same as the proposed project.

As discussed in Section 4.13, *Utilities and Service Systems*, the City would have adequate water supply to service the City's anticipated growth under the proposed project. Considering that development under Alternative 2 would result in 2,056 additional residents (assuming a maximum buildout scenario) than the proposed project, growth under Alternative 2 would not be accommodated by the City's existing water system. Development under Alternative 2 would increase water demand, and the City would not have sufficient water supply during normal, dry, and multiple dry years, and impacts to water supply would be significant and unavoidable.

Development facilitated under Alternative 2 would increase demand for wastewater treatment. Like the proposed project, the timing, intensity, and location of an expansion of wastewater treatment facilities is unknown at this time. Like the proposed project, any expansion of wastewater facilities would require additional CEQA review and would be advanced when the wastewater expansion is advanced. Considering Alternative 2 would add 2,056 additional residents to American Canyon (assuming a maximum buildout scenario), demand for wastewater and overall wastewater impacts would be increased under Alternative 2 than for the proposed project.

Implementation of Alternative 2 would generate solid waste from construction and operation of development (including typical residential, commercial, and office solid waste). As discussed in Section 4.13, *Utilities and Service Systems*, the American Canyon Transfer Station would have adequate capacity to serve the population growth under the proposed project. While Alternative 2 would result in 2,056 additional residents, the DRRTF could still accommodate the increased population growth under this alternative. Furthermore, Alternative 2 would include the proposed goals and policies in the 2040 General Plan. Impacts involving solid waste would be slightly more than the proposed project.

Overall, impacts from Alternative 2 would be increased, compared to the proposed project due to the increase in buildout.

n. Wildfire

Under Alternative 2, development could still occur within or near fire risks in an LRA. In addition, under Alternative 2, development could still occur near fire risks in an SRA, which are located east of the city limits. Alternative 2 would include 2040 General Plan proposed policies that include measures to reduce the risk of wildfire. Furthermore, Alternative 2 would include Mitigation Measures WF-1 (Wildfire Risk Reduction During Construction) and WF-2 (Fire Resistant Vegetation and Landscaping) which would reduce the impacts of wildfires to a less than significant level. Additionally, like proposed project, Alternative 2 would still be subject to the same regulations as described for the proposed project, including the American Canyon City Code. Overall, impacts of Alternative 2, like the proposed project, would be less than significant with mitigation.

6.3 Alternative 3: Limited Growth

6.3.1 Description

The Limited Growth Alternative (Alternative 3) was developed to identify an alternative that would reduce potential construction impacts and operational impacts from a reduced buildout. Alternative 3 assumes that the General Plan would be updated to include the updated policies that make the General Plan consistent with State law. However, under Alternative 3, buildout would be limited to pipeline projects (i.e., project already identified by the City to be constructed in the future) and other projects that have already been approved or for which General Plan amendments have already been approved (e.g., Watson Ranch Specific Plan, Broadway District Specific Plan). As such, buildout would be reduced in the following ways:

- Residential buildout would be reduced by 408 dwelling units compared to the proposed project because (1) the land use designations for the two NVUSD would remain as Recreation and Public and would not be changed to Residential Medium, reducing the number of residential units by 175 units and (2) the buildout identified in the City's Traffic Impact Fee (TIF) Nexus Study would be reduced by 233 residential units.
- Non-residential area would be reduced by 65,000 square feet based on the buildout identified in the City's TIF Nexus Study.

Overall Alternative 3 assumes decreased residential densities (2,971 units total) when compared to the proposed project (3,379 total units), as well as decreased non-residential area (5,639,000 square feet) when compared to the proposed project (5,704,000 square feet).

Overall, Alternative 3 would require the City to limit growth to those projects that have already been approved by the City or identified as planned projects. While Alternative 3 would meet the objective of updating the General Plan so that it's consistent with State law, this alternative would not help meet the vision of American Canyon to the same extent as the proposed project. Alternative 3 would reduce the residential and non-residential buildout; therefore, compared to the proposed project, this alternative would reduce the ability for the City to meet its vision of accommodating a residential population with a range of uses; creating a center of employment and commerce; and capturing visitors to the Napa Valley. Overall, Alternative 3 would not meet the project objectives to the same extent as the proposed project.

6.3.2 Impact Analysis

a. Aesthetics

Development under Alternative 3 would continue the land use pattern that currently exists in American Canyon. Alternative 3 would reduce the residential and non-residential buildout compared to the proposed project. Impacts to scenic vistas under this alternative would be reduced when compared to the proposed project, as this alternative would involve less overall development. Impacts to aesthetics, including light and glare would be reduced when compared to the proposed project, as Alternative 3 would entail less overall development. Nonetheless, development under Alternative 3 could affect aesthetics and would be required to comply with the same American Canyon City Code regulations as the proposed project. Furthermore, Alternative 3 would include the updates to the 2040 General Plan, including the new policies to be consistent with State law. Therefore, because Alternative 3 would involve less overall development and include the updates to

the 2040 General Plan, the severity of the impact for Alternative 3 would be less than for the proposed project.

b. Air Quality

Like the proposed project, buildout under Alternative 3 would not preclude planned transit or bike pathways and would not disrupt regional planning efforts to reduce VMT and meet federal and State air quality standards. Alternative 3 would be consistent with applicable 2017 Clean Air Plan control measures. Impacts regarding conflict with applicable air quality plans would be less than significant, the same as the proposed project.

Buildout from Alternative 3 would accommodate approximately 408 fewer housing units and a reduction of approximately 65,000 square feet of non-residential area than under the proposed project. Short-term emissions that would occur from construction of the 408 housing units and non-residential area would be reduced by Alternative 3. Additionally, Alternative 3 would implement Mitigation Measures AQ-1 through AQ-3, which would further reduce construction impacts to air quality. Alternative 3 would have fewer overall construction-related impacts to air quality. Like the proposed project, air quality impacts from construction of Alternative 3 would be less than significant with mitigation; however, Alternative 3 would have fewer overall construction-related impacts to air quality due to the reduced buildout.

As stated in Section 4.2, *Air Quality*, the greatest source of criteria pollutants in American Canyon is from transportation sources, specifically mobile emissions from roadway traffic. Considering 408 fewer residential units and a reduction of 65,000 square feet of non-residential area would be constructed in American Canyon under this alternative, the long-term on-site emissions from vehicle use would be reduced when compared to the proposed project. An overall reduction in VMT would result in less operational emissions associated with mobile sources. Like the proposed project, updates to the 2040 General Plan, including the new proposed policies to be consistent with State law would further reduce operational impacts to air quality. These policies would ultimately reduce VMT per capita. Overall, like the proposed project, operational air quality impacts for Alternative 3 would be less than significant.

Overall, Alternative 3 would result in less development than the proposed project and would result in lower TACs near sensitive receptors when compared to the proposed project. Furthermore, Alternative 3 would include the 2040 General Plan proposed goals and policies designed to promote clean air quality, protect public health and safety, and mitigate adverse air quality impacts. Alternative 3 would implement these policies and would also require Mitigation Measure AQ-3 (Conduct Construction Health Risk Assessment) to reduce impacts to a less than significant level.

Like the proposed project, construction activities under Alternative 3 would generate odors, which would be temporary and limited to the constructed period. Alternative 3 would implement Mitigation Measure AQ-4 which would further reduce operational odor impacts. Similar to the proposed project, Alternative 3 would have a less than significant impact regarding creation of objectionable odors.

Overall, impacts from Alternative 3 would be reduced, compared to the proposed project due to the reduction in buildout.

c. Biological Resources

As described in Section 4.3, *Biological Resources*, potential habitat suitable for special-status species occurs in streams, grasslands, riparian woodland, and forests within the Planning Area. Alternative 3

would result in overall reduced development when compared to the proposed project; however, development under Alternative 3 may potentially impact special-status species or their habitat, including riparian habitat and wildlife corridors. Like the proposed project, Mitigation Measures BIO-1 (Biological Resources Screening and Assessment), BIO-2 (Special-status Plant Species Surveys), BIO-3 (Special-status Plant Species Avoidance, Minimization, and Mitigation), BIO-4 (Habitat Restoration Plan), BIO-5 (Endangered/Threatened Special-status Species Habitat Assessments and Protocol Surveys), BIO-6 (Endangered/Threatened Animal Species Avoidance and Minimization), BIO-7 (Pre-Construction Bird Surveys, Avoidance, and Notification), BIO-8 (Roosting Bat Surveys and Avoidance Prior to Removal), and BIO-9 (Conduct Pre-construction Crotch's Bumblebee Surveys and Implement Avoidance Measures), would be implemented for Alternative 3 and would help reduce associated biological resource impacts. Overall, impacts to biological resources under Alternative 3 would be less than significant with mitigation incorporated, like the proposed project. Impacts from Alternative 3 would be less compared to the proposed project due to the reduction in buildout.

d. Cultural Resources

Under Alternative 3, less residential and non-residential development would occur compared to the proposed project; however, individual projects would have the potential to impact historic and archaeological resources. Alternative 3 would have reduced, but still potentially significant impacts to historic and archaeological resources. Like the proposed project, Alternative 3 would include Mitigation Measures CUL-1 (Historic Built Environment) and CUL-2 (Archaeological Resources Assessment), which require project applicants to investigate the potential to disturb historic or archaeological resources. Additionally, Alternative 3 would include Mitigation Measures CR-3 (Unanticipated Discoveries) and CR-4 (Human Remains), which would require applicants to pause work and investigate subsurface discoveries. Like the proposed project, Alternative 3 would include 2040 General Plan proposed goals and policies designed to preserve and protect historic and archaeological resources in American Canyon. Overall, impacts from Alternative 3 would be less, compared to the proposed project, due to the reduction in residential and non-residential area buildout.

e. Greenhouse Gas Emissions

Alternative 3 would result in less development, as well as less temporary construction-related GHG emissions (from grading and construction of new development) and long-term GHG emissions resulting (from building operations such as energy use, maintenance, and traffic), compared to the proposed project.

Under existing conditions, American Canyon's General Plan does not outline how the City would meet State-mandated goals to reduce emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045. Like the proposed project, Alternative 3 would implement Mitigation Measure GHG-2, which would require the City to implement a CEQA GHG emissions threshold of significance; and Mitigation Measure GHG-3, which would require the City to update American Canyon's Climate Action Plan to meet State goals of 40 percent below 1990 emissions levels and 2045 goal of carbon neutrality. Implementation of these mitigation measures would ensure development under Alternative 3 would be consistent with State emissions goals; however, individual projects that occur prior to adoption of the Climate Action Plan may not be consistent. Overall, buildout under Alternative 3 would be less than the proposed project, which would result in a reduction of GHG emissions. However, while overall GHG emissions impacts under Alternative 2

would be reduced when compared to the proposed project, such impacts would remain significant and unavoidable, for the same reasons as the proposed project.

f. Land Use and Planning

Under Alternative 3, there would be no changes to land use designations or zoning in the existing General Plan. Alternative 3 would not alter connectivity with adjacent areas or divide established communities. Like the proposed project, future development under existing zoning would be required to comply with regulatory goals and policies, including Plan Bay Area 2050, as discussed in Impact LU-2 in Section 4.6, *Land Use and Planning*. Alternative 3 would provide 408 fewer housing units and a reduction of approximately 65,000 square feet of non-residential area in comparison to the proposed project. Overall, impacts regarding land use and planning would be less than significant, like the proposed project.

g. Noise

Buildout under Alternative 3 would result in reduced development compared to the proposed project. Therefore, less construction and associated construction noise and vibration would occur from Alternative 3, compared to the proposed project. Like the proposed project, construction noise under Alternative 3 could temporarily increase noise levels. Alternative 3 would implement Mitigation Measure NOI-1 (Conduct Construction Noise Analysis), which would reduce construction noise. However, construction noise could still exceed the significance thresholds and like the proposed project, impacts would be significant and unavoidable.

Noise generated by on-site stationary equipment for new development would be subject to the City's noise limits, like the proposed project. Adherence to American Canyon Municipal Code noise limits for HVAC units and other stationary noise sources associated with future development would ensure that operational stationary noise under Alternative 3 is less than significant.

Implementation of Alternative 3 would result in less buildout than the proposed project, which would reduce the amount of new vehicle trips that would generate roadway traffic noise. Additionally, Alternative 3 would implement Mitigation Measure NOI-2 (Implement Roadway Vehicle Noise Reduction Measures), which would reduce operational traffic noise. Although Alternative 3 would result in reduced overall operational noise compared to the proposed project, there would still be an increase in noise compared to existing conditions and a significant and unavoidable traffic noise impact would occur.

Development facilitated under Alternative 3 could temporarily generate groundborne vibration during construction, potentially affecting nearby land uses. Mitigation Measure NOI-3 (Construction Vibration Control Plan) would require implementation of measures to reduce vibration impacts during construction. Operation of future development under Alternative 3 would not involve substantial vibration or groundborne noise. Thus, like the proposed project, impacts involving groundborne vibration and noise would be less than significant with mitigation incorporated.

Residents and businesses facilitated by Alternative 3 would not be served by the Napa County Airport. Thus, development facilitated under this alternative would not result in significantly increased airport or airstrip activity. Continued regulation of airport noise consistent with State and federal regulations would minimize disturbance to people residing or working within proximity of the Napa County Airport. Like the proposed project, impacts would be less than significant. In addition, Alternative 3 would include 2040 General Plan proposed policies designed to reduce noise

from the Napa County Airport through disclosure, attenuation, and studies. Impacts would be the same under this alternative as the proposed project.

Overall, impacts from Alternative 3 would be reduced, compared to the proposed project due to the reduction in buildout.

h. Paleontological Resources

As discussed in Section 4.8, *Paleontological Resources*, portions of the city are underlain by geologic units with high paleontological sensitivity. Alternative 3 would reduce development by approximately 408 fewer residential units and 65,000 square feet of non-residential area on two sites located on geologic units with high paleontological sensitivity [Quaternary alluvial fan deposits (Pleistocene) (Qpf)] and undetermined paleontological sensitivity [Great Valley Complex, sandstone and shale (Ku)], based on the mapping provided in Figure 4.8-1 in Section 4.8, *Paleontological Resources*. Under Alternative 3, ground disturbance elsewhere could still result in potentially significant impacts to paleontological resources. Alternative 3 would implement Mitigation Measure PAL-1 (Retention of Qualified Professional Paleontologist) which would reduce effects to paleontological resources and impacts would be less than significant. Alternative 3 would involve less overall development than the proposed project, and thus would be less likely to impact paleontological resources.

i. Population and Housing

Under Alternative 3, existing General Plan land use designations would continue to define American Canyon's development pattern. Assuming a maximum buildout scenario, implementation of Alternative 3 would accommodate approximately 1,400 fewer residents and 408 fewer housing units than would be accommodated by implementation of the proposed project (refer to Table 6-1). Thus, compared to the proposed project, Alternative 3 would result in less population growth, and would not induce substantial unplanned population growth. Displacement impacts for Alternative 3 would be the same as the impacts for the proposed project. Overall, when compared to the proposed project, Alternative 3 would have reduced impacts to population and housing.

j. Public Services and Recreation

Development allowed by existing land use and zoning regulations would occur under Alternative 3, which could result in an increase to emergency calls in the area, as well as an increase in additional demand for schools, parks, libraries, recreational facilities, or other public services. Assuming a maximum buildout scenario, Alternative 3 would add approximately 10,190 new residents to American Canyon, which is 1,400 fewer residents than the proposed project's 11,590 new residents. Thus, the increased demand for public services under Alternative 3 would be less than the proposed project's increase in demand. Impacts to public services and recreation would be less than the proposed project (both Alternative 3 and the proposed project would result in a less than significant impact).

k. Transportation

For the same reasons as the proposed project, Alternative 3 would have a less than significant impact regarding conflict with circulation programs, plans, ordinances, or policies; substantially increased transportation hazards; and inadequate emergency access. In addition, Alternative 3 would result in a reduction in residential growth by 408 units and 65,000 square feet of non-residential area. As described in Section 4.11, *Transportation*, American Canyon currently has fewer

jobs than employed residents. Alternative 3 would reduce the number of jobs compared to the proposed project, due to the reduction in non-residential area. Alternative 3 would also reduce the amount of residential units compared to the proposed project. Overall, due to the amount of jobs that would be offered under Alternative 3, the per capita VMT impacts for Alternative 3 are expected to be similar to the impacts of the proposed project. Like the proposed project, VMT impacts would be less than significant.

I. Tribal Cultural Resources

Like the proposed project, development facilitated under Alternative 3 may involve excavation, which could potentially impact previously unidentified TCRs. Alternative 3 would include 2040 General Plan proposed Goal ENV-4 and its corresponding policies, which protect cultural and tribal cultural resources. Implementation of these policies would reduce potential impacts to TCRs from development facilitated by this alternative by requiring avoidance and monitoring in areas identified as sensitive for TCRs (Policy ENV-4.3). Alternative 3 would include the same mitigation as the proposed project; therefore, impacts to TCRs would be less than significant with mitigation. Overall because Alternative 3 would result in less development than the proposed project, the severity of impacts would be less than the proposed project.

m. Utilities and Service Systems

Like the proposed project, development facilitated under Alternative 3 would create additional demand for water, wastewater, electricity, natural gas, telecommunication, and stormwater drainage facilities. Any utility expansion would be subject to 2040 General Plan proposed policies and mitigation measures identified throughout the Alternative 3 analysis, which would reduce potential impacts from utility expansion. Thus, impacts involving utility expansion under Alternative 3 would be less than significant, the same as the proposed project.

