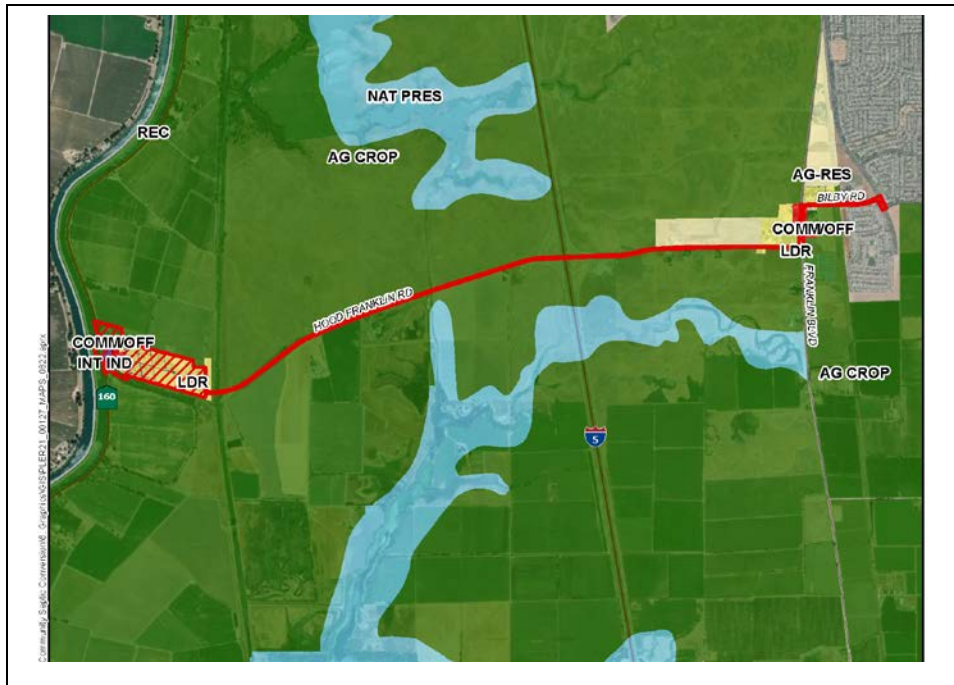

DRAFT ENVIRONMENTAL IMPACT REPORT

HOOD SEPTIC TO SEWER CONVERSION PROJECT



Control Number: *PLER2021-00127*
State Clearinghouse Number: *2022030717*
September 2022

SACRAMENTO AREA SEWER DISTRICT
10060 GOETHE ROAD
SACRAMENTO, CALIFORNIA 95827



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PREPARED BY

County of Sacramento
Department of Community Development
Planning and Environmental Review

For:

Sacramento Area Sewer District

DRAFT ENVIRONMENTAL IMPACT REPORT

HOOD SEPTIC TO SEWER CONVERSION PROJECT

Control Number: PLER2021-00127

State Clearinghouse Number: 2022030717

This Environmental Impact Report (EIR) has been prepared pursuant to the California Environmental Quality Act of 1970 (Public Resources Code Division 13). An Environmental Impact Report is an informational document which, when this Office requires its preparation shall be considered by every public agency prior to its approval or disapproval of a project. The purpose of an Environmental Impact Report is to provide public agencies with detailed information about the effect that a proposed project is likely to have on the environment; to list ways in which any adverse effects of such a project might be minimized; and to suggest alternatives to such a project.

Prepared by the
COUNTY OF SACRAMENTO
DEPARTMENT OF COMMUNITY DEVELOPMENT
PLANNING AND ENVIRONMENTAL REVIEW
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For:

SACRAMENTO AREA SEWER DISTRICT
10060 GOETHE ROAD
SACRAMENTO, CALIFORNIA 95827

September 2, 2022

TO: All Interested Parties

SUBJECT: DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT FOR THE HOOD SEPTIC TO SEWER CONVERSION PROJECT (CONTROL NUMBER: PLER2021-00127)

On behalf of the Sacramento Area Sewer District (SASD), Sacramento County Department of Community Development has prepared the subject Draft Environmental Impact Report (DEIR), attached for your review and comment. The DEIR can also be reviewed at:

<https://planningdocuments.saccounty.net/ViewProjectDetails.aspx?ControlNum=PLER2021-000127>

Reviewers should focus on the sufficiency of the DEIR in discussing possible impacts upon the environment, ways in which adverse effects might be minimized, and alternatives to the proposed project. Reviewers who wish to comment on the adequacy of this DEIR are urged to submit written or emailed comments to the Sacramento County Department of Community Development by close of business on 10/17/22 at the address below:

Joelle Inman, Environmental Coordinator
Planning and Environmental Review
827 7th Street, Room 225, Sacramento, CA 95814
or via e-mail at: CEQA@saccounty.net.

A public hearing on the Hood Septic to Sewer Conversion project will be held by the SASD Board at the Board of Supervisors Chambers, at 700 H Street in Sacramento. A notice of the date and time of the public hearing will be provided by the hearing body authorized to conduct the public hearing for the proposed project. Interested individuals may check the materials for upcoming hearings on the website of the County Sanitation District:

<https://agendanet.saccounty.gov/RegionalSanitation/Meetings/Search>

For questions about the project, please contact Julie Newton of this office at (916) 876-8502 or newtonj@sacccounty.net.

Sincerely,

[Original Signature on File]

Joelle Inman,
Environmental Coordinator
Department of Community Development
Sacramento County

Board of Directors

Representing:

County of Sacramento | City of Citrus Heights
City of Elk Grove | City of Folsom
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00 - PREFACE

This Draft Environmental Impact Report (DEIR) has been prepared by Sacramento County (County) on behalf of the Sacramento Area Sewer District (lead agency), in accordance with the requirements of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines (CCR Section 15132). The Sacramento Area Sewer District Board of Directors will use the EIR as one of the informational sources to determine whether to approve or deny the project.

A Notice of Preparation for the Project was published on March 25, 2022. Along with a Notice of Completion, the DEIR was released to the Governor's Office of Planning and Research to begin the 45-day public review period (Public Resources Code, Section 21161) on September 2, 2022. The comment period closes on October 17, 2022.

The DEIR and all appended materials are available electronically at on Sacramento County's website. Visit:

<https://planningdocuments.sacounty.net/projectdetails.aspx?projectId=7995&communityID=0>

EXECUTIVE SUMMARY AND OTHER CEQA CONSIDERATIONS

The subject of this Environmental Impact Report (EIR) is a project known as Hood Septic to Sewer Conversion Project, located in the Delta community of unincorporated Sacramento County. The project site is located within the community of Hood, which is located between the Sacramento River and Stone Lakes National Wildlife Refuge along Hood-Franklin Road. The community is south of the City of Sacramento and west of the City of Elk Grove along the Sacramento River (the western border of the County of Sacramento).

EIR SCOPE AND IMPACTS EVALUATED

As an initial study was prepared to focus the scope of the EIR (Appendix PD-1). During the Notice of Preparation (NOP) scoping process comments were received from the following agencies (Appendix PD-2):

- Stone Lakes National Wildlife Refuge
- Central Valley Regional Water Quality Control Board (CVRWQB)
- Delta Protection Commission

This report identifies significant and unavoidable impacts related to growth inducement and cumulative greenhouse gas emissions, cumulative air quality and cumulative greenhouse gas emissions.

This report identifies impacts that are less than significant with mitigation for impacts associated with aesthetics, biological resources, cultural resources, noise, tribal resources, paleontological resources, and hazards and hazardous materials. These impacts are identified as significant or potentially significant, which could be reduced to a less than significant level through inclusion of recommended mitigation measures.

Impacts associated with land use, air quality, climate change, water quality, geology and soils, hydrology, and public services and utilities **are considered less than significant**.

The following environmental impact and mitigation summary table (*Table ES-1: Executive Summary of Impacts and Mitigation*) briefly describes the project impacts evaluated in the EIR and the mitigation measures recommended to eliminate or reduce the impacts. The residual impact after mitigation is also identified. Detailed discussions of each of the identified impacts and mitigation measures, including pertinent supporting data, can be found in the specific topical sections in the remainder of this report.