As discussed in Section 4.13, *Utilities and Service Systems*, the City would have adequate water supply to service the City's anticipated growth under the proposed project. Considering that development under Alternative 3 would result in 1,400 fewer residents (assuming a maximum buildout scenario) than the proposed project, growth under Alternative 3 would also be accommodated by the City's existing water system. Although development under Alternative 3 would slightly increase water demand, the City would continue to have sufficient water supply during normal, dry, and multiple dry years, and impacts to water supply would be less than significant.

Development facilitated under Alternative 3 would increase demand for wastewater treatment. Like the proposed project, the timing, intensity, and location of an expansion of wastewater treatment facilities is unknown at this time. Like the proposed project, any expansion of wastewater facilities would require additional CEQA review and would be advanced when the wastewater expansion is advanced. Considering Alternative 3 would add 1,400 fewer residents to American Canyon (assuming a maximum buildout scenario), demand for wastewater and overall wastewater impacts would be less under Alternative 3 than for the proposed project.

Implementation of Alternative 3 would generate solid waste from construction and operation of development (including typical residential, commercial, and office solid waste). As discussed in Section 4.13, *Utilities and Service Systems*, the American Canyon Transfer Station would have adequate capacity to serve the population growth under the proposed project. Considering Alternative 3 would result in 1,400 fewer people than the proposed project (assuming a maximum buildout scenario), the DRRTF would also accommodate population growth under this alternative.

Furthermore, Alternative 3 would include the proposed goals and policies in the 2040 General Plan. Impacts involving solid waste would be slightly less than the proposed project.

Overall, impacts from Alternative 3 would be reduced, compared to the proposed project due to the reduction in buildout.

n. Wildfire

Under Alternative 3, development could still occur within or near fire risks in an LRA. In addition, under Alternative 3, development could still occur near fire risks in an SRA, which are located east of the city limits. However, Alternative 3 would result in a reduction of 408 residential units and 65,000 square feet of non-residential area, which would reduce the risk of development occurring near an LRA or SRA. Furthermore, Alternative 3 would include 2040 General Plan proposed policies that include measures to reduce the risk of wildfire. Alternative 3 would also include Mitigation Measures WF-1 (Wildfire Risk Reduction During Construction) and WF-2 (Fire Resistant Vegetation and Landscaping), which would reduce the impacts of wildfires to a less than significant level. Additionally, like proposed project, Alternative 3 would be subject to the same regulations as described for the proposed project, including the American Canyon City Code. Overall, impacts of Alternative 3, like the proposed project, would be less than significant with mitigation.

6.4 Alternatives Considered but Rejected

The following summarizes those alternatives considered, but ultimately rejected for inclusion in the analysis as they would not meet most of the project objectives, would not substantially reduce impacts compared to the proposed project, or were determined to be infeasible.

In its efforts to identify alternatives that would reduce impacts on the environment, the City considered alternatives that would reduce impacts due to a reduced buildout. As such, the City considered an alternative that would limit buildout and growth altogether, such that no additional buildout would be allowed in the City. While this alternative would in theory reduce environmental impacts, it was rejected because it was infeasible. The City has already approved projects such as the Broadway District Specific Plan and the Watson Ranch Specific Plan, which provide a substantial amount of the buildout in the City. It would be infeasible for the City to stop buildout on these already approved projects. In addition, this alternative would not meet most of the project objectives because it would not help implement the vision for American Canyon. If there were no growth, this alternative would not accommodate a residential population with a range of uses; create a center of employment and commerce; or capture visitors to the Napa Valley. For these reasons, this alternative has been considered but rejected.

6.5 Environmentally Superior Alternative

CEQA requires identification of the environmentally superior alternative among the alternatives to the proposed project. The environmentally superior alternative must be an alternative that reduces some of the project's environmental impacts, regardless of the financial costs associated. Identification of the environmentally superior alternative is an informational procedure and the alternative identified as the environmentally superior alternative may not be that which best meets the goals or needs of the proposed project. Table 6-2 indicates whether each alternative's environmental impact is greater than, less than, or equal to the proposed project for each of the issue areas studied.

Overall, none of the alternatives identified in this analysis changed the impact conclusions that were identified for the proposed project. However, some of the alternatives did reduce the severity of the impact; thus, this analysis considers the severity of the impact to identify the environmentally superior alternative. The No Project Alternative is not the environmentally superior alternative because the No Project Alternative would not include the updated proposed goals, policies, and programs in the 2040 General Plan.

Alternative 2 would not be the environmentally superior alternative because it would increase the severity of most of the proposed project impacts. This is because Alternative 2 would increase residential buildout and would result in 596 additional units compared to the proposed project.

Based on the analysis of alternatives in this section, Alternative 3 is the environmentally superior alternative as it lessens the severity of most impacts of the proposed project. Because Alternative 3 would reduce overall buildout by 408 units residential units and 65,000 square feet of non-residential area compared to the proposed project, the overall impacts from construction would also be reduced due to the reduction in construction. For example, potential impacts on air quality construction emissions, biological resources, cultural resources, temporary noise, tribal cultural resources, and paleontological resources would be reduced due to less area being affected (i.e., excavated, graded, etc.) and due to less use of construction equipment. In addition, operationally there would be reduced aesthetic impacts because there would be fewer buildings; less air quality emissions because there would be less overall VMT; less operational noise because there would be less traffic and fewer HVAC units; and less demand for public services, recreation, and utilities. Alternative 3 would meet the project objectives, as it would include updated to the General Plan so that it is consistent with State Law. Pursuant to CEQA requirements, Alternative 3 would be considered the environmentally superior alternative; however, the proposed project would offer benefits that would not be achieved by Alternative 3. Alternative 3 would require the City to limit growth to those projects that have already been approved by the City or identified as planned projects. Alternative 3 would reduce the residential and non-residential buildout; therefore, compared to the proposed project, this alternative would reduce the ability for the City to meet its vision of accommodating a residential population with a range of uses; creating a center of employment and commerce; and capturing visitors to the Napa Valley. Therefore, while Alternative 3 would be the environmentally superior alternative, it would not meet the project objectives to the same extent as the proposed project.

Table 6-2 Impact Comparison of Alternatives

Issue	Proposed Project Impact Classification	Alternative 1: No Project	Alternative 2: Reduced Buildout	Alternative 3: Limited Growth
Aesthetics	LTSM	+	+	+
Air Quality	LTSM	+	+	+
Biological Resources	LTSM	+	+	+
Cultural Resources	LTSM	+	+	+
Greenhouse Gas Emissions	SU	+	+	+
Land Use and Planning	LTS	=	=	=
Noise	SU	+	+	+
Paleontological Resources	LTSM	=	+	+
Population and Housing	LTS	=	+	+
Public Services and Recreation	LTS	=	+	+

Issue	Proposed Project Impact Classification	Alternative 1: No Project	Alternative 2: Reduced Buildout	Alternative 3: Limited Growth
Transportation	LTS	-+	+	=
Tribal Cultural Resources	LTSM	+	+	+
Utilities and Service Systems	LTS	=	+	+
Wildfire	LTSM	=	=	=
NI = No Impact; LTS = Less than Significant; LTSM = Less than Significant with Mitigation; SU = Significant and Unavoidable + Superior to the proposed project (reduced level of impact) - Inferior to the proposed project (increased level of impact) = Similar level of impact to the proposed project				

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Andrew McGrath, Paleontologist
Jen DiCenzo, Paleontological Program Manager
Josh Carman, Director – Noise, Air Quality & GHG
Jesse McCandless, Noise Environmental Planner
Hayley Rundle, Noise Environmental Planner

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Appendix A

Notice of Preparation and Scoping Comments Recieved



NOTICE OF PREPARATION

City of American Canyon General Plan Update

Date: July 5, 2022

To: Reviewing Agencies, Interested Parties, and Organizations

Subject: Notice of Preparation of a Draft Environmental Impact Report for the City of American Canyon General Plan Update

The City of American Canyon (City) is preparing an update to the City's General Plan. The City has determined that a Program Environmental Impact Report (EIR) will be necessary to evaluate environmental impacts of the General Plan Update pursuant to the California Environmental Quality Act (CEQA). In compliance with CEQA, the City will be the Lead Agency and will prepare the Program EIR. The City is requesting comments and guidance on the scope and content of the Program EIR from responsible and trustee agencies, interested public agencies, organizations, and the general public (CEQA Guidelines Section 15082).

This Notice of Preparation (NOP) provides a summary of the General Plan Update; includes the City's preliminary identification of the potential environmental issues to be analyzed in the EIR; and provides information on how to comment on the scope of the EIR.

Notice of Preparation Public Review Period: July 5, 2022 to August 4, 2022

The City requests your careful review and consideration of this notice, and it invites any and all input and comments from interested agencies, persons, and organizations regarding the preparation of the Program EIR. Comments and responses to this notice must be in writing and submitted to the Lead Agency Contact through August 4, 2022 at 4:00 p.m. If applicable, please indicate a contact person for your agency or organization. If your agency is a responsible agency as defined by CEQA Guidelines Section 15381, your agency may use the environmental documents prepared by the City when considering permits or approvals for action regarding the proposed project.

Lead Agency Contact:

Brent Cooper, Community Development Director
City of American Canyon Community Development Department
4381 Broadway Street, Suite 201
American Canyon, California 94503
bcooper@cityofamericancanyon.org

Written Comments: Please submit written comments within 30 days of the date of this notice to any of the below by 4:00 p.m. on August 4, 2022:

- Email: njones@cityofamericancanyon.org
- Regular Mail: Nicolle Jones, Community Development Department, City of American Canyon, 4381 Broadway Street, Suite 201, American Canyon, California 94503

Public Scoping Meeting: The City will hold a virtual scoping meeting to provide an opportunity for agency staff and interested members of the public to submit written and oral comments on the scope of the environmental issues to be addressed in the EIR. The scoping meeting will be held on **July 28, 2022 at 6:30 p.m.** To attend the scoping meeting, go to <https://zoom.us/join>.

Webinar ID: 884 4514 1942

Passcode: 038881

Dial: (408) 638 0968

The scoping presentation will be available to view after July 28, 2022 on <https://www.cityofamericancanyon.org/government/city-hall/city-clerk/meetings-agendas>.

Project Background: The City must undertake a technical update to its General Plan to ensure the General Plan is internally consistent and maintains a balance of land uses; maintains and supports quality-of-life, community satisfaction, and safety for all residents; and meets new State requirements. A Regional Location map is included as Figure 1.

Project Location: The General Plan Update will encompass the City of American Canyon city limits, the Sphere of Influence, Urban Limit Line, and historic water service area (Figure 2).

Proposed Project: The American Canyon General Plan update will serve as a long-term framework for future growth and development. The General Plan represents the community's view of its future and contains the goals and policies upon which the City Council, Planning Commission, staff, and the entire community will base land use and resource decisions. To provide a contemporary plan that will guide the community through the next 20 years, the General Plan update will reflect recent development decisions and changes in State law. Major components of the comprehensive technical General Plan Update include:

- **Land Use Element.** This element will resolve inconsistencies between existing and General Plan land uses, expand the Urban Limit Line to include the "Hess/Laird Property," and accommodate land use amendments for certain properties owned by the Napa Valley Unified School District. Proposed land use amendments are depicted in Figure 3. The proposed Urban Limit Line is shown in Figure 4.
- **Circulation Element.** This element will incorporate Vehicle Miles Travelled policies consistent with Senate Bill 743 (SB 743); update street standards for all modes, including pedestrians, bicyclists, and transit consistent with the California Complete Streets Act; include two new Industrial Collector roadways: 1) a new "West Side Connector" roadway segment and 2) a Newell Drive roadway segment between Paoli Loop and S. Kelly Drive and delete former planned connection between Commerce Court and Eucalyptus Drive. See Figure 5.
- **Community Services Element.** This element will focus on goals and policies related to public services, including police, fire, and emergency services.

- **Open Space and Recreation Element.** This element will address the wide variety of parks, trails, and open spaces serving the diverse recreation needs of American Canyon residents, particularly youth, and emphasize the unique features of the City's natural environment – from the Newell Open Space to the east to the wetlands and trails to the west.
- **Conservation Element.** This element will consider the effects of existing and planned development on natural resources located on public lands, including military installations, consistent with Government Code Section 65302(d). This Element will address State law requirements, including air quality, greenhouse gas emissions, and climate change adaptation.
- **Safety Element.** This element will cover seismic activity, other geologic hazards, fire hazards, hazardous materials, flooding, and other potential hazards, consistent with Government Code Section 65302(g). It will also address resiliency and risks from natural hazards in American Canyon, pursuant to Senate Bill (SB) 379. This element update will require a vulnerability analysis to comply with State law.
- **Noise Element.** This element will require, consistent with Government Code Section 65302(f), the inclusion of new existing noise contours as well as projected noise contours based on future traffic volumes projected to arise from improvements planned for in the Circulation Element.
- **Housing Element.** This element will be an update for the 2023-2031 RHNA cycle to adequately plan to meet the housing needs of everyone in the community, consistent with Government Code Section 65583. Due to State-Mandated deadlines, the Housing Element update is anticipated to be completed earlier than the rest of the comprehensive technical General Plan update.
- **Implementation.** This chapter will be a comprehensive implementation strategy with discrete, tangible actions that the City will undertake to carry out all the Plan's goals, policies, and objectives. It will also highlight goals, policies, and programs related to administration of the General Plan. The chapter will detail timing, potential funding sources, and the responsible parties for each implementation measure.

Project Alternatives: The EIR will evaluate a reasonable range of proposed project alternatives that, consistent with CEQA, meet most of the proposed project objectives and reduce or avoid potential environmental effects, including a required No Project Alternative.

Potential Environmental Effect Areas: The EIR will describe the reasonably foreseeable and potentially significant adverse effects of the proposed project (both direct and indirect). The EIR also will evaluate the cumulative impacts of the proposed project when considered in conjunction with other related past, present, and reasonably foreseeable future projects. The City preliminarily anticipates that the proposed project could result in potentially significant environmental impacts in the following topic areas, which will be further evaluated in the EIR.

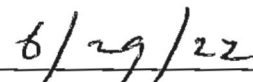
- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Greenhouse Gas Emissions
- Land Use and Planning
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire
- Cumulative Effects
- Growth Inducing Effects

When the Draft EIR is completed, it will be available for review at the City's offices located at 4381 Broadway Street, Suite 201, American Canyon, California 94503 and online at: <https://www.cityofamericancanyon.org/government/community-development/planning-zoning/general-plan-update>. The City will issue a Notice of Availability of a Draft EIR at that time to inform the public and interested agencies, groups, and individuals of how to access the Draft EIR and provide comments.

If you have questions regarding this NOP or the scoping meeting, please contact Brent Cooper at (707) 647-4335 or via email at bcooper@cityofamericancanyon.org

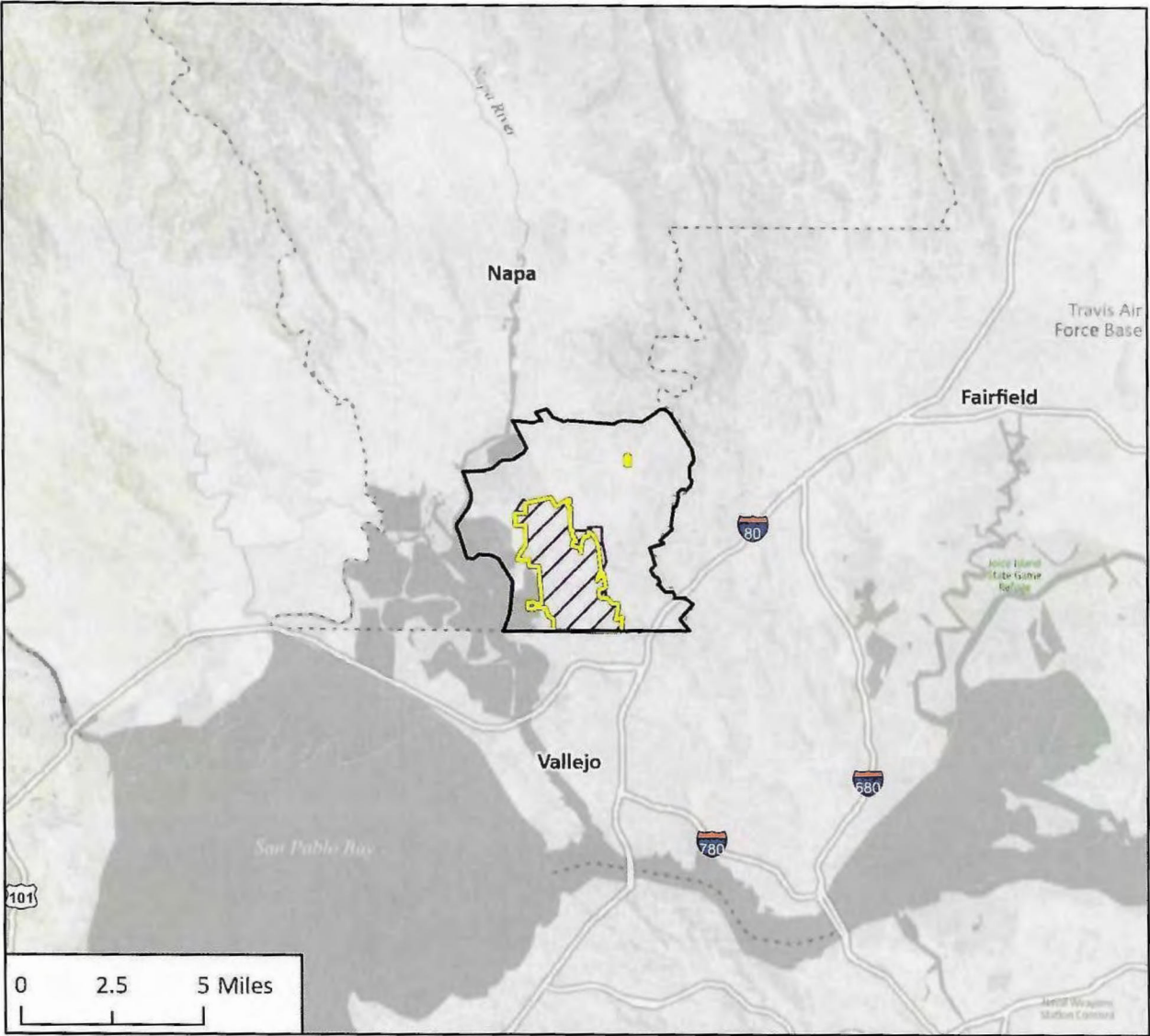


Brent Cooper, Community Development Director



Date

Figure 1 Regional Location



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Additional data provided by the City of American Canyon, 2022.