Table ES-1: Executive Summary of Impacts and Mitigation

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
AESTHETICS			
<p><u>Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area</u></p> <p>In the event that nighttime construction is required, the project would require the use of nighttime lighting, creating a source of light and glare in a rural area of the County. Mitigation is recommended to reduce impacts to less than significant.</p>	PS	<p>AE-1: The project applicant shall require its construction contractor to prepare a nighttime construction lighting plan that includes implementation of the following measures:</p> <ol style="list-style-type: none"> 1. Where construction areas are 500 feet or closer to private residences, the construction contractor shall erect a temporary 6-foot-tall solid-screened fence at the edge of the construction area, between the work area and the residence. This shall also apply to work along roadways. 2. All nighttime construction lighting, regardless of location within the project site, shall be shielded and recessed within each fixture so as to direct light downwards and focused on the area to be illuminated. 3. All work zone illumination shall use the minimum foot-candles necessary to safely perform the required work. 4. Any lighting systems with flood, spot, or stadium-type luminaires shall be aimed downward at the work area and rotated outward no greater than 30 degrees from straight down. 	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
LAND USE, POPULATION AND HOUSING			
<u>Conflict with Land Use Plans, Policies and Regulations Including the General Plan and Zoning Code</u> The project is consistent with the goals and policies of relevant planning documents, including the Sacramento County General Plan, Zoning Code, LAFCo policies, the Sacramento-San Joaquin Delta plan documents.	LS	None recommended.	LS
<u>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)</u> The project would extend public infrastructure through an undeveloped greenfield area. Therefore, the project would remove a barrier to future growth in areas outside of the County USB, and remove additional barriers to additional growth beyond zoned densities within the community of Hood. Impacts are significant and unavoidable.	S	None recommended.	SU
PUBLIC SERVICES/UTILITIES			
<u>Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural</u>	PS	Mitigation is included for appropriate topical chapters of this document.	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
<p><u>gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.</u></p> <p>The project would result in environmental impacts associated with construction the projects. Specific impacts are discussed in the various topical areas of this EIR.</p>			
<p><u>Have Sufficient Water Supplies Available To Serve The Project And Reasonably Foreseeable Future Development During Normal, Dry, And Multiple Dry Years</u></p> <p>The Project would only require water during construction for horizontal drilling, compaction, and dust control purposes. During operation the project would not require additional water.</p>	LS	None Recommended.	LS
<p><u>Result in a determination by the wastewater treatment provider which serves the project that it has adequate capacity to serve the project's projected demand in addition of the provider's existing commitments.</u></p> <p>The project would require connection into existing facilities operated by SASD and Regional San. Modeling has been conducted to demonstrate that the SASD and Regional San facilities have adequate capacity to handle the additional sewage that would result from bringing the Hood community into the public sewer system.</p>	LS	None Recommended.	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
<p><u>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:</u></p> <ul style="list-style-type: none"> • <u>Fire protection</u> • <u>Police protection</u> • <u>Schools</u> • <u>Parks</u> • <u>Other public facilities</u> <p>The project would not interfere with any facilities associated with the provision of public services. The project could provide a net benefit to public services by providing existing and future structures the ability to connect to public sewer service.</p>	LS	None Recommended.	LS
BIOLOGICAL RESOURCES			
<p><u>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</u></p>	PS	<p>BR-1: Construction BMPs For Biological Resource Protection</p> <ul style="list-style-type: none"> • Construction fencing: Orange construction fencing will be installed to ensure that ground disturbance does not extend beyond the allowed 	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
<p><u>or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service</u></p> <p>Impacts to individual special status species are discussed further below. The project will implement overall BMPs as outlined in mitigation measure BR-1 that will reduce impacts to all areas related to biological resources.</p>		<p>construction footprint (i.e., the limit of project construction plus equipment staging areas and access roads).</p> <ul style="list-style-type: none"> • Erosion Control: <ul style="list-style-type: none"> ○ SASD or its contractor will install temporary control measures for sediment, stormwater, and pollutant runoff. Silt fencing or other appropriate sediment control device(s) will be installed downslope of any activity that disturbs soils with support stakes installed in such a way as to provide wildlife with a means of egress out of the project area. ○ Fiber rolls and seed mixtures used for erosion control will be certified as free of viable noxious weed seed and will be of appropriate design and materials that will not entrap wildlife (e.g., not contain mesh netting). Regular monitoring and maintenance of the project's erosion control measures will be conducted until project completion to ensure effective operation of erosion control measures. • Equipment Storage and Fueling <ul style="list-style-type: none"> ○ Sacramento County will ensure that equipment storage and staging will occur in the development footprint only. Fuel storage and equipment fueling will occur away from waterways, stream 	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>channels, stream banks, and other environmentally sensitive areas within the development footprint.</p> <ul style="list-style-type: none"> ○ If project activities result in a spill of fuel, hydraulic fluid, lubricants, or other petroleum products, the spill will be absorbed and waste disposed of in a manner to prevent pollutants from entering a waterway. • Erodible Materials: Erodible materials will not be deposited into waterways, and vegetation clippings, brush, loose soils, or other debris material will not be stockpiled within stream channels or on adjacent banks. Erodible material must be disposed of such that it cannot enter a waterway or aquatic land cover type. If water and sludge must be pumped from a subdrain or other structure, the material will be conveyed to a temporary settling basin to prevent sediment from entering a waterway. • Dust Control: SASD or their contractors will water active construction sites regularly, if warranted, to avoid or minimize impacts from construction dust on adjacent vegetation and wildlife habitats. No surface water will be used from aquatic land covers; water will be obtained from a municipal source or existing groundwater well. • Soil Compaction: After construction is complete, all temporarily disturbed areas will be restored similar to pre-project conditions, including impacts 	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>relating to soil compaction, water infiltration capacity, and soil hydrologic characteristics.</p> <ul style="list-style-type: none"> • Revegetation: Any grading or clearing associated with staging areas will be revegetated with native or existing non-invasive, non-native plants (e.g., non-native grasses) suitable for the altered soil conditions. • Frac-out Contingency Plan: SASD will prepare a Frac-Out Contingency Plan (Plan) with measures designed to minimize the potential for a frac-out associated with horizontal directional drilling. The Plan will also describe measures for timely detection of frac-outs, protect areas that are considered environmentally sensitive (streams, wetlands, other ecological resources, cultural resources), and ensure an organized, timely, and “minimum-impact” response in the event a frac-out and release of drilling mud occurs. • Training of Construction Staff: A mandatory Worker Environmental Awareness Program will be conducted by a qualified biologist for all construction workers, including contractors, prior to the commencement of construction activities. The training will include how to identify special-status species that might enter the construction site, relevant life history information and habitats, the consequences of non-compliance, the boundaries of the construction area and permitted disturbance zones, litter control training, and appropriate protocols if a special-status species is 	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		encountered. Supporting materials containing training information will be prepared and distributed by the biologist. When necessary, training and supporting materials will also be provided in Spanish. Upon completion of training, construction personnel will sign a form stating that they attended the training and understand all of the BMPs and Mitigation Measures.	
<p><u>Special Status Plants</u></p> <p>The project site contains habitat for special status plants in the vicinity of jurisdictional waters. Mitigation has been included to conduct protocol level surveys to identify potential special status plants prior to construction. If individual plants are identified, measures are in place to ensure their protection. With mitigation impacts are less than significant.</p>	PS	<p>BR-2: Prior to any grading, grubbing, or excavation within 50 feet of suitable habitat (delineated waterways), rare plant surveys shall be performed. The surveys shall also include surveys for milkweed, which is known to support monarch butterfly. The surveys should be floristic in nature, meaning that all plant species found in the survey area shall be identified to the taxonomic level necessary to determine rarity and listing status. The rare plant surveyor shall have experience as a botanical field investigator and familiarity with the local flora and potential rare plants in the habitats to be surveyed. The surveys shall be conducted when the rare plants at the site will be easiest to identify (i.e. flowering stage), and when the plants reach that stage of maturity. A minimum of three site visits shall be required during the plants flowering period in order to determine absence. Each site visit must be no less than 7 days apart.</p> <p>Submit a written report to SASD. The survey report should include a brief description of the vegetation, survey results (which includes a list of all species observed), photographs, time spent surveying,</p>	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>date of surveys, a map showing the location of the survey route and any rare plant populations and copies of any rare plant occurrence forms. If no rare plants are found, no further mitigation for plant species is required. If a special status plant or natural community is located, complete and submit to the CNDDDB a California Native Species (or Community) Field Survey Form or equivalent written report, accompanied by a copy of the relevant portion of a 7.5-minute topographic map with the occurrence mapped. Total avoidance rare plants and milkweed shall be required unless deemed infeasible by SASD or their appointee. Total avoidance is defined as maintenance of a 50-foot buffer around all identified rare plants and milkweed combined with avoidance of substantial channel modifications. If avoidance is infeasible, notify California Fish and Wildlife and U.S. Fish and Wildlife prior to construction and comply with any permit or mitigation requirements stipulated by those agencies. Submit copies of all such correspondence, including a copy of any required permits, to SASD.</p>	
<p><u>Western Spadefoot Toad</u></p> <p>The project site is adjacent to Stone Lakes Wildlife Refuge, which contains habitat for West Spadefoot Toad. Mitigation has been included to implement surveys and best management practices in the event individual spadefoot may</p>	PS	<p>BR-3: Western Spadefoot</p> <ul style="list-style-type: none"> • Avoid Western Spadefoot Entrapment: All excavated steep-walled holes and trenches more than 6 inches deep will be covered with plywood (or similar material) or provided with one or more escape ramps constructed of earth fill or wooden planks at the end of each work day or 30 minutes prior to sunset, whichever occurs first. All steep- 	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
traverse the project site. With mitigation impacts are less than significant.		<p>walled holes and trenches will be inspected by the approved biologist each morning to ensure that no wildlife has become entrapped. All construction pipes, culverts, similar structures, construction equipment, and construction debris left overnight within western spadefoot modeled habitat will be inspected for western spadefoot by the approved biologist prior to being moved. If a western spadefoot is encountered, refer to measure BR-14 below.</p> <ul style="list-style-type: none"> • Erosion Control Materials in Western Spadefoot Habitat: Non-entangling erosion control material will be used to reduce the potential for entrapment of western spadefoot. Tightly woven fiber netting (mesh size less than 0.25 inch) or similar material will be used to ensure that western spadefoots are not trapped (no monofilament). Coconut coir matting and fiber rolls containing burlap are examples of acceptable erosion control materials. • Western Spadefoot Encounter Protocol: <ul style="list-style-type: none"> ○ If construction activities must be implemented during the breeding and dispersal season (after October 15 and before May 15), and a western spadefoot is encountered during construction activities, an approved biologist will notify the CDFW and USFWS immediately. ○ Construction activities will be suspended in a 100-foot radius of the animal until the animal leaves the project site on its own volition. If necessary, the approved biologist will notify CDFW and USFWS to 	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		determine the appropriate procedures related to relocation. If the animal is handled, a report will be submitted, including date(s), location(s), habitat description, and any corrective measures taken to protect the western spadefoot within 1 business day to CDFW and USFWS. The biologist will report any take of listed species to the USFWS and CDFW immediately. Any worker who inadvertently injures or kills a western spadefoot or who finds dead, injured, or entrapped western spadefoot(s) must immediately report the incident to the approved biologist.	
<p><u>Giant Garter Snake</u></p> <p>The potentially jurisdictional waters on the project site are potential habitat for Giant Garter Snake. Mitigation has been included to implement surveys and best management practices in the event that individual Giant Garter Snakes are present on the project site. With mitigation, impacts are less than significant.</p>	PS	<p>BR-4: The following measures apply to all work that is to occur within potential giant garter snake habitat, defined as 200 feet surrounding delineated aquatic resources R1, R2, and R3 in the project area.</p> <ul style="list-style-type: none"> • Giant Garter Snake Work Window: Construction activities that do not fully avoid giant garter snake habitat will be conducted during the snake's active season. Construction and ground disturbing activities will be initiated after May 1 and will end prior to September 15. • Giant Garter Snake Monitoring: An approved biologist experienced with giant garter snake identification and behavior will monitor the project area, including the integrity of any exclusion fencing. The approved biologist will be on site daily while construction-related activities are 	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>taking place within 200 feet of aquatic habitat, and will inspect the project area daily for giant garter snake prior to construction activities. The approved biologist will also train construction personnel on the required avoidance procedures, exclusion fencing, and protocols in the event that a giant garter snake enters an active construction zone (i.e., outside the buffer zone).</p> <ul style="list-style-type: none"> • Avoid Giant Garter Snake Entrapment: Where project related ground disturbing activities occur within 200 feet of the Sacramento Drainage Canal and the unnamed Stone Lake channel, all excavated steep-walled holes and trenches more than 6 inches deep will be covered with plywood (or similar material) or provided with one or more escape ramps at an angle of no more than 30 degrees constructed of earth fill or wooden planks at the end of each work day or 30 minutes prior to sunset, whichever occurs first. All steep-walled holes and trenches will be inspected by the approved biologist each morning to ensure that no wildlife has become entrapped. All construction pipes, culverts, similar structures, construction equipment, and construction debris left overnight within giant garter snake modeled habitat will be inspected for giant garter snake by the approved biologist prior to being moved. • Erosion Control Materials in Giant Garter Snake Habitat: If erosion control is implemented within giant garter snake habitat, non-entangling erosion control material will be used to reduce the potential for entrapment. Tightly woven fiber netting (mesh size less than 0.25 inch) or similar 	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>material will be used to ensure snakes are not trapped (no monofilament). Coconut coir matting and fiber rolls containing burlap are examples of acceptable erosion control materials.</p> <ul style="list-style-type: none"> Giant Garter Snake Encounter Protocol: If a giant garter snake is encountered during construction activities, the approved biologist will notify the Wildlife Agencies immediately. Construction activities will be suspended in a 100-foot radius of the animal until the animal leaves the project site on its own volition. If necessary, the approved biologist will notify the Wildlife Agencies to determine the appropriate procedures related to relocation. If the animal is handled, a report will be submitted, including date(s), location(s), habitat description, and any corrective measures taken to protect the giant garter snake within one (1) business day to the Wildlife Agencies. The biologist will report any take of listed species to the U.S. Fish and Wildlife Service and CDFW immediately. Any worker who inadvertently injures or kills a giant garter snake or who finds one dead, injured, or entrapped must immediately report the incident to the approved biologist. Any giant garter snake observed during project activities will be allowed to move away from danger on its own or be moved by the approved biologist with CDFW and USFWS approval to handle the snake and in accordance with a CDFW-approved giant garter snake relocation plan. Giant Garter Snake Post Construction Restoration: After completion of ground- 	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>disturbing project activities, the applicant will remove any temporary fill and construction debris and will restore temporarily disturbed areas to pre-project conditions. Restoration work includes such activities as re-vegetating the banks and active channels with an appropriate native seed mix.. Restoration work may include replanting emergent aquatic vegetation. Refer to the U.S. Fish and Wildlife Service's (USFWS) Guidelines for the Restoration and/or Replacement of Giant Garter Snake Habitat (USFWS 1997), or the most current USFWS guidelines at the time of the activity. A photo documentation report showing pre- and post-project conditions will be submitted to the Implementing Entity 1 month after implementation of the restoration.</p> <ul style="list-style-type: none"> Giant Garter Snake Relocation Plan: SASD shall be responsible for preparation of a Giant Garter Snake Relocation Plan (Relocation Plan) for project activities occurring in giant garter snake modeled habitat. Project proponents shall submit the Relocation Plan to CDFW for written approval at least 30 days prior to the beginning of any project activities within giant garter snake habitat. The Relocation Plan shall include, at a minimum, the proposed giant garter snake capture and handling technique; a quantification of the amount, relative location, and quality of suitable habitat (aquatic and upland) within proposed relocation site(s) including invasive and non-native species present, available upland burrows for aestivation and high-water refugia, suitable prey items, and potential barriers for movement; 	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>written permission from the landowner to use their land as a relocation site; and identification of a wildlife rehabilitation center or veterinary facility that routinely evaluates or treats snakes and is permitted to handle giant garter snake.</p> <ul style="list-style-type: none"> • Pre-construction surveys: For project activities that occur within 200 feet of modeled giant garter snake aquatic habitat, the approved biologist(s) shall conduct one pre-construction survey within 24 hours prior to beginning ground disturbing activities. The approved biologist(s) shall investigate all small mammal burrows within suitable upland habitat. The project area will be resurveyed whenever there is a lapse in construction activity of two weeks or more. 	
<p><u>Western Pond Turtle</u></p> <p>The potentially jurisdictional waters on the project site are potential habitat for Western Pond Turtle. Project activities may impact individual turtles that may be within the limits of work. Mitigation has been included to implement surveys and best management practices in the event that individual Western Pond Turtle are present on the project site. With mitigation, impacts are less than significant.</p>	PS	<p>BR-5: The following measures apply to all work that is to occur within potential western pond turtle (WPT) habitat, defined as 300 feet surrounding delineated aquatic resources R1, R2 and R3 in the project area.</p> <ul style="list-style-type: none"> • Western Pond Turtle Surveys: If ground-disturbing construction activities are proposed within 300 feet of delineated aquatic habitat, a qualified biologist will conduct a field investigation to assess the potential for western pond turtle presence. Locations of delineated western pond turtle habitat, and individual observations will be noted on plans and used to finalize project design. 	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<ul style="list-style-type: none"> • Western Pond Turtle Work Window: Maintenance and improvements to existing structures may occur throughout the year as long as western pond turtle habitat is identified and avoided, and movement of equipment is confined to existing roads. Otherwise, construction and ground-disturbing activities must be conducted outside of western pond turtle's active season. Construction and ground-disturbing activities will be initiated after May 1 and will commence prior to September 15. If it appears that construction activities may go beyond September 15, SASD will consult CDFW for guidance on any additional measures needed to minimize impacts on western pond turtles. • Western Pond Turtle Monitoring: If construction activities will occur within 300 feet of potential WPT aquatic habitat, a qualified biologist experienced with western pond turtle identification and behavior will monitor the project area, including the integrity of any exclusion fencing. The biologist will be on site daily while construction-related activities are taking place in aquatic habitat or within 300 feet of aquatic habitat, and will inspect the project area daily for western pond turtle prior to construction activities. The biologist will also train construction personnel on the required avoidance procedures, exclusion fencing, and protocols in the event that a western pond turtle enters an active construction zone (i.e., outside the buffer zone). • Western Pond Turtle Entrapment: If construction activities occur within 300 feet of 	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>potential WPT aquatic habitat, excavated steep-walled holes and trenches more than 6 inches deep in this area will be covered with plywood (or similar material) or provided with one or more escape ramps constructed of earth fill or wooden planks at the end of each work day or 30 minutes prior to sunset, whichever occurs first. All steep-walled holes and trenches will be inspected by the qualified biologist each morning to ensure that no wildlife has become entrapped. All construction pipes, culverts, similar structures, construction equipment, and construction debris left overnight within 300 feet delineated aquatic resources will be inspected for western pond turtle by the qualified prior to being moved.</p> <ul style="list-style-type: none"> • Erosion Control Materials in Western Pond Turtle Habitat: If erosion control is implemented 300 feet of potential WPT aquatic habitat, non-entangling erosion control material will be used to reduce the potential for entrapment. Tightly woven fiber netting (mesh size less than 0.25 inch) or similar material will be used to ensure that turtles are not trapped (no monofilament). Coconut coir matting and fiber rolls containing burlap are examples of acceptable erosion control materials. • Western Pond Turtle Habitat Speed Limit: Construction and maintenance vehicles will observe a 20-mile-per-hour speed limit within of 300 feet of all potential WPT aquatic habitat. • Western Pond Turtle Encounter Protocol: If a western pond turtle is encountered during construction activities, the biologist will notify CDFW within 24 hours of detection. Construction 	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>activities will be suspended in a 100-foot radius of the animal until the animal leaves the project area on its own volition. If necessary, the qualified biologist will notify CDFW to determine the appropriate procedures related to relocation. Any worker who inadvertently injures, kills, or otherwise harasses a western pond turtle, or who finds one dead, injured, or entrapped must immediately report the incident to a qualified biologist.</p> <ul style="list-style-type: none"> • Western Pond Turtle Post-Construction Encounter Protocol: After completion of ground disturbing construction activities, SASD will remove any temporary fill and construction debris and will restore temporarily disturbed areas to pre-project conditions. Restoration work includes such activities as re-vegetating the banks and active channels with a seed mix similar to pre-project conditions. Appropriate methods and plant species used to re-vegetate such areas will be determined on a site-specific basis. Restoration work may include replanting emergent aquatic vegetation and placing appropriate artificial or natural basking areas in waterways and wetlands. 	
<p><u>Swainson's hawk</u></p> <p>Large trees in the project vicinity have the potential to serve as nesting habitat for Swainson's hawk. Construction activities could disturb nesting birds. Mitigation has been</p>	PS	<p>BR-6: The project shall comply with the following measures for all areas of the project site to avoid potential impacts to nesting Swainson's hawk.</p> <ul style="list-style-type: none"> • A qualified biologist will conduct Swainson's hawk surveys in the project area and within 0.25 miles 	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
included to incorporate pre-construction surveys and subsequent protocols in the event nesting Swainsons hawk are present. With mitigation impacts are less than significant.		<p>from the project area boundaries. Surveys will be conducted in accordance with the guidance described in Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (<i>Swainson's Hawk Technical Advisory Committee 2000</i>), Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas.</p> <ul style="list-style-type: none"> • Pre-construction surveys will be required to determine if active nests are present within a project area or within 0.25 mile of a project area if existing or potential nest sites were found during initial surveys and construction activities will occur during the breeding season (March 1 through September 15). A qualified biologist will conduct pre-construction surveys within 30 days and 3 days of ground-disturbing activities to determine presence of nesting Swainson's hawk. Pre-construction surveys will be conducted during the breeding season (March 1 through September 15). • If active nests are found within the project area or within 0.25 mile of any project-related construction activity, SASD or their contractor will establish a 0.25 mile disturbance buffer around the active nest until the young have fledged. The size of the exclusion zone may be modified in consultation with CDFW depending on the type of construction activity and associated disturbance anticipated near the nest. • If nesting Swainson's hawks are present within the project area or within 0.25 mile of any project- 	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>related activity, then a qualified biologist experienced with Swainson's hawk behavior will be retained by SASD or their contractor to regularly monitor the nest and to determine when the young have fledged. The qualified biologist will be on site daily while construction-related activities are taking place within the buffer. If nesting Swainson's hawks begin to exhibit agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, the biologist will have the authority to shut down construction activities. If agitated behavior is exhibited, the biologist, and Sacramento County will consult with CDFW to determine the best course of action to avoid nest abandonment or take of individuals. The qualified biologist will also train construction personnel on the required avoidance procedures, buffer zones, and protocols in the event that a Swainson's hawk flies into an active construction zone (i.e., outside the buffer zone).</p>	
<p><u>Nesting Raptors</u></p> <p>Large trees in the project vicinity have the potential to serve as nesting habitat for raptors. Construction activities could disturb nesting birds. Mitigation has been included to incorporate pre-construction surveys and subsequent protocols in the event nesting raptors are present. With mitigation, impacts are less than significant.</p>	PS	<p>BR-7: The following measures apply to the entirety of the project site to avoid impacts to nesting raptors</p> <ul style="list-style-type: none"> • Raptor Pre-Construction Surveys: Pre-construction surveys will be required to determine if active raptor nests are present with a project area or within 500 feet of the project area if construction activities will occur during the raptor breeding season. A qualified biologist will conduct pre-construction surveys within 30 days and 3 	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>days of ground disturbing activities within the proposed project area and within 500 feet of the proposed project area to determine presence of nesting raptor species. Pre-construction surveys will be conducted during the raptor breeding season.</p> <ul style="list-style-type: none"> • Raptor Nest/Roost Buffer: If active nests are found within the project area or within 500 feet of any project-related construction activity, SASD or their contractor will establish a temporary nest disturbance buffer around the active nest until the young have fledged. A 500-foot exclusion zone shall be established around the nest in which no work will be allowed until the young have successfully fledged or nesting activity has ceased. The determination of fledging or cessation of nesting will be made by a qualified biologist with experience in nest searching and monitoring for raptors. In consultation with CDFW, the size of the exclusion zone may be modified depending on the species and the type of construction activity and associated disturbance anticipated near the nest. Active nests will be monitored periodically throughout the nesting season to identify any sign of disturbance and to document nest status. • Raptor Nest/Roost Buffer Monitoring: If project-related construction activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then SASD or their contractor will retain a qualified biologist experienced with raptor behavior to monitor the nest throughout the nesting season and to 	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>determine when the young have fledged. The biologist will be on site daily while construction-related activities are taking place within the disturbance buffer. If nesting raptors begin to exhibit agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, the biologist/monitor will have the authority to shut down construction activities. If agitated behavior is exhibited, the biologist and SASD will consult with CDFW to determine the best course of action to avoid nest abandonment or take of individuals. The biologist will also train construction personnel on the required avoidance procedures, buffer zones, and protocols in the event that a covered raptor species flies into an active construction zone (i.e., outside the buffer zone).</p>	
<p><u>Tricolored Blackbird</u></p> <p>Marsh habitat near the delineated waters has the potential to serve as nesting habitat for tricolored blackbird. Construction activities could disturb nesting birds if present. Mitigation has been included to incorporate pre-construction surveys and subsequent protocols in the event nesting tricolored blackbird are present. With mitigation, impacts are less than significant.</p>	PS	<p>BR-8: The following measures shall apply to the project areas around delineated waters R1, R2 and R3 avoid impacts to nesting tricolored blackbirds.</p> <ul style="list-style-type: none"> • Tricolored Blackbird Pre-Construction Surveys: If construction activities will occur within 500 feet of the seasonal marsh habitats in and surrounding delineated waters R1, R2 and R3 during the breeding season (March 1 through September 15) a pre-construction survey will be conducted for tricolored blackbird nesting activity. A qualified biologist will conduct pre-construction surveys within 30 days and within 3 days of ground-disturbing activities, within the proposed project area and 500 feet of the proposed project 	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>area to determine the presence of nesting tricolored blackbird. Pre-construction surveys will be conducted during the breeding season (March 1 through August 31). Surveys conducted in February (to meet pre-construction survey requirements for work starting in March) must be conducted within 14 days and 3 days in advance of ground-disturbing activities.</p> <ul style="list-style-type: none"> • Tricolored Blackbird Nest Buffer: If active nests are found within the project area or within 500 feet of any project-related construction activity, SASD or their contractor will establish a 500-foot temporary buffer around the active nest until the young have fledged. • Tricolored Blackbird Nest Buffer Monitoring: If nesting tricolored blackbirds are present within the project area or within 500 feet of any project-related construction activity, then a qualified biologist experienced with tricolored blackbird behavior will monitor the nest throughout the nesting season and to determine when the young have fledged. The biologist will be on site daily while construction-related activities are taking place near the disturbance buffer. If the biologist determines that tricolored blackbirds are exhibiting agitated behavior, construction will cease until the buffer size is increased to a distance necessary to result in no harm or harassment to the nesting tricolored blackbirds. If the biologist determines that the colonies are at risk, a meeting with CDFW will be held to determine the best course of action to avoid nest abandonment or take of individuals. The biologist 	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		will also train construction personnel on the required avoidance procedures, buffer zones, and protocols in the event that a tricolored blackbird flies into an active construction zone (i.e., outside the buffer zone).	
<p><u>Special Status Bats</u></p> <p>Large trees in the project vicinity have the potential to serve as roosting habitat for special status bats. Construction activities could disturb roosting bats. Mitigation has been included to incorporate pre-construction surveys and subsequent protocols in the event roosting bats are present. With mitigation, impacts are less than significant.</p>	PS	<p>BR-9: Special Status Bats</p> <ul style="list-style-type: none"> • Winter Hibernaculum Surveys: Prior to any ground disturbance related, an approved biologist will conduct a pre-construction survey within 3 days of ground-disturbing activities within the project footprint and 300 feet of the project footprint to determine the presence of winter hibernaculum sites. Pre-construction surveys will be conducted during the winter hibernaculum season (November 1 through March 31). The approved biologist will inform the SASD of species locations, and they in turn will notify the Wildlife Agencies. • Winter Hibernaculum Buffer: If active winter hibernaculum sites are found within the project footprint or within 300 feet of the project footprint, the SASD or their contractor will establish a 300-foot temporary disturbance buffer around the active winter hibernaculum site until bats have vacated the hibernaculum and the Wildlife Agencies concur. • Bat Eviction Methods: An approved biologist will determine if non-maternity and non-hibernaculum day and night roosts are present on the project site. If necessary, an approved biologist will use safe eviction methods to remove bats if direct 	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		impacts to non-maternity and non-hibernaculum day and night roosts cannot be avoided. If a winter hibernaculum site is present, ground disturbance will not occur within 300 feet until the hibernaculum is vacated, or, if necessary, safely evicted using methods acceptable to the Wildlife Agencies.	
<p><u>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</u></p> <p>There is riparian habitat present on the western end of the project, along the Sacramento River. The project will be limited to work within the existing road right of way, and no tree removal is proposed. Therefore, the project will have less than significant impact on riparian habitat.</p>	LS	None recommended.	LS
<p><u>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</u></p> <p>There are three potentially jurisdictional waters (R1, R2 and R3) that traverse the forcemain alignment, or are within 50 feet of the road right of way. The project will implement BMPs to avoid impacts to waters. In the event that in channel or in-stream work is required, mitigation has been</p>	PS	<p>BR-10: If construction activities will be required within delineated waters or within the associated stream channel, the SASD shall perform one or a combination of the following prior to ground disturbance, and shall also obtain all applicable permits from the Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Central Valley Regional Water Quality Control Board, and the California Department of Fish and Wildlife:</p> <p>A. Where a Section 404 Permit has been issued by the Army Corps of Engineers, or an application</p>	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
included to ensure the proper permits are in place prior to construction. Impacts are less than significant with mitigation.		<p>has been made to obtain a Section 404 Permit, the Mitigation and Management Plan required by that permit or proposed to satisfy the requirements of the Corps for granting a permit may be submitted for purposes of achieving a no net-loss of wetlands. The required Plan shall be submitted to the Sacramento County Environmental Coordinator, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service for approval prior to its implementation.</p> <p>B. If regulatory permitting processes result in less than a 1:1 compensation ratio for loss of wetlands, the Project applicant shall demonstrate that the wetlands which went unmitigated/uncompensated as a result of permitting have been mitigated through other means. Acceptable methods include payment into a mitigation bank or protection of off-site wetlands through the establishment of a permanent conservation easement, subject to the approval of the Environmental Coordinator.</p> <p>BR-11: If any work is to occur within designated streambanks of the two channel crossings, following measures will be implemented to avoid or compensate for the loss or degradation of riparian habitat, consistent with Fish and Game Code Section 1602:</p> <p>A. SASD will notify CDFW before commencing any activity within the bed, bank, or riparian corridor of any waterway. SASD and its Contractor will conduct construction activities in accordance with</p>	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		the agreement, including implementing reasonable measures in the agreement necessary to protect the fish and wildlife resources, when working within the bed or bank of waterways that function as a fish or wildlife resource or in riparian habitats associated with those waterways.	
<p><u>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</u></p> <p>Trees and vegetation in the project vicinity have the potential to serve as nesting habitat for migratory birds. Construction activities could disturb nesting birds. Mitigation has been included to incorporate pre-construction surveys and subsequent protocols in the event nesting migratory birds are present. With mitigation, impacts are less than significant.</p>	PS	<p>BR-12: To avoid impacts to nesting migratory birds the following shall apply:</p> <ol style="list-style-type: none"> 1. If construction activity (which includes clearing, grubbing, or grading) is to commence within 50 feet of nesting habitat between February 1 and August 31, a survey for active migratory bird nests shall be conducted no more than 14 day prior to construction by a qualified biologist. 2. Trees slated for removal shall be removed during the period of September through January, in order to avoid the nesting season. Any trees that are to be removed during the nesting season, which is February through August, shall be surveyed by a qualified biologist and will only be removed if no nesting migratory birds are found. 3. If active nest(s) are found in the survey area, a non-disturbance buffer, the size of which has been determined by a qualified biologist, shall be established and maintained around the nest to prevent nest failure. All construction activities shall be avoided within this buffer area until a qualified biologist determines that nestlings have fledged, or until September 1. 	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
<p><u>Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance</u></p> <p>The project does not propose tree removal. There are native trees located on the perimeter of potential staging areas, and within the right of way of Hood Franklin Road. Construction activities could encroach on existing driplines of native trees. Mitigation is included to incorporate protective measures when heavy equipment will be in the vicinity of native trees. In the event that encroachment impacts would exceed 20% of the tree dripline, then mitigation is included to compensate for the full loss of the tree. With mitigation, impacts are less than significant.</p>	PS	<p>BR-13: In the event that final project design requires removal of native trees, then tree removal shall be compensated for by planting in-kind native trees equivalent to the dbh inches lost, based on the ratios listed below, at locations that are authorized by the Environmental Coordinator. Native trees include: valley oak (<i>Quercus lobata</i>), interior live oak (<i>Quercus wislizenii</i>), blue oak (<i>Quercus douglasii</i>), or oracle oak (<i>Quercus morehus</i>), California sycamore (<i>Platanus racemosa</i>), California black walnut (<i>Juglans californica</i>, which is also a List 1B plant), Oregon ash (<i>Fraxinus latifolia</i>), western redbud (<i>Cercis occidentalis</i>), gray pine (<i>Pinus sabiniana</i>), California white alder (<i>Alnus rhombifolia</i>), boxelder (<i>Acer negundo</i>), California buckeye (<i>Aesculus californica</i>), narrowleaf willow (<i>Salix exigua</i>), Gooding's willow (<i>Salix gooddingii</i>), red willow (<i>Salix laevigata</i>), arroyo willow (<i>Salix lasiolepis</i>), shining willow (<i>Salix lucida</i>), Pacific willow (<i>Salix lasiandra</i>), and dusky willow (<i>Salix melanopsis</i>).</p> <p>Replacement tree planting shall be completed prior to completion of the project</p> <p>Equivalent compensation based on the following ratio is required:</p> <ul style="list-style-type: none"> • one D-pot seedling (40 cubic inches or larger) = 1 inch dbh • one 15-gallon tree = 1 inch dbh 	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<ul style="list-style-type: none"> • one 24-inch box tree = 2 inches dbh • one 36-inch box tree = 3 inches dbh <p>Prior to ground disturbance, a Replacement Tree Planting Plan shall be prepared by a certified arborist or licensed landscape architect and shall be submitted to the SASD for approval. The Replacement Tree Planting Plan(s) shall include the following minimum elements:</p> <ol style="list-style-type: none"> 1. Species, size and locations of all replacement plantings and < 6-inch dbh trees to be preserved 2. Method of irrigation 3. If planting in soils with a hardpan/duripan or claypan layer, include the Sacramento County Standard Tree Planting Detail L-1, including the 10-foot deep boring hole to provide for adequate drainage 4. Planting, irrigation, and maintenance schedules; 5. Identification of the maintenance entity and a written agreement with that entity to provide care and irrigation of the trees for a 3-year establishment period, and to replace any of the replacement trees which do not survive during that period. 	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>6. Designation of 20-foot root zone radius and landscaping to occur within the radius of trees < 6 inches dbh to be preserved on-site.</p> <p>No replacement tree shall be planted within 15 feet of the driplines of existing native trees or landmark size trees that are retained on-site, or within 15 feet of a building foundation or swimming pool excavation. The minimum spacing for replacement native trees shall be 20 feet on-center. Examples of acceptable planting locations are publicly owned lands, common areas, and landscaped frontages (with adequate spacing). Generally unacceptable locations are utility easements (PUE, sewer, storm drains), under overhead utility lines, private yards of single-family lots (including front yards), and roadway medians.</p> <p>If tree replacement plantings are demonstrated to be infeasible for any or all trees removed, then compensation shall be through payment into the County Tree Preservation Fund. Payment shall be made at a rate of \$325.00 per dbh inch removed but not otherwise compensated, or at the prevailing rate at the time payment into the fund is made.</p> <p>BR-14: For the purpose of this mitigation measure, a native tree is defined as a valley oak (<i>Quercus lobata</i>), interior live oak (<i>Quercus wislizenii</i>), blue oak (<i>Quercus douglasii</i>), or oracle oak (<i>Quercus morehus</i>), having a diameter at breast height (dbh)</p>	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>of at least 6 inches, or if it has multiple trunks of less than 6 inches each, a combined dbh of at least 10 inches.</p> <p>With the exception of the trees removed and compensated for through Mitigation Measure BR-13, above, all native trees and portions of adjacent off-site native trees which have driplines that extend onto the project site, and all off-site native trees which may be impacted by utility installation and/or improvements associated with this project, shall be depicted on construction plans, and preserved and protected as follows:</p> <ol style="list-style-type: none"> 1. A circle with a radius measurement from the trunk of the tree to the tip of its longest limb shall constitute the dripline protection area of the tree. Limbs must not be cut back in order to change the dripline. The area beneath the dripline is a critical portion of the root zone and defines the minimum protected area of the tree. Removing limbs which make up the dripline does not change the protected area. 2. Chain link fencing or a similar protective barrier shall be installed one foot outside the driplines of the native trees prior to initiating project construction, in order to avoid damage to the trees and their root system. 3. No signs, ropes, cables (except cables which may be installed by a certified arborist to provide limb 	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>support) or any other items shall be attached to the native trees.</p> <ol style="list-style-type: none"> 4. No vehicles, construction equipment, mobile home/office, supplies, materials or facilities shall be driven, parked, stockpiled or located within the driplines of the native trees. 5. Any soil disturbance (scraping, grading, trenching, and excavation) is to be avoided within the driplines of the native trees. Where this is necessary, an ISA Certified Arborist will provide specifications for this work, including methods for root pruning, backfill specifications and irrigation management guidelines. 6. All underground utilities and drain or irrigation lines shall be routed outside the driplines of native trees. Trenching within protected tree driplines is not permitted. If utility or irrigation lines must encroach upon the dripline, they should be tunneled or bored under the tree under the supervision of an ISA Certified Arborist. 7. If temporary haul or access roads must pass within the driplines of oak trees, a roadbed of six inches of mulch or gravel shall be created to protect the root zone. The roadbed shall be installed from outside of the dripline and while the soil is in a dry condition, if possible. The roadbed material shall be replenished as necessary to maintain a six-inch depth. 	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		8. Tree pruning that may be required for clearance during construction must be performed by an ISA Certified Arborist or Tree Worker and in accordance with the American National Standards Institute (ANSI) A300 pruning standards and the International Society of Arboriculture (ISA) "Tree Pruning Guidelines".	
<u>Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan</u> The project is located within the boundaries of the South Sacramento Habitat Conservation Plan (SSHCP), but is not located within in the Urban Development Area (UDA) and is not considered a covered activity. The project will implement species-specific mitigation measures that are consistent with the protocols outlined in the SSHCP, and the project will not result in permanent impacts to any naturalized landcovers. Therefore, the project will have less than significant impacts with regards to HCP consistency.	LS	None recommended	LS
CULTURAL RESOURCES			
<u>Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5</u>	PS	CR-1: Should any cultural resources, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains be encountered during any development	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
The cultural resource inventory prepared for the project site did not identify known archaeological resources. This does not preclude the possibility of buried prehistoric archaeological materials or previously undiscovered surface resources within the project area and therefore is potentially significant. Recommended mitigation measure CR-1 reduce impacts to less than significant.		activities, work shall be suspended to allow for review by tribal monitors. SASD or designated staff implementing the MMRP shall be immediately notified. The project applicant shall be required to implement any mitigation deemed necessary for the protection of the cultural resources per the treatment plan, as outlined in Mitigation Measure TCR-2.	
<u>Disturb any human remains, including those interred outside of dedicated cemeteries</u> There are no known human remain on the project site. However, the project will involve ground disturbance and there is always the potential to encounter unknown burials. If human remains are encountered, recommended mitigation measures CR-2 will reduce impacts to less than significant.	PS	CR-2: Pursuant to Sections 5097.5 and 5097.98 of the State Public Resources Code, and Section 7050.5 of the State Health and Safety Code, if a human bone or bone of unknown origin is found during construction, all work is to stop and the County Coroner and Planning and Environmental Review shall be immediately notified. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission within 24 hours, and the Native American Heritage Commission shall identify the person or persons it believes to be the most likely descendent from the deceased Native American. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposition of, with appropriate dignity, the human remains and any associated grave goods.	LS
AIR QUALITY			
<u>Result in a cumulatively considerable net increase of any criteria for which the project region is non-</u>	LS	None recommended.	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
<p><u>attainment under an applicable federal or state ambient air quality standard</u></p> <p>The Roadway Emissions Model version 9.0 was used to calculate the emissions generated during the construction of the new sewer pipeline, utilizing the equipment and project characteristics outlined in the project description. Construction emissions for both ozone precursors and particulate matter (ROG, NO_x, PM₁₀ and PM_{2.5}), are below the established significance thresholds. Impacts from project construction from ozone precursors and particulate matter are less than significant.</p>			
<p><u>Expose sensitive receptors to substantial pollutant concentrations</u></p> <p>Project construction would be temporary in nature. The project itself would not result in operational emissions and therefore would not subject sensitive receptors to substantial pollutants.</p>	LS	None recommended.	LS
<p><u>Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people</u></p> <p>The land uses associated with the project are utility-related and would not include the typical odor-generating land uses, such composting facilities, wastewater treatment plants, or rendering plants. As a result, the project would not</p>	LS	None Recommended	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
result in other emissions, such as those leading to odors, affecting a substantial number of people, and impacts are less than significant.			
CLIMATE CHANGE			
<u>Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment</u> The project would result in less than significant impacts related to greenhouse gas emissions during construction. Upon completion of construction, the project itself would not generate operational greenhouse gas emissions.	LS	None recommended.	LS
<u>Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases</u> The construction of the pipeline would generate less the 1,100 MT threshold level of emissions associated with CO ₂ e. Because the project itself would generate emissions below the established threshold, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	LS	None recommended.	LS
NOISE			
<u>Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards</u>	PS	NO-1: SASD and their primary contractors for engineering design and construction of all project phases shall ensure that the following	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
<p><u>established in the local general plan or noise ordinance, or applicable standards of other agencies</u></p> <p>Construction activities that occur within the hours prescribed by the County Noise ordinance are exempt from the County noise standards, and as a result would not violate County standards. To help ensure nighttime construction activity does not exceed County noise standards or result in sleep disturbance, implementation of Mitigation measure NO-1 will ensure impacts are less than significant.</p>		<p>requirements are implemented at each worksite during project construction to avoid and minimize construction noise effects on sensitive receptors. The project proponent and primary construction contractor(s) shall employ noise-reducing construction practices. Measures that shall be used to limit noise shall include the measures listed below:</p> <ul style="list-style-type: none"> Noisy construction equipment and equipment staging areas shall be located as far as possible from nearby noise-sensitive land uses. All construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation. All motorized construction equipment shall be shut down when not in use to prevent idling. Individual operations and techniques shall be replaced with quieter procedures (e.g., using welding instead of riveting, mixing concrete off-site instead of on-site). Noise-reducing enclosures shall be used around stationary noise-generating equipment (e.g., compressors and generators). 	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<ul style="list-style-type: none"> • Written notification of construction activities shall be provided to all noise-sensitive receptors located surrounding the project site. Notification shall include anticipated dates and hours during which construction activities are anticipated to occur and contact information, including a daytime telephone number, for the project representative to be contacted in the event that noise levels are deemed excessive. Recommendations to assist noise-sensitive land uses in reducing interior noise levels (e.g., closing windows and doors) shall also be included in the notification. • Notification provided as part of this measure shall include the option to receive temporary relocation during the period in which construction activities could result in noise levels exceeding County nighttime noise standards, as provided in the Noise Element of the General Plan. • To reduce construction noise levels at affected noise-sensitive land uses to ambient condition and to levels consistent with applicable policies, acoustic barriers (e.g., lead curtains, sound barriers) shall be constructed at the project site boundary or at the boundaries of the construction site activities. The barriers shall be designed to obstruct the line of sight between the noise-sensitive land use and on-site construction equipment. • Provide real-time noise monitoring at the boundary of the nearest sensitive receptor(s) during evening and nighttime construction activity occurring outside 	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		the hours exempted by the County Noise Ordinance. Any activity resulting in a measured exterior noise level that exceeds 50 dB at the property boundary of an occupied residence shall immediately cease.	
<u>Generation of excessive ground borne vibration of ground borne noise levels</u> Vibration measurement results indicate that heavy equipment-generated vibration levels would be below the thresholds for annoyance and damage to structures even at the very close measurement locations of 35–100 feet from the operating equipment. As a result, given the setback from the proposed operations relative to the nearest receivers, project vibration levels generated by heavy earthmoving equipment are expected to be well below the threshold of perception and impacts are less than significant.	LS	None Recommended.	LS
TRIBAL CULTURAL RESOURCES			
<u>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:</u>			
i) <u>Listed or eligible for listing in the California Register of Historical Resources, or in a local</u>	PS	Implement Measures CR-1 and CR-2.	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
<p>ii) <u>register of historical resources as defined in Public Resources Code Section 5020.1(k), or 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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.</u></p> <p>This area contains a high probability of subsurface resources, and is located within an identified tribal cultural landscape along the Sacramento River. Because specific locations of potential resources are unknown, mitigation focuses on preventative measures that reduce the probability of impacting the integrity of a resource, as well as plans and processes for properly handling unanticipated discoveries. In the case that an object resembling a tribal or cultural resource is uncovered, construction can halt while the resource is investigated and a conclusion reached for appropriate next steps. Impacts are less than significant with mitigation.</p>		<p>TCR-1: To minimize the potential for destruction of or damage to existing or previously undiscovered TCRs and to identify any such resources at the earliest possible time during project-related earthmoving activities, the project proponent or their contractor will implement the following measures:</p> <p>Prior to construction, Wilton Rancheria shall be contacted and allowed to provide a tribal monitor, reimbursable by the project proponent, during ground disturbing activities. If an excavation area is too large for one monitor to effectively observe the soil removal, one or more additional monitors may be retained to observe the area.</p> <p>Native American Representatives and Native American Monitors have the authority to identify sites or objects of significance to Native Americans and to request that work be stopped, diverted, or slowed if such sites or objects are identified within the direct impact area; however, only a Native American Representative can recommend appropriate treatment of such sites or objects.</p> <p>TCR-2: Prior to construction, a cultural resource treatment plan shall be developed, subject to review by Wilton Rancheria representatives. The treatment plan shall address the protocol in case of an inadvertent cultural resource discovery, including when to halt work, proper handling and notification procedures, significance evaluation,</p>	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<p>and procedures for reinitiating ground-disturbing activities.</p> <p>TCR-3: Prior to the beginning of ground disturbance and during all periods of ground disturbance, a qualified person approved by Wilton Rancheria, will provide cultural resources training to all new employees within their first week of employment on the proper procedures to follow in the event that cultural resources are uncovered during project excavations. Employees working in ground-disturbing activities will not begin job-related tasks until they have received this training. Employee education will focus on the following issues:</p> <ul style="list-style-type: none"> • The rationale for cultural resources monitoring • Regulatory policies and laws protecting resources and penalties for violations • Basic identification of cultural resources • The procedures to follow in case of a discovery of such resources 	
GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES			
<u>Result in substantial soil erosion or the loss of topsoil.</u>	LS	None Recommended	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
<p>The project does not propose significant grading, and would comply with the Sacramento County Land Grading and Erosion Control Ordinance (Sacramento County Code Ch. 16.44). The project would also comply with the NPDES General Construction Permit, which requires that any construction activity affecting 1 acre or more implement a SWPPP, which identifies BMPs to reduce construction effects on receiving water quality. The BMPs include sediment and erosion control measures and other measures to control potential chemical contaminants. Impacts are less than significant.</p>			
<p><u>Be located in a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse</u></p> <p>Any construction would need to adhere to the existing UBC and CBC, which would ensure the maximum necessary protection available for development within areas known to contain expansive soils. This impact would be less than significant.</p>	LS	None Recommended	LS
<p><u>Directly or indirectly destroy a unique paleontological resource or site or unique geological feature.</u></p> <p>The project would result in ground disturbing activities that could have the potential to disturb subsurface paleontological resources.</p>	PS	GS-1. The project proponent shall retain a qualified paleontologist to conduct an on-site training that will alert all construction personnel and operational staff about the possibility of encountering fossils. The appearance and types of fossils likely to be seen during construction will be described. Construction personnel shall be trained about the	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
Implementation of the recommended mitigation measure would reduce impacts to less than significant.		<p>proper notification procedures should fossils be encountered.</p> <p>If paleontological resources are discovered during earthmoving activities, the project proponent shall immediately halt operations within 100 feet of the find and notify SASD or their designee. The project proponent shall retain a qualified paleontologist for identification and salvage of fossils so that construction delays can be minimized. If large specimens are discovered, the paleontologist shall have the authority to halt or divert grading and construction equipment while the finds are removed. The paleontologist shall be responsible for implementing all tasks summarized below:</p> <ul style="list-style-type: none"> • In the event of discovery, salvage of unearthed fossil remains, typically involving simple excavation of the exposed specimen but possibly also plaster-jacketing of large and/or fragile specimens, or more elaborate quarry excavations of richly fossiliferous deposits. • Recovery of stratigraphic and geologic data to provide a context for the recovered fossil remains, typically including description of lithologies of fossil-bearing strata, measurement and description of the overall stratigraphic section, and photographic documentation of the geologic setting. 	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<ul style="list-style-type: none"> • Laboratory preparation (cleaning and repair) of collected fossil remains to a point of curation, generally involving removal of enclosing rock material, stabilization of fragile specimens (using glues and other hardeners), and repair of broken specimens. • Cataloging and identification of prepared fossil remains, typically involving scientific identification of specimens, inventory of specimens, assignment of catalog numbers, and entry of data into an inventory database. • Preparation of a final report summarizing the field and laboratory methods used, the stratigraphic units inspected, the types of fossils recovered, and the significance of the curated collection. • Preparation of a plan for museum curation in the event fossilized deposits are uncovered. 	
HYDROLOGY AND WATER QUALITY			
<p><u>Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality</u></p> <p>Compliance with the County's Stormwater Ordinance, and preparation and implementation of the required site-specific SWPPP which requires that the project minimize potential effects on surface stormwater flows to aquatic features in and outside the development would ensure impacts are less than significant.</p>	LS	None Recommended.	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
<u>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:</u>			
<ul style="list-style-type: none"> <u>result in substantial erosion or siltation on or off-site;</u> <p>Upon completion of construction, the project would not induce further erosion, grading, or runoff of materials or pollutants in an operational setting; impacts are focused on temporary construction impacts. The project will comply with the State's General Stormwater Permit for Construction Activities. The General Permit requires preparation and implementation of a site-specific Stormwater Pollution Prevention Plan (SWPPP), and an effective combination of erosion, sediment and other pollution control BMPs in compliance with the County ordinances and the State's CGP. Project compliance with requirements outlined above, as administered by the County and the Regional Water Board will ensure that project-related erosion and pollution impacts are less than significant.</p>	LS	None Recommended.	LS
<ul style="list-style-type: none"> <u>substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;</u> <p>Flooding of the project site would not be impeded by the project because the nature of the construction of the project will not create barriers</p>	LS	None Recommended.	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
to impede the inundation of water. The project will serve a population that is already existing, and therefore does not expose people to substantial risk or loss of life in the case of a flood event. Structures, as defined by the Floodplain Ordinance are those that have walls and a roof. The project does not propose any new structures as defined in the Floodplain Ordinance, so there is not a substantial risk of loss of structures in a flood event. Impacts are less than significant.			
HAZARDS AND WILDFIRE			
<p><u>Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials</u></p> <p>Pursuant to 40 CFR 112, the Project would be required to prepare a spill prevention and treatment plan for rapidly, effectively, and safely cleaning up and disposing of any spills or releases that may occur during construction. As required under state and federal law, notification and evacuation procedures for site workers and local residents would be included as part of the plan in the event of a hazardous materials release during on-site construction. In addition to 40 CFR 112, SWRCB Construction General Permit (2009-0009 DWQ) requires spill prevention and containment plans to avoid spills and releases of hazardous materials and wastes into the environment. Mitigation measure HZ-1 has been included to require the aforementioned spill protection and treatment plan, and mitigation measure HZ-2 has been included to</p>	PS	<p>HZ-1: Spill prevention and Containment Plan Prior to construction, the contractor will be required to develop a hazardous materials spill prevention and containment plan for the project. The plan would not allow any discharge resulting from construction of the project to enter adjacent lands or waterways. In the event of accidental discharge, the contractor would be responsible for containment and the immediate cleanup and disposal of all contaminated materials, in accordance with the requirements of the Sacramento County Environmental Management Department.</p> <p>HZ-2: Health and Safety Plan</p> <p>A. As necessary, and as required by federal and state regulations, plans such as a health and safety plan, BMPs, and/or an injury and illness prevention plan will be prepared and implemented by SASD to address worker safety when working</p>	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
address worker safety in the vicinity of potentially hazardous materials. This impact would be less than significant with mitigation.		<p>with potentially hazardous materials, including potential asbestos containing materials, lead base paint, lead or chromium in traffic stripes, ADL, and other construction-related materials within the ROW during any soil-disturbing activity.</p> <p>B. Develop a contingency plan in the event that construction activities uncover unforeseen contamination.</p>	
<p><u>Create a significant hazard to the public or the environment though reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment</u></p> <p>Compliance with existing state and federal regulations ensure that impacts associated with the impacts related to reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment are less than significant. Out of an abundance of caution, mitigation has been included such that the project proponent will be required to draft a health and safety plan to protect workers in the event of an unforeseen contamination. This impact would be less than significant with mitigation.</p>	PS	Implement measure HZ-2.	LS
<p><u>Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan</u></p>	PS	HZ-3: The project proponent (in coordination with the County of Sacramento Department of Transportation, the California Highway Patrol, Caltrans and local emergency services) shall develop and implement a traffic control plan for	LS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
<p>Construction activities could result in temporary lane closures, increased truck traffic, and other roadway effects that could slow or stop emergency vehicles, temporarily increasing response times and impeding existing services. The project would not require full road closures or detours. To address any temporary road closures that would be required during construction, standard construction mitigation includes notification of emergency responders and development of a traffic control plan. Additionally, mitigation to address necessary roadway repairs as a result of construction has been included below. The potential for construction activities to impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan would be less than significant with mitigation.</p>		<p>the construction project to reduce the effects of construction on the roadway system throughout the construction period. Proposed lane closures during the a.m. and p.m. commuting hours shall be coordinated with the appropriate jurisdiction. Lane closures shall be limited to the immediate vicinity of the open trench, and the length of trenches shall be kept as short as possible. Construction site(s) shall be secured to prevent pedestrians and bicyclists from entering the work site. One traffic lane shall remain open along major streets.</p> <p>HZ-4: The project proponent shall implement the following measures (a) repair any roadway damage to its original conditions immediately after construction has been completed; (b) coordinate with the local jurisdiction to determine appropriate routes for truck travel before beginning construction; (c) coordinate with the local jurisdiction regarding planned improvements near the infrastructure to limit interference with the implementation of roadway improvements or trenching in newly completed facilities before beginning construction.</p>	