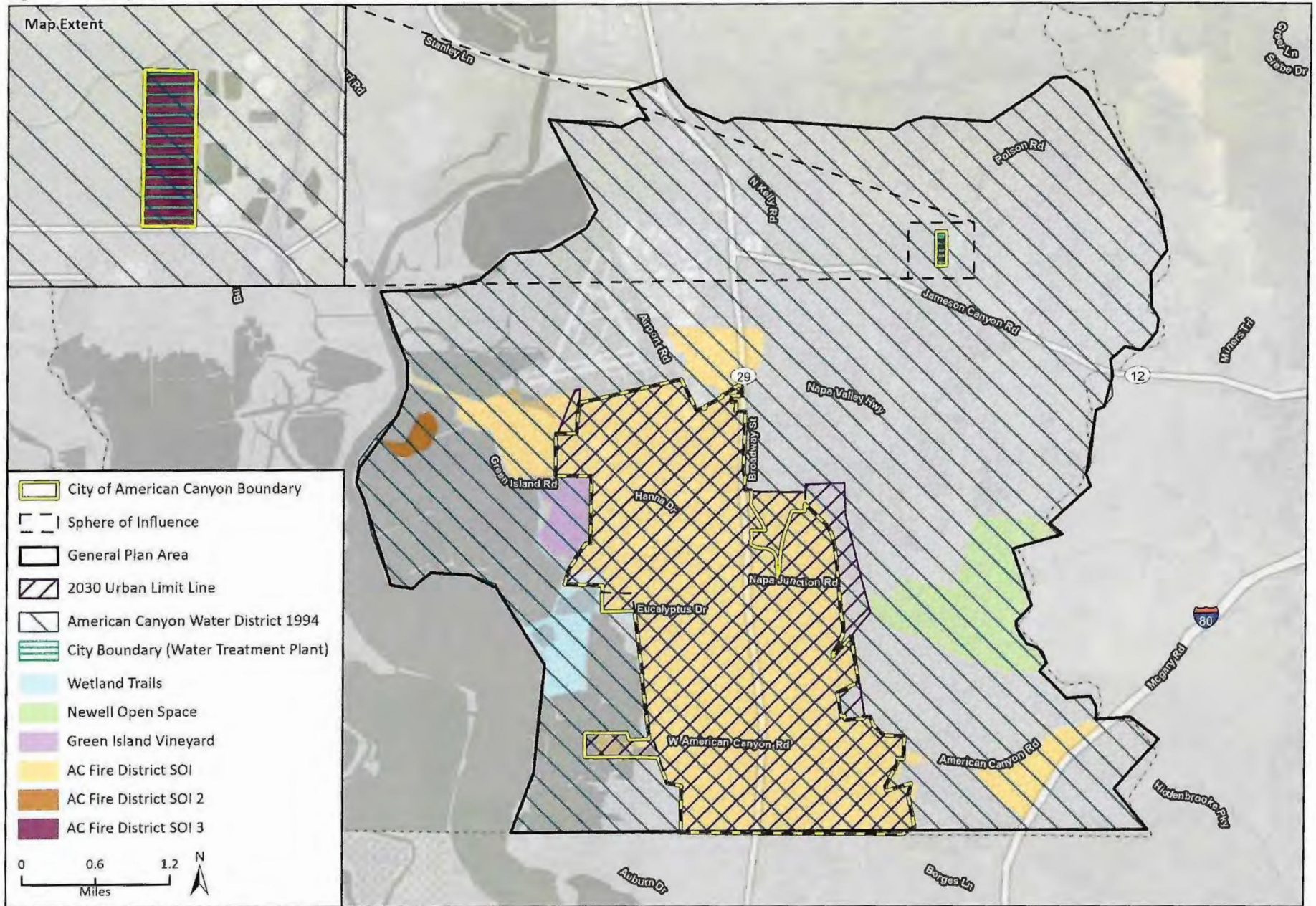
-  City of American Canyon Boundary
-  General Plan Area
-  2030 Urban Limit
-  Project Location



Figure 2 Project Location



Basemap provided by Microsoft Bing, Esri and their licensors © 2022.
Additional data provided by the City of American Canyon, 2022.

Figure 3 Area of Proposed Land Use Element Amendments

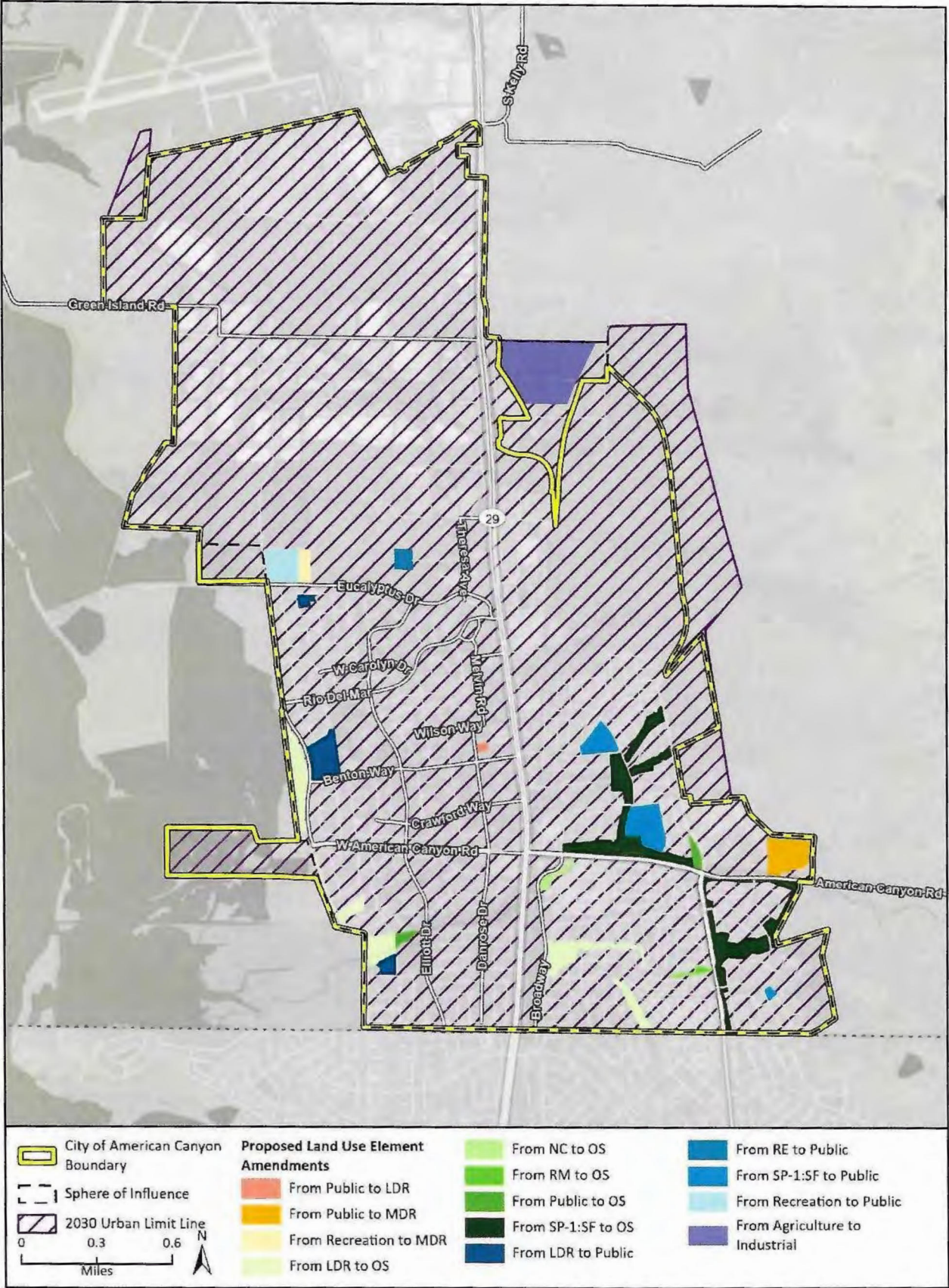
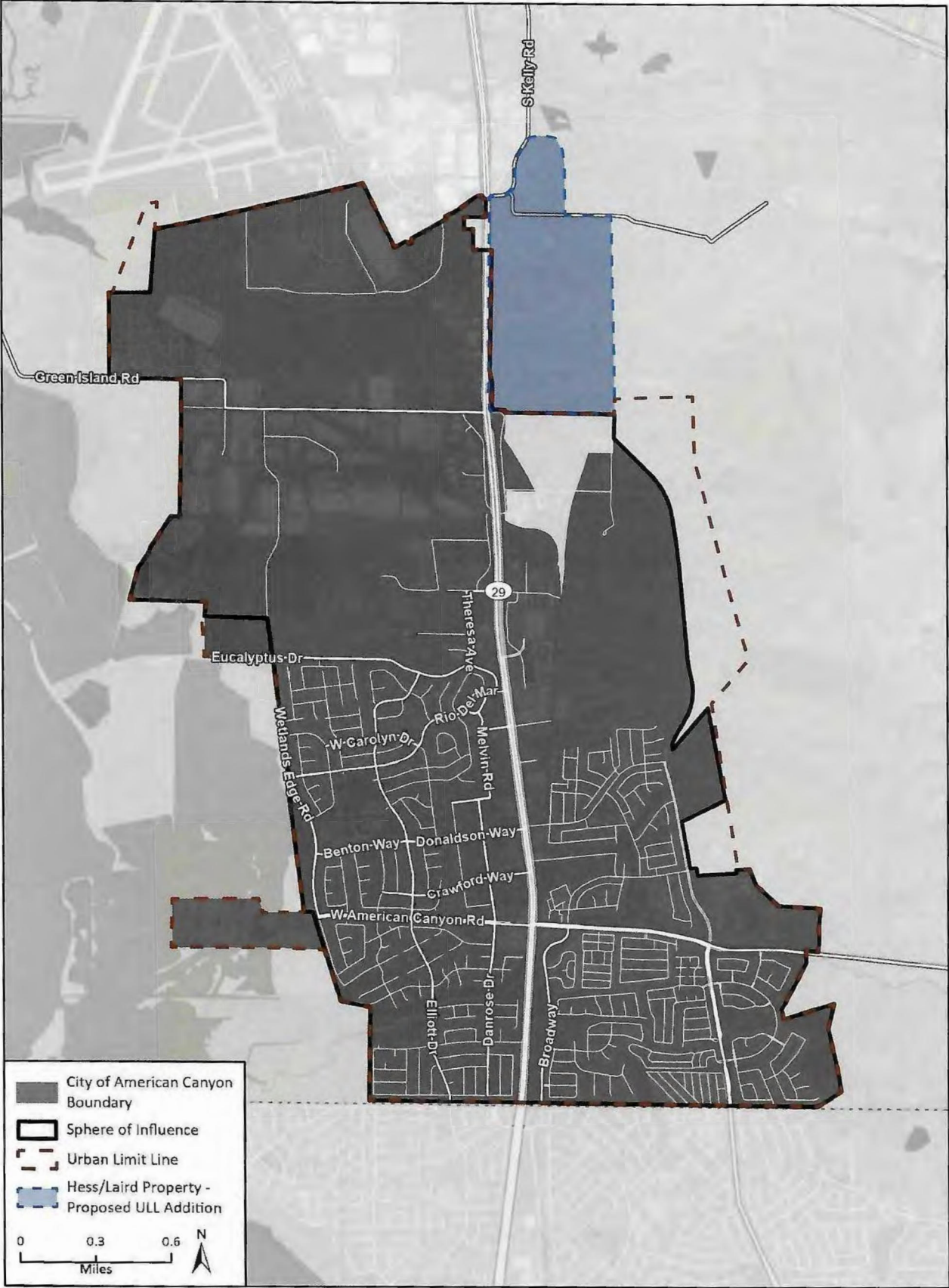
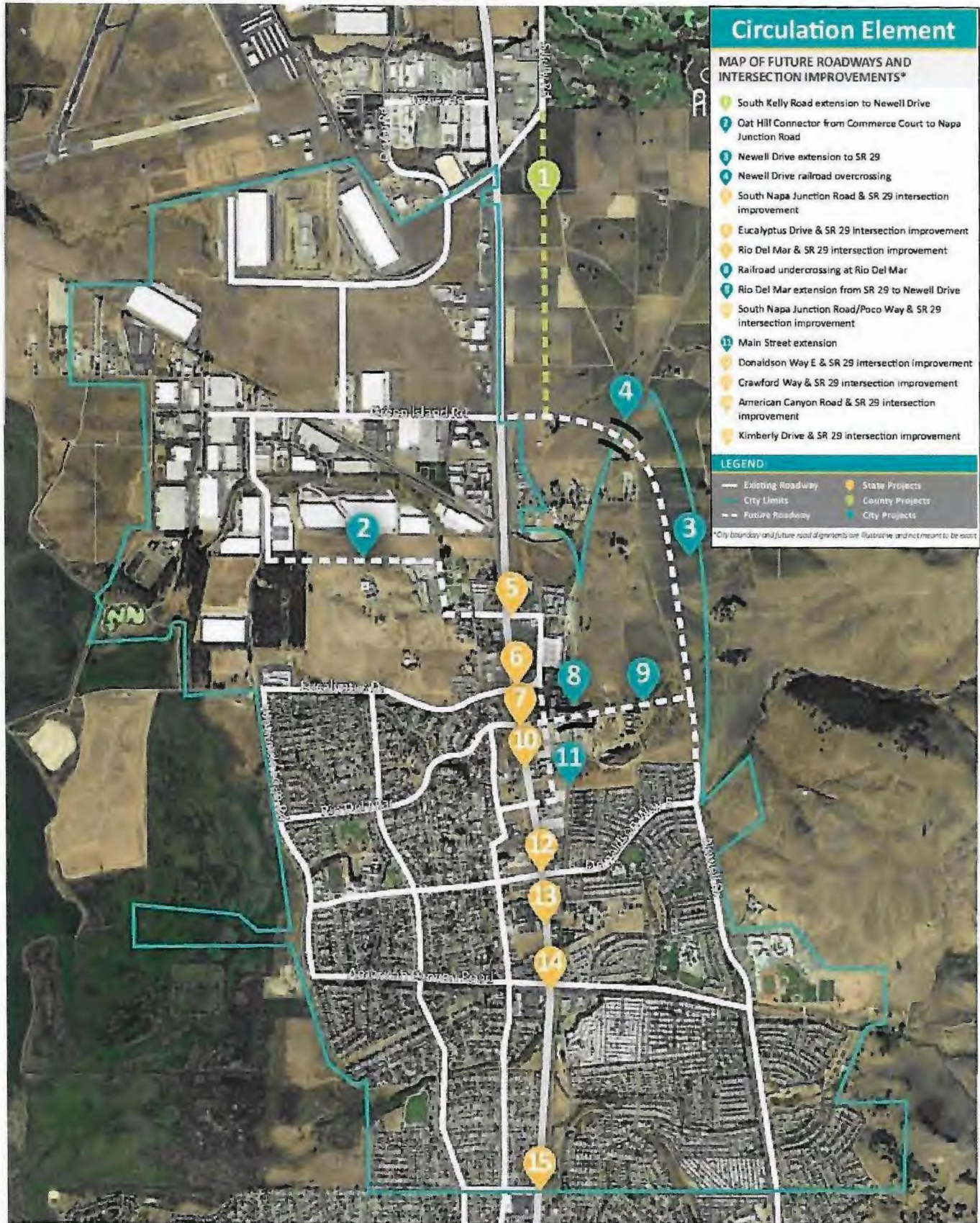


Figure 4 Proposed Urban Limit Line



Basemap provided by Microsoft Bing, Esri and their licensors © 2022.
Additional data provided by the City of American Canyon, 2021; Hess/Laird Property digitized from the Proposed Urban Limit Line Addition, 2022.

Figure 5 Proposed Circulation Element Amendments





State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
2825 Cordelia Road, Suite 100
Fairfield, CA 94534
(707) 428-2002
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



Governor's Office of Planning & Research

July 28, 2022

JUL 29 2022

STATE CLEARINGHOUSE

Brent Cooper
City of American Canyon
4381 Broadway Street, Suite 201
American Canyon, CA 94503
bcooper@cityofamericancanyon.org

Subject: City of American Canyon General Plan Update, Notice of Preparation of a
Program Environmental Impact Report, SCH No. 2022070038, Napa County

Dear Mr. Cooper:

The California Department of Fish and Wildlife (CDFW) reviewed the Notice of Preparation (NOP) of a Program Environmental Impact Report (EIR) for the City of American Canyon (City) General Plan Update (Project).

CDFW is providing the City, as the lead agency, with specific detail about the scope and content of the environmental information related to CDFW's area of statutory responsibility that must be included in the EIR (Cal. Code Regs., tit. 14, § 15082, subd. (b)).

CDFW ROLE

CDFW is a **Trustee Agency** with responsibility under the California Environmental Quality Act (CEQA) for commenting on projects that could impact fish, plant, and wildlife resources (Pub. Resources Code, § 21000 et seq.; Cal. Code Regs., tit. 14, § 15386). CDFW is also considered a **Responsible Agency** if a project would require discretionary approval, such as a permit pursuant to the California Endangered Species Act (CESA) or Native Plant Protection Act (NPPA), Lake and Streambed Alteration (LSA) Program, and other provisions of the Fish and Game Code that afford protection to the State's fish and wildlife trust resources. Pursuant to our authority, CDFW has the following concerns, comments, and recommendations regarding the Project.

PROJECT DESCRIPTION AND LOCATION

The Project will encompass the City of American Canyon city limits, urban limit line, historic water service area and sphere of influence (NOP, Figure 2). The Project will serve as a long-term framework for future growth and development over the next 20 years. The Project will reflect recent development decisions and changes in State law. Major components of the American Canyon General Plan Update will include the following elements: Land Use, Circulation, Community Services, Open Space and Recreation, Conservation, Safety, Noise, and Housing.

Brent Cooper
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July 28, 2022
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The CEQA Guidelines (Cal. Code Regs., tit. 14, § 15000 et seq.) require that the EIR incorporate a full Project description, including reasonably foreseeable future phases of the Project, that contains sufficient information to evaluate and review the Project's environmental impact (CEQA Guidelines, §§ 15124 & 15378). Please include a complete description of the following Project components in the Project description:

- Land use changes resulting from, for example, rezoning certain areas.
- Footprints of permanent Project features and temporarily impacted areas, such as staging areas and access routes.
- Area and plans for any proposed buildings/structures, ground disturbing activities, fencing, paving, stationary machinery, landscaping, and stormwater systems.
- Operational features of the Project, including level of anticipated human presence (describe seasonal or daily peaks in activity, if relevant), artificial lighting/light reflection, noise, traffic generation, and other features.
- Construction schedule, activities, equipment, and crew sizes.

The NOP identifies that the EIR will be a Program EIR. While Program EIRs have a necessarily broad scope, CDFW recommends providing as much information related to anticipated future activities as possible. CDFW recognizes that, pursuant to CEQA Guidelines section 15152, subdivision (c), if a Lead Agency is using the tiering process in connection with an EIR or large-scale planning approval, the development of detailed, site-specific information may not be feasible and can be deferred, in many instances, until such time as the Lead Agency prepares a future environmental document. This future environmental document would cover a project of a more limited geographical scale and is appropriate if the deferred information does not prevent adequate identification of significant effects of the planning approval at hand. The CEQA Guidelines section 15168, subdivision (c)(4) states, "Where the later activities involve site-specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were within the scope of the program EIR." Based on CEQA Guidelines section 15183.3 and associated *Appendix N Checklist*, and consistent with other program EIRs, CDFW recommends creating a procedure or checklist for evaluating subsequent project impacts on biological resources to determine if they are within the scope of the Program EIR or if an additional environmental document is warranted. This checklist should be included as an attachment to the EIR. Future analysis should include all special-status species and sensitive habitat including but not limited to species considered rare, threatened, or endangered species pursuant to CEQA Guidelines, section 15380.

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When used appropriately, the checklist should be accompanied by enough relevant information and reasonable inferences to support a “within the scope” of the EIR conclusion. For subsequent Project activities that may affect sensitive biological resources, a site-specific analysis should be prepared by a qualified biologist to provide the necessary supporting information. In addition, the checklist should cite the specific portions of the EIR, including page and section references, containing the analysis of the subsequent Project activities’ significant effects and indicate whether it incorporates all applicable mitigation measures from the EIR.

REGULATORY AUTHORITY

California Endangered Species Act and Native Plant Protection Act

Please be advised that a CESA Incidental Take Permit (ITP) must be obtained if the Project has the potential to result in “take” of plants or animals listed under CESA or NPPA, either during construction or over the life of the Project. Issuance of a CESA ITP is subject to CEQA documentation; the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the Project will impact CESA listed species, such as those identified in **Attachment 1**, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA ITP.

CEQA requires a Mandatory Finding of Significance if a project is likely to substantially restrict the range or reduce the population of a threatened or endangered species (Pub. Resources Code, §§ 21001, subd. (c) & 21083; CEQA Guidelines, §§ 15380, 15064, and 15065). Impacts must be avoided or mitigated to less-than-significant levels unless the CEQA Lead Agency makes and supports Findings of Overriding Consideration (FOC). The CEQA Lead Agency’s FOC does not eliminate the Project proponent’s obligation to comply with CESA.

Lake and Streambed Alteration

CDFW will require an LSA Notification, pursuant to Fish and Game Code sections 1600 et. seq. for Project activities affecting lakes or streams and associated riparian habitat. Notification is required for any activity that will substantially divert or obstruct the natural flow; change or use material from the bed, channel, or bank including associated riparian or wetland resources; or deposit or dispose of material where it may pass into a river, lake or stream. Work within ephemeral streams, washes, watercourses with a subsurface flow, and floodplains are subject to notification requirements. CDFW, as a Responsible Agency under CEQA, will consider the CEQA document for the Project. CDFW may not execute the final LSA Agreement until it has complied with CEQA as a Responsible Agency.

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Nesting Birds

CDFW also has authority over actions that may disturb or destroy active nest sites or take birds. Fish and Game Code sections 3503, 3503.5, and 3513 protect birds, their eggs, and nests. Migratory birds are also protected under the federal Migratory Bird Treaty Act.

Fully Protected Species

Fully Protected species, including any listed in **Attachment 1**, may not be taken or possessed at any time (Fish & G. Code, §§ 3511, 4700, 5050, & 5515).

ENVIRONMENTAL SETTING

The EIR should provide sufficient information regarding the environmental setting ("baseline") to understand the Project's, and its alternative's (if applicable), potentially significant impacts on the environment (CEQA Guidelines, §§ 15125 & 15360).

CDFW recommends that the CEQA document prepared for the Project provide baseline habitat assessments for special-status plant, fish and wildlife species located and potentially located within the Project area and surrounding lands, including but not limited to all rare, threatened, or endangered species (CEQA Guidelines, § 15380). The EIR should describe aquatic habitats, such as wetlands or waters of the U.S. or State, and any sensitive natural communities or riparian habitat occurring on or adjacent to the Project site (for sensitive natural communities see:

<https://wildlife.ca.gov/Data/VegCAMP/NaturalCommunities#sensitive%20natural%20communities>), and any stream or wetland set back distances the City may require. Fully protected, threatened or endangered, candidate, and other special-status species and sensitive natural communities that are known to occur, or have the potential to occur in or near the Project site, include but are not limited to those listed in **Attachment 1**.

Habitat descriptions and the potential for species occurrence should include information from multiple sources: aerial imagery, historical and recent survey data, field reconnaissance, scientific literature and reports, U.S. Fish and Wildlife Service's (USFWS) Information, Planning, and Consultation System, and findings from "positive occurrence" databases such as California Natural Diversity Database (CNDDB). Based on the data and information from the habitat assessment, the EIR should adequately assess which special-status species are likely to occur on or near the Project site, and whether they could be impacted by the Project.

CDFW recommends that prior to Project implementation, surveys be conducted for special-status species with potential to occur, following recommended survey protocols if available. Survey and monitoring protocols and guidelines are available at:

<https://www.wildlife.ca.gov/Conservation/Survey-Protocol>.

Brent Cooper
City of American Canyon
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Botanical surveys for special-status plant species, including those with a California Rare Plant Rank (<http://www.cnps.org/cnps/rareplants/inventory/>), must be conducted during the blooming period within the Project area and adjacent habitats that may be indirectly impacted by, for example, changes to hydrological conditions, and require the identification of reference populations. More than one year of surveys may be necessary based on environmental conditions. Please refer to CDFW protocols for surveying and evaluating impacts to special status plants available at: <https://www.wildlife.ca.gov/Conservation/Plants>.

IMPACT ANALYSIS AND MITIGATION MEASURES

The EIR should discuss all direct and indirect impacts (temporary and permanent) that may occur with implementation of the Project (CEQA Guidelines, § 15126.2). This includes evaluating and describing impacts such as:

- Land use changes that would reduce open space or agricultural land uses and increase residential or other land use involving increased development;
- Encroachments into riparian habitats, wetlands or other sensitive areas;
- Potential for impacts to special-status species;
- Loss or modification of breeding, nesting, dispersal and foraging habitat, including vegetation removal, alternation of soils and hydrology, and removal of habitat structural features (e.g., snags, roosts, vegetation overhanging banks);
- Permanent and temporary habitat disturbances associated with ground disturbance, noise, lighting, reflection, air pollution, traffic or human presence; and
- Obstruction of movement corridors, fish passage, or access to water sources and other core habitat features.

The CEQA document should also identify reasonably foreseeable future projects in the Project vicinity, disclose any cumulative impacts associated with these projects, determine the significance of each cumulative impact, and assess the significance of the Project's contribution to the impact (CEQA Guidelines, §15355). Although a project's impacts may be insignificant individually, its contributions to a cumulative impact may be considerable; a contribution to a significant cumulative impact – e.g., reduction of available habitat for a special-status species – should be considered cumulatively considerable without mitigation to minimize or avoid the impact.

Based on the comprehensive analysis of the direct, indirect, and cumulative impacts of the Project, the CEQA Guidelines direct the lead agency to consider and describe all

Brent Cooper
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feasible mitigation measures to avoid potentially significant impacts in the EIR, and/or mitigate significant impacts of the Project on the environment (CEQA Guidelines, §§ 15021, 15063, 15071, 15126.2, 15126.4 & 15370). This includes a discussion of impact avoidance and minimization measures for special-status species, which are recommended to be developed in early consultation with CDFW, USFWS, and the National Marine Fisheries Service. These measures can then be incorporated as enforceable Project conditions to reduce potential impacts to biological resources to less-than-significant levels.

ENVIRONMENTAL DATA

CEQA requires that information developed in EIRs and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to CNDDDB. The CNDDDB online field survey form and other methods for submitting data can be found at the following link:

<https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The types of information reported to CNDDDB can be found at the following link:

<https://wildlife.ca.gov/Data/CNDDDB/Plantsand-Animals>.

FILING FEES

CDFW anticipates that the Project will have an impact on fish and/or wildlife, and assessment of filing fees is necessary (Fish & G. Code, § 711.4; Pub. Resources Code, § 21089). Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW.

If you have any questions, please contact Alicia Bird, Environmental Scientist, at (707) 980-5154 or Alicia.Bird@wildlife.ca.gov; or Melanie Day, Senior Environmental Scientist (Supervisory), at (707) 210-4415 or Melanie.Day@wildlife.ca.gov.

Sincerely,

DocuSigned by:

Erin Chappell

B77E9A6211EF486

Erin Chappell
Regional Manager
Bay Delta Region

Attachment 1: Special-Status Species & Sensitive Natural Communities

ec: State Clearinghouse No. 2022070038

Brent Cooper
 City of American Canyon
 July 28, 2022
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Attachment 1: Special-Status Species & Sensitive Natural Communities

Species Name	Common Name	Status
Fish		
<i>Hypomesus transpacificus</i>	Delta smelt	SE, FT
<i>Spirinchus thaleichthys</i>	Longfin smelt	ST
<i>Oncorhynchus mykiss irideus</i> pop. 8	Central California Coast steelhead	FT
<i>Acipenser medirostris</i>	Southern Distinct Population Segment (DPS) green sturgeon	FT
<i>Lampetra ayersi</i>	Western river lamprey	SSC
<i>Pogonichthys macrolepidotus</i>	Sacramento Splittail	SSC
Birds		
<i>Rallus obsoletus obsoletus</i>	California Ridgeway's rail	FP, SE, FE
<i>Laterallus jamaicensis coturniculus</i>	California black rail	FP, ST
<i>Buteo swainsoni</i>	Swainson's hawk	ST
<i>Agelaius tricolor</i>	Tricolored blackbird	ST
<i>Elanus leucurus</i>	White-tailed kite	FP
<i>Falco peregrinus anatum</i>	American peregrine falcon	FP
<i>Aquila chrysaetos</i>	Golden eagle	FP, BGEPA
<i>Athene cunicularia</i>	Burrowing owl	SSC
<i>Geothlypis trichas sinuosa</i>	Saltmarsh common yellowthroat	SSC
<i>Melospiza melodia samuelis</i>	San Pablo song sparrow	SSC
<i>Circus hudsoniusl</i>	Northern harrier	SSC
<i>Geothlypis trichas sinuosa</i>	saltmarsh common yellowthroat	SSC

Brent Cooper
 City of American Canyon
 July 28, 2022
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Amphibians and Reptiles		
<i>Rana draytonii</i>	California red-legged frog	FT, SSC
<i>Rana boylei</i> (northwest/north coast clade)	Foothill yellow-legged frog	SSC
<i>Emys marmorata</i>	Western pond turtle	SSC
Mammals		
<i>Reithrodontomys raviventris</i>	Salt-marsh harvest mouse	FP, SE, FE
<i>Antrozous pallidus</i>	Pallid bat	SSC
<i>Taxidea taxus</i>	American badger	SSC
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	SSC
<i>Sorex ornatus sinuosus</i>	Suisun shrew	SSC
Invertebrates		
<i>Bombus occidentalis</i>	Western bumble bee	ICP
<i>Speyeria callippe callippe</i>	Callippe silverspot butterfly	FE
<i>Branchinecta lynchi</i>	Vernal pool fairy shrimp	FT
Plants		
<i>Castilleja affinis</i> var. <i>neglecta</i>	Tiburon paintbrush	ST, FE, CRPR 1B.2
<i>Trifolium amoenum</i>	two-fork clover	FE, CRPR 1B.1
<i>Chloropyron molle</i>	soft salty bird's-beak	FE, CRPR 1B.2
<i>Lasthenia conjugens</i>	Contra Costa goldfields	FE, CRPR 1B.1
<i>Lilaeopsis masonii</i>	Mason's lilaeopsis	SR, CRPR 1B.1
<i>Legenere limosa</i>	Legenere	CRPR 1B.1
<i>Extriplex joaquinana</i>	San Joaquin spearscale	CRPR 1B.2
<i>Balsamorhiza macrolepis</i>	big-scale balsamroot	CRPR 1B.2

Brent Cooper
 City of American Canyon
 July 28, 2022
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<i>Astragalus tener</i> var. <i>tener</i>	Alkali milk-vetch	CRPR 1B.2
<i>Lathyrus jepsonii</i> var. <i>jepsonii</i>	Delta tule pea	CRPR 1B.2
<i>Eryngium jepsonii</i>	Jepson's coyote-thistle	CRPR 1B.2
<i>Trifolium hydrophilum</i>	Saline clover	CRPR 1B.2
<i>Symphyotrichum lentum</i>	Suisun Marsh aster	CRPR 1B.2
<i>Balsamorhiza macrolepis</i>	big-scale balsamroot	CRPR 1B.2
<i>Downingia pusilla</i>	Dwarf downingia	CRPR 2B.2
<i>Carex lyngbyei</i>	Lyngbye's sedge	CRPR 2B.2
Sensitive Natural Communities		
Coastal Brackish Marsh - S2.1		
Serpentine Bunch Grass - S2.2		

FP = state fully protected under Fish and Game Code; FE = federally listed as endangered under the Endangered Species Act (ESA); FT = federally listed as threatened under ESA; SE = state listed as endangered under CESA; ST = state listed as threatened under CESA; SR = State listed as rare under NPPA; BGEPA = federal Bald and Golden Eagle Protection Act; ICP = California Terrestrial and Vernal Pool Invertebrate of Conservation Priority¹; SSC = state Species of Special Concern; CRPR = California Rare Plant Rank²; S1-S3 = Natural Communities with ranks of S1-S3 are considered Sensitive Natural Communities to be addressed in the environmental review processes of CEQA and its equivalents

¹ The list of California Terrestrial and Vernal Pool Invertebrates of Conservation Priority was collated during CDFW's Scientific Collecting Permit rulemaking process:

<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=157415&inline>

² CRPR 1B plants are considered rare, threatened, or endangered in California and elsewhere. CRPR 2B plants are considered rare, threatened, or endangered in California but more common elsewhere. Further information on CRPR ranks is available in CDFW's *Special Vascular Plants, Bryophytes, and Lichens List* (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383&inline>) and on the California Native Plant Society website (<https://www.cnps.org/rare-plants/california-rare-plant-ranks>).