MITIGATION MONITORING AND REPORTING PROGRAM

It shall be the responsibility of the SASD to provide written notification to the Environmental Coordinator, in a timely manner, of the completion of each Mitigation Measure. The Environmental Coordinator will verify that the project is in compliance with the adopted Mitigation Monitoring and Reporting Program (MMRP). It shall be the responsibility of the SASD to reimburse the office of Planning and Environmental Review for all expenses incurred in the implementation of the MMRP, including any necessary enforcement actions. Any non-compliance will be reported to the project applicant/owner, and it shall be the project applicant's/owner's responsibility to rectify the situation by bringing the project into compliance and re-notifying the Environmental Coordinator. Any indication that the project is proceeding without good-faith compliance could result in the imposition of administrative, civil and/or criminal penalties upon the project applicant/owner in accordance with Chapter 20.02 of the Sacramento County Code.

TERMINOLOGY USED IN THIS EIR

This EIR uses the following terminology to describe environmental effects of the project.

Significance Criteria. A set of criteria used by the lead agency to determine at what level, or “threshold,” an impact would be considered significant. Significance criteria used in this EIR include those that are set forth in the CEQA Guidelines, or can be discerned from the CEQA Guidelines; criteria based on factual or scientific information; criteria based on regulatory standards of local, state, and federal agencies; and criteria based on goals and policies identified in the Sacramento County General Plan.

Less than Significant Impact. A project impact is considered less than significant when it does not reach the standard of significance and would therefore cause no substantial change in the environment. No mitigation is required for less than significant impacts.

Potentially Significant Impact. A potentially significant impact is a substantial, or potentially substantial, adverse change in the environment. Physical conditions which exist within the area will be directly or indirectly affected by the proposed project. Impacts may also be short-term or long-term. A project impact is considered significant if it reaches the threshold of significance identified in the EIR. Mitigation measures may reduce a potentially significant impact to less than significant.

Significant Unavoidable Impact. A project impact is considered significant and unavoidable if it is significant and cannot be avoided or mitigated to a less-than-significant level once the project is implemented.

Cumulative Significant Impact. A cumulative impact can result when a change in the environment results from the incremental impact of a project when added to other related past, present or reasonably foreseeable future projects. Significant cumulative impacts may result from individually minor but collectively significant projects.

Mitigation. Mitigation measures are revisions to the project that would minimize, avoid, or reduce a significant effect on the environment. CEQA Guidelines §15370 identifies 5 types of mitigation:

- a) Avoiding the impact altogether by not taking a certain action or parts of an action.
- b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.
- d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- e) Compensating for the impact by replacing or providing substitute resources or environments.

OTHER CEQA CONSIDERATIONS

IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines Section 15126.2 requires the evaluation of significant irreversible environmental changes, stating, “uses of nonrenewable resources during the initial and continued phases of a proposed project may be irreversible since a large commitment of these resources makes removal or nonuse thereafter unlikely.” This section of the EIR evaluates whether the project would result in the irretrievable commitment of resources, or would cause irreversible changes in the environment.

Construction of various project elements will require irretrievable commitments of a variety of finite resources, including aggregate, petrochemicals, and metals. These commitments will occur both as direct and indirect impacts of the project. Direct impacts include the consumption of fuel by the construction fleet and equipment, the consumption of fuel as part of the vehicle and equipment usage during project operation, and the use of metals and aggregates in the construction of the buildings. Indirect impacts include the consumption of fuel and other resources to produce the materials used in construction.

CUMULATIVE IMPACTS

The CEQA Guidelines section 15355 defines a cumulative impact as “two or more individual effects which, when considered together, are considerable”. An individual effect need not itself be significant to result in significant cumulative effects; the impact is the result of the incremental effects of the Project combined with the effects of “other closely related past, present, and reasonably foreseeable probable future projects.” CEQA does not define “closely related”, but the Code of Federal Regulations (40 CFR 1508.25) indicates that a “closely related” project is one which is automatically triggered

by the Project; one which cannot proceed without the Project first proceeding (mutual dependency); one which requires the Project for justification or is an interdependent part of the same action; or one which is a similar action with common timing, geography, and other features.

The requirements for a cumulative analysis are described in CEQA Guidelines Section 15130. A cumulative analysis “need not provide as great detail as is provided for the effects attributable to the project alone.” The analysis should focus on analyzing the effects of the project to which other projects contribute, to the extent practical and reasonable. These other projects may be identified either through the provision of a list of cumulative projects, or via a summary of projections contained in an adopted General Plan or an adopted EIR. This EIR uses the summary of projections contained in the adopted General Plans of jurisdictions covered by the SASD and Regional San, which corresponds to the projected service area of both Districts. A statement of cumulative impacts is contained at the end of each topical chapter.

The significance criteria used for analysis are the same as those used throughout the topical chapters of the EIR. Section 15130(a)(3) states that a Project’s contribution to an impact is “less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures”.

GROWTH INDUCING IMPACTS

The CEQA Guidelines identify several ways in which a project could have growth-inducing impacts. In addition to the characteristics described above, projects that remove obstacles to population growth and projects that encourage and facilitate other activities that are beyond those proposed as part of the project and that could affect the environment are considered growth-inducing (CEQA Guidelines Section 15126.2[d]). Potential inducements to population growth include the availability of adequate water supplies, the availability of sewage treatment facilities, the availability of developable land and local government growth policies contained in general plans and zoning ordinances.

Growth inducement may not be considered necessarily detrimental, beneficial, or of significance under CEQA. Induced growth is considered a significant impact only if it directly or indirectly affects the ability of agencies to provide needed public services or if it can be demonstrated that the potential growth, in some other way, significantly affects the environment, e.g., that it requires constructing facilities that would adversely affect the environment. A detailed analysis addressing growth inducement as it relates to the proposed project can be found in the Land Use chapter of this document (Chapter 4).

02- PROJECT DESCRIPTION

This chapter defines existing conditions and environmental setting at the project site and the surrounding areas (Section 2.1 & 2.2), identifies a statement of project objectives (Section 2.3), provides a detailed description of the proposed Hood Septic to Sewer Conversion Project (proposed project) (Section 3.4), and identifies intended uses of this environmental impact report (EIR) (including for consideration by the Sacramento Area Sewer District (SASD) hearing authority and potential subsequent permits, approvals, review, and/or consultation requirements) (Section 2.5). Figures are provided to facilitate a thorough understanding of the project's regional location, site characteristics, and components. The description of the project included in this chapter sets forth the characteristics upon which the evaluation of potential impacts in this draft EIR is based. All of the project application materials are also available at the County of Sacramento website:

<https://planningdocuments.saccounty.net/projectdetails.aspx?projectID=7995&communityID=0>

2.1 BACKGROUND

Some rural communities in Sacramento County use onsite wastewater treatment systems (OWTS), such as septic systems, for treating their raw sewage. In 2012, the State Water Resources Control Board (State Water Board) adopted a new policy with stricter requirements on all OWTS. In response to the new policy, the Sacramento County Environmental Management Department (EMD) developed and adopted an OWTS Local Area Management Program (LAMP) in 2015 that regulates the operation and maintenance of local OWTS. Many existing systems cannot meet the new requirements of the OWTS LAMP.

Parcels with aging or poorly maintained septic systems will require service, repair or replacement to maintain or regain a compliant status with the LAMP regulations. In general, the typical lifespan of a septic system ranges anywhere from 15 to 40 years and is largely dependent on how often the system is serviced and inspected. The service history of the septic systems within Hood is unknown, but due to the lack of permit data, the septic systems are believed to be past their typical lifespan and in need of replacement. Parcels zoned RD-5 in this community may have difficulty meeting the minimum parcel boundary setback requirements if the existing systems fail and need replacement.

Under existing conditions and without public sewer as an option to homeowners, replacement septic systems are required to meet the LAMP parcel boundary and wellhead setback requirements. Sacramento County EMD reviews all installation or repair applications to ensure the OWTS meets Sacramento County Code, Chapter 6.32 requirements, which is also included in the LAMP. If a system cannot meet these requirements, the application is denied. Homeowners of small parcels in the Hood

community will likely need to apply for a variance to install an advanced treatment system. An advanced treatment system is a treatment process performed when the sewage produced cannot be efficiently treated by pre-treatment components like a septic tank. The method effectively removes nitrogen, fecal coliform, contaminants, solids, and nutrients from the wastewater. Variance requests are reviewed and a determination made on a case-by-case basis. Additionally, an advanced treatment system can be costly to the applicant and may be cost prohibitive. If the property owners cannot provide a legal means for wastewater disposal, then the dwelling on the property will be deemed uninhabitable. In a worst-case scenario, the homeowners may be forced to cease occupying their dwelling.

2.2 ENVIRONMENTAL SETTING

PROJECT SITE DESCRIPTION

The Project area is located within the community of Hood, which is located between the Sacramento River and Stone Lakes National Wildlife Refuge along Hood-Franklin Road. The community is south of the City of Sacramento and west of the City of Elk Grove along the Sacramento River (the western border of the County of Sacramento) (Plate PD-1). The community is bounded by agricultural parcels to the north, east, and south and the Sacramento River to the west. The identified Hood project area also includes Hood-Franklin Road, Franklin Boulevard, and Bilby Road, as those areas are required for connection of the Hood community to the existing sanitary sewer system.

LAND USE

The current land use in the Hood community consists of residential (single-family RD-5), a mobile home park (residential, RD-10), commercial, and industrial zoned properties (Plate PD-2). Residential development is designated as low density residential, with RD-5 zoning (equivalent to five properties per acre) and the mobile home park (RD-10). The sizes of all parcels range from 0.06 to 6.15 acres. There are no projected changes to zoned land use in the community, but currently vacant parcels could develop at their existing zoned density. Additionally, parcels that currently could not support accessory dwelling units (ADUs), could develop ADUs consistent with state law and development standards.

SEWER AND WATER SERVICE

The parcels identified for septic to sewer conversion are serviced by private drinking water wells or public domestic water provided by Sacramento County Water Agency Zone 41. Nearby surface waters include the Sacramento River to the west, Stone Lake to the south, and North Stone Lake to the north. Hood does not have any existing public sewer service. All development in Hood is currently supported by permitted and unpermitted septic systems. The closest existing gravity sewer facility is on Bilby Road east of the Union Pacific Railroad (UPRR) railroad track near the Willard Pkwy intersection. Sewage

ultimately conveys flow to the Sacramento Regional Wastewater Treatment Plant (SRWTP) (Plate PD-2).

BIOLOGICAL

Hood is located within the Northern Delta portion of the South American Subbasin, located within the southern part of the Sacramento Valley Groundwater Basin. This subbasin is a high-priority basin according to the Sustainable Groundwater Management Act (SGMA). The subbasin is bound by the American River to the north, the Cosumnes and Mokelumne Rivers to the south, the Sierra Nevada mountains to the east, and the Sacramento River to the west.

The project area is mostly flat, with elevations ranging from approximately 40 feet above mean sea level (amsl) near the top of the Sacramento River levee, to 0 feet amsl along Hood-Franklin Road. The project activities are primarily proposed in urban and developed parcels within a highly disturbed and managed surrounding landscape. Little native vegetation is present within the project area.

Three jurisdictional waterways were identified within the extents of the project area; these have been designated as R1, R2, and R3 in Plate PD-3 to show relative locations and sizes of these resources. The proposed project area will intersect R1 and R3 and parallels R2 along Hood-Franklin Road. One waterway, (R1) has been labelled by AECOM investigators as “unnamed Stone Lake channel,” R3 has been named by USGS hydrologic mapping as the Sacramento Drainage Canal, and R2 is an unnamed irrigation channel, which flows continuously along Hood-Franklin Road and ultimately unites with the unnamed Stone Lake channel (R1). All project waterways are hydrologically connected to North Stone Lake and Stone Lake; R1 and R3 support flow from north to south. All project waterways have been designated by the US Fish and Wildlife Service as Final Critical Habitat for the Delta Smelt (2022) and the National Marine Fisheries Service (NMFS) as Essential Fish Habitat for the Pacific Coast Salmon Fish Management Plan (FMP) (2022).

Plate PD-1: Project Vicinity Map



Plate PD-2: Land Use and Existing System

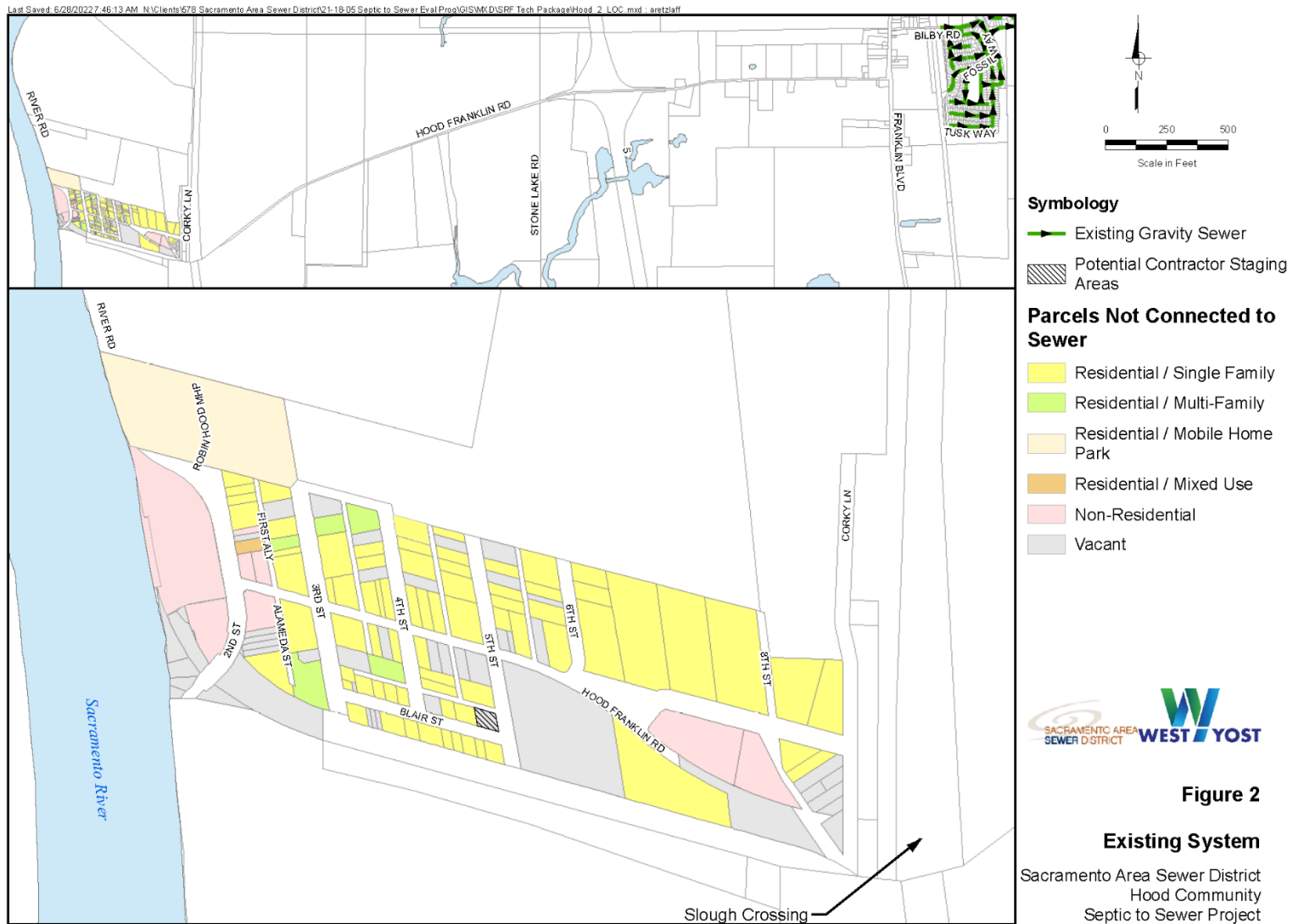
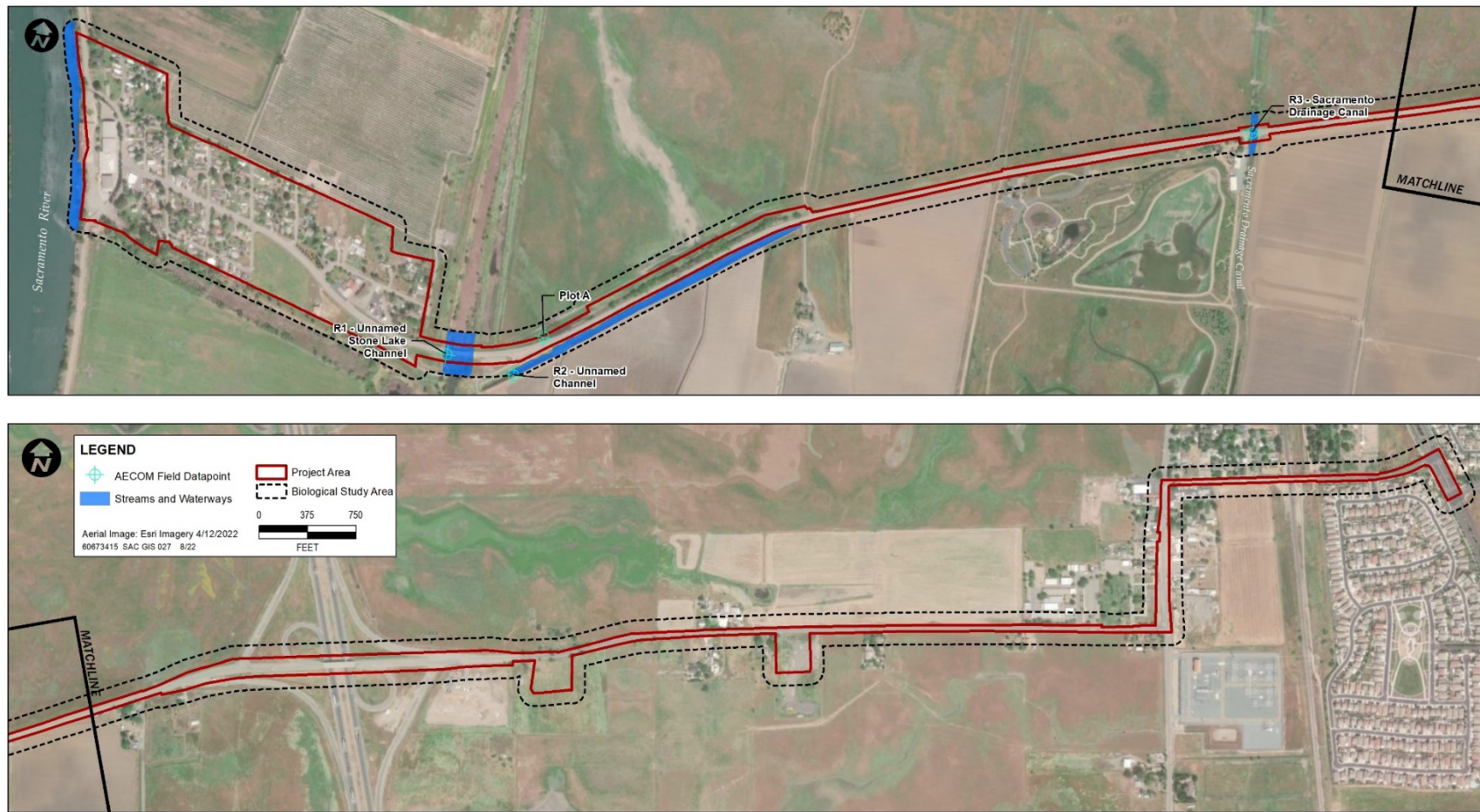


Plate PD-3: Aquatic Resources



2.3 PROJECT OBJECTIVES

Per Section 15124(b) of the CEQA Guidelines, the project description shall include:

A statement of the objectives sought by the proposed project. A clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project and may discuss the project benefits.

The project applicant has provided the following statement of basic project objectives consistent with CEQA Guidelines Section 15124 (b). SASD has indicated that the project should accomplish the following:

- Provide public sewer service to the Community of Hood at existing zoned densities to alleviate potential groundwater contamination, protect the environment, and improve public health and safety.
- Remove the need for replacement septic systems, which can be difficult to locate on small parcels, and in some cases infeasible or cost prohibitive.
- Implement the County of Sacramento General Plan policies applicable to health and safety to remove septic use on small parcels, adjacent to the Sacramento River. Enforcement action as a result of increased Sacramento County EMD groundwater reporting requirements and health and environmental concerns are drivers for the septic-to-sewer conversions.
- Utilize available federal funding for the health and safety benefit of a severely disadvantaged community, based on Median Household Income (MHI). A severely disadvantaged community is one with a population less than 10,000 persons and whose combined MHI is less than 60 percent of the statewide MHI.
- Extend the SASD service boundary to include existing zoned densities in the Community of Hood, through annexation required by LAFCO.

2.4 PROJECT DESCRIPTION

The proposed project would extend public sewer service to the community of Hood and allow 137 parcels the ability to obtain public sewer service through SASD. Of these 137 parcels, 73 are single-family residential, five are multi-family residential, one is mixed-use residential, one is a mobile home park (residential), nine are non-residential, and 48 are vacant. The Notice of Preparation (NOP) for this project identified 141 parcels utilizing septic systems within this community to be considered for conversion to public sewer.

Since preparation of the NOP, the quantity of parcels has decreased slightly due to parcel mergers. One industrial and three vacant parcels merged to one. The new APN is 132-0091-025 (old APNs: 132-0091-019, -021, -022, and -023). Additionally, one residential and one vacant parcel merged to one. The new APN is 132-0101-021 (old APNs: 132-0101-001 and -018).

In addition to the Hood community itself, the project area extends along Hood Franklin Road from the community of Hood to the community of Franklin to allow for the extension of a 4" sewer force main from existing service within the City of Elk Grove to the Hood community. Within the Hood community 3" lateral lines would be installed. Specific components of the project are discussed further below.

The majority of project construction is proposed to take place within the existing public roadway right-of-way (ROW), with the exception of two private easements. Also, minor earthwork and construction activities will take place at various private lots within the project area (see "Private Property Connections," below). The project area is defined as the direct work areas, the public road ROWs, proposed staging areas, temporary parking, portions of the parcels where septic abandonment and/or connections to sewer laterals may occur, and equipment/materials storage areas.

SPHERE OF INFLUENCE AMENDMENT AND ANNEXATION

The Hood community is currently outside of service areas for both SASD and Regional San (Plate PD-4). Implementation of the project would require both a sphere of influence amendment (SOI) and annexation to the SASD and Regional San service area. The SOI amendment and annexation would require a request to the Sacramento Local Agency Formation Commission (LAFCo) to amend the service boundaries of SASD and Regional San to provide wastewater services to the Project, and would require LAFCo review, proceedings, and action. LAFCo has the sole authority to act to approve, modify and approve, or disapprove the proposal. The proposal is consistent with LAFCo goals (GC 56033.5) to provide adequate municipal sewer services to an identified disadvantaged unincorporated community, as defined by Section 79505.5 of the Water Code.

EXISTING SEPTIC TANK ABANDONMENT

Property owners interested in connecting to public sewer would sign an agreement requiring them to abandon their existing septic system in accordance with County EMD's guidelines. Abandonment would require the existing septic tank to be pumped, the tank bottom to be punctured, and the tank to be filled with sand, gravel, concrete, or other approved material to the surface elevation. The residence would then be connected to the public sewer and the residence would become a customer of SASD & Regional San (see additional information in the sections below).

FORCE MAIN INSTALLATION

FORCE MAIN ALIGNMENT

The pipeline characteristics are highlighted in Table PD-1. The project proposes a new 3-inch low-pressure force main on the following roadways:

- River Road/2nd Street;
- 3rd Street;
- 4th Street;
- 5th Street;
- 6th Street;
- Corky Lane;
- Blair Street; and,
- Hood-Franklin Road.

A new 4-inch low-pressure force main will be installed on the following roadways:

- Hood-Franklin Road;
- Franklin Boulevard; and,
- Bilby Road to carry the sewage flow to the proposed tie-in manhole near the intersection of Bilby Road and Willard Parkway (APN 258-158-1001) in Elk Grove (Plate PD-5, Plate PD-6).

Due to the layout of the Delta Crossing Mobile Home Park and the location of the 10776 3rd Street parcel, a collector sewer within an easement would be necessary to connect these parcels to a new public sewer line (Plate PD-6).

Table PD-1: Pipeline Information

<i>Force Main</i>	
Pipe Diameter	3-inch & 4-inch
Pipe Material	High density polyethylene (HDPE)
Total Pipe Length	28,794 LF
Minimum Velocity	3 feet per second (fps)
<i>Lateral Pipe (private property connections)</i>	
Pipe Diameter	1-1/4-inch
Pipe Material	HDPE

CONSTRUCTION METHODS

The timeline for construction is estimated to last approximately 16 months. Most construction would take place within County ROW. County ROW for all of the streets is approximately 40 feet wide but the expected footprint of construction would be significantly less. Construction will occur during regular working hours and is expected to require temporary lane closures while in progress. Construction methods may include

open trench and/or directional drilling. Horizontal directional drilling (HDD) is the preferred method, but will be determined at final design. It will be left to the discretion of the contractor when and where to use either construction method.

OPEN CUT TRENCH

An open cut trench is the conventional method for installing shallow lengths of pipe. Typically, this type of construction involves utilizing an excavator, trenching machine, or manual digging to establish a trench in which the pipe will be laid. The trench base usually requires reinforcement such as sand or gravel and is checked for proper slope alignment. The pipe is then placed in the open trench and back fill material such as Class 2 aggregate base, or controlled density fill is used to cover the pipe.

HORIZONTAL DIRECTIONAL DRILLING

Horizontal directional drilling (HDD) is used for long lengths of pipe and consists of two general stages: pilot hole drilling and reaming and pull back. An entry pit is excavated prior to beginning drilling. The pilot hole is created with a non-rotating drill string with an asymmetrical leading edge. The asymmetry allows for steering bias and the non-rotating drill string allows the steering bias to be held in a specific position while drilling. The drill string can, however, be rolled when a change of direction is needed. As the pilot hole is drilled, periodic readings are taken of the leading edge by a probe. These measurements are used to calculate the coordinates of any point along the pilot hole relative to the surface. Once the pilot hole is finished, enlarging the hole through the reaming process is typically necessary. Reaming for smaller diameter piping can be accomplished during pipe installation and consists of attaching reamers to the end of the drill string and then pulling the components back through the pilot hole. Prefabricated pipe is attached behind the reaming assembly or drill string and pulled through the widened hole.

WATER CROSSINGS

The proposed project would require the crossing of two waterways: an unnamed channel at Hood-Franklin Road, and the Sacramento Drainage Canal, both waterways are located east of the Community of Hood and west of Interstate-5 (I-5). The unnamed channel crossing at Hood-Franklin Road would require a 500-foot, perpendicular, HDD effort; and the Sacramento Drainage Canal Crossing at Hood-Franklin Road would involve a 200-foot perpendicular crossing via bore-and-jack installation. The expected maximum depth of excavation is 10 feet.

CONSTRUCTION DETAILS

The following outlines the day-to-day construction details for the project:

1. Disturbed area - The daily construction area is expected to be 100 square feet (disturbed assumed to mean surface area of excavation, not including area construction equipment will drive over or material will be laid on).
2. Equipment Type and Number –Table PD-2 below outlines the expected heavy equipment that would be utilized by the project.

Table PD-2: Anticipated Project Equipment

Equipment	Number
Bore/Drill Rigs	1
Cement and Mortar Mixers	1
Concrete/Industrial Saws	1
Crawler Tractors	1
Excavators	1
Graders	1
Off-Highway Trucks	1
Other Construction Equipment	1
Pavers	1
Paving Equipment	1
Pressure Washers	1
Pumps	1 (if encounter groundwater). Also, grinder pumps at each property will be installed
Rollers	1
Rubber Tired Dozers	1
Rubber Tired Loaders	1
Signal Boards	1
Surfacing Equipment	1
Sweepers/Scrubbers	1
Tractors/Loaders/Backhoes	1
Trenchers	1
Welders	1

1. Material Hauling-

- a. Excavation hauling – Approximately 16 cubic yards of hauling is expected per access pit. It is assumed that only two access pits will be excavated at one time (32 cubic yards). This will occur approximately once per week and not daily. Soil will be excavated during the HDD process as well as drilling fluid/mud, approximated as three cubic yards per day.
- b. Asphalt hauling – Asphalt disturbance is estimated at one cubic yard per access pit. It is assumed that only two access pits will be excavated at one time (two cubic yards). This will occur approximately once per week and not daily.

- c. Transport location - Excess materials will most likely be taken offsite. It is possible that the soil export and drilling mud disposal will be taken to different locations, depending if soil will be appropriate to use as backfill. This will not be known until a Geotechnical investigation is completed in design. The nearest landfill is approximately 25 miles from the project site and this EIR conservatively estimates that all excavated material would be hauled offsite to the landfill.
- 2. Water Usage- Water tanks or water trucks may be used at access pit locations. The project will likely require water use as pipe is installed and as excavated access pits are backfilled. Water will be used for the HDD process as drilling fluid during pipeline installation. For construction activities including backfilling access pits, spraying excavated/stockpiled soil, and as drilling fluid during HDD for pipeline installation. The estimated quantity is 750 gallons per week.
- 3. Emergency Response Routes – No full road closures are expected. It is anticipated that Hood Franklin Road will only have one lane closed with the other lane open for flagged traffic. Traffic will be controlled in sections as construction would not occur on the entire extent of Hood Franklin Road, but rather in sections during forcemain installation.

CALTRANS AND UNION PACIFIC RAILROAD (UPRR) COORDINATION

The project would require a pipeline crossing under Interstate-5 and the UPRR railroad tracks in the Franklin community, prompting compliance with Caltrans and UPRR standards. It is anticipated that trenchless HDD will be required to install the pipeline under I-5 and avoid impact to highway operations. It is anticipated that trenchless bore and jack construction will be required to install the pipeline under UPRR and avoid impact to railroad operations. Caltrans and UPRR requirements will be coordinated during design and incorporated into the construction documents.

PRIVATE PROPERTY CONNECTIONS

Before authorizing the design-work on private properties, SASD would ask the property owners to sign a temporary access permit, which will allow SASD right-of-entry onto their property to develop the project design. Potential cost-share information to cover the financial requirements for utility installation will be presented to the property owners at the same time, if deemed necessary. After the design phase and before construction, SASD will ask the property owners to sign a binding sewer service agreement, which establishes the roles and responsibilities between SASD and the property owners, and to grant temporary construction access for the septic conversion on the private properties. Following construction and the start of sewer system operation, homeowners will be expected to pay monthly sewer fees.

The scope of work for connection of existing properties to the public sewer is limited to the septic tank abandonment and below-grade pipe installation and does not involve any work to homes or above-ground structures. Connection of residences to the public sewer

would likely be made utilizing the HDD method. The vertical disturbance for this work would be one to five feet in depth, and the diameter of the pipe connecting to the sewer would be one and one quarter inches in diameter. This work would occur from County ROW and would extend into the front yard and/or side yard of the residential properties/existing structures. None of the existing structures would be affected by construction.

Sizing of the individual grinder pumps and low-pressure force main will be determined during preliminary design. It was assumed that only one grinder pump system would be placed on each existing parcel, meaning that multiple structures on one parcel feed into one system, with the mobile home park as an exception. A large grinder pump system consisting of two pumps is assumed for use on the mixed-use residential, multi-family residential, and two large single-family residential parcels while a smaller grinder pump system is assumed for the remainder of the single-family residential parcels. Three larger grinder pump systems consisting of two increased capacity pumps each is assumed for the mobile home park. Commercial uses would be size according to the size of the parcel and existing use.

Plate PD-4: SASD Service Area

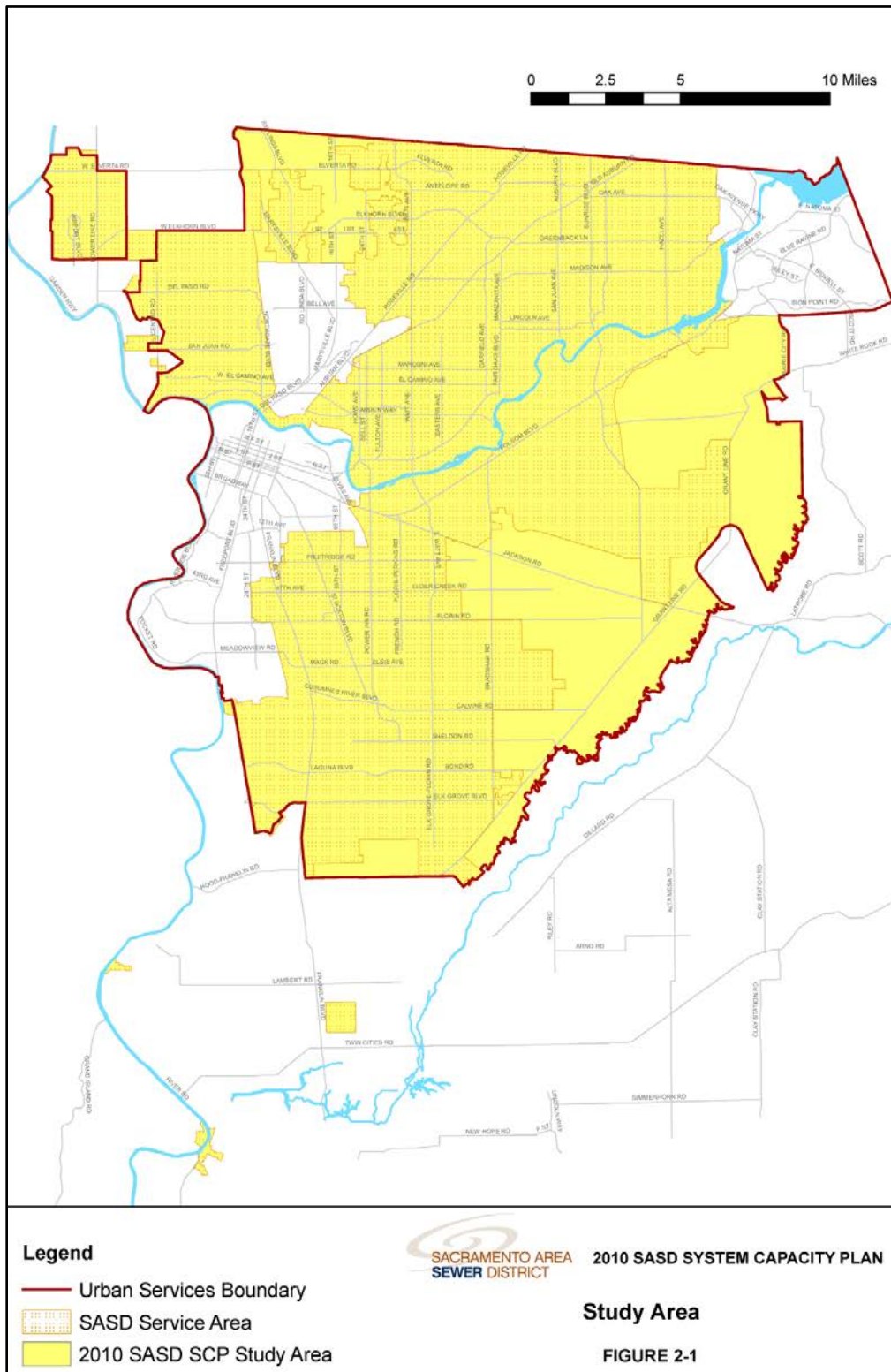
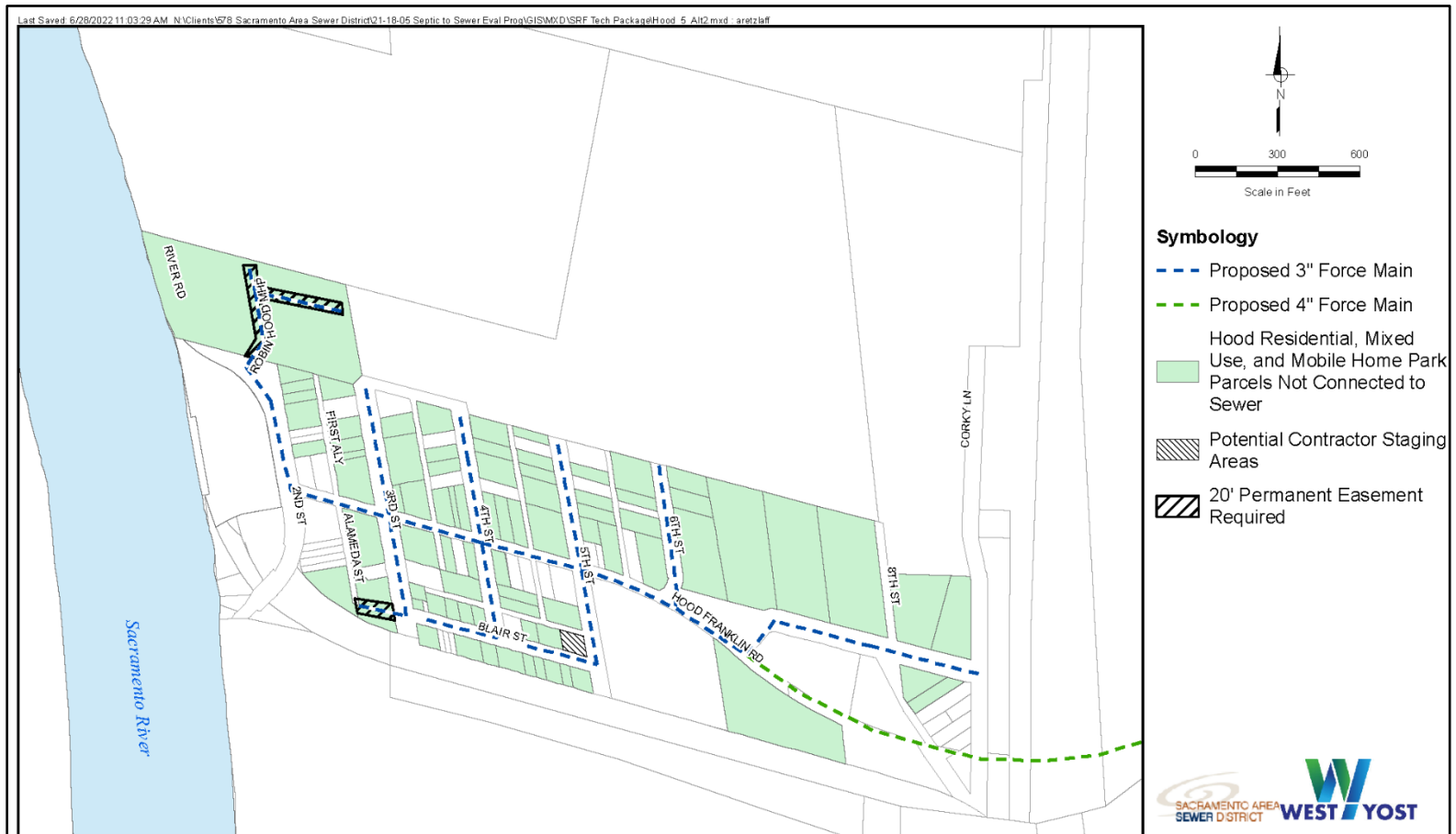


Plate PD-5: Overall Force main Alignment

Plate PD-6: Force main Locations within Hood Community



*Note: Parcels highlighted in white above have either a permitted septic system onsite or are currently vacant. Parcels highlighted in green do not have a record of permitted septic systems and are assumed to be serviced by unpermitted septic systems.