California Department of Transportation

DISTRICT 4
OFFICE OF TRANSIT AND COMMUNITY PLANNING
P.O. BOX 23660, MS-10D | OAKLAND, CA 94623-0660
www.dot.ca.gov



Governor's Office of Planning & Research

August 4, 2022

AUG 04 2022

STATE CLEARINGHOUSE

SCH #: 2022070038
GTS #: 04-NAP-2022-00282
GTS ID: 26948
Co/Rt/Pm: NAP/29/VAR

Brent Cooper, Community Development Director
City of American Canyon
4381 Broadway Street, Suite 201
American Canyon, CA 94503

Re: City of American Canyon General Plan Update – Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR)

Dear Brent Cooper:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the City of American Canyon General Plan Update project. We are committed to ensuring that impacts to the State's multimodal transportation system and to our natural environment are identified and mitigated to support a safe, sustainable, integrated and efficient transportation system. The following comments are based on our review of the July 2022 NOP.

Project Understanding

The proposed project consists of an update to the City's General Plan which will serve as a long-term framework for future growth and development. State Route (SR)-29 runs through the City of American Canyon.

Travel Demand Analysis

With the enactment of Senate Bill (SB) 743, Caltrans is focused on maximizing efficient development patterns, innovative travel demand reduction strategies, and multimodal improvements. For more information on how Caltrans assesses Transportation Impact Studies, please review Caltrans' Transportation Impact Study Guide ([link](#)).

Caltrans looks forward to reviewing the VMT analysis in the DEIR, which should include the following:

- VMT analysis pursuant to the City's guidelines. Projects that result in automobile VMT per capita above the threshold of significance for existing (i.e. baseline) city-wide or regional values for similar land use types may indicate a significant impact. If necessary, mitigation for increasing VMT should be identified. Mitigation should support the use of transit and active transportation modes. Potential mitigation measures that include the requirements of other agencies such as Caltrans are fully enforceable through permit conditions, agreements, or other legally-binding instruments under the control of the City.
- A schematic illustration of walking, biking and auto conditions at the project site and study area roadways. Potential traffic safety issues to the State Transportation Network (STN) may be assessed by Caltrans via the Interim Safety Guidance ([link](#)).
- The project's primary and secondary effects on pedestrians, bicycles, travelers with disabilities and transit performance should be evaluated, including countermeasures and trade-offs resulting from mitigating VMT increases. Access to pedestrians, bicycle, and transit facilities must be maintained.

Lead Agency

As the Lead Agency, the Cit of American Canyon is responsible for all project mitigation, including any needed improvements to the STN. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures.

Thank you again for including Caltrans in the environmental review process. Should you have any questions regarding this letter, or for future notifications and requests for review of new projects, please email LDR-D4@dot.ca.gov.

Sincerely,



MARK LEONG
District Branch Chief
Local Development Review

c: State Clearinghouse



NATIVE AMERICAN HERITAGE COMMISSION

July 8, 2022

Governor's Office of Planning & Research

Brent Cooper
City of American Canyon
4381 Broadway Street, Suite 201
American Canyon, CA 94503

July 8 2022

STATE CLEARINGHOUSE

Re: 2022070038, City of American Canyon General Plan Update Project, Napa County

Dear Mr. Cooper:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides 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. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

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AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project:

Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- a. A brief description of the project.
- b. The lead agency contact information.
- c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1 (b)).

- a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- a. Alternatives to the project.
- b. Recommended mitigation measures.
- c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- a. Type of environmental review necessary.
- b. Significance of the tribal cultural resources.
- c. Significance of the project's impacts on tribal cultural resources.
- d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
- b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

- 7. Conclusion of Consultation:** Consultation with a tribe shall be considered concluded when either of the following occurs:
- a.** The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
 - b.** A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).
- 8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document:** Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).
- 9. Required Consideration of Feasible Mitigation:** If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).
- 10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:**
- a.** Avoidance and preservation of the resources in place, including, but not limited to:
 - i.** Planning and construction to avoid the resources and protect the cultural and natural context.
 - ii.** Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
 - b.** Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - i.** Protecting the cultural character and integrity of the resource.
 - ii.** Protecting the traditional use of the resource.
 - iii.** Protecting the confidentiality of the resource.
 - c.** Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
 - d.** Protecting the resource. (Pub. Resource Code §21084.3 (b)).
 - e.** Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
 - f.** Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).
- 11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource:** An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
- a.** The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
 - b.** The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
 - c.** The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
 - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
 - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (https://ohp.parks.ca.gov/?page_id=30331) for an archaeological records search. The records search will determine:
 - a. If part or all of the APE has been previously surveyed for cultural resources.
 - b. If any known cultural resources have already been recorded on or adjacent to the APE.
 - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
 - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
 - b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
 - a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
 - b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
 - a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, § 15064.5(f) (CEQA Guidelines § 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
 - b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
 - c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code § 7050.5, Public Resources Code § 5097.98, and Cal. Code Regs., tit. 14, § 15064.5, subdivisions (d) and (e) (CEQA Guidelines § 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address:
Cameron.Vela@nahc.ca.gov.

Sincerely,

Cameron Vela

Cameron Vela
Cultural Resources Analyst

cc: State Clearinghouse

Appendix B

Supporting Biological Resources Information

19-08673: American Canyon

Scientific Name Common Name	Status	Habitat Requirements
Plants and Lichens		
<i>Allium peninsulare</i> var. <i>franciscanum</i> Franciscan onion	None/None G5T2/S2 1B.2	Perennial bulbiferous herb. Cismontane woodland, valley and foothill grassland. Clay, Serpentinite (often), volcanic. Elevations: 170-1000ft. (52-305m.) Blooms (Apr)May-Jun.
<i>Amorpha californica</i> var. <i>napensis</i> Napa false indigo	None/None G4T2/S2 1B.2	Perennial deciduous shrub. Broadleafed upland forest, chaparral, cismontane woodland. Openings in forest or woodland or in chaparral. 30-735 m. Elevations: 165-6560ft. (50-2000m.) Blooms Apr-Jul.
<i>Astragalus tener</i> var. <i>tener</i> alkali milk-vetch	None/None G2T1/S1 1B.2	Annual herb. Playas, valley and foothill grassland, vernal pools. Alkaline. Elevations: 5-195ft. (1-60m.) Blooms Mar-Jun.
<i>Atriplex persistens</i> vernal pool smallscale	None/None G2/S2 1B.2	Annual herb. Vernal pools. Alkaline vernal pools. Elevations: 35-375ft. (10-115m.) Blooms Jun-Oct.
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	None/None G2/S2 1B.2	Perennial herb. Chaparral, cismontane woodland, valley and foothill grassland. Serpentinite (sometimes). Elevations: 150-5100ft. (45-1555m.) Blooms Mar-Jun.
<i>Blennosperma bakeri</i> Sonoma sunshine	FE/SCE G1/S1 1B.1	Annual herb. Valley and foothill grassland, vernal pools. Vernal pools and swales. Elevations: 35-360ft. (10-110m.) Blooms Mar-May.
<i>Blepharizonia plumosa</i> big tarplant	None/None G1G2/S1S2 1B.1	Annual herb. Valley and foothill grassland. Clay (usually). Elevations: 100-1655ft. (30-505m.) Blooms Jul-Oct.
<i>Brodiaea leptandra</i> narrow-anthered brodiaea	None/None G3?/S3? 1B.2	Perennial bulbiferous herb. Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland. Volcanic. Elevations: 360-3000ft. (110-915m.) Blooms May-Jul.

<i>Calochortus pulchellus</i> Mt. Diablo fairy-lantern	None/None G2/S2 1B.2	Perennial bulbiferous herb. Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland. On wooded and brushy slopes. Elevations: 100-2755ft. (30-840m.) Blooms Apr-Jun.
<i>Carex lyngbyei</i> Lyngbye's sedge	None/None G5/S3 2B.2	Perennial rhizomatous herb. Marshes and swamps. Elevations: 0-35ft. (0-10m.) Blooms Apr-Aug.
<i>Castilleja affinis</i> var. <i>neglecta</i> Tiburon paintbrush	FE/SCT G4G5T1T2/S1S2 1B.2	Perennial herb (hemiparasitic). Valley and foothill grassland. Rocky serpentine sites. Elevations: 195-1310ft. (60-400m.) Blooms Apr-Jun.
<i>Ceanothus confusus</i> Rincon Ridge ceanothus	None/None G1/S1 1B.1	Perennial evergreen shrub. Chaparral, cismontane woodland, closed-cone coniferous forest. Serpentine (sometimes), volcanic (sometimes). Elevations: 245-3495ft. (75-1065m.) Blooms Feb-Jun.
<i>Ceanothus purpureus</i> holly-leaved ceanothus	None/None G2/S2 1B.2	Perennial evergreen shrub. Chaparral, cismontane woodland. Rocky, volcanic. Elevations: 395-2100ft. (120-640m.) Blooms Feb-Jun.
<i>Ceanothus sonomensis</i> Sonoma ceanothus	None/None G2/S2 1B.2	Perennial evergreen shrub. Chaparral. Sandy, serpentine or volcanic soils. Elevations: 705-2625ft. (215-800m.) Blooms Feb-Apr.
<i>Centromadia parryi</i> ssp. <i>congdonii</i> Congdon's tarplant	None/None G3T1T2/S1S2 1B.1	Annual herb. Valley and foothill grassland. Alkaline soils, sometimes described as heavy white clay. Elevations: 0-755ft. (0-230m.) Blooms May-Oct(Nov).
<i>Centromadia parryi</i> ssp. <i>parryi</i> pappose tarplant	None/None G3T2/S2 1B.2	Annual herb. Chaparral, coastal prairie, marshes and swamps, meadows and seeps, valley and foothill grassland. Alkaline (often). Elevations: 0-1380ft. (0-420m.) Blooms May-Nov.
<i>Chloropyron molle</i> ssp. <i>molle</i> soft salty bird's-beak	FE/SCR G2T1/S1 1B.2	Annual herb (hemiparasitic). Marshes and swamps. In coastal salt marsh with <i>Distichlis</i> , <i>Salicornia</i> , <i>Frankenia</i> , etc. Elevations: 0-10ft. (0-3m.) Blooms Jun-Nov.

<i>Cicuta maculata</i> var. <i>bolanderi</i> Bolander's water-hemlock	None/None G5T4T5/S2? 2B.1	Perennial herb. Marshes and swamps. In fresh or brackish water. Elevations: 0-655ft. (0-200m.) Blooms Jul-Sep.
<i>Cirsium hydrophilum</i> var. <i>hydrophilum</i> Suisun thistle	FE/None G2T1/S1 1B.1	Perennial herb. Marshes and swamps. Grows with <i>Scirpus</i> , <i>Distichlis</i> near small watercourses within saltmarsh. Elevations: 0-5ft. (0-1m.) Blooms Jun-Sep.
<i>Dirca occidentalis</i> western leatherwood	None/None G2/S2 1B.2	Perennial deciduous shrub. Broadleaved upland forest, chaparral, cismontane woodland, closed-cone coniferous forest, north coast coniferous forest, riparian forest, riparian woodland. On brushy slopes, mesic sites; mostly in mixed evergreen and foothill woodland communities. Elevations: 80-1395ft. (25-425m.) Blooms Jan-Mar(Apr).
<i>Downingia pusilla</i> dwarf downingia	None/None GU/S2 2B.2	Annual herb. Valley and foothill grassland, vernal pools. Vernal lake and pool margins with a variety of associates. In several types of vernal pools. Elevations: 5-1460ft. (1-445m.) Blooms Mar-May.
<i>Erigeron greenei</i> Greene's narrow-leaved daisy	None/None G3/S3 1B.2	Perennial herb. Chaparral. Serpentine and volcanic substrates, generally in shrubby vegetation. Elevations: 260-3295ft. (80-1005m.) Blooms May-Sep.
<i>Eriogonum truncatum</i> Mt. Diablo buckwheat	None/None G1/S1 1B.1	Annual herb. Chaparral, coastal scrub, valley and foothill grassland. Dry, exposed clay or sandy substrates. Elevations: 10-1150ft. (3-350m.) Blooms Apr-Sep(Nov-Dec).
<i>Eryngium jepsonii</i> Jepson's coyote-thistle	None/None G2/S2 1B.2	Perennial herb. Valley and foothill grassland, vernal pools. Clay. Elevations: 10-985ft. (3-300m.) Blooms Apr-Aug.
<i>Extriplex joaquinana</i> San Joaquin spearscale	None/None G2/S2 1B.2	Annual herb. Chenopod scrub, meadows and seeps, playas, valley and foothill grassland. In seasonal alkali wetlands or alkali sink scrub with <i>Distichlis spicata</i> , <i>Frankenia</i> , etc. Elevations: 5-2740ft. (1-835m.) Blooms Apr-Oct.
<i>Fritillaria liliacea</i> fragrant fritillary	None/None G2/S2 1B.2	Perennial bulbiferous herb. Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland. Often on serpentine; various soils reported though usually on clay, in grassland. Elevations: 10-1345ft. (3-410m.) Blooms Feb-Apr.

<i>Helianthella castanea</i> Diablo helianthella	None/None G2/S2 1B.2	Perennial herb. Broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. Azonal soils, Partial shade (often), rocky (usually). Elevations: 195-4265ft. (60-1300m.) Blooms Mar-Jun.
<i>Hemizonia congesta</i> ssp. <i>congesta</i> congested-headed hayfield tarplant	None/None G5T2/S2 1B.2	Annual herb. Valley and foothill grassland. Grassy valleys and hills, often in fallow fields; sometimes along roadsides. Elevations: 65-1835ft. (20-560m.) Blooms Apr-Nov.
<i>Hesperolinon bicarpellatum</i> two-carpellate western flax	None/None G2/S2 1B.2	Annual herb. Chaparral. Serpentine barrens at edge of chaparral. Elevations: 195-3295ft. (60-1005m.) Blooms (Apr)May-Jul.
<i>Hesperolinon breweri</i> Brewer's western flax	None/None G2/S2 1B.2	Annual herb. Chaparral, cismontane woodland, valley and foothill grassland. Often in rocky serpentine soil in serpentine chaparral and serpentine grassland. Elevations: 100-3100ft. (30-945m.) Blooms May-Jul.
<i>Horkelia tenuiloba</i> thin-lobed horkelia	None/None G2/S2 1B.2	Perennial herb. Broadleafed upland forest, chaparral, valley and foothill grassland. Sandy soils; mesic openings. Elevations: 165-1640ft. (50-500m.) Blooms May-Jul(Aug).
<i>Isocoma arguta</i> Carquinez goldenbush	None/None G1/S1 1B.1	Perennial shrub. Valley and foothill grassland. Alkaline soils, flats, lower hills. On low benches near drainages and on tops and sides of mounds in swale habitat. Elevations: 5-65ft. (1-20m.) Blooms Aug-Dec.
<i>Lasthenia conjugens</i> Contra Costa goldfields	FE/None G1/S1 1B.1	Annual herb. Cismontane woodland, playas, valley and foothill grassland, vernal pools. Vernal pools, swales, low depressions, in open grassy areas. Elevations: 0-1540ft. (0-470m.) Blooms Mar-Jun.
<i>Lathyrus jepsonii</i> var. <i>jepsonii</i> Delta tule pea	None/None G5T2/S2 1B.2	Perennial herb. Marshes and swamps. In freshwater and brackish marshes. Often found with Typha, Aster lentus, Rosa californica, Juncus spp., Scirpus, etc. Usually on marsh and slough edges. Elevations: 0-15ft. (0-5m.) Blooms May-Jul(Aug-Sep).
<i>Legenere limosa</i> legenere	None/None G2/S2 1B.1	Annual herb. Vernal pools. In beds of vernal pools. 1-. Elevations: 5-2885ft. (1-880m.) Blooms Apr-Jun.

<i>Leptosiphon jepsonii</i> Jepson's leptosiphon	None/None G2G3/S2S3 1B.2	Annual herb. Chaparral, cismontane woodland, valley and foothill grassland. Open to partially shaded grassy slopes. On volcanics or the periphery of serpentine substrates. Elevations: 330-1640ft. (100-500m.) Blooms Mar-May.
<i>Lilaeopsis masonii</i> Mason's lilaeopsis	None/SCR G2/S2 1B.1	Perennial rhizomatous herb. Marshes and swamps, riparian scrub. Tidal zones, in muddy or silty soil formed through river deposition or river bank erosion. In brackish or freshwater. Elevations: 0-35ft. (0-10m.) Blooms Apr-Nov.
<i>Limosella australis</i> Delta mudwort	None/None G4G5/S2 2B.1	Perennial stoloniferous herb. Marshes and swamps, riparian scrub. Usually on mud banks of the Delta in marshy or scrubby riparian associations; often with <i>Lilaeopsis masonii</i> . Elevations: 0-10ft. (0-3m.) Blooms May-Aug.
<i>Lomatium repostum</i> Napa lomatium	None/None G2G3/S2S3 1B.2	Perennial herb. Chaparral, cismontane woodland. Rocky areas in volcanic and serpentine soils with mixed chaparral and black oak woodland communities. Elevations: 295-3380ft. (90-1030m.) Blooms Mar-Jun.
<i>Lupinus sericatus</i> Cobb Mountain lupine	None/None G2?/S2? 1B.2	Perennial herb. Broadleaved upland forest, chaparral, cismontane woodland, lower montane coniferous forest. In stands of knobcone pine-oak woodland, on open wooded slopes in gravelly soils; sometimes on serpentine. Elevations: 900-5005ft. (275-1525m.) Blooms Mar-Jun.
<i>Navarretia leucocephala</i> ssp. <i>bakeri</i> Baker's navarretia	None/None G4T2/S2 1B.1	Annual herb. Cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grassland, vernal pools. Vernal pools and swales; adobe or alkaline soils. Elevations: 15-5710ft. (5-1740m.) Blooms Apr-Jul.
<i>Puccinellia simplex</i> California alkali grass	None/None G3/S2 1B.2	Annual herb. Chenopod scrub, meadows and seeps, valley and foothill grassland, vernal pools. Alkaline, vernal mesic. Sinks, flats, and lake margins. Elevations: 5-3050ft. (2-930m.) Blooms Mar-May.
<i>Rhynchospora californica</i> California beaked-rush	None/None G1/S1 1B.1	Perennial rhizomatous herb. Bogs and fens, lower montane coniferous forest, marshes and swamps, meadows and seeps. Freshwater seeps and open marshy areas. Elevations: 150-3315ft. (45-1010m.) Blooms May-Jul.
<i>Senecio aphanactis</i> chaparral ragwort	None/None G3/S2 2B.2	Annual herb. Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. Elevations: 50-2625ft. (15-800m.) Blooms Jan-Apr(May).