2.5 INTENDED USE OF THE EIR

The project consists of providing public sewer service to the community of Hood, in the unincorporated County, that currently relies on individual septic systems. To implement the project SASD must receive a LAFCo sphere of influence amendment and annexation to incorporate the Hood community into the SASD/Regional San service area. The Project would require a request to LAFCo to amend the service boundaries of SASD and Regional San to provide wastewater services to the Project, and would require LAFCo review, proceedings, and action. LAFCo has the sole authority to act to approve, modify and approve, or disapprove the proposal. The proposal is consistent with LAFCo goals (GC 56033.5) to provide adequate municipal sewer services to an identified disadvantaged unincorporated community, as defined by Section 79505.5 of the Water Code.

The SASD Board will use the information contained in the EIR to evaluate the Project and render a decision to approve or deny the requested entitlements. Responsible and other agencies may also use the EIR for their own discretionary approvals associated with the Project. Table PD-3, below, includes information required by Section 15124 of the CEQA Guidelines and summarizes the following intended uses of the EIR:

- A list of agencies that are expected to use the EIR in their decision making.
- A list of permits and other approvals required to implement the project.
- A list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies.

Table PD-3: Subsequent Permits, Approvals, Review, and Consultation Requirements

Agency	Approval
SASD	Final Environmental Impact Report Certification
SASD	Project Approval
Sacramento Local Area Formation Commission (LAFCo)	SASD and Regional San sphere of influence amendment and annexation
Caltrans	Encroachment permits in the vicinity of Interstate 5 and Highway 160
UPRR	Encroachment permit in the vicinity of the railroad crossing
Sacramento Metropolitan Air Quality Management District	Fugitive Dust Prevention and Control Plan
Regional Water Quality Control Board – Central Valley Region	NPDES Waste Discharge Permit Clean Water Act Section 401 Certification (if necessary)
Sacramento County EMD	Septic tank abandonment permits
Sacramento County DOT	Encroachment permit
City of Elk Grove	Encroachment permit
U.S. Army Corps of Engineer	Clean Water Act Section 404 permit (if necessary)
California Department of Fish and Wildlife	Section 1602 Streambed Alteration Agreement (if necessary)

03 AESTHETICS

3.1 INTRODUCTION

This chapter addresses the potential aesthetics impacts associated with the proposed Hood Septic to Sewer Conversion project (proposed project), which involves extension of Sacramento Area Sewer District (SASD) service to the community of Hood in the larger Delta community of the unincorporated County of Sacramento (County). The analysis in this chapter considers the potential impacts of the project related to new sources of light and glare that could affect daytime or nighttime views in the project area.

On behalf of SASD, the County released a Notice of Preparation for this Environmental Impact Report (EIR) on March 25, 2022. The Notice of Preparation and comments received are provided in Appendix PD-1. The Initial Study is provided in Appendix PD-2.

3.2 ENVIRONMENTAL SETTING

LIGHT AND GLARE

Nighttime lighting and glare can create issues for motorists when driving. In addition, nighttime lighting can create “skyglow,” which results in an artificially bright nighttime sky from man-made lighting, which obscures views of the stars. Hood is located in a rural, largely undeveloped area of Sacramento County. The project site within the Hood community consists of urban levels of residential and some commercial development. Outside of the Hood, the alignment for the forcemain is along a rural roadway that traverses an area largely surrounded by agricultural lands and the Stone Lakes National Wildlife Refuge. There are scattered agricultural residential uses before reaching the community of Franklin at the east end of the alignment. Franklin is developed to suburban and urban levels of residential and some commercial uses. The final connection point to the existing sewer system, at the east end of the alignment, is within the developed, urbanized area of City of Elk Grove.

Minor existing sources of nighttime light at the project site are related to lighting from existing development in Hood that is typical of suburban residential development. There is also nighttime light in the vicinity of I-5, from nighttime traffic and associated headlights. There are few other nighttime light sources along the alignment in the vicinity of Hood Franklin Road. At the east end of the alignment, nighttime light is apparent as a result of the urbanized development in the City of Elk Grove.

DESIGNATED SCENIC ROADWAYS

The Department of Transportation (Caltrans) manages the State Scenic Highway Program and assists local communities seeking to officially designate state scenic highways (Caltrans 2018). In addition, Sacramento County has designated certain roadway segments as scenic highways or scenic corridors as part of its General Plan (Sacramento County 2020). The west end of the project contains a portion of the State-designated highway SR 160 (River Road), and SR 160 is also designated as a County Scenic Highway.

3.3 REGULATORY SETTING

SACRAMENTO COUNTY GENERAL PLAN

The *Sacramento County General Plan of 2005–2030* (Sacramento County 2020) includes the following policies related to aesthetics that apply to the proposed project.

LAND USE ELEMENT

- **Policy LU-31:** Strive to achieve a natural nighttime environment and an uncompromised public view of the night sky by reducing light pollution.

3.4 IMPACTS AND ANALYSIS

SIGNIFICANCE CRITERIA

Based on Appendix G of the State CEQA Guidelines, the proposed project would have a significant impact related to 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. Except as provided in Public Resources Code Section 21099, 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 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 day or nighttime views in the area.

ISSUES NOT DISCUSSED FURTHER

The project would result in temporary construction activities in order to install subsurface public sewer utilities. Upon completion of construction, the project would not result in any change to the existing visual nature of the project site. Therefore, the project would result in impacts to scenic vistas or the designated SR-160 along River Road. The project would not degrade the visual character or conflict with zoning or other regulations governing scenic quality. For those reasons, these topical areas are not addressed further in this chapter.

IMPACT AE-1: NIGHTTIME LIGHTING

Nighttime lighting during the project's construction phase may be utilized in the event that nighttime construction is required for project implementation. Nighttime lighting associated with project construction would result in glare for motorists on adjacent roadways and could result in sleep disruption for nearby residents; furthermore, nighttime lighting could result in skyglow effects in an area that is typically much darker than urbanized areas at night. The addition of construction lighting to a naturally dark area of the County would be considered a potentially significant impact. Mitigation is recommended to reduce the effects of nighttime lighting, including shielding, recessed lighting and utilizing minimum foot-candles to reduce light impacts.

Therefore, the project's short-term, temporary construction-related nighttime light and glare impact is considered ***less than significant with mitigation***.

3.5 MITIGATION MEASURES

MITIGATION MEASURE AE-1: PREPARE A CONSTRUCTION LIGHTING PLAN.

The project applicant shall require its construction contractor to prepare a nighttime construction lighting plan that includes implementation of the following measures:

1. Where construction areas are 500 feet or closer to private residences, the construction contractor shall erect a temporary 6-foot-tall solid-screened fence at the edge of the construction area, between the work area and the residence. This shall also apply to work along roadways.
2. All nighttime construction lighting, regardless of location within the project site, shall be shielded and recessed within each fixture so as to direct light downwards and focused on the area to be illuminated.
3. All work zone illumination shall use the minimum foot-candles necessary to safely perform the required work.
4. Any lighting systems with flood, spot, or stadium-type luminaires shall be aimed downward at the work area and rotated outward no greater than 30 degrees from straight down.

Implementation of Mitigation Measure AE-1 would reduce the significant short-term temporary impacts associated with glare, skyglow, and potential sleep disruption during nighttime construction activities to a ***less than significant*** level because construction areas that are 500 feet or closer to residences and roadways would be screened, and lighting would be shielded and directed downward.

3.6 CUMULATIVE IMPACTS

The project has the potential for short-term, temporary impacts related to nighttime lighting. The project would not result in any above ground facilities that would impact the aesthetic value of the project area. Therefore, the project would not contribute to cumulative impacts related to aesthetics and impacts are ***less than significant***.

3.7 REFERENCES

Sacramento County. 2020. *Sacramento County General Plan of 2005–2030*. Adopted in 2011, amended in 2020. Available: <https://planning.saccounty.net/PlansandProjectsIn-Progress/Pages/GeneralPlan.aspx>. Accessed December 28, 2021.

04 LAND USE, PLANNING, AND GROWTH INDUCEMENT

4.1 INTRODUCTION

This chapter addresses the potential land use, planning and growth inducement impacts associated with the proposed Hood Septic to Sewer Conversion project (proposed project), which involves extension of Sacramento Area Sewer District (SASD) service to the community of Hood in the larger Delta community of the unincorporated County of Sacramento (County). The analysis in this chapter considers the potential impacts of the project related to the compatibility of the proposed project with adjacent land uses, consistency of the project with applicable policies, zoning requirements, and other relevant planning and policy documents, specifically in regards to policies and standards the County and SASD has adopted for the intent of reducing physical environmental effects.

On behalf of SASD, the County released a Notice of Preparation for this Environmental Impact Report (EIR) on March 25, 2022. The Notice of Preparation and comments received are provided in Appendix PD-1. The Initial Study is provided in Appendix PD-2.

4.2 ENVIRONMENTAL SETTING

LAND USE

Parcels within the Hood community are designated by the Sacramento County General Plan and Zoning Code for Low Density Residential, Commercial/Office, or Industrial uses (reference Plate LU-1, Plate LU-2, Plate LU-3). According to the Sacramento County General Plan:

Low Density Residential - This designation provides for area of predominately single family housing with some attached housing units. It allows urban densities between one and twelve dwelling units per acre, resulting in population densities ranging from approximately 2.5 to 30 persons per acre. Typical low density development includes detached single family homes, duplexes, triplexes, fourplexes, townhouses, lower density condominiums, cluster housing, and mobile home parks.

Commercial and Office – This designation provides for a full range of neighborhood, community and regional shopping centers and a variety of business and professional offices. Uses include locally-oriented retail, professional offices, and regional commercial operations. The location and size of commercial areas is based upon accessibility, historic development patterns, community and neighborhood needs, and minimization of land use conflicts. Ideally, commercial areas are designed to integrate with the community, including the provision for

pedestrian amenities. The standard for commercial Floor Area Ratios is between 0.25 to 2.5.

Intensive Industrial – This land use designation allows for manufacturing and related activities including research, processing, warehousing, and supporting commercial uses, the intensive nature of which require urban services. Industrial Intensive areas are located within the urban portion of the county and receive an urban level of public infrastructure and services. Floor Area Ratios range from 0.15 to 0.80.

Outside the Hood community, land uses are largely agricultural in nature, or under a conservation easement within the Stone Lake National Wildlife Refuge. The eastern end of the force main alignment transects the community of Franklin, before ultimately connecting to existing service within the City of Elk Grove.

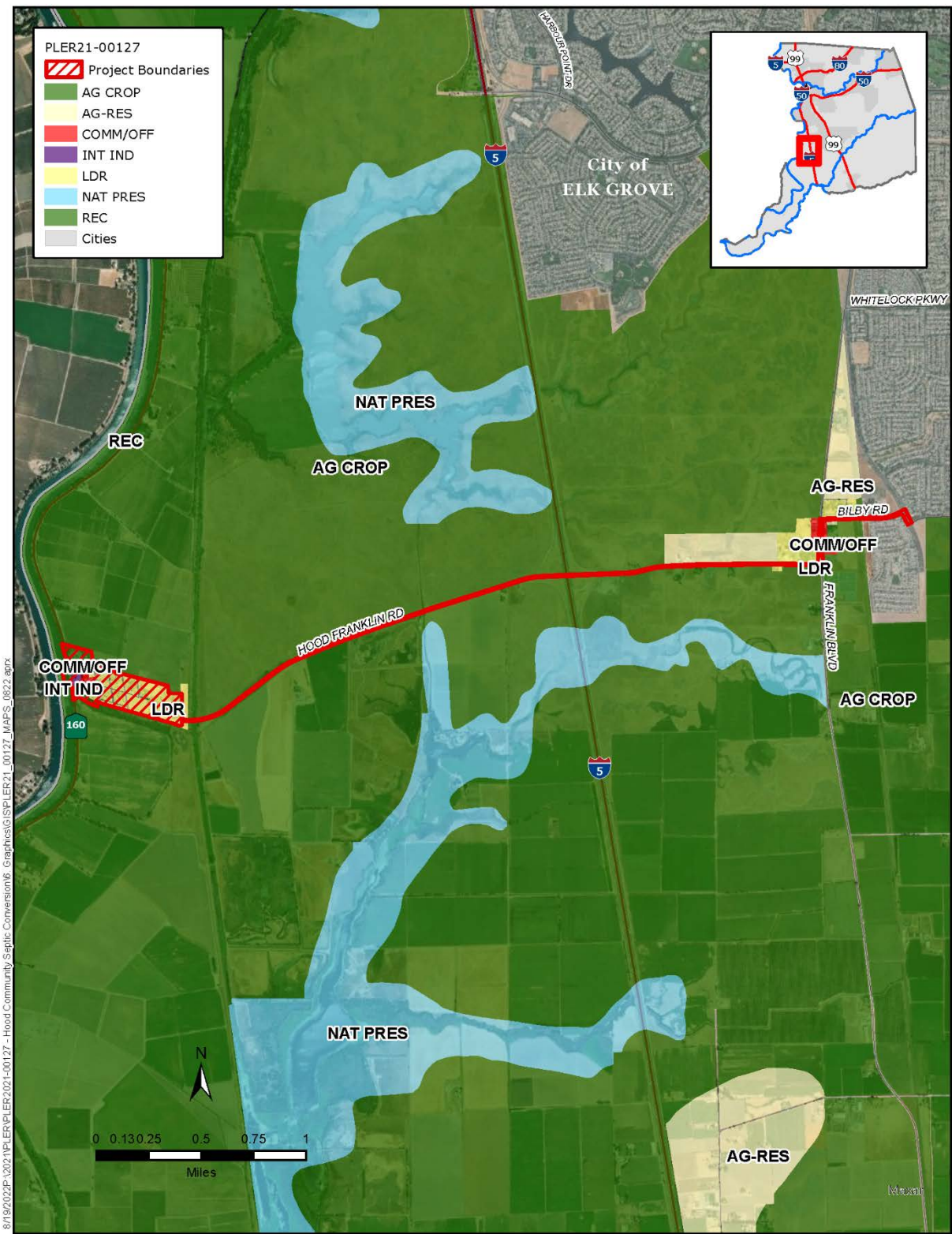
SACRAMENTO-SAN JOAQUIN DELTA

The project is located within the primary zone of the Sacramento-San Joaquin Delta (Delta) (Plate LU-4). The Primary Zone of the Delta includes approximately 500,000 acres of waterways, levees and farmed lands extending over portions of five counties: Solano, Yolo, Sacramento, San Joaquin and Contra Costa. The rich peat soil in the central Delta and the mineral soils in the higher elevations support a strong agricultural economy. The Delta lands currently have access to the 1,000 miles of rivers and sloughs lacing the region. These waterways provide habitat for many aquatic species and the uplands provide year-round and seasonal habitat for amphibians, reptiles, mammals, and birds, including several rare and endangered species. The area is extremely popular for many types of recreation including fishing, boating, hunting, wildlife viewing, water-skiing, swimming, hiking, and biking (Delta Protection Commission, 2010).

SANITATION DISTRICT SERVICE AREAS

The project is currently outside the service areas of SASD and Regional San. See the Public Services Chapter (Chapter 5) for additional information regarding these service areas.

Plate LU-1: General Plan Designations



04-4

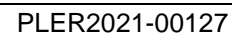


Plate LU-3: Zoning Inset

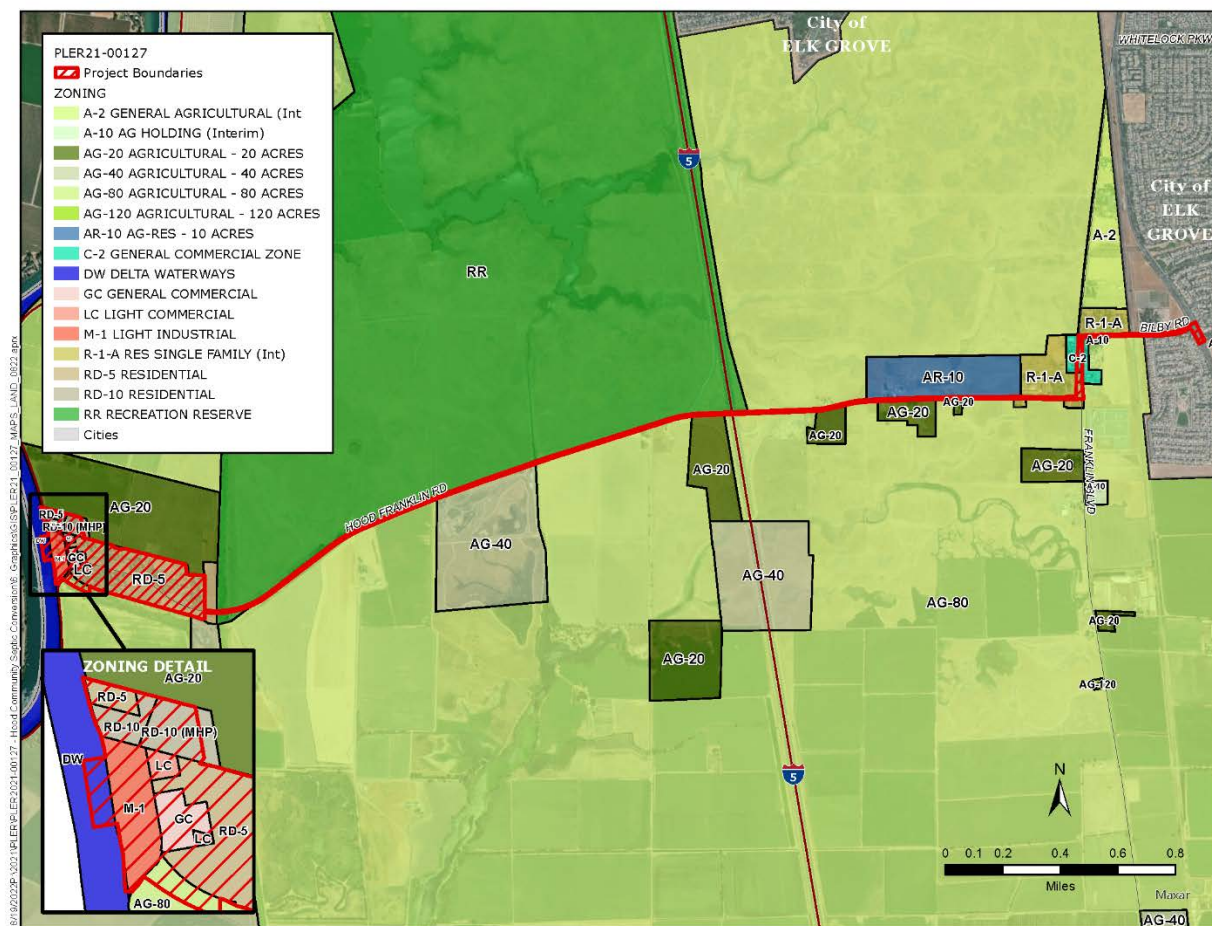
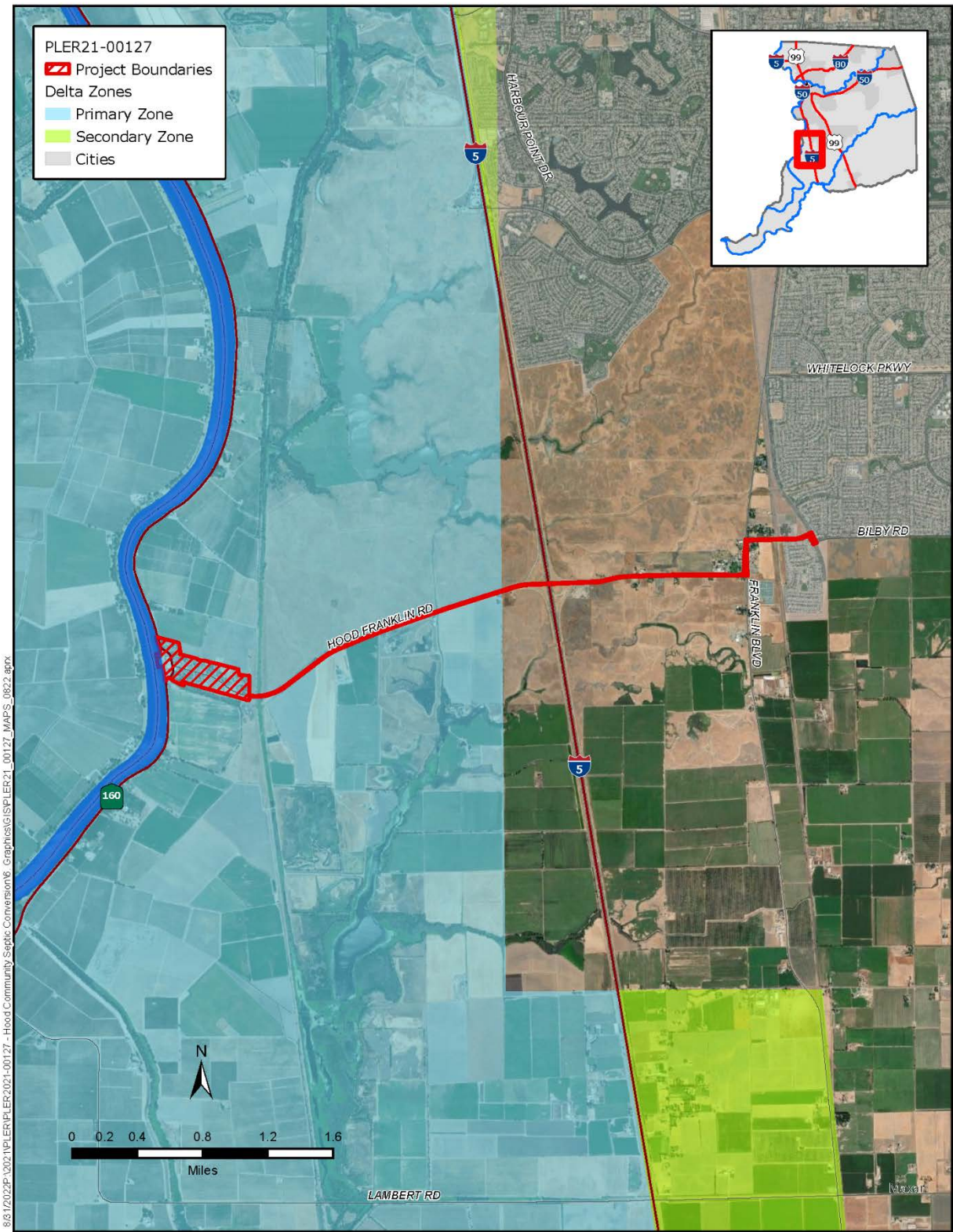


Plate LU-4: Primary and Secondary Delta Zones



4.3 REGULATORY SETTING

STATE

CORTESE-KNOX-HERTZBERG LOCAL GOVERNMENT REORGANIZATION ACT

The Cortese-Knox-Hertzberg Act establishes procedures for the establishment, updating, or amendment of a sphere of influence (SOI). Sacramento LAFCo is the agency responsible for approving the proposed sphere of influence amendment and service district annexation, and implementing the Cortese-Knox-Hertzberg Act. The LAFCo reviews and approves or disapproves changes in the organization of cities and special districts, including annexations, detachments, new formations, and incorporations. LAFCOs are legally required to create municipal service reviews (MSRs) and update SOIs for each independent local governmental jurisdiction within their countywide jurisdiction. Listed below are the applicable policies and guidelines adopted by the Sacramento LAFCo for approval of boundary adjustments.