<i>Sidalcea hickmanii</i> ssp. <i>napensis</i> Napa checkerbloom	None/None G3T1/S1 1B.1	Perennial herb. Chaparral. Rhyolitic substrates. Elevations: 1360-2000ft. (415-610m.) Blooms Apr-Jun.
<i>Spergularia macrotheca</i> var. <i>longistyla</i> long-styled sand-spurrey	None/None G5T2/S2 1B.2	Perennial herb. Marshes and swamps, meadows and seeps. Alkaline. Elevations: 0-835ft. (0-255m.) Blooms Feb-May.
<i>Stuckenia filiformis</i> ssp. <i>alpina</i> northern slender pondweed	None/None G5T5/S2S3 2B.2	Perennial rhizomatous herb (aquatic). Marshes and swamps. Shallow, clear water of lakes and drainage channels. Elevations: 985-7055ft. (300-2150m.) Blooms May-Jul.
<i>Symphyotrichum lentum</i> Suisun Marsh aster	None/None G2/S2 1B.2	Perennial rhizomatous herb. Marshes and swamps. Most often seen along sloughs with Phragmites, Scirpus, blackberry, Typha, etc. Elevations: 0-10ft. (0-3m.) Blooms (Apr)May-Nov.
<i>Trichostema ruygtii</i> Napa bluecurls	None/None G1G2/S1S2 1B.2	Annual herb. Chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland, vernal pools. Often in open, sunny areas. Also has been found in vernal pools. Elevations: 100-2230ft. (30-680m.) Blooms Jun-Oct.
<i>Trifolium amoenum</i> two-fork clover	FE/None G1/S1 1B.1	Annual herb. Coastal bluff scrub, valley and foothill grassland. Sometimes on serpentine soil, open sunny sites, swales. Most recently cited on roadside and eroding cliff face. Elevations: 15-1360ft. (5-415m.) Blooms Apr-Jun.
<i>Trifolium hydrophilum</i> saline clover	None/None G2/S2 1B.2	Annual herb. Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. Elevations: 0-985ft. (0-300m.) Blooms Apr-Jun.
<i>Viburnum ellipticum</i> oval-leaved viburnum	None/None G4G5/S3? 2B.3	Perennial deciduous shrub. Chaparral, cismontane woodland, lower montane coniferous forest. Elevations: 705-4595ft. (215-1400m.) Blooms May-Jun.
Invertebrates		
<i>Bombus crotchii</i> Crotch bumble bee	None/None G2/S1S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.

<i>Bombus occidentalis</i> western bumble bee	None/None G2G3/S1	Once common and widespread, species has declined precipitously from central CA to southern B.C., perhaps from disease.
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	FT/None G3/S3	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	FT/None G3T2T3/S3	Occurs only in the Central Valley of California, in association with blue elderberry (<i>Sambucus mexicana</i>). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.
<i>Speyeria callippe callippe</i> callippe silverspot butterfly	FE/None G5T1/S1	Restricted to the northern coastal scrub of the San Francisco peninsula. Hostplant is <i>Viola pedunculata</i> . Most adults found on E-facing slopes; males congregate on hilltops in search of females.
<i>Syncaris pacifica</i> California freshwater shrimp	FE/SE G2/S2	Endemic to Marin, Napa, and Sonoma counties. Found in low elevation, low gradient streams where riparian cover is moderate to heavy. Shallow pools away from main streamflow. Winter: undercut banks with exposed roots. Summer: leafy branches touching water.
Fish		
<i>Acipenser medirostris</i> pop. 1 green sturgeon - southern DPS	FT/None G3T1/S1	Spawning site fidelity. Spawns in the Sacramento, Feather and Yuba Rivers. Presence in upper Stanislaus and San Joaquin Rivers may indicate spawning. Non-spawning adults occupy marine/estuarine waters. Delta Estuary is important for rearing juveniles. Spawning occurs primarily in cool (11-15 C) sections of mainstem rivers in deep pools (8-9 meters) with substrate containing small to medium sized sand, gravel, cobble, or boulder.
<i>Hypomesus transpacificus</i> Delta smelt	FT/SE G1/S1	Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Seldom found at salinities > 10 ppt. Most often at salinities < 2ppt.

<i>Oncorhynchus mykiss irideus</i> pop. 8 steelhead - central California coast DPS	FT/None G5T2T3Q/S2S3	DPS includes all naturally spawned populations of steelhead (and their progeny) in streams from the Russian River to Aptos Creek, Santa Cruz County, California (inclusive). Also includes the drainages of San Francisco and San Pablo Bays.
<i>Pogonichthys macrolepidotus</i> Sacramento splittail	None/None GNR/S3 SSC	Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay and associated marshes. Slow moving river sections, dead end sloughs. Requires flooded vegetation for spawning and foraging for young.
<i>Spirinchus thaleichthys</i> longfin smelt	FC/ST G5/S1	Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 ppt, but can be found in completely freshwater to almost pure seawater.
Amphibians		
<i>Dicamptodon ensatus</i> California giant salamander	None/None G3/S2S3 SSC	Known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County, and east to Napa County. Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults known from wet forests under rocks and logs near streams and lakes.
<i>Rana boylei</i> pop. 1 foothill yellow-legged frog - north coast DPS	None/None G3TNRQ/S3 SSC	Northern Coast Ranges north of San Francisco Bay Estuary, Klamath Mountains, and Cascade Range including watershed subbasins (HU 8) Lower Pit, Battle Creek, Thomes Creek, and Big Chico Creek in Lassen, Shasta, Tehama, and Butte Counties. Partly shaded shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying and at least 15 weeks to attain metamorphosis.
<i>Rana draytonii</i> California red-legged frog	FT/None G2G3/S2S3 SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.

<i>Taricha rivularis</i> red-bellied newt	None/None G2/S2 SSC	Coastal drainages from Humboldt County south to Sonoma County, inland to Lake County. Isolated population of uncertain origin in Santa Clara County. Lives in terrestrial habitats, juveniles generally underground, adults active at surface in moist environments. Will migrate over 1 km to breed, typically in streams with moderate flow and clean, rocky substrate.
Reptiles		
<i>Emys marmorata</i> western pond turtle	None/None G3G4/S3 SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.
<i>Masticophis lateralis euryxanthus</i> Alameda whipsnake	FT/ST G4T2/S2	Typically found in chaparral and scrub habitats but will also use adjacent grassland, oak savanna and woodland habitats. Mostly south-facing slopes and ravines, with rock outcrops, deep crevices or abundant rodent burrows, where shrubs form a vegetative mosaic with oak trees and grasses.
Birds		
<i>Accipiter cooperii</i> Cooper's hawk	None/None G5/S4 WL	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.
<i>Agelaius tricolor</i> tricolored blackbird	None/ST G1G2/S1S2 SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.
<i>Aquila chrysaetos</i> golden eagle	None/None G5/S3 FP WL	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.

<i>Asio flammeus</i> short-eared owl	None/None G5/S3 SSC	Found in swamp lands, both fresh and salt; lowland meadows; irrigated alfalfa fields. Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation.
<i>Athene cunicularia</i> burrowing owl	None/None G4/S3 SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.
<i>Buteo regalis</i> ferruginous hawk	None/None G4/S3S4 WL	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.
<i>Buteo swainsoni</i> Swainson's hawk	None/ST G5/S3	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.
<i>Charadrius nivosus nivosus</i> western snowy plover	FT/None G3T3/S2 SSC	Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.
<i>Circus hudsonius</i> northern harrier	None/None G5/S3 SSC	Coastal salt and freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.
<i>Coturnicops noveboracensis</i> yellow rail	None/None G4/S1S2 SSC	Summer resident in eastern Sierra Nevada in Mono County. Freshwater marshlands.
<i>Cypseloides niger</i> black swift	None/None G4/S2 SSC	Coastal belt of Santa Cruz and Monterey counties; central and southern Sierra Nevada; San Bernardino and San Jacinto mountains. Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above the surf; forages widely.

<i>Elanus leucurus</i> white-tailed kite	None/None G5/S3S4 FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.
<i>Falco peregrinus anatum</i> American peregrine falcon	FD/SD G4T4/S3S4 FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.
<i>Geothlypis trichas sinuosa</i> saltmarsh common yellowthroat	None/None G5T3/S3 SSC	Resident of the San Francisco Bay region, in fresh and salt water marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.
<i>Laterallus jamaicensis coturniculus</i> California black rail	None/ST G3T1/S1 FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.
<i>Melospiza melodia maxillaris</i> Suisun song sparrow	None/None G5T3/S3 SSC	Resident of brackish-water marshes surrounding Suisun Bay. Inhabits cattails, tules and other sedges, and Salicornia; also known to frequent tangles bordering sloughs.
<i>Melospiza melodia samuelis</i> San Pablo song sparrow	None/None G5T2/S2 SSC	Resident of salt marshes along the north side of San Francisco and San Pablo bays. Inhabits tidal sloughs in the Salicornia marshes; nests in Grindelia bordering slough channels.
<i>Pandion haliaetus</i> osprey	None/None G5/S4 WL	Ocean shore, bays, freshwater lakes, and larger streams. Large nests built in tree-tops within 15 miles of a good fish-producing body of water.
<i>Rallus obsoletus obsoletus</i> California Ridgway's rail	FE/SE G3T1/S1 FP	Salt water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud-bottomed sloughs.
<i>Riparia riparia</i> bank swallow	None/ST G5/S2	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.

<i>Xanthocephalus xanthocephalus</i> yellow-headed blackbird	None/None G5/S3 SSC	Nests in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds. Nests only where large insects such as Odonata are abundant, nesting timed with maximum emergence of aquatic insects.
Mammals		
<i>Antrozous pallidus</i> pallid bat	None/None G4/S3 SSC	Found in a variety of habitats including deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts in crevices of rock outcrops, caves, mine tunnels, buildings, bridges, and hollows of live and dead trees which must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	None/None G4/S2 SSC	Occurs throughout California in a wide variety of habitats. Most common in mesic sites, typically coniferous or deciduous forests. Roosts in the open, hanging from walls & ceilings in caves, lava tubes, bridges, and buildings. This species is extremely sensitive to human disturbance.
<i>Nyctinomops macrotis</i> big free-tailed bat	None/None G5/S3 SSC	Low-lying arid areas in Southern California. Need high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.
<i>Reithrodontomys raviventris</i> salt-marsh harvest mouse	FE/SE G1G2/S1S2 FP	Only in the saline emergent wetlands of San Francisco Bay and its tributaries. Pickleweed is primary habitat, but may occur in other marsh vegetation types and in adjacent upland areas. Does not burrow; builds loosely organized nests. Requires higher areas for flood escape.
<i>Sorex ornatus sinuosus</i> Suisun shrew	None/None G5T1T2Q/S1S2 SSC	Tidal marshes of the northern shores of San Pablo and Suisun bays. Require dense low-lying cover and driftweed and other litter above the mean hightide line for nesting and foraging.

<i>Taxidea taxus</i> American badger	None/None G5/S3 SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.
Sensitive Natural Communities		
Coastal Brackish Marsh	None/None G2/S2.1	
Northern Claypan Vernal Pool	None/None G1/S1.1	
Northern Coastal Salt Marsh	None/None G3/S3.2	Coastal salt marshes, alkaline flats. The USFWS Wetland Inventory (1996 national list) recognizes <i>Sarcocornia pacifica</i> as an OBL plant.
Northern Vernal Pool	None/None G2/S2.1	
Serpentine Bunchgrass	None/None G2/S2.2	All topographic locations. Soils may be deep with high clay content, loamy, sandy, or silty derived from mudstone, sandstone, or serpentine substrates.

Appendix C

Supporting Noise Information

Existing and Forecast Volumes

Roadway	Location	Existing Network				Build-Out Network			
		Facility Type	Number of Lanes	Speed Limit	Existing 2022 Count	Facility Type	Number of Lanes	Speed Limit	Future 2040 Forecast
Interstate 80	s/o SR 37	Nine-Lane Freeway	9	65	110,006	Nine-Lane Freeway	9	65	117,514
	s/o American Canyon Road	Nine-Lane Freeway	9	65	109,042	Nine-Lane Freeway	9	65	121,991
	s/o Red Top Road	Eight-Lane Freeway	8	65	112,650	Nine-Lane Freeway	8	65	128,806
	s/o SR 12	Eight-Lane Freeway	8	65	97,782	Eight-Lane Freeway	8	65	113,977
	n/o SR 12	Eight-Lane Freeway	8	65	136,706	Eight-Lane Freeway	8	65	155,682
State Route 29	s/o SR 37	Four-Lane Arterial	4	50 to 55	24,051	Four-Lane Arterial	4	50 to 55	26,059
	n/o SR 37	Four-Lane Arterial	4	50 to 55	43,483	Six-Lane Arterial	4	50 to 55	40,444
	s/o Mini Drive	Four-Lane Arterial	4	50 to 55	37,492	Six-Lane Arterial	4	50 to 55	37,666
	n/o Mini Drive	Four-Lane Arterial	4	50 to 55	43,469	Six-Lane Arterial	4	50 to 55	43,575
	n/o American Canyon Road	Four-Lane Arterial	4	50 to 55	49,579	Six-Lane Arterial	4	50 to 55	51,132
	s/o Napa Junction Road	Six-Lane Arterial	6	50 to 55	40,762	Six-Lane Arterial	6	50 to 55	36,053
	n/o Napa Junction Road	Four-Lane Highway	4	50 to 55	59,044	Six-Lane Highway	4	50 to 55	60,310
	n/o Green Island Road	Four-Lane Highway	4	50 to 55	60,263	Four-Lane Highway	4	50 to 55	62,189
	s/o SR 12	Six-Lane Highway	6	50 to 55	59,200	Six-Lane Highway	6	50 to 55	62,560
	n/o SR 12	Six-Lane Highway	6	50 to 55	88,600	Six-Lane Highway	6	50 to 55	106,300
Airport Blvd.	w/o SR 29	Four-Lane Collector	4	45	10,500	Four-Lane Collector	4	45	10,341
State Route 12	e/o N. Kelly Road	Four-Lane Highway	3	55	35,033	Four-Lane Highway	3	55	36,038
	w/o Red Top Road	Two-Lane Highway	2	55	37,179	Four-Lane Highway	2	55	38,106
State Route 37	w/o SR 29	Four-Lane Freeway	4	50 to 55	39,980	Four-Lane Freeway	4	50 to 55	39,074
	e/o SR 29	Four-Lane Freeway	4	50 to 55	62,495	Four-Lane Freeway	4	50 to 55	63,592
	e/o Fairgrounds Road	Four-Lane Freeway	4	50 to 55	69,800	Four-Lane Freeway	0	50 to 55	69,800
	e/o I-80	Six-Lane Freeway	6	50 to 55	42,000	Six-Lane Freeway	6	50 to 55	47,776
American Cyn Rd.	w/o SR 29	Four-Lane Arterial	4	45	15,330	Four-Lane Arterial	4	45	10,935
	e/o Flosden Road	Two-Lane Arterial	2	45	10,771	Two-Lane Arterial	2	45	14,194
	w/o I-80	Two-Lane Arterial	2	45	4,076	Two-Lane Arterial	2	45	7,610
Hiddenbrook Pkwy	e/o I-80	Two-Lane Collector	2	40	6,023	Two-Lane Collector	2	40	6,943
Flosden Road	s/o American Canyon Road	Four-Lane Arterial	4	45	21,510	Four-Lane Arterial	4	45	29,362
Newell Drive	n/o American Canyon Road	Four-Lane Arterial	4	35	9,685	Four-Lane Arterial	4	35	28,072
	s/o Napa Junction Road	-	-	-	-	Four-Lane Arterial	4	35	21,790
South Kelly Road	s/o SR 12	Two-Lane Collector	2	50	1,602	Two-Lane Collector	2	50	11,310
Devlin Road	n/o Green Island Road	Two-Lane Collector	-	-	-	Two-Lane Collector	2	40	5,224