SENATE BILL 244, DISADVANTAGED COMMUNITIES

SB 244 requires cities and counties to address the infrastructure needs of unincorporated disadvantaged communities in LAFCo municipal service reviews (MSRs) and annexation decisions. SB 244 defines an unincorporated disadvantaged community as a place that:

- contains 10 or more dwelling units in close proximity to one another;
- is either within a city SOI, is an island within a city boundary, or is geographically isolated and has existed for more than 50 years; and
- has a median household income that is 80% or less than the statewide median household income.

As of July 1, 2012, LAFCOs must consider the present and future need for public facilities and services by disadvantaged unincorporated communities for any city or district updating their SOI that provides public sewer, municipal and industrial water, or structural fire protection facilities or services. LAFCOs must also include considerations of disadvantaged unincorporated communities within a city or district SOI in statements of written determinations of MSRs.

DELTA PROTECTION ACT OF 1992

The Delta Protection Act of 1992 established the Delta Protection Commission, a State entity to plan for and guide the conservation and enhancement of the natural resources of the Delta, while sustaining agriculture and meeting increased recreational demand. The Act defines a Primary Zone, which comprises the principal jurisdiction of the Delta Protection Commission. The Secondary Zone is the area outside the Primary Zone and within the “Legal Delta”; the Secondary Zone is not within the planning area of the Delta Protection Commission. The Act requires the Commission to prepare and adopt a Land Use and Resource Management Plan for the Primary Zone of the Delta, which must meet specific goals.

Public Resources Code section 29760 mandates the Commission to prepare and adopt a long-term resource management plan for land uses within the primary zone of the Delta. The Land Use and Resource Management Plan guides local land use decisions on projects in the areas of, agriculture, flood protection, Delta communities, natural resources, recreation, and utilities and infrastructure. General plans and projects in the five Delta counties must be consistent with the Land Use and Resource Management Plan and are subject to review by the Commission.

SACRAMENTO-SAN JOAQUIN DELTA REFORM ACT OF 2009 (DELTA REFORM ACT)

The Sacramento-San Joaquin Delta Reform Act of 2009 (Delta Reform Act) established the Delta Stewardship Council to create a comprehensive, long-term, legally enforceable plan to guide how multiple federal, state, and local agencies manage the Delta's water and environmental resources. The 2009 legislation directed the Council to oversee implementation of the plan through coordination and oversight of state and local agencies proposing to fund, carry out, and approve Delta-related activities. It also granted the Council regulatory and appellate authority over certain actions that take place in whole or in part in the Delta and Suisun Marsh, referred to as covered actions.

The Delta Plan includes 14 regulatory policies and 95 recommendations. Collectively, these policies and recommendations address current and predicted challenges related to the Delta's ecology, flood management, land use, water quality, and water supply reliability. The Delta Plan's policies and recommendations are based on best available science and depend on cooperation and coordination among federal, state, and local agencies.

LOCAL

SACRAMENTO COUNTY 2030 GENERAL PLAN

The 2030 General Plan provides an inventory of land supply within the County, and projects the amount and location of land and development that will be required to accommodate future populations and economic growth through 2030 (Sacramento County 2011).

GROWTH MANAGEMENT POLICIES: URBAN POLICY AREA AND URBAN SERVICE BOUNDARY

The General Plan designates an Urban Policy Area (UPA) and an Urban Services Boundary (USB) for growth management purposes. The Urban Service Boundary (USB) indicates the ultimate boundary of the urban area in the unincorporated County, and also serves as the ultimate boundary for urban service provision. This boundary, which is based upon natural and environmental constraints to urban growth, is intended to be a permanent boundary not subject to modification except under extraordinary circumstances. The USB should be used by urban infrastructure providers for developing very long-range master plans, which can be implemented over time as the urbanized area expands.

The Urban Policy Area (UPA) defines the area expected to receive urban levels of public infrastructure and services within the 20-year planning period of the General Plan.

Defining the Urban Policy Area is of key importance in the provision of urban services and infrastructure to the unincorporated County, as it provides the geographic basis for infrastructure master plans, particularly for public water and sewerage, which require large capital investment and relatively long lead time for the installation of capital improvements.

POLICIES THAT AVOID OR MITIGATE ENVIRONMENTAL EFFECTS

The following land use policies from the 2030 General Plan are intended to avoid or mitigate an environmental effect and would apply to the Project:

- LU-72. Expansion of urban uses in the Delta shall be limited to the established Delta communities of Freeport, Hood, Courtland, Locke, and Walnut Grove and to specific small expansions that support the agriculturally and recreationally based economies of the Delta.
- LU-73. Sewer and water treatment and delivery systems shall not provide for greater capacity than that authorized by the General Plan.
- DP-48. Preserve and protect the water quality of the Delta both for designated beneficial uses.
- DP-59. Impacts associated with construction of transmission lines and utilities can be mitigated by locating new construction in existing utility or transportation corridors, or along property lines, and by minimizing construction impacts. Before new transmission lines are constructed, the utility should determine if an existing line has available capacity. To minimize impacts on agricultural practices, utility lines shall follow edges of fields. Pipelines in utility corridors or existing rights-of-way shall be buried to avoid adverse impacts to terrestrial wildlife. Pipelines crossing agricultural areas shall be buried deep enough to avoid conflicts with normal agricultural or construction activities. Utilities shall be designed and constructed to minimize any detrimental effect on levee integrity or maintenance, agricultural uses and wildlife within the Delta. Utilities shall consult with communities early in the planning process for the purpose of creating an appropriate buffer from residences, schools, churches, public facilities and inhabited marinas.
- HM-8. Continue the effort to prevent ground water and soil contamination.
- LU-1. The County shall not provide urban services beyond the Urban Policy Area, except when the County determines the need for health and safety purposes and the extension provisions as provided in Policy LU-1.1.
- PF-13. Public sewer systems shall not extend service into agricultural-residential areas outside the urban policy area unless the Environmental Management Department determines that there exists significant environmental or health risks created by private disposal systems serving existing development and no feasible alternatives exist to public sewer service.

SACRAMENTO AREA COUNCIL OF GOVERNMENTS' BLUEPRINT

The Sacramento Area Council of Governments (SACOG) is an association of local governments in the six-county Sacramento Region that includes Sacramento County. SACOG provides transportation planning and funding for the region, prepares the region's long-range transportation plan, approves the distribution of affordable housing in the region, and assists in planning for transit, bicycle networks, and airport land uses.

SACOG's Blueprint is intended to be advisory and to guide the region's transportation planning and funding decisions. The Blueprint is based on the seven principles listed below, with an ultimate horizon of the year 2050.

1. Provide a variety of transportation choices, including walkable paths
2. Mixed land uses
3. Take advantage of compact building and community design
4. Create a range of housing opportunities and choices
5. Strengthen and direct development toward existing communities
6. Foster distinctive, attractive communities with a strong sense of place
7. Preserve open space, farmland, natural beauty, and critical environmental areas

When it was adopted by the SACOG Board in 2004, the regional Blueprint was projected to meet growth needs through 2050. Under today's slower regional growth rate projections, there is likely capacity in the Blueprint beyond 2050 (SACOG 2016).

4.4 SIGNIFICANCE CRITERIA AND METHODOLOGY

SIGNIFICANCE CRITERIA

LAND USE AND PLANNING

Based on the CEQA Guidelines, a land use and planning impact is significant if Project implementation results in any of the following:

1. Physically divide an established community; or
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.

POPULATION AND HOUSING

Based on the CEQA Guidelines, a population and housing impact is significant if Project implementation results in any of the following:

1. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, though extension of roads or other infrastructure); or

2. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing.

ISSUES NOT DISCUSSED FURTHER

The project does not introduce any new development. The infrastructure project is intended to serve the existing community. Therefore, the project would not physically divide an established community.

The project is designed to serve the existing community, and would not result in the loss of any housing. Therefore, the project would not result in the displacement of substantial numbers of existing housing or people, necessitating the construction of replacement housing elsewhere.

METHODOLOGY

An evaluation of the potential land use impacts associated with implementation of the Project was based on a review of planning documents, including the various components and policies of the Sacramento County General Plan, other County regulations affecting planning and implementation of the General Plan, and consultation with appropriate agencies.

4.5 IMPACTS AND ANALYSIS

IMPACT LU-1: CAUSE A SIGNIFICANT ENVIRONMENTAL IMPACT DUE TO A CONFLICT WITH ANY LAND USE PLAN, POLICY, OR REGULATION OF AN AGENCY ADOPTED FOR THE PURPOSE OF AVOIDING OR MITIGATING AN ENVIRONMENTAL EFFECT

GENERAL PLAN CONSISTENCY

The community of Hood is located outside of the USB and UPA, and is therefore generally inconsistent with the growth management strategies dictated by the USB and UPA due to its geographical location. In recognition of the extraordinary circumstances faced by this community in relation to the potential for failing septic systems and resultant groundwater contamination, public sewer is proposed out of necessity to ensure public health. General Plan policies adopted for the purposes of mitigating an environmental effect are generally covered in the specific topical chapters throughout this document. The table below (Table LU-1) addresses additional, relevant General Plan policies that have not been addressed elsewhere. These policies are generally related to the County's growth management strategies and provision of urban services.

Table LU-1: General Plan Consistency Analysis

Policy	Consistency Analysis
<p>LU-72. Expansion of urban uses in the Delta shall be limited to the established Delta communities of Freeport, Hood, Courtland, Locke, and Walnut Grove and to specific small expansions that support the agriculturally and recreationally based economies of the Delta.</p>	<p>Consistent. Implementation of the project would provide sewer service to the community of Hood at the existing, zoned densities.</p>
<p>LU-73. Sewer and water treatment and delivery systems shall not provide for greater capacity than that authorized by the General Plan.</p>	<p>Consistent. The project is designed to serve the existing, zoned densities of the community of Hood. Latent capacity may exist in the infrastructure due to standard sizing (see the section on Growth Inducement below).</p>
<p>DP-48. Preserve and protect the water quality of the Delta both for designated beneficial uses.</p>	<p>Consistent. In addition to potential problems associated with siting a new well or septic system in the instance of failure, existing properties could be subjected to health issues due to possible cross-contamination associated with nitrates. Nitrates come from nitrogen which is generated by human wastes, animal wastes and excessive fertilization of farm crops or landscaping among many other varied sources. The nitrogen is converted to nitrates in the soil. Nitrates in groundwater can cause a number of health problems.</p>
<p>DP-59. Impacts associated with construction of transmission lines and utilities can be mitigated by locating new construction in existing utility or transportation corridors, or along property lines, and by minimizing construction impacts. Before new transmission lines are constructed, the utility should determine if an existing line has available capacity. To minimize impacts on agricultural practices, utility lines shall follow edges of fields. Pipelines in utility corridors or existing rights-of-way shall be buried to avoid adverse impacts to terrestrial wildlife. Pipelines crossing agricultural areas shall be buried deep enough to avoid conflicts with normal agricultural or construction activities. Utilities shall be designed and constructed to minimize any detrimental effect on levee integrity or maintenance, agricultural uses and wildlife within the Delta. Utilities shall consult with communities early in the planning process for the purpose of creating an appropriate buffer from</p>	<p>Consistent. The force main and associated infrastructure would be located within existing road right of way and would not result in impacts associated with environmental resources, agricultural, or surrounding public uses.</p>

residences, schools, churches, public facilities and inhabited marinas.	
HM-8. Continue the effort to prevent ground water and soil contamination.	Consistent. In addition to potential problems associated with siting a new well or septic system in the instance of failure, existing properties could be subjected to health issues due to possible cross-contamination associated with nitrates. Nitrates come from nitrogen which is generated by human wastes, animal wastes and excessive fertilization of farm crops or landscaping among many other varied sources. The nitrogen is converted to nitrates in the soil. Nitrates in groundwater can cause a number of health problems.
LU-1. The County shall not provide urban services beyond the Urban Policy Area, except when the County determines the need for health and safety purposes and the extension provisions as provided in Policy LU-1.1.	Consistent. As outlined above, in the event of a failure of a septic system in a semi-urban or suburban landscape, siting of a new septic system could be problematic or impossible. Given the mechanics of a septic system, there can be numerous problems associated with usage that can lead to contamination of surrounding soil and water.
PF-13. Public sewer systems shall not extend service into agricultural-residential areas outside the urban policy area unless the Environmental Management Department determines that there exists significant environmental or health risks created by private disposal systems serving existing development and no feasible alternatives exist to public sewer service.	Consistent. Public health and safety issues could arise in these areas due to the fact that the community built out in a semi-suburban fashion, with densities approaching or reaching those that are found within the USB. Therefore, suburban-style/sized parcels could potentially lack sufficient area to accommodate replacement systems if the existing septic or well systems fail or malfunction. The project is not intended to service agricultural-residential areas. The alignment would pass some agricultural-residential parcels, but is only intended to serve the community of Hood.

LAND USE RESOURCE MANAGEMENT PLAN FOR THE PRIMARY ZONE OF THE DELTA

Pursuant the Delta Protection Act of 1992, California Public Resources Code 29700-29780, a primary function of the Delta Protection Commission (DPC) is to maintain and implement a resource management plan for the Primary Zone of the Delta. The Land Use and Resource Management Plan (LURMP) guides projects that impact land use, agriculture, natural resources, water, levees, and utilities and infrastructure. The goals of the Plan, as set out in the Act, are to "protect, maintain, and where possible, enhance and restore the overall quality of the Delta environment, including but not limited to agriculture, wildlife habitat, and recreational activities; assure orderly, balanced conservation and development of Delta land resources and improve flood protection by structural and nonstructural means to ensure an increased level of public health and safety."

Cities and Counties within the Delta are required to incorporate the LURMP into local General Plans. Sacramento County has incorporated the policies of the LURMP into the General Plan through the Delta Protection Element. Specific policies in the LURMP are addressed for consistency in the General Plan section above.

The following NOP comments were received from the Delta Protection Commission:

The Commission supports projects that expand water, wastewater, and other utility services to rural areas of the Delta. The LURMP encourages “the provision of infrastructure for new water, recreational, and scientific research facilities” (Utilities & Infrastructure, Policy 7). In addition, Action 2a in the Hood Community Action Plan (September 2018) seeks to “collaborate with Sacramento County on potential solutions for water and wastewater infrastructure and flood protection needs.” We believe the Project will help meet these needs and we support the County’s work to improve infrastructure in the community of Hood.

As demonstrated in the consistency analysis above, impacts related to the project and implementation of the LURMP are ***less than significant***.

DELTA PLAN

The Delta Stewardship Council (Council) implements the Delta Plan, a management plan developed to achieve the coequal goals of the Delta, most recently updated in 2019. The 2009 legislation included statutory authority of Council over ‘Covered Actions’ – plans, programs and/or projects that must be consistent with the Delta Plan. The analysis below is based on a review of the Delta Plan checklist for determination if a project is a covered action.

The project has been determined to not be a Covered Action under the Delta Plan. The project does not meet the criteria for being exempt from the Delta Plan. The project does meeting all four screening criteria that dictates a project could be a Covered Action under the Delta Plan, but to be considered a Cover Action, the project must also be subject to a policy contained in chapters 3, 4, 5 or 7 of the Delta Plan. As demonstrated in Table LU-2 below, the project is not covered by any of the Delta Plan regulatory policies, and is therefore exempt from further the Council’s regulatory authority.

Table LU-2: Delta Plan Policy Consistency

Delta Plan Policy	Consistency Determination
Delta Plan Chapter 3 – A More Reliable Water Supply for California	
WR P1 / 23 CCR SECTION 5003 - Reduce Reliance on the Delta through Improved Regional Water Self-Reliance – Water shall not be export from, transferred through, or used in the Delta if certain criteria apply.	Not applicable. The project does not involve the exportation of water from the Delta.
WR P2 / 23 CCR SECTION 5004 - Transparency in Water Contracting - The contracting process for water from the State Water Project and/or the Central Valley Project must be done in a publicly transparent manner consistent with applicable policies of the California Department of Water Resources and the Bureau of Reclamation referenced in the Plan.	Not applicable. The project does not involve water contracts.
Delta Plan Chapter 4 – Protect, Restore and Enhance the Delta Ecosystem	
ER P1 / 23 CCR SECTION 5005 - Delta Flow Objectives - For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, the policy set forth in subsection (a) covers a proposed action that could significantly affect flow in the Delta.	Not applicable. The project would not affect the flow of water in the Delta.
ER P2 / 23 CCR SECTION 5006 - Restore Habitats at Appropriate Elevations - For purposes of Water Code Section 85057.5(a)(3) and Section 5001(j)(1)(E) of this Chapter, this policy applies to a covered action that includes protection, restoration, or enhancement of the ecosystem	Not applicable. The project does not include protection, restoration or enhancement of the ecosystem.
ER P3 / 23 CCR SECTION 5007 - Protect Opportunities to Restore Habitat - For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers proposed actions in the priority habitat restoration areas depicted in Appendix 5. It does not cover proposed actions outside those areas.	Not applicable. The project is not within a priority restoration area.
ER P4 / 23 CCR SECTION 5008 - Expand Floodplains and Riparian Habitats in Levee Projects - Certifications of consistency for levee projects must evaluate, and where feasible incorporate into the levee project, alternatives that would increase floodplains and riparian habitats.	Not applicable. The project is not a levee project.
ER P5 / 23 CCR SECTION 5009 - Avoid Introductions of and Habitat for Invasive Nonnative Species - For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers a proposed action that has the reasonable probability of introducing or improving habitat conditions for nonnative invasive species	Not applicable. The project would not introduce or improve habitat for nonnative, invasive species.
Delta Plan Chapter 5 – Protect and Enhance Unique Values of the Delta	
DP P1 / 23 CCR SECTION 5010 - Locate New Urban Development Wisely - For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers proposed actions that involve new residential, commercial, and industrial development that is not located within the areas described in subsection (a). In addition, this policy covers any such action on	Not applicable. The project does not involve new residential, commercial or industrial development.

Bethel Island that is inconsistent with the Contra Costa County general plan effective as of May 16, 2013.	
DP P2 / 23 CCR SECTION 5011 - Respect Local Land Use When Siting Water or Flood Facilities or Restoring Habitats - For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers proposed actions that involve the siting of water management facilities, ecosystem restoration, and flood management infrastructure	Not applicable. The project does not involve water management facilities, ecosystem restoration or flood management infrastructure as defined by the plan.
Delta Plan Chapter 7 – Reduce Risk to People, Property and State Interests in the Delta	
RR P1 - Prioritization of State Investments in Delta Levees and Risk Reduction - For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers a proposed action that involves discretionary State investments in Delta flood risk management, including levee operations, maintenance, and improvements. Nothing in this policy establishes or otherwise changes existing levee standards.	Not applicable. The project does not involve State investments in Delta flood risk management.
RR P2 - Require Flood Protection for Residential Development in Rural Areas - or purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers a proposed action that involves new residential development of five or more parcels that is not located within the areas described in subsection (a)..	Not applicable. The project does not involve new residential development
RR P3 - Protect Floodways - For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers a proposed action that would encroach in a floodway that is not either a designated floodway or regulated stream	Not applicable. The project would not encroach in a floodway.
RR P4 - Floodplain Protection - For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers a proposed action that would encroach in any of the floodplain areas described in subsection (a).	Not applicable. The project would not result in floodplain encroachment.
Note- policies above are summarized from the Delta Plan. For full policy language, reference the Delta Plan at: https://deltacouncil.ca.gov/delta-plan/	

Chapter 6 of the Delta Plan is not included in the determination of whether or not a project would be considered a Covered Action, but outlines management actions to provide for safe drinking water in the Delta. Highlighted a specific area of concern is the provision of safe drinking water to small and disadvantaged communities such as Hood. As described in the project description background and other areas of this chapter, no implementation of the project leads to increased risk of contamination of groundwater and unsafe drinking water. Through implementation of the project, potential contaminants are directed to the central treatment facility at the SRWTP, this aiding in the goals of a cleaner and more reliable source of drinking water in the Delta. Therefore, the project is consistent with the Delta Plan and impacts are ***less than significant***.

CONSISTENCY WITH LAFCO PROVISIONS

California Government Code Section 56668 sets forth criteria for evaluation of annexation projects. This statute establishes factors that LAFCo agencies must use in reviewing annexation proposals. Any provision of sewer service to the community of Hood would

require an amendment to the SASD and Regional San SOI, and then annexation into the respective district. This EIR includes a discussion of relevant LAFCo policies, standards, and procedures throughout each of the topic-specific sections.

While not a requirement under CEQA, Cities and counties are required to address environmental justice concerns of designated disadvantaged communities in the general plan. Disadvantaged communities are those identified as low income and that are disproportionately affected by environmental pollution, stressors, and social vulnerabilities that can lead to negative health effects, exposure, or environmental degradation. The Hood community is categorized as a severely disadvantaged community (SDAC) based on an income survey that resulted in a community annual median household income (MHI) of \$33,000, which is less than 60 percent of the statewide annual MHI. Review of policy consistency for environmental justice are subject to LAFCo's review and determinations.

California Government Code Section 56668 sets forth criteria for evaluation of annexation projects. This statute establishes factors that LAFCo agencies must use in reviewing annexation proposals. LAFCo policies and general standards that are relevant to the project are outlined in Table LU-3. Sacramento LAFCo would act as a responsible agency under CEQA, and utilize this EIR in the processing and consideration of approval of the SOI and annexation amendments into the service districts for SASD and Regional San. The project would be consistent with LAFCo policies. Thus, ***a less than significant impact*** would occur.

Table LU-3: LAFCo Consistency Table

LAFCo Policy and General Standards Number	Text	Consistency Determination
1	The LAFCo will encourage participation in its decision-making process. LAFCo will contact community members through community councils, give published notice, and, where LAFCo determines appropriate, give mailed notice to the owners of property within 500 feet of a project site.	Consistent: The proposed Project is consistent with this policy, as the Draft EIR will be circulated for public review to interested public and private agencies pursuant to CEQA.
5	The CEQA requires that LAFCo assess the environmental consequences of its actions and decisions, and take actions to avoid or minimize a project's adverse environmental impacts, if feasible, or approve a project despite significant effects because it finds overriding considerations exist. To comply with CEQA, the LAFCo will take one or more of the following actions:	Consistent: This EIR is prepared pursuant to CEQA to analyze environmental impacts associated with the proposed Project. Implementation of the project would require annexation into the SASD and Regional San service districts, and would be subject to LAFCo policies for annexation.
A-1	LAFCo will approve an application for a change of organization or reorganization only if the proposal is consistent with an approved Sphere of Influence plan for the affected agency or agencies. Spheres of Influence will not generally be amended concurrently with an action of an application. Spheres of Influence amendments will ordinarily take longer to process than applications for a change of organization or reorganization. Agencies are encouraged to keep their Spheres of Influence plans up to date so that individual applications for changes of organization or reorganization are not burdened with Spheres of Influence amendment requirements. Amendments to Spheres of Influence occasioned by individual applications for changes organization or reorganization which would render the Spheres of Influence internally inconsistent or inconsistent with the other policies or standards herein will not be approved.	Consistent: The proposed Project will be consistent with this policy. The SASD will work with LAFCo to conduct a Municipal Services Review (MSR) to amend the sphere of influence.
A-2	Spheres of Influence are the primary planning tool for LAFCo. The LAFCo has developed standards related to the Master Service Element of any agency's Spheres of Influence. Agencies must have an updated Master Services Element which meets the following standards: <ul style="list-style-type: none"> • Is consistent with the Master Services Element of the Spheres of Influence of any overlapping jurisdiction; • Demonstrates that adequate services will be provided within the time frame needed by the inhabitants of the area included within the proposed boundary; 	Consistent: The proposed Project will be consistent with this policy. The Municipal Services Review (MSR) will comply with this policy.

	<ul style="list-style-type: none"> • Identifies existing land use and a reasonable projection of land uses which would occur if services were provided consistent with the updated Element; • Presents a map that clearly indicates the location of existing and proposed facilities, including plan for timing and location of facilities; • Describes the nature of each service to be provided; • Describes the service level capacity of the service provider's facilities; • Identifies the anticipated service level to be provided; 	
B-1	LAFCo will approve changes of organization or reorganization only if the proposal is consistent with the General Plan and applicable Specific Plans of the applicable planning jurisdiction.	Consistent. The project is consistent with the General Plan, as outlined in this chapter.

IMPACT LU-2: 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)

Projects that are considered growth-inducing under CEQA include projects that remove obstacles to population growth and projects that encourage and facilitate other activities beyond those proposed as part of the project and that could affect the environment (CEQA Guidelines Section 15126.2[d]). Potential inducements to population growth include the availability of sewage treatment facilities, the availability of developable land, and local government growth policies contained in general plans and zoning ordinances.

Growth inducement may not be considered necessarily detrimental, beneficial, or of significance under CEQA. Induced growth is considered a significant impact only if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth, in some other way, significantly affects the environment (for example, requiring the construction of facilities that would adversely affect the environment).

The project is intended to only serve the community of Hood, and not create growth inducement. For the reasons outlined below, the land surrounding the force main alignment is not expected to undergo significant additional development at this time:

- Policy Limitations: The entirety of the project is outside of the County's USB and UPA, and therefore subject to the growth management policies of the General Plan. Due to health and safety reasons, the Hood community has been identified as a candidate to receive sewer service, but this would not pertain to land elsewhere along the alignment of the force main. Additionally, in order to establish a connection to the new force main, a property must lie within the service areas of Regional San and the SASD. The community of Hood would be annexed into these districts prior to receiving service, but properties between Hood and connection in Elk Grove would not be within the service area. In order to establish additional sewer connections, additional properties would be required to undergo an additional LAFCo review process, prompting additional review under CEQA and any additional State and Federal agency oversight or permitting.
- Surrounding land uses: The land uses that surround the alignment of the proposed force main are not conducive to urbanized development. Hood is bounded to the west by the Sacramento River and Yolo County. The Stone Lakes Preserve, protected in perpetuity under a conservation easement, abuts Hood Franklin Road on the north and the south for most of the extent of Hood Franklin Road, between the communities of Hood and Franklin. The community of Franklin does not currently have sewer service, but provision of sewer service to this community has been analyzed for CEQA purposes, and policies are in place to allow the provision of urban services to Franklin.

- Service capacity: The planned new infrastructure in the Hood community would connect to the existing SASD manhole number 258-158-1001 on Bilby Road in the City of Elk Grove. Modeling efforts have shown that there is existing capacity to accommodate the Hood community, but there is not excess capacity to serve substantial unplanned growth (see the Public Utilities chapter for additional information regarding system capacity).
- Environmental Constraints: The alignment of the force main lies almost entirely within the FEMA designated 100-year floodplain. In addition to other policies and provisions, the designation as a floodplain and mandated compliance with the County's Floodplain Management Ordinance make development within this area challenging.

The proposed project site is located outside the USB and UPA; thus there is the potential for growth inducing impacts. The proposed project would be constructed such that sewer services will be afforded only to existing development and buildout of parcels at existing zoning densities. However, given that there is a potential for latent capacity to be present additional properties could be served sewer service at some point in the future. There are vacant, undeveloped properties that could develop beyond the current RD-5 zoning. The project does not promote this, and this action would require additional County entitlements, subject to hearing body approval and additional environmental and CEQA review. The consideration is that the project would remove a barrier to growth (by providing public sewer), that would make developing at a higher density technically feasible, where in the base line condition it is not. Similarly, the provision of public sewer could make it feasible to develop accessory dwelling units (ADUs) on parcels that could previously not develop due to development restrictions associated with siting septic tanks.

CEQA requires that the lead agency analyze all foreseeable impacts of a proposed project, and it is reasonably foreseeable that the project would remove a barrier to allow for future development by installing sewer lines in areas outside the USB and adjacent to large tracts of undeveloped lands. Given that the project would reduce barriers to future growth due to the extension of infrastructure, the growth inducing impact is considered ***significant and unavoidable***.

4.6 MITIGATION MEASURES

None recommended.

4.7 CUMULATIVE IMPACTS

The project would be consistent with all applicable land use plans and policies and would not result in cumulative impacts as it relates to land use consistency. Growth inducement is considered a significant impact only if it directly or indirectly affects the ability of agencies to provide needed public services or if it can be demonstrated that the potential growth, in some other way, significantly affects the environment. As described above, the placement of new infrastructure through an undeveloped area would remove barriers

to future growth in areas that are not currently planned for development. Future, unplanned growth in this area would result in subsequent adverse impacts to natural resources. This is considered a significant and unavoidable impact for the project and would also be considered cumulatively ***significant and unavoidable***.

4.8 REFERENCES

Delta Protection Commission. Use and Resource Management Plan for the Primary Zone of the Delta Adopted February 25, 2010. Available at: <http://delta.ca.gov/wp-content/uploads/2019/12/Land-Use-and-Resource-Management-Plan-2.25.10-m508.pdf#:~:text=The%20Primary%20Zone%20of%20the%20Sacramento-San%20Joaquin%20Delta,Solano%2C%20Yolo%2C%20Sacramento%2C%20San%20Joaquin%20and%20Contra%20Costa.>

Sacramento LAFCO. Sacramento LAFCo Policy, Standards and Procedures Manual. Accessed August 2022. Available at: <https://sacrafc.co.saccounty.gov/PolicyStandardsandProceduresManual/Pages/TOC.aspx>

05 PUBLIC UTILITIES & SERVICES

5.1 INTRODUCTION

This chapter addresses the potential impacts to public utilities and services associated with the proposed Hood Septic to Sewer Conversion project (proposed project), which involves extension of Sacramento Area Sewer District (SASD) service to the community of Hood in the larger Delta community of the unincorporated County of Sacramento (County). The analysis in this chapter considers the potential impacts of the project related to public utilities. Specifically, this chapter addresses concerns regarding water use and the capacity of existing wastewater facilities. For discussion regarding potential growth inducing impacts, refer to Chapter 5, Land Use.

On behalf of SASD, the County released a Notice of Preparation for this Environmental Impact Report (EIR) on behalf of SASD on March 25, 2022. No responses were received regarding public utilities and services. The Notice of Preparation and comments received are provided in Appendix PD-1. The Initial Study is provided in Appendix PD-2.

5.2 ENVIRONMENTAL SETTING

URBAN SERVICES BOUNDARY

The project is located outside the existing Urban Policy Area (UPA) and is outside the Urban Services Boundary (USB). The USB identifies the limits of the area where unincorporated urban growth is expected to occur beyond the 2030 General Plan 20-year planning period and indicates the ultimate boundary of the urban area in the County. This boundary is based upon jurisdictional, natural, and environmental constraints to urban growth. Originally established with the 1993 General Plan, it was refined as a part of the 2030 General Plan. The purpose of the USB is to plan for the long term provision of public infrastructure. (Sacramento County 2011). Several service providers have developed long-term infrastructure master plans based on the USB boundaries.

SEWER SERVICE

SACRAMENTO AREA SEWER DISTRICT (SASD)

The SASD provides local wastewater collection and conveyance services and infrastructure throughout the Sacramento region. SASD maintains and provides wastewater collection and conveyance from the local residences and businesses in the urbanized, unincorporated areas of the County, the Cities of Elk Grove, Rancho Cordova, and Citrus Heights, portions of the City of Sacramento, a very small area in the City of Folsom, and the Communities of Courtland and Walnut Grove. The SASD service area covers approximately 270 square miles with a population of over one million people. SASD maintain 4,600 miles of sewer pipe and more than 106 pump stations that connect

to the larger regional interceptors maintained by the Sacramento Regional County Sanitation District (also referred to as Regional San).

SACRAMENTO REGIONAL COUNTY SANITATION DISTRICT (REGIONAL SAN)

Regional San provides wastewater conveyance and treatment services to about 1.6 million residential, commercial, and industrial customers in portions of unincorporated Sacramento County, the Cities of Citrus Heights, Elk Grove, Folsom, Rancho Cordova, Sacramento, and West Sacramento, and the Communities of Courtland and Walnut Grove. Wastewater travels through a system comprised of 169 miles of interceptor pipelines, of which 111 miles are gravity pipes and 58 miles are force mains, and 11 pump stations before it reaches the Sacramento Regional Wastewater Treatment Plant (SRWTP). There, it is treated and discharged to the Sacramento River. In normal weather years, Regional San treats an average of approximately 124million gallons of wastewater each day (mgd) (Regional San 2021).

SACRAMENTO REGIONAL WASTEWATER TREATMENT PLANT

Wastewater flows collected from Regional San's interceptors are ultimately transported into the SRWTP. The SRWTP is located west of Elk Grove and is owned and managed by Regional San. Currently, the SRWTP has a National Pollutant Discharge Elimination System (NPDES) permit issued by the Central Valley Regional Water Quality Control Board (RWQCB) for discharge of up to 181 mgd average dry-weather flow of treated effluent into the Sacramento River. The SRWTP has the potential for expansion to 218 mgd.

Regional San is upgrading the SRWTP through the EchoWater Project adopted in 2011. The design of the SRWTP and collection system was balanced to have SRWTP facilities accommodate some of the wet-weather flows, while minimizing idle SRWTP facilities during dry weather. Regional San must complete construction of the new treatment facilities to achieve permit and settlement requirements by May 2023 for compliance with pathogen requirements. The upgrade will not result in a net increase in the permitted capacity of the SRWTP (Regional San 2022).

5.3 REGULATORY SETTING

STATE

CALIFORNIA INTEGRATED WASTE MANAGEMENT ACT AND CALRECYCLE

The Integrated Waste Management Act of 1989 is the result of two pieces of legislation, AB 939 and SB 1322, which created the California Integrated Waste Management Board (which has been renamed CalRecycle). The Integrated Waste Management Act mandated a goal of 25 percent diversion of each city's and county's waste from disposal by 1995 and 50 percent diversion in 2000, with a process to ensure environmentally safe disposal of waste that could not be diverted.

CalRecycle is the State agency designated to oversee, manage, and track California's 92 million tons of waste generated each year. They provide grants and loans to help California cities, counties, businesses and organizations meet the State's waste reduction, reuse and recycling goals.

Senate Bill 1016, signed into law on September 26, 2008, represents a fundamental shift in the way local jurisdictions are measured for compliance with state diversion mandates. Jurisdictions are now evaluated based on the implementation of programs that measure per capita waste disposal, rather than diversion percentage.

LOCAL

SASD SYSTEM CAPACITY PLAN

The primary objective of SASD's 2020 System Capacity Plan (SCP) update was to develop a comprehensive plan that addresses existing and buildout sewer capacity needs. Existing capacity needs are based on SASD's current sewer system conditions. Buildout capacity needs are based on providing sewer service to the entire SASD service area in the future (SASD 2020).

SACRAMENTO LOCAL AGENCY FORMATION COMMISSION

Local Agency Formation Commissions (LAFCo's) govern the formation of new agencies, incorporation of new cities and districts, consolidation or reorganization of special districts and/or cities, as well as municipal service reviews and sphere of influence updates, and annexations of cities and special districts. The broad goals of the Sacramento LAFCo's directive are to ensure the orderly formation of local governmental agencies, to preserve agricultural and open space lands, and to discourage urban sprawl. LAFCo's must, by law, create Municipal Service Reviews and update Spheres of Influence for each independent local governmental jurisdiction within their jurisdiction.

SACRAMENTO COUNTY 2030 GENERAL PLAN

The following 2030 General Plan policies pertaining to wastewater and solid waste are applicable to the Project:

- LU-73. Sewer and water treatment and delivery systems shall not provide for greater capacity than that authorized by the General Plan.
- PF-6. Interceptor, trunk lines, and flow attenuation facilities shall operate within their capacity limits without overflowing.
- PF-7. Although sewer infrastructure will be planned for full urbanization consistent with the Land Use Element, an actual commitment of additional sewer system capacity will be made only when the land use jurisdiction approves development to connect and use the system.
- PF-8. Do not permit development which would cause sewage flows into the trunk or interceptor system to exceed their capacity.

- PF-9. Design trunk and interceptor systems to accommodate flows generated by full urban development at urban densities within the ultimate service area. System design may take into consideration land that cannot be developed for urban uses due to long-term circumstances including but not limited to conservation easements, floodplains, public recreation areas etc. This could include phased construction where deferred capital costs are appropriate.
- PF-10. Development along corridors identified by the Sanitation Districts in their Master Plans as locations of future sewerage conveyance facilities shall incorporate appropriate easements as a condition of approval.
- PF-13. Public sewer systems shall not extend service into agricultural-residential areas outside the urban policy area unless the Environmental Health Department determines that there exists significant environmental or health risks created by private disposal systems serving existing development and no feasible alternatives exist to public sewer service.
- PF-14. Independent community sewer systems shall not be established for new development.
- PF-15. Support CSD-1 and SRCSD policies to fund new trunk and interceptor capital costs through connection fees for new development.
- PF-16. Support SRCSD policy to fully fund treatment plant operation through monthly service charges to system users. Fund treatment plant expansion and upgrades and existing trunk and interceptor replacements or improvements through connection fees or other revenue sources.
- PF-23. Solid waste collection, handling, recycling, composting, recovery, transfer and disposal fees shall recover all capital, operating, facility closure and maintenance costs.
- PF-24. Solid waste disposal fees and rate structures shall reflect current market rates and provide incentives for recovery.

5.4 SIGNIFICANCE CRITERIA AND METHODOLOGY

SIGNIFICANCE CRITERIA

Based on the CEQA Guidelines, impacts related to public utilities should be evaluated to determine if implementation of the Project would:

1. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

2. Have sufficient 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.
5. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Based on CEQA Guidelines, impacts related to public services should be evaluated to determine if implementation of the Project 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

ISSUES NOT DISCUSSED FURTHER

Minimal solid waste would be generated by the Proposed Project during construction. During operation the Proposed Project would not generate solid waste. As such, the Project is not anticipated to generate solid waste in excess of State or local standards. Impacts would be less than significant.

Any solid waste generated by the Proposed Project would comply with all applicable federal, state, and local statutes and regulations related to solid waste. No impact would occur.

For these reasons, impacts associated with solid waste and public services are not discussed further in this EIR.

5.5 IMPACTS AND ANALYSIS

IMPACT PU-1: REQUIRE OR RESULT IN THE RELOCATION OR CONSTRUCTION OF NEW OR EXPANDED WATER, WASTEWATER TREATMENT OR STORM WATER DRAINAGE, ELECTRIC POWER, NATURAL GAS, OR TELECOMMUNICATIONS FACILITIES, THE CONSTRUCTION OR RELOCATION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL EFFECTS.

The project is the construction of new and expanded wastewater conveyance facilities. The impacts associated with the installation of these facilities are discussed elsewhere in the topical areas of this document. The new facilities will connect to the existing SASD and Regional San system. No alteration or expansion of these facilities would be necessary to serve the project. See impact analysis area PU-3 below for additional discussion regarding the capacity of existing facilities and infrastructure.

Installation of the project will take place primarily within existing public right of way. There are a number of existing public utility facilities along the project alignment, including public water (SCWA), electrical facilities (SMUD), natural gas (PG&E), and stormwater drainage (County DWR). Project construction would not impact existing facilities, or require relocation of any existing facilities. Where existing facilities and easements exist, SASD will be required to obtain encroachment permits as necessary and coordinate with utility providers to delineate existing facilities on construction plans to avoid temporary impacts during construction. Impacts to existing public utilities are ***less than significant***.

IMPACT PU-2: HAVE SUFFICIENT WATER SUPPLIES AVAILABLE TO SERVE THE PROJECT AND REASONABLY FORESEEABLE FUTURE DEVELOPMENT DURING NORMAL, DRY, AND MULTIPLE DRY YEARS

The Project is a sewage conveyance construction project, which would only require water during construction for horizontal drilling, compaction, and dust control purposes. It is anticipated that the project would use 750 gallons per day for drilling purposes. The Project will most likely require water use as pipe is installed and as excavated access pits are backfilled. Water will be used for the horizontal directional drilling process as drilling fluid during pipeline installation. Hood is provided public water service by the Sacramento County Water Agency (SCWA), so water usage obtained from Hood would be utilized from SCWA provided water, not private or new wells. The contractor will decide if their preference is to use water tanks located at staging areas or to use water trucks, which would require travel offsite. Water tanks or water trucks may be used at access pit locations. During operation the project would not require additional water. The temporary impact of water use during two construction seasons would be ***less than significant***.

IMPACT PU-3: RESULT IN A DETERMINATION BY THE WASTEWATER TREATMENT PROVIDER WHICH SERVES THE PROJECT THAT IT HAS ADEQUATE

CAPACITY TO SERVE THE PROJECT'S PROJECTED DEMAND IN ADDITION OF THE PROVIDER'S EXISTING COMMITMENTS

Implementation of the proposed project would increase wastewater flows and require additional infrastructure, impacting facilities operated by SASD and Regional San. Hood does not have any existing sewer collectors. The closest existing gravity sewer facility is on Bilby Road east of the Union Pacific Railroad (UPRR) track near the Willard Parkway intersection that ultimately conveys wastewater flows to the SRWTP. The newly installed sewer infrastructure force main would connect to the existing system at this point on Bilby Road.

Regional San and SASD propose to amend the boundary of their service area to encompass the Hood Community (annexation would include just Hood, and no parcels between Hood and the existing service area), through application to LAFCo for both a sphere of influence amendment and annexation. See the Land Use chapter (Chapter 5) for additional information on this topic.

In order to have adequate capacity to implement the project, there must be sufficient capacity to handle sewage at the SRWTP, which is the final point of treatment for all sewage within the service area, and there must be sufficient capacity within the facilities operated and maintained by SASD to transport the sewage to the SRWTP.

SRWTP CAPACITY

The SRWTP has sufficient capacity to serve the parcels in the Hood Community. The following design parameters were considered in the hydraulic model prepared by SASD in August 2022:

- 310 gallons per day (gpd)/Equivalent Single-Family Dwelling (ESD)
- Single Family Residential
 - ESD density: 6 ESD/acre (ac)
 - Minimum of 1 ESD per parcel
- Multi-Family, Mobile Home, and Mixed Use Residential
 - ESD density: 10 ESD/ac
 - Minimum of 1.5 ESD per parcel
- Vacant and non-residential parcels
 - ESD density: 6 ESD/ac
- 1.548 peaking factor (the peaking factor is the ratio of the maximum flow to the average daily flow to help calculate the design capacity for new facilities.)
- SRWTP Average Dry Weather Flow (ADWF) Design Capacity of 181 million gallons per day (mgd)
- SRWTP Current ADWF of 106 mgd
- SRWTP ADWF Available Capacity of 75 mgd

With completion of biological nutrient removal (BNR) facilities in October 2021, the SRWTP Wet Weather Flow Capacity is 330 mgd. The SRWTP also includes 445 million

gallons of Emergency Storage Basin (ESB) capacity to ensure consistent flows through the BNR facility during wet weather conditions.

The proposed project would extend public sewer service to the Community of Hood and allow 137 parcels the ability to obtain public sewer service through SASD. Of these 137 parcels, 73 are single-family residential, five are multi-family residential, one is mixed-use residential, one is a mobile home park (residential), nine are non-residential, and 48 are vacant. The amount of equivalent wastewater assumed for the various types of parcels are outlined in the assumptions above. The anticipated buildout peak wet weather flow at the connection point from the upstream residential, mixed-use residential, and mobile home park septic parcels is 1.694 million gallons per day (mgd). The wastewater treatment plant has sufficient capacity to serve the Hood Community.

SASD SYSTEM CAPACITY

The SASD will provide the local wastewater collection and conveyance services for the Hood Community. Site specific modeling was conducted to identify possible connection location(s) to the existing SASD sewer system for the Hood septic parcels and to ensure that the SASD system has sufficient capacity for the community to connect to the existing system (Appendix PU-1).

The new force main will connect to the existing infrastructure at manhole MH 258-158-1001. The modeling results show no surcharging in the trunk sewer downstream of the connection point and at pump station S135 with or without the additional flow from the Hood Community (Plate PU-1 through Plate PU-3). SASD has made the determination that the additional wastewater flow from the Hood septic parcels could be accommodated by the existing downstream infrastructure. The project would result in a negligible increase of sewage flows to SASD and Regional San systems. Regional San and SASD have adequate capacity to receive the additional sewage proposed by the project; impacts are ***less than significant***.

Plate PU-1: Hood Community and Sewer Trunk Trace Utilized in Profile View (see Plate 5-2, 5-3)

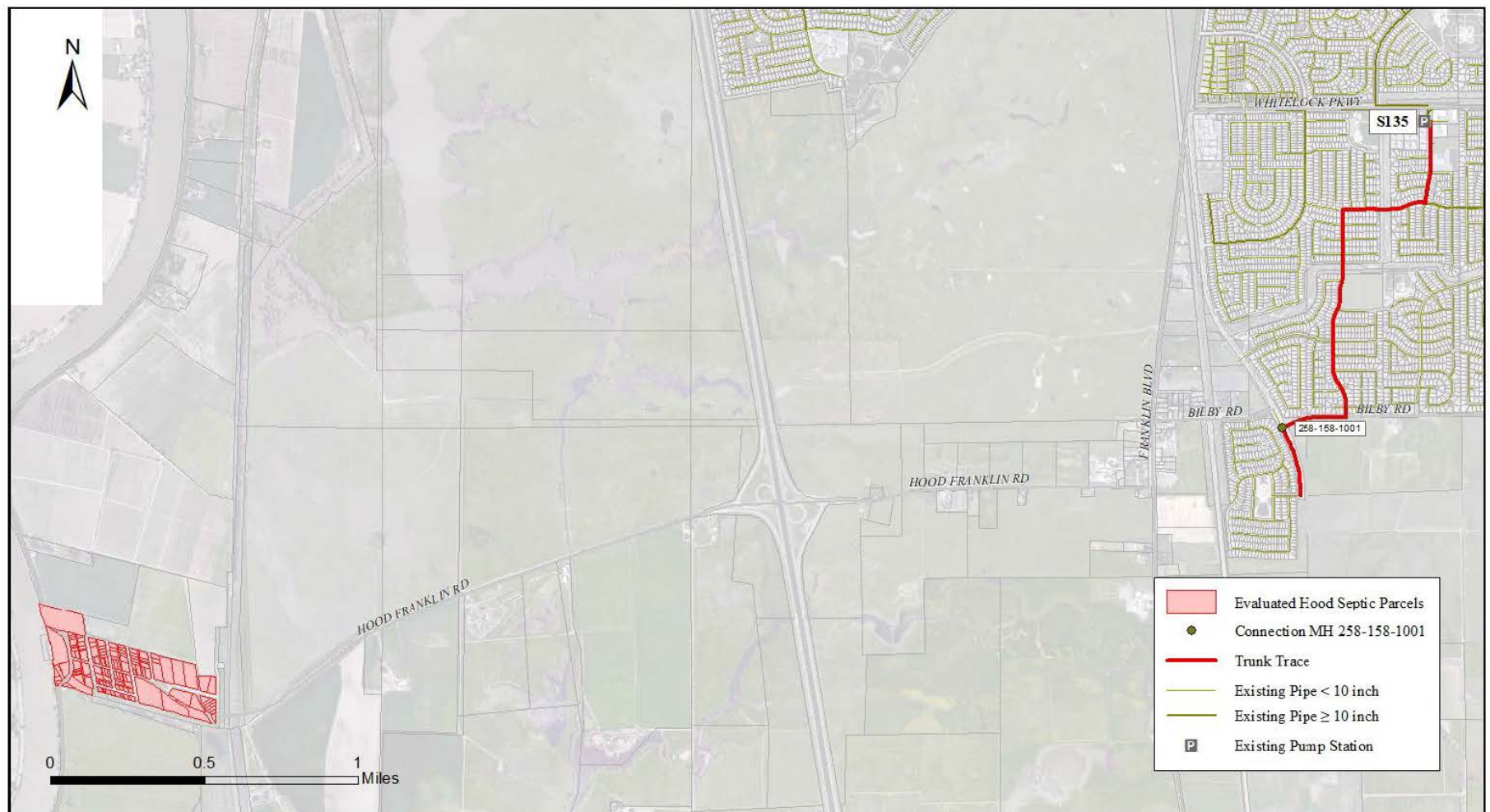


Plate PU-2: Profile View of the Trunk Trace Under Peak Wet-weather Flow Buildout Conditions without Hood