Vehicle Mix: Existing and Forecast Volumes

Roadway	Location	Existing 2022				Future 2040			
		Auto	Medium Duty	Heavy Duty	Existing 2022 Count	Auto	Medium Duty	Heavy Duty	Future 2040 Forecast
Interstate 80	s/o SR 37	103,087	3,460	3,460	110,006	110,122	3,696	3,696	117,514
	s/o American Canyon Road	102,881	3,080	3,080	109,042	115,099	3,446	3,446	121,991
	s/o Red Top Road	106,037	3,306	3,306	112,650	121,245	3,780	3,780	128,806
	s/o SR 12	92,042	2,870	2,870	97,782	107,287	3,345	3,345	113,977
	n/o SR 12	125,441	5,632	5,632	136,706	142,854	6,414	6,414	155,682
State Route 29	s/o SR 37	23,544	254	254	24,051	25,509	275	275	26,059
	n/o SR 37	41,357	1,063	1,063	43,483	38,466	989	989	40,444
	s/o Mini Drive	35,689	902	902	37,492	35,854	906	906	37,666
	n/o Mini Drive	41,448	1,011	1,011	43,469	41,549	1,013	1,013	43,575
	n/o American Canyon Road	47,402	1,088	1,088	49,579	48,887	1,122	1,122	51,132
	s/o Napa Junction Road	37,966	1,398	1,398	40,762	33,580	1,237	1,237	36,053
	n/o Napa Junction Road	54,415	2,315	2,315	59,044	55,582	2,364	2,364	60,310
	n/o Green Island Road	54,176	3,043	3,043	60,263	55,908	3,141	3,141	62,189
	s/o SR 12	54,553	2,324	2,324	59,200	57,649	2,455	2,455	62,560
	n/o SR 12	82,761	2,919	2,919	88,600	99,295	3,503	3,503	106,300
Airport Blvd.	w/o SR 29	9,899	300	300	10,500	9,749	296	296	10,341
State Route 12	e/o N. Kelly Road	31,284	1,874	1,874	35,033	32,182	1,928	1,928	36,038
	w/o Red Top Road	33,312	1,933	1,933	37,179	34,143	1,982	1,982	38,106
State Route 37	w/o SR 29	37,861	1,059	1,059	39,980	37,003	1,035	1,035	39,074
	e/o SR 29	59,370	1,562	1,562	62,495	60,412	1,590	1,590	63,592
	e/o Fairgrounds Road	66,108	1,846	1,846	69,800	66,108	1,846	1,846	69,800
	e/o I-80	41,013	494	494	42,000	46,653	561	561	47,776
American Cyn Rd.	w/o SR 29	14,930	200	200	15,330	10,650	143	143	10,935
	e/o Flosden Road	10,684	44	44	10,771	14,079	57	57	14,194
	w/o I-80	3,648	214	214	4,076	6,811	400	400	7,610
Hiddenbrook Pkwy	e/o I-80	5,858	83	83	6,023	6,753	95	95	6,943
Flosden Road	s/o American Canyon Road	20,884	313	313	21,510	28,508	427	427	29,362
Newell Drive	n/o American Canyon Road	9,485	100	100	9,685	27,491	291	291	28,072
	s/o Napa Junction Road	-	-	-	-	21,339	226	226	21,790
South Kelly Road	s/o SR 12	1,586	8	8	1,602	11,197	57	57	11,310
Devlin Road	n/o Green Island Road	-	-	-	-	261	2,481	2,481	5,224

Time of Day Distribution

Roadway	Location	Existing 2022				Future 2040			
		7 a.m.-7 p.m.	7 p.m. - 10 p.m.	10 p.m. - 7 a.m.	Existing 2022 Count	7 a.m.-7 p.m.	7 p.m. - 10 p.m.	10 p.m. - 7 a.m.	Future 2040 Forecast
Interstate 80	s/o SR 37	85,166	14,686	10,154	110,006	90,979	15,688	10,847	117,514
	s/o American Canyon Road	84,420	14,557	10,065	109,042	94,445	16,286	11,261	121,991
	s/o Red Top Road	87,213	15,039	10,398	112,650	99,721	17,196	11,890	128,806
	s/o SR 12	75,702	13,054	9,026	97,782	88,240	15,216	10,521	113,977
	n/o SR 12	105,837	18,250	12,619	136,706	120,528	20,784	14,371	155,682
State Route 29	s/o SR 37	19,692	3,110	1,249	24,051	21,336	3,369	1,353	26,059
	n/o SR 37	34,302	5,783	3,398	43,483	31,904	5,379	3,161	40,444
	s/o Mini Drive	29,794	4,881	2,816	37,492	29,932	4,904	2,829	37,666
	n/o Mini Drive	35,449	5,512	2,508	43,469	35,535	5,525	2,514	43,575
	n/o American Canyon Road	40,432	6,287	2,861	49,579	41,698	6,484	2,950	51,132
	s/o Napa Junction Road	33,241	5,169	2,352	40,762	29,401	4,572	2,080	36,053
	n/o Napa Junction Road	48,150	7,487	3,407	59,044	49,183	7,647	3,480	60,310
	n/o Green Island Road	49,144	7,641	3,477	60,263	50,715	7,886	3,588	62,189
	s/o SR 12	48,278	7,507	3,416	59,200	51,018	7,933	3,610	62,560
	n/o SR 12	72,253	11,234	5,112	88,600	86,688	13,479	6,134	106,300
Airport Blvd.	w/o SR 29	8,831	462	1,207	10,500	8,697	455	1,189	10,341
State Route 12	e/o N. Kelly Road	25,912	2,831	6,291	35,033	26,655	2,912	6,471	36,038
	w/o Red Top Road	27,499	3,004	6,676	37,179	28,185	3,079	6,842	38,106
State Route 37	w/o SR 29	31,180	5,397	3,402	39,980	30,474	5,275	3,325	39,074
	e/o SR 29	48,740	8,437	5,318	62,495	49,595	8,585	5,412	63,592
	e/o Fairgrounds Road	54,437	9,423	5,940	69,800	54,437	9,423	5,940	69,800
	e/o I-80	32,756	5,670	3,574	42,000	37,261	6,450	4,066	47,776
American Cyn Rd.	w/o SR 29	12,528	1,722	1,080	15,330	8,937	1,228	770	10,935
	e/o Flosden Road	8,803	1,210	759	10,771	11,600	1,594	1,000	14,194
	w/o I-80	3,331	458	287	4,076	6,219	855	536	7,610
Hiddenbrook Pkwy	e/o I-80	4,757	771	495	6,023	5,484	888	571	6,943
Flosden Road	s/o American Canyon Road	17,605	2,381	1,524	21,510	24,032	3,250	2,080	29,362
Newell Drive	n/o American Canyon Road	8,220	1,045	420	9,685	23,825	3,029	1,218	28,072
	s/o Napa Junction Road	-	-	-	-	18,494	2,351	945	21,790
South Kelly Road	s/o SR 12	1,417	123	62	1,602	10,004	871	435	11,310
Devlin Road	n/o Green Island Road	-	-	-	-	5,133	0	91	5,224

Traffic Noise Calculator: FHWA 77-108

Project Title: 19-08673 American Canyon General Plan EIR - Existing 2022

	Output						Inputs															Auto Inputs	
	dBA at 50 feet			Distance to CNEL Contour																			
ID	L _{eq-24hr}	L _{dn}	CNEL	70 dBA	65 dBA	60 dBA	Roadway	Segment	ADT	Posted Speed Limit	Grade	% Autos	% Med Trucks	% Heavy Trucks	% Daytime	% Evening	% Night	Number of Lanes	Site Condition	Distance to Receiver	Ground Absorption	Lane Distance	
1	80.3	83.0	83.6	404	870	1874	Interstate 80	s/o SR 37	110,006	65	0.0%	93.7%	3.1%	3.1%	77.4%	13.4%	9.2%	6	Soft	50	0.5	68	
2	80.2	82.8	83.4	394	849	1829	Interstate 80	American Canyon	109,042	65	0.0%	94.4%	2.8%	2.8%	77.4%	13.4%	9.2%	6	Soft	50	0.5	68	
3	80.4	83.0	83.6	405	873	1881	Interstate 80	s/o Red Top Road	112,650	65	0.0%	94.1%	2.9%	2.9%	77.4%	13.4%	9.2%	6	Soft	50	0.5	68	
4	79.8	82.4	83.0	369	795	1712	Interstate 80	s/o SR 12	97,782	65	0.0%	94.1%	2.9%	2.9%	77.4%	13.4%	9.2%	6	Soft	50	0.5	68	
5	81.6	84.3	84.9	492	1059	2282	Interstate 80	n/o SR 12	136,706	65	0.0%	91.8%	4.1%	4.1%	77.4%	13.4%	9.2%	6	Soft	50	0.5	68	
6	70.8	72.4	73.2	82	176	378	State Route 29	s/o SR 37	24,051	55	0.0%	97.9%	1.1%	1.1%	81.9%	12.9%	5.2%	4	Soft	50	0.5	44	
7	74.1	76.4	77.1	148	319	688	State Route 29	n/o SR 37	43,483	55	0.0%	95.1%	2.4%	2.4%	78.9%	13.3%	7.8%	4	Soft	50	0.5	44	
8	73.4	75.7	76.3	132	285	614	State Route 29	s/o Mini Drive	37,492	55	0.0%	95.2%	2.4%	2.4%	79.5%	13.0%	7.5%	4	Soft	50	0.5	44	
9	74.0	75.8	76.6	137	295	636	State Route 29	n/o Mini Drive	43,469	55	0.0%	95.4%	2.3%	2.3%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44	
10	74.5	76.3	77.1	148	319	687	State Route 29	American Canyon	49,579	55	0.0%	95.6%	2.2%	2.2%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44	
11	74.5	76.3	77.1	148	318	685	State Route 29	Napa Junction Road	40,762	55	0.0%	93.1%	3.4%	3.4%	81.6%	12.7%	5.8%	6	Soft	50	0.5	68	
12	76.1	77.9	78.6	188	405	874	State Route 29	Napa Junction Road	59,044	55	0.0%	92.2%	3.9%	3.9%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44	
13	76.6	78.5	79.2	205	441	950	State Route 29	o Green Island Road	60,263	55	0.0%	89.9%	5.1%	5.1%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44	
14	76.4	78.2	78.9	196	421	908	State Route 29	s/o SR 12	59,200	55	0.0%	92.2%	3.9%	3.9%	81.6%	12.7%	5.8%	6	Soft	50	0.5	68	
15	77.8	79.6	80.4	245	528	1139	State Route 29	n/o SR 12	88,600	55	0.0%	93.4%	3.3%	3.3%	81.6%	12.7%	5.8%	6	Soft	50	0.5	68	
16	66.2	69.3	69.5	46	100	215	Airport Blvd	w/o SR 29	10,500	45	0.0%	94.3%	2.9%	2.9%	84.1%	4.4%	11.5%	4	Soft	50	0.5	44	
17	74.3	78.5	78.8	193	415	894	State Route 12	e/o N. Kelly Road	35,033	55	0.0%	89.3%	5.4%	5.4%	74.0%	8.1%	18.0%	3	Soft	50	0.5	32	
18	74.5	78.7	78.9	197	424	914	State Route 12	w/o Red Top Road	37,179	55	0.0%	89.6%	5.2%	5.2%	74.0%	8.1%	18.0%	2	Soft	50	0.5	20	
19	73.8	76.3	77.0	146	314	675	State Route 37	w/o SR 29	39,980	55	0.0%	94.7%	2.7%	2.7%	78.0%	13.5%	8.5%	4	Soft	50	0.5	44	
20	75.7	78.2	78.8	194	418	900	State Route 37	e/o SR 29	62,495	55	0.0%	95.0%	2.5%	2.5%	78.0%	13.5%	8.5%	4	Soft	50	0.5	44	
21	76.2	78.7	79.4	211	454	979	State Route 37	o Fairgrounds Road	69,800	55	0.0%	94.7%	2.6%	2.6%	78.0%	13.5%	8.5%	4	Soft	50	0.5	44	
22	73.5	76.0	76.6	138	298	642	State Route 37	e/o I-80	42,000	55	0.0%	97.7%	1.2%	1.2%	78.0%	13.5%	8.5%	6	Soft	50	0.5	68	
23	66.8	68.9	69.5	46	100	216	American Canyon Rd	w/o SR 29	15,330	45	0.0%	97.4%	1.3%	1.3%	81.7%	11.2%	7.0%	4	Soft	50	0.5	44	
24	64.4	66.5	67.1	32	69	148	American Canyon Rd	e/o Flosden Road	10,771	45	0.0%	99.2%	0.4%	0.4%	81.7%	11.2%	7.0%	2	Soft	50	0.5	20	
25	63.3	65.4	66.0	27	58	125	American Canyon Rd	w/o I-80	4,076	45	0.0%	89.5%	5.3%	5.3%	81.7%	11.2%	7.0%	2	Soft	50	0.5	20	
26	61.4	63.9	64.5	21	46	100	Hiddenbrook Pkwy	e/o I-80	6,023	40	0.0%	97.3%	1.4%	1.4%	79.0%	12.8%	8.2%	2	Soft	50	0.5	20	
27	68.4	70.5	71.1	59	128	275	Flosden Road	s/o American Canyon Rd	21,510	45	0.0%	97.1%	1.5%	1.5%	81.8%	11.1%	7.1%	4	Soft	50	0.5	44	
28	61.9	63.4	64.0	20	43	93	Newell Drive	n/o American Canyon Rd	9,685	35	0.0%	97.9%	1.0%	1.0%	84.9%	10.8%	4.3%	4	Soft	50	0.5	44	
29	57.4	58.7	59.2	10	21	44	South Kelly Road	s/o SR 12	1,602	50	0.0%	99.0%	0.5%	0.5%	88.5%	7.7%	3.9%	2	Soft	50	0.5	20	

Traffic Noise Calculator: FHWA 77-108				Project Title: 19-08673 American Canyon General Plan - Future 2040																				
Output							Inputs													Auto Inputs				
dBA at 50 feet							Distance to CNEL Contour																	
ID	L _{10-24hr}	L ₅₀	CNEL	70 dBA	65 dBA	60 dBA	Roadway	Segment	ADT	Posted Speed Limit	Grade	% Autos	% Med Trucks	% Heavy Trucks	% Daytime	% Evening	% Night	Number of Lanes	Site Condition	Distance to Receiver	Ground Absorption	Lane Distance		
1	80.6	83.3	83.9	422	909	1958	Interstate 80	s/o SR 37	117,514	65	0.0%	93.7%	3.1%	3.1%	77.4%	13.4%	9.2%	6	Soft	50	0.5	68		
2	80.7	83.3	83.9	425	915	1971	Interstate 80	merican Canyon	121,991	65	0.0%	94.4%	2.8%	2.8%	77.4%	13.4%	9.2%	6	Soft	50	0.5	68		
3	81.0	83.6	84.2	443	955	2057	Interstate 80	s/o Red Top Road	128,806	65	0.0%	94.1%	2.9%	2.9%	77.4%	13.4%	9.2%	6	Soft	50	0.5	68		
4	80.4	83.0	83.7	408	880	1896	Interstate 80	s/o SR 12	113,977	65	0.0%	94.1%	2.9%	2.9%	77.4%	13.4%	9.2%	6	Soft	50	0.5	68		
5	82.2	84.8	85.5	536	1155	2489	Interstate 80	n/o SR 12	155,682	65	0.0%	91.8%	4.1%	4.1%	77.4%	13.4%	9.2%	6	Soft	50	0.5	68		
6	71.1	72.8	73.5	86	185	399	State Route 29	s/o SR 37	26,059	55	0.0%	97.9%	1.1%	1.1%	81.9%	12.9%	5.2%	4	Soft	50	0.5	44		
7	73.8	76.1	76.8	141	304	656	State Route 29	n/o SR 37	40,444	55	0.0%	95.1%	2.4%	2.4%	78.9%	13.3%	7.8%	4	Soft	50	0.5	44		
8	73.4	75.7	76.4	133	286	616	State Route 29	s/o Mini Drive	37,666	55	0.0%	95.2%	2.4%	2.4%	79.5%	13.0%	7.5%	4	Soft	50	0.5	44		
9	74.0	75.9	76.6	137	296	637	State Route 29	n/o Mini Drive	43,575	55	0.0%	95.4%	2.3%	2.3%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44		
10	74.7	76.5	77.2	151	325	701	State Route 29	merican Canyon	51,132	55	0.0%	95.6%	2.2%	2.2%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44		
11	74.0	75.8	76.5	136	293	631	State Route 29	o Napa Junction Rd	36,053	55	0.0%	93.1%	3.4%	3.4%	81.6%	12.7%	5.8%	6	Soft	50	0.5	68		
12	76.2	78.0	78.7	191	411	886	State Route 29	o Napa Junction Rd	60,310	55	0.0%	92.2%	3.9%	3.9%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44		
13	76.8	78.6	79.3	209	450	970	State Route 29	o Green Island Rd	62,189	55	0.0%	89.9%	5.1%	5.1%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44		
14	76.6	78.4	79.1	203	437	942	State Route 29	s/o SR 12	62,560	55	0.0%	92.2%	3.9%	3.9%	81.6%	12.7%	5.8%	6	Soft	50	0.5	68		
15	78.6	80.4	81.2	277	597	1286	State Route 29	n/o SR 12	106,300	55	0.0%	93.4%	3.3%	3.3%	81.6%	12.7%	5.8%	6	Soft	50	0.5	68		
16	66.2	69.2	69.4	46	99	213	Airport Blvd	w/o SR 29	10,341	45	0.0%	94.3%	2.9%	2.9%	84.1%	4.4%	11.5%	4	Soft	50	0.5	44		
17	74.4	78.6	78.9	196	423	911	State Route 12	e/o N. Kelly Road	36,038	55	0.0%	89.3%	5.4%	5.4%	74.0%	8.1%	18.0%	3	Soft	50	0.5	32		
18	74.6	78.8	79.0	200	431	930	State Route 12	w/o Red Top Road	38,106	55	0.0%	89.6%	5.2%	5.2%	74.0%	8.1%	18.0%	2	Soft	50	0.5	20		
19	73.7	76.2	76.9	143	309	665	State Route 37	w/o SR 29	39,074	55	0.0%	94.7%	2.7%	2.7%	78.0%	13.5%	8.5%	4	Soft	50	0.5	44		
20	75.8	78.2	78.9	196	422	910	State Route 37	e/o SR 29	63,592	55	0.0%	95.0%	2.5%	2.5%	78.0%	13.5%	8.5%	4	Soft	50	0.5	44		
21	76.2	78.7	79.4	211	454	979	State Route 37	o Fairgrounds Rd	69,800	55	0.0%	94.7%	2.6%	2.6%	78.0%	13.5%	8.5%	4	Soft	50	0.5	44		
22	74.1	76.5	77.2	151	325	699	State Route 37	e/o I-80	47,776	55	0.0%	97.7%	1.2%	1.2%	78.0%	13.5%	8.5%	6	Soft	50	0.5	68		
23	65.3	67.5	68.1	37	80	172	American Canyon Rd	w/o SR 29	10,935	45	0.0%	97.4%	1.3%	1.3%	81.7%	11.2%	7.0%	4	Soft	50	0.5	44		
24	65.6	67.7	68.3	38	83	178	American Canyon Rd	e/o Flosden Road	14,194	45	0.0%	99.2%	0.4%	0.4%	81.7%	11.2%	7.0%	2	Soft	50	0.5	20		
25	66.0	68.1	68.7	41	88	190	American Canyon Rd	w/o I-80	7,610	45	0.0%	89.5%	5.3%	5.3%	81.7%	11.2%	7.0%	2	Soft	50	0.5	20		
26	62.1	64.5	65.1	24	51	110	Hiddenbrook Pkwy	e/o I-80	6,943	40	0.0%	97.3%	1.4%	1.4%	79.0%	12.8%	8.2%	2	Soft	50	0.5	20		
27	69.7	71.9	72.5	73	157	339	Flosden Road	s/o American Canyon	29,362	45	0.0%	97.1%	1.5%	1.5%	81.8%	11.1%	7.1%	4	Soft	50	0.5	44		
28	66.6	68.0	68.7	41	88	189	Newell Drive	n/o American Canyon	28,072	35	0.0%	97.9%	1.0%	1.0%	84.9%	10.8%	4.3%	4	Soft	50	0.5	44		
29	65.5	66.9	67.6	34	74	160	Newell Drive	s/o Napa Junction	21,790	35	0.0%	97.9%	1.0%	1.0%	84.9%	10.8%	4.3%	4	Soft	50	0.5	44		
30	65.9	67.2	67.7	35	75	163	South Kelly Road	s/o SR 12	11,310	50	0.0%	99.0%	0.5%	0.5%	88.5%	7.7%	3.9%	2	Soft	50	0.5	20		
31	71.2	71.7	71.8	65	141	304	Devlin Road	n/o Green Island	5,224	40	0.0%	5.0%	47.5%	47.5%	98.3%	0.1%	1.6%	2	Soft	50	0.5	20		

Roadway	Segment	Existing ADT	2040 Buildout ADT	Existing Traffic Noise Level at 50 feet (dBA CNEL)	2040 Traffic Noise Level at 50 feet (dBA CNEL)	Traffic Noise Increase (dBA CNEL)	Significant? (Y/N)
I-80	South of SR 37	110,006	117,514	83.6	83.9	0.3	N
I-80	South of American Canyon Road	109,042	121,991	83.4	83.9	0.5	N
I-80	South of Red Top Road	112,650	128,806	83.6	84.2	0.6	N
I-80	South of SR 12	97,782	113,977	83.0	83.7	0.7	N
I-80	North of SR 12	136,706	155,682	84.9	85.5	0.6	N
SR 29	South of SR 37	24,051	26,059	73.2	73.5	0.3	N
SR 29	North of SR 37	43,483	40,444	77.1	76.8	-0.3	N
SR 29	South of Mini Drive	37,492	37,666	76.3	76.4	0.0	N
SR 29	North of Mini Drive	43,469	43,575	76.6	76.6	0.0	N
SR 29	North of American Canyon Road	49,579	51,132	77.1	77.2	0.1	N
SR 29	South of Napa Junction Road	40,762	36,053	77.1	76.5	-0.5	N
SR 29	North of Napa Junction Road	59,044	60,310	78.6	78.7	0.1	N
SR 29	North of Green Island Road	60,263	62,189	79.2	79.3	0.1	N
SR 29	South of SR 12	59,200	62,560	78.9	79.1	0.2	N
SR 29	North of SR 12	88,600	106,300	80.4	81.2	0.8	N
Airport Boulevard	West of SR 29	10,500	10,341	69.5	69.4	-0.1	N
SR 12	East of North Kelly Road	35,033	36,038	78.8	78.9	0.1	N
SR 12	West of Red Top Road	37,179	38,106	78.9	79.0	0.1	N
SR 37	West of SR 29	39,980	39,074	77.0	76.9	-0.1	N
SR 37	East of SR 29	62,495	63,592	78.8	78.9	0.1	N
SR 37	East of Fairgrounds Road	69,800	69,800	79.4	79.4	0.0	N
SR 37	East of I-80	42,000	47,776	76.6	77.2	0.6	N
American Canyon Road	West of SR 29	15,330	10,935	69.5	68.1	-1.5	N
American Canyon Road	East of Flosden Road	10,771	14,194	67.1	68.3	1.2	N
American Canyon Road	West of I-80	4,076	7,610	66.0	68.7	2.7	Y
Hiddenbrook Parkway	East of I-80	6,023	6,943	64.5	65.1	0.6	N
Flosden Road	South of American Canyon Road	21,510	29,362	71.1	72.5	1.4	N
Newell Drive	North of American Canyon Road	9,685	28,072	64.0	68.7	4.6	Y
Newell Drive	South of Napa Junction Road	-	21,790	-	67.6	-	N
South Kelly Road	South of SR 12	1,602	11,310	59.2	67.7	8.5	Y
Devlin Road	North of Green Island Road	-	5,224	-	71.8	-	N

Noise Model Based on Federal Transit Administration General Transit Noise Assessment
 Developed for Chicago Create Project
 Copyright 2006, HMMH Inc.
 Case: CFNR - Calistoga to Vallejo

RESULTS			
Noise Source	Ldn (dB)	Leq - daytime (dB)	Leq - nighttime (dB)
All Sources	65	41	59
Source 1	63	41	57
Source 2	60	24	54
Source 3	0	0	0
Source 4	0	0	0
Source 5	0	0	0
Source 6	0	0	0
Source 7	0	0	0
Source 8	0	0	0

Enter noise receiver land use category below.

LAND USE CATEGORY	
Noise receiver land use category (1, 2 or 3)	2

Enter data for up to 8 noise sources below - see reference list for source numbers.

NOISE SOURCE PARAMETERS					
Parameter	Source 1		Source 2		Source 3
Source Num.	Freight Locomotive	9	Freight Cars	10	
Distance (source to receiver)	distance (ft)	35	distance (ft)	35	
Daytime Hours (7 AM - 10 PM)	speed (mph)		speed (mph)		
	trains/hour		trains/hour		
	locos/train		length of cars (ft) / train		
Nighttime Hours (10 PM - 7 AM)	speed (mph)	10	speed (mph)	10	
	trains/hour	0.45	trains/hour	0.45	
	locos/train	1	length of cars (ft) / train	900	
Wheel Flats?			% of cars w/ wheel flats	0.00%	
Jointed Track?	Y/N	n	Y/N	n	
Embedded Track?	Y/N	n	Y/N	n	
Aerial Structure?	Y/N	n	Y/N	n	
Barrier Present?	Y/N	n	Y/N	n	
Intervening Rows of Buildings	number of rows		number of rows		

SOURCE REFERENCE LIST	
Source	Number
Commuter Electric Locomotive	1
Commuter Diesel Locomotive	2
Commuter Rail Cars	3
RRT/LRT	4
AGT, Steel Wheel	5
AGT, Rubber Tire	6
Monorail	7
Maglev	8
Freight Locomotive	9
Freight Cars	10
Hopper Cars (empty)	11
Hopper Cars (full)	12
Crossover	13
Automobiles	14
City Buses	15
Commuter Buses	16
Rail Yard or Shop	17
Layover Tracks	18
Bus Storage Yard	19
Bus Op. Facility	20
Bus Transit Center	21
Parking Garage	22
Park & Ride Lot	23

Noise Model Based on Federal Transit Administration General Transit Noise Assessment
 Developed for Chicago Create Project
 Copyright 2006, HMMH Inc.
 Case: CFNR - Ignacio to Fairfield/Suisun

RESULTS			
Noise Source	Ldn (dB)	Leq - daytime (dB)	Leq - nighttime (dB)
All Sources	65	38	59
Source 1	63	38	57
Source 2	60	21	55
Source 3	0	0	0
Source 4	0	0	0
Source 5	0	0	0
Source 6	0	0	0
Source 7	0	0	0
Source 8	0	0	0

Enter noise receiver land use category below.

LAND USE CATEGORY	
Noise receiver land use category (1, 2 or 3)	2

Enter data for up to 8 noise sources below - see reference list for source numbers.

NOISE SOURCE PARAMETERS					
Parameter	Source 1		Source 2		Source 3
Source Num.	Freight Locomotive	9	Freight Cars	10	
Distance (source to receiver)	distance (ft)	50	distance (ft)	50	
Daytime Hours (7 AM - 10 PM)	speed (mph)		speed (mph)		
	trains/hour		trains/hour		
	locos/train		length of cars (ft) / train		
Nighttime Hours (10 PM - 7 AM)	speed (mph)	25	speed (mph)	25	
	trains/hour	0.6	trains/hour	0.6	
	locos/train	1	length of cars (ft) / train	900	
Wheel Flats?			% of cars w/ wheel flats	0.00%	
Jointed Track?	Y/N	n	Y/N	n	
Embedded Track?	Y/N	n	Y/N	n	
Aerial Structure?	Y/N	n	Y/N	n	
Barrier Present?	Y/N	n	Y/N	n	
Intervening Rows of Buildings	number of rows		number of rows		

SOURCE REFERENCE LIST	
Source	Number
Commuter Electric Locomotive	1
Commuter Diesel Locomotive	2
Commuter Rail Cars	3
RRT/LRT	4
AGT, Steel Wheel	5
AGT, Rubber Tire	6
Monorail	7
Maglev	8
Freight Locomotive	9
Freight Cars	10
Hopper Cars (empty)	11
Hopper Cars (full)	12
Crossover	13
Automobiles	14
City Buses	15
Commuter Buses	16
Rail Yard or Shop	17
Layover Tracks	18
Bus Storage Yard	19
Bus Op. Facility	20
Bus Transit Center	21
Parking Garage	22
Park & Ride Lot	23

FRA Grade Crossing Noise Model

User Input	
Noise Situation (Pick from List)	1
Horn Lmax (dBA) @ 100 feet	104
Horn Location on Locomotive(Pick from List)	1
Non Train Noise Environment (pick from list)	2
Shielding (Pick from List)	3
Length of Impact Area (pick from list)	1
Existing Train Speed (mph)	10
Future Train Speed (mph)	10
Number of Existing Trains in one Direction	2
Number of Future Trains in one Direction	2
Existing Number of Day Trains (7 am to 10 p.m.)	1.25
Future Number of Day Trains (7 am to 10 p.m.)	1.25
Existing Number of Night Trains (10 p.m. to 7 am)	0.75
Future Number of Night Trains (10 p.m. to 7 am)	0.75
Existing Average Number of Cars	15
Future Average Number of Cars	15
Existing Average Number of Locomotives	1
Future Average Number of Locomotives	1

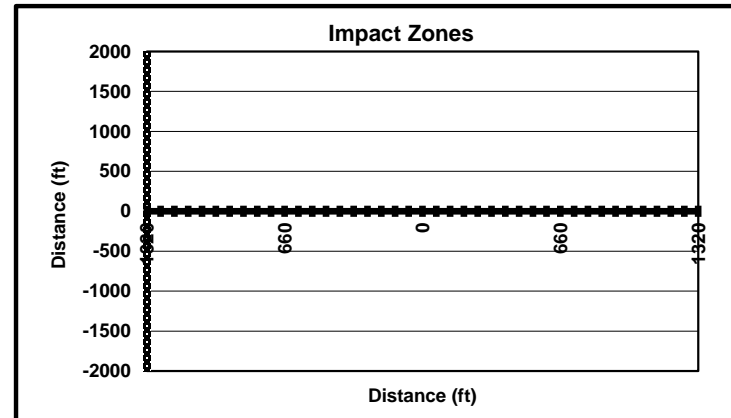
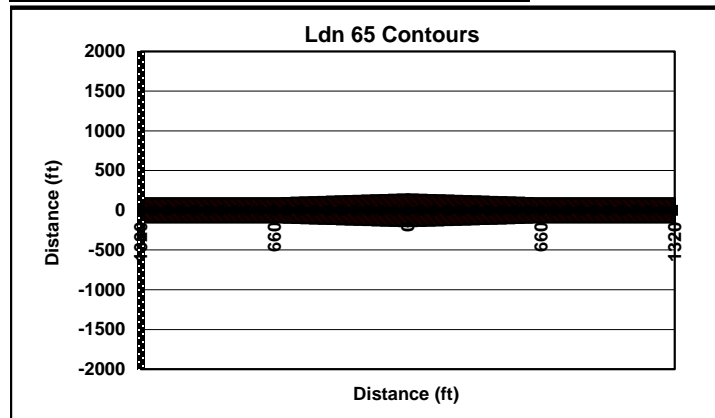
Noise Situation	
Horns Existing and Future	1
Horns in Future Only	2
No Horns Existing and Future	3
Horn Location on Locomotive	
National Average (50% front, 50% middle)	1
All Front Mounted	2
All Middle Mounted	3
User Defined	80 % front mounted horns 4
Non Train Noise Environment	
Urban	1
Suburban	2
Rural	3
User Defined Ldn =	50 dBA 4

Shielding	
Dense Urban	1
Light Urban	2
Dense Suburban	3
Light Suburban	4
Rural	5
No Shielding	6

Ldn 65 Contours Numeric Output (in feet)	
Existing 65 Ldn Contour at X-ing	199
Future 65 Ldn Contour at X-ing	199
Existing 65 Ldn Contour at 1/2 zone length	149
Future 65 Ldn Contour at 1/2 zone length	149
Zone Length	1320
1/2 Zone Length	660

Length of Impact Area	
1/4 mile	1
20 seconds	2
15 seconds	3

Impact Zones Numeric Output (in feet)	
Impact Distance at X-ing	0
Severe Impact Distance at X-ing	0
Impact Distance at 1/2 zone length	0
Severe Impact Distance at 1/2 zone length	0
Zone Length	1320
1/2 Zone Length	660



FRA Grade Crossing Noise Model

User Input	
Noise Situation (Pick from List)	1
Horn Lmax (dBA) @ 100 feet	104
Horn Location on Locomotive(Pick from List)	1
Non Train Noise Environment (pick from list)	2
Shielding (Pick from List)	3
Length of Impact Area (pick from list)	1
Existing Train Speed (mph)	25
Future Train Speed (mph)	25
Number of Existing Trains in one Direction	2.5
Number of Future Trains in one Direction	2.5
Existing Number of Day Trains (7 am to 10 p.m.)	1.5625
Future Number of Day Trains (7 am to 10 p.m.)	1.5625
Existing Number of Night Trains (10 p.m. to 7 am)	0.9375
Future Number of Night Trains (10 p.m. to 7 am)	0.9375
Existing Average Number of Cars	15
Future Average Number of Cars	15
Existing Average Number of Locomotives	1
Future Average Number of Locomotives	1

Noise Situation	
Horns Existing and Future	1
Horns in Future Only	2
No Horns Existing and Future	3

Horn Location on Locomotive	
National Average (50% front, 50% middle)	1
All Front Mounted	2
All Middle Mounted	3
User Defined	80 % front mounted horns 4

Non Train Noise Environment	
Urban	1
Suburban	2
Rural	3
User Defined Ldn =	50 dBA 4

Shielding	
Dense Urban	1
Light Urban	2
Dense Suburban	3
Light Suburban	4
Rural	5
No Shielding	6

Length of Impact Area	
1/4 mile	1
20 seconds	2
15 seconds	3

Ldn 65 Contours Numeric Output (in feet)	
Existing 65 Ldn Contour at X-ing	218
Future 65 Ldn Contour at X-ing	218
Existing 65 Ldn Contour at 1/2 zone length	163
Future 65 Ldn Contour at 1/2 zone length	163
Zone Length	1320
1/2 Zone Length	660

Impact Zones Numeric Output (in feet)	
Impact Distance at X-ing	0
Severe Impact Distance at X-ing	0
Impact Distance at 1/2 zone length	0
Severe Impact Distance at 1/2 zone length	0
Zone Length	1320
1/2 Zone Length	660