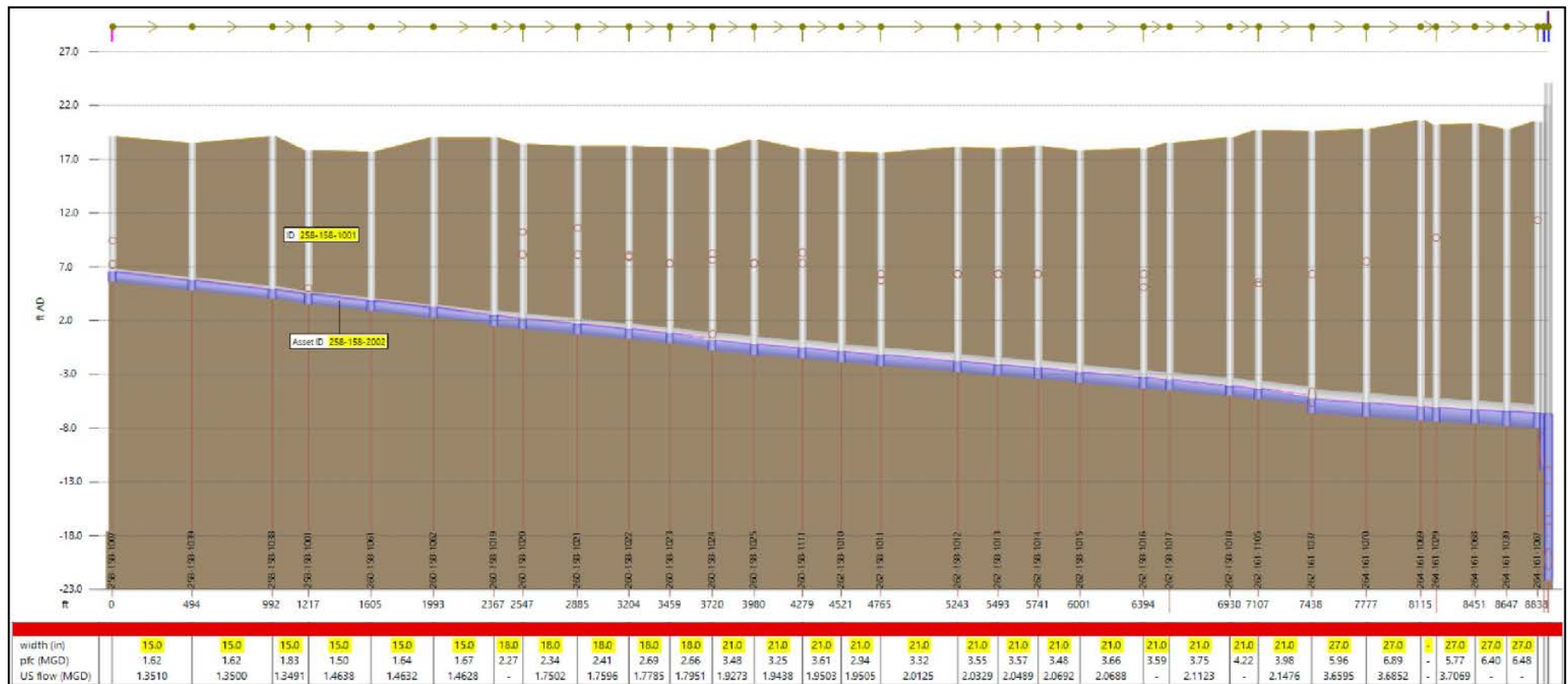
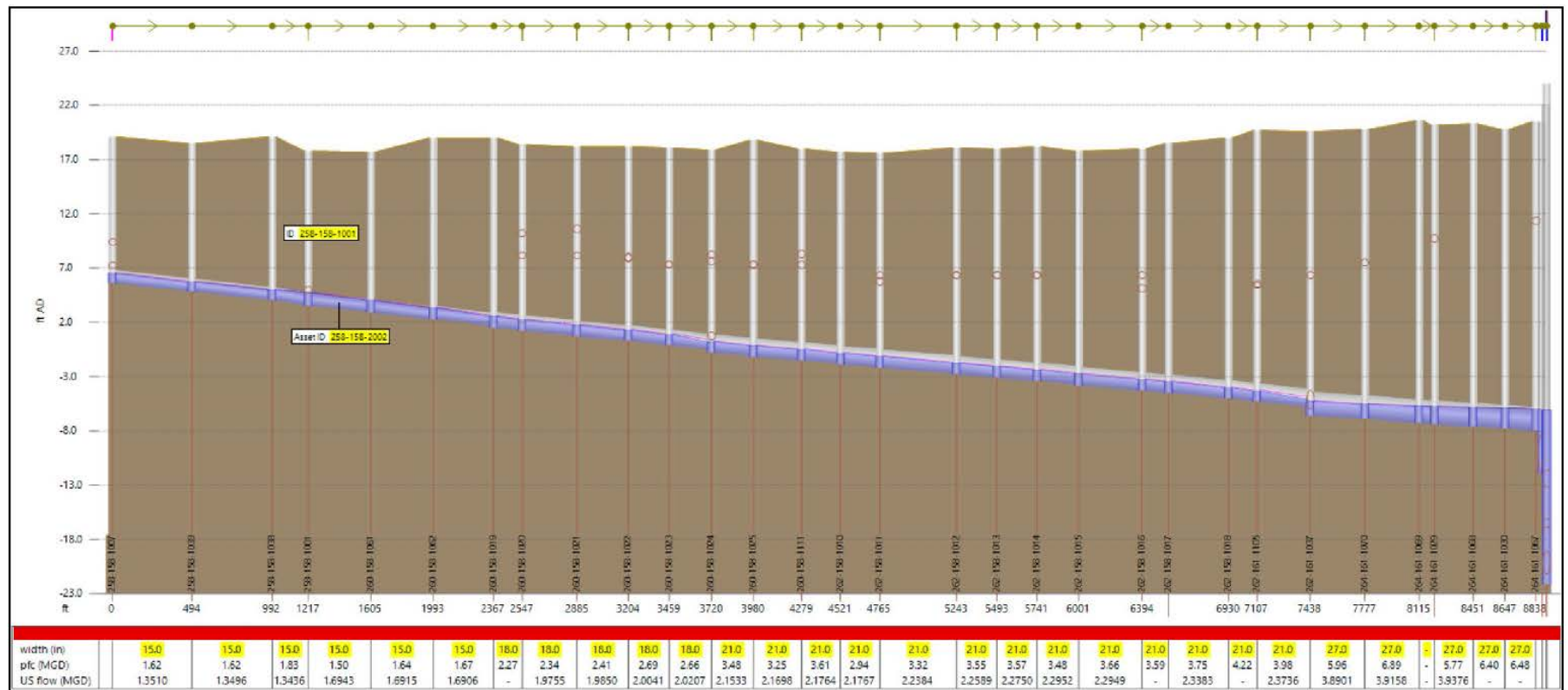


Plate PU-3: Profile View of the Trunk Trace Under Peak Wet-weather Flow Buildout Conditions with Hood

IMPACT PU-4: 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:

- FIRE PROTECTION
- POLICE PROTECTION
- SCHOOLS
- PARKS
- OTHER PUBLIC FACILITIES

The project would not interfere with any facilities associated with the provision of public services. The project would not create any new public services. Existing public services in Hood include the Courtland Fire Station, SCWA operations facility, US Post Office, the Hood Community Park (and other Sacramento County Park property along Hood Franklin Road). Within the Franklin Community, existing public services include a school operated by the Elk Grove Unified School District, a cemetery, and a SMUD substation. Project construction would occur in the vicinity of these operations, but would not impact existing facilities. Where applicable, easements and facilities will be delineated on construction plans to avoid interference, and where necessary, temporary encroachment permits may be obtained to ensure safe and efficient continued operation of surround public utilities (see impact PU-1 above). The project could provide a net benefit to public services by providing existing and future structures the ability to connect to public sewer service. Construction methods for building connections are described in further detail in the project description chapter. Impacts to public services are ***less than significant***.

5.6 MITIGATION MEASURES

No mitigation is required.

5.7 CUMULATIVE IMPACTS

The project would result in less than significant impacts associated with public utilities and public services. Existing infrastructure has the capacity to serve the project and temporary construction activities would not interfere with any existing public utility providers or public services providers and their associated facilities. Some facilities may

see a net benefit through project implementation by way of provision of public sewer service to existing and future facilities. Cumulative impacts are considered ***less than significant***.

5.8 REFERENCES CITED

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06 - BIOLOGICAL RESOURCES

6.1 INTRODUCTION

This chapter addresses potential impacts to biological resources associated with the proposed Hood Septic to Sewer Conversion project (proposed project), which involves extension of Sacramento Area Sewer District (SASD) service to the community of Hood in the larger Delta community of the unincorporated County of Sacramento (County). The analysis focuses on impacts to riparian habitat, annual grasslands, wetland habitat and jurisdictional waters and the special status species whom rely on these habitats. Species covered in this document include a variety of special status plants, fish, amphibians, reptiles, birds and mammals such as Sanford's arrowhead, delta smelt, western spadefoot toad, giant garter snake, Swainson's hawk and western red bat.

On behalf of SASD, the County released a Notice of Preparation for this Environmental Impact Report (EIR) on March 25, 2022. The County received one response regarding Biological Resources. The Notice of Preparation and comments received are provided in Appendix PD-1. The Initial Study is provided in Appendix PD-2.

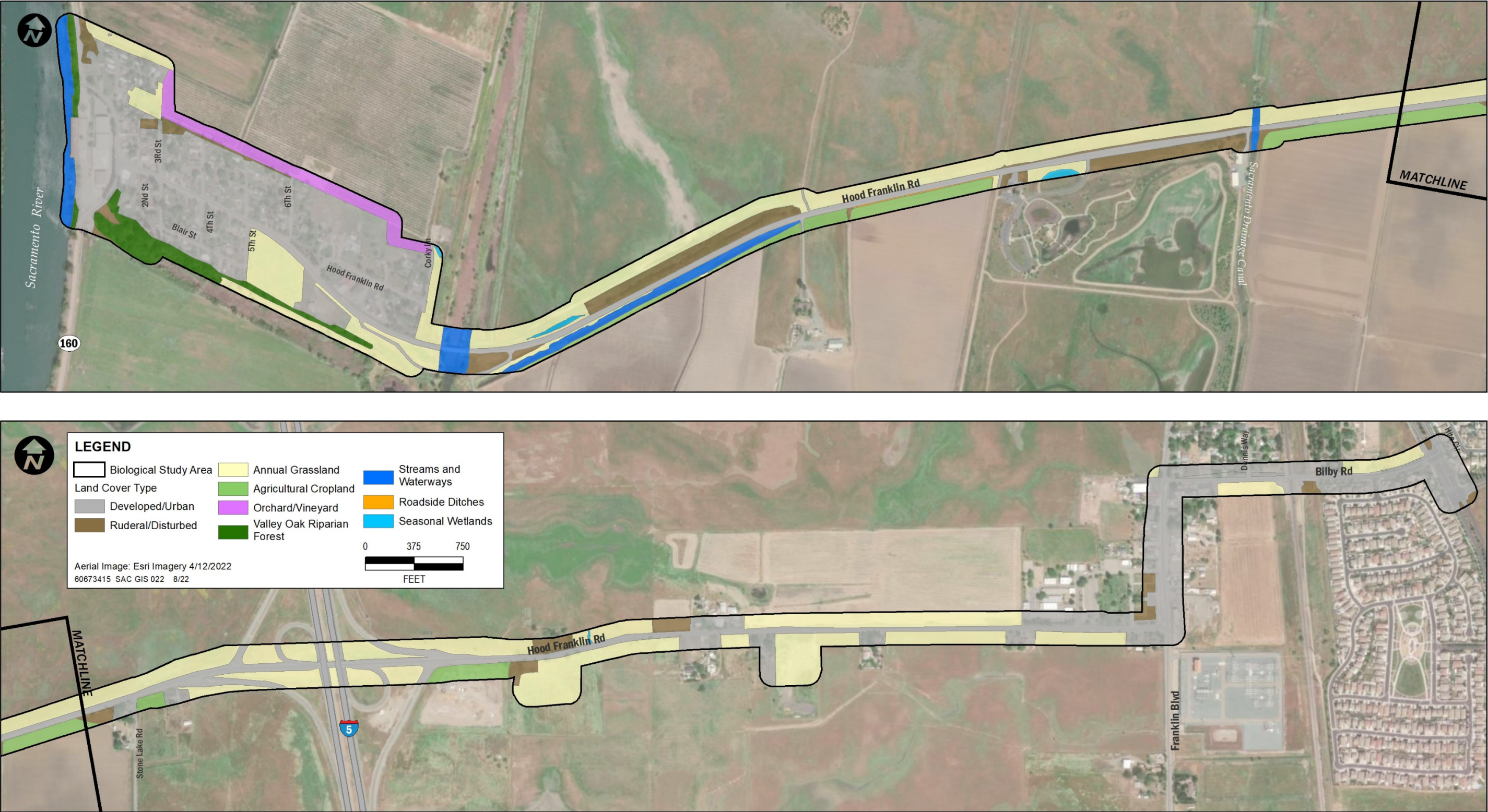
6.2 ENVIRONMENTAL SETTING

The project site extends along Hood Franklin Road generally from Willard Parkway at the southwestern portion of the City of Elk Grove though the community of Hood located east of the Sacramento River in the Delta community. Outside of the community of Hood, this portion of Sacramento County is chiefly characterized by large agricultural or natural preserve properties with little to no development and containing fallow lands, row crops, man-made irrigation canals, wetlands, vernal pools and scattered trees. The un-urbanized nature of the area surrounding this portion of the project site allows for a number of plant and animal species to utilize the space for foraging, dispersal and nesting. Within the community of Hood, the project area is largely built-out with properties designated for residential, commercial and industrial uses. This area predominantly contains a landscape typical of rural residential neighborhoods and is generally devoid of sensitive biological resources and aquatic features. However, there are a small number of vacant parcels containing nonnative annual grasses. Additionally, native and non-native ornamental trees are scattered throughout the community.

VEGETATION AND LAND COVER TYPES

Vegetation communities and land cover types were mapped within the project biological study area (project area) by AECOM. The project area includes the project alignment and a nearly-uniform 100-foot buffer which extends beyond the limits of the project area except in those locations where construction access / activities will be completely avoided due to restricted property access (refer to Plate BR-1).

Plate BR-1: Land Cover Types



The project area consists of eight (8) land cover types, five of which are characterized by upland vegetation, and three that are associated with aquatic features or habitats. All land cover types and mapped habitats are summarized in Table BR-1 and are visually represented by Plate BR-1. Note that Table BR-1 represents the entirety of surveyed area, including a buffer area. The acreages depicted in this table are not equivalent to project alignment impact acres.

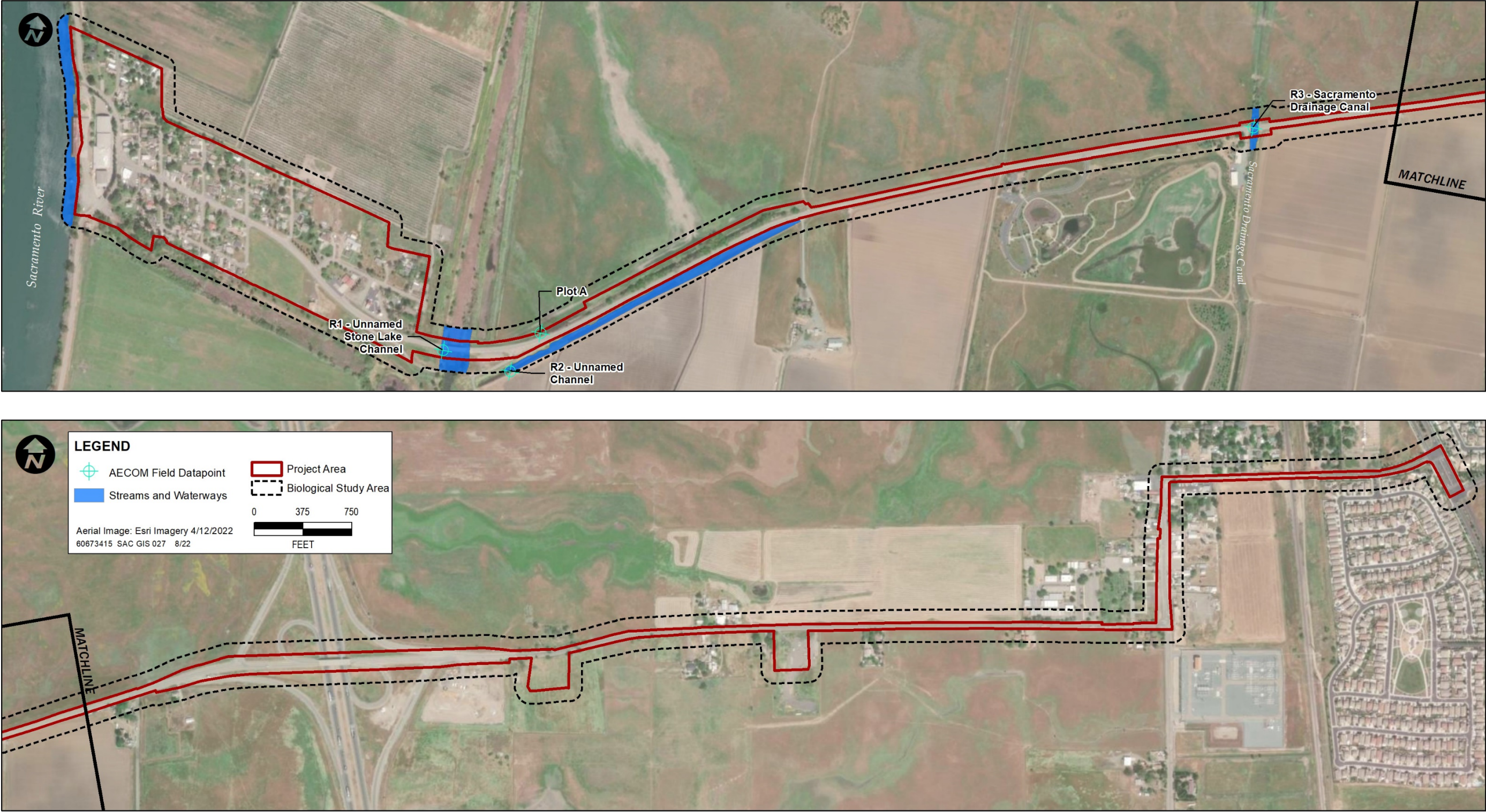
Table BR-1: Land Cover Types in the Surveyed Project Area

	Land Cover type	Acres
Upland Vegetation	Developed/Urban	106.5
	Ruderal/Disturbed	12.9
	Annual Grasses	67.9
	Agricultural Cropland	10.6
	Orchard/Vineyard	5.3
Aquatic Features	Valley Oak Riparian Forest	2.2
	Streams and Waterways	8.3
	Roadside Ditches	2.0
	Grand Total	215.7

AQUATIC FEATURES

During the project area investigation, a total of three potentially jurisdictional waterways were identified (these have been designated as R1, R2, and R3 by AECOM – see Plate BR-2 for locations). The proposed project area will intersect R1 and R3 and parallels R2 along Hood-Franklin Road. The R1 waterway is labelled, by AECOM, as “unnamed Stone Lake channel;” The R3 waterway is known as the Sacramento Drainage Canal on USGS hydrologic mapping; and, the R2 waterway is an unnamed irrigation channel which flows continuously along Hood-Franklin Road and ultimately unites with the unnamed Stone Lake channel (R1). All project waterways are hydrologically connected to North Stone Lake and Stone Lake; R1 and R3 support flow from north to south. All project waterways have been designated by the US Fish and Wildlife Service as Final Critical Habitat for the Delta Smelt (2022) and the National Marine Fisheries Service (NMFS) as Essential Fish Habitat - Pacific Coast Salmon FMP (2022). (refer to Plate BR-2).

Plate BR-2: Delineated Aquatic Resources



SPECIAL STATUS SPECIES

A special status species has relative scarcity and/or declining populations. Special status species include those formally listed as threatened or endangered, those proposed for formal listing, candidate for federal listing, and those classified as species of special concern. Also included are those species considered to be “fully protected” by CDFW, those granted “special animal” status for tracking and monitoring purposes, and those plant species considered to be rare, threatened, or endangered in California by the California Native Plant Society (CNPS).

There are multiple status designations applied to animal and plant species; the relevant definitions are provided below¹:

Endangered Species: Any species which is in danger of extinction throughout all or a significant portion of its range.

Threatened Species: Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Species of Concern: Any species with declining population levels, limited ranges, and/or other factors that make them vulnerable to extinction and may ultimately qualify the species for threatened or endangered status.

Fully Protected: The classification of Fully Protected was California’s initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Most have subsequently been defined as endangered or threatened, but there are exceptions.

Special Animals: A general term that refers to all of the taxa that CDFW is interested in tracking, regardless of their legal or protection status. Though the species themselves have not declined to the extent that they are listed by one of the classifications noted above (endangered, etc), such species are closely associated with a habitat that is declining in California.

List 1B Plants: Plants that are rare throughout their range, and have declined significantly over the last century. The majority of plants on this list are endemic to California.

List 2 Plants: The same as List 1B plants, except that List 2 plants are common outside of California.

¹ Source: California and Federal Endangered Species Acts, <http://www.dfg.ca.gov/wildlife/nongame/ssc/>, http://www.dfg.ca.gov/wildlife/nongame/t_e_spp/fully_pro.html, and <http://www.cnps.org/cnps/rareplants/ranking.php>

Table BR-2 and Table BR-3 detail the species identified in the species searches and the likelihood of occurrence based on habitat presence either on the site or in proximity of the site, survey results, and nearby recorded species occurrences. Critical habitats in the project area are illustrated in Plate BR-3. Species occurrences based on CNDDDB records are illustrated in Plate BR-4. Habitat proximity is based on published buffers established by a regulatory agency. For instance, guidance for the Swainson's hawk establishes a nesting buffer of ½-mile, and includes mitigation requirements for construction activities in that range. Note that some species are listed for loss of foraging habitat, while others may be listed for loss of breeding habitat. If the species is listed for loss of a particular habitat, it is so reported in Table BR-2, Table BR-3, and the likelihood of occurrence will be based specifically on that habitat type. Likelihood of occurrence is rated as Not Present, Low Potential, Moderate Potential, High Potential, or Present, which are defined as:

Not Present: A survey was performed by a qualified biologist, and the species was not found or habitat is absent both on the site and within one mile of the site.

Low Potential: Absence cannot be definitively stated because no surveys were performed, but habitat is near-absent or marginal.

Moderate Potential: Habitat is present, but the species has not been observed within five miles of the site.

High Potential: Habitat is present and the species has been observed within five miles of the site.

Present: The CNDDDB contains a recorded occurrence on the site, or the species was found during site-specific surveys.

Refer to the Methodology section below for additional information regarding the determination of potential species presence. Species which are not present or were found to have a low potential of occurrence are not discussed further in subsequent analysis sections.

Table BR-2: Special Status Plant Species Matrix

Scientific Name	Common Name	Regulatory Status ¹			Habitat Requirements	Elevation Range (ft amsl)	Bloom Period	Potential for Occurrence
		Federal	State	CRPR				
<i>Amsinckia grandiflora</i>	Large-flowered Fiddleneck	FE	SE	1B.1	Grassy slopes, foothill woodlands, valley grasslands	885–1805	Mar–May	Highly unlikely to occur; Project area is significantly below this species' preferred habitat range.
<i>Astragalus tener</i> var. <i>ferrisiae</i>	Ferris' milk-vetch	-	-	1B.1	Vernally mesic meadows and seeps, subalkaline flats in valley and foothill grasslands, often prefers heavy clay or adobe soils	5–245	Apr–May	Highly unlikely to occur; Suitable clay / adobe soils are not present. Soils sampled within the project area were silt loams.
<i>Astragalus tener</i> var. <i>tener</i>	Alkali milk-vetch	-	-	1B.2	Alkaline and saline soils in valley and foothill grasslands (adobe clay), playas, vernal pools	5–195	Mar–June	Highly unlikely to occur; Suitable clay/saline soils are not present. Soils sampled within the project area were silt
<i>Brasenia schreberi</i>	Watershield	-	-	2B.3	Aquatic herb, widespread throughout North America; prefers freshwater marshes and swamps, particularly those with slow-moving flow	0–7,220	Jun–Sep	May occur; Suitable habitat present within the project area in the vicinity of the Sacramento Drainage Canal and the unnamed (Stone Lake) channel. One CNDDDB occurrence within a 3-mile radius of the project area.
<i>Carex comosa</i>	Bristly sedge	-	-	2B.1	Coastal prairie, marshes and swamps (lake margins), seasonal wetlands in valley and foothill grasslands including ditches, waterbody margins, and seeps	0–2,050	May–Sep	May occur; Suitable habitat present within the project area in the vicinity of the Sacramento Drainage Canal and the unnamed (Stone Lake) channel. Five CNDDDB records within a 3-mile radius of the project area, one of which within 0.5 miles of the project area. Ephemeral roadside ditches present throughout project area. Species not observed during site surveys by AECOM biologists during the January or July 2022 surveys.
<i>Centromadia parryi</i> ssp. <i>parryi</i>	pappose tarplant	-	-	1B.2	Often prefers alkaline soils; chaparral habitats, coastal prairie, meadows and seeps, coastal salt marshes and swamps, vernal mesic valley and foothill grasslands	0–1,380	May–Nov	Unlikely to occur; Habitat within the project area is limited. One CNDDDB occurrence within a 3-mile radius of the project area but is located west of the Sacramento River.

<i>Cicuta maculata</i> var. <i>bolanderi</i>	Bolander's water-hemlock	-	-	2B.1	Brackish, coastal, and freshwater marshes and swamps	0–655	Jul–Sep	Highly unlikely to occur; Species is most closely associated with coastal wetlands (CNPS 2022). Nearest CNDDB record is more than 7 miles south of the project area.
<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>	Peruvian dodder	-	-	2B.2	Parasitic annual vine; prefers freshwater marshes and swamps, on host plants such as <i>Alternanthera</i> , <i>Dalea</i> , <i>Lythrum</i> , <i>Polygonum</i> , and <i>Xanthium</i>	50–920	Jul–Oct	May occur; Suitable habitat present within the project area waterways. One CNDDB record identified within a 3-mile radius of the project area. Plant observation reports documented in Sacramento County have not yet been verified (CNPS 2022).
<i>Downingia pusilla</i>	dwarf downingia	-	-	2B.2	Vernally mesic valley and foothill grasslands, vernal pools, riparian wetlands	5–1,460	Mar–May	Unlikely to occur; No vernal pools or seasonal wetlands identified within the project area. However, vernal pools identified within a 0.5-mile radius of the project area in the Stone Lakes National Wildlife Refuge. One CNDDB record within a 3- mile radius of the project area.
<i>Eryngium jepsonii</i>	Jepson's coyote- thistle	-	-	1B.2	Clay soils; vernal pools and wetland habitats in the Central Valley and foothill grasslands	10–985	Apr–Aug	Highly unlikely to occur; No vernal pools or seasonal wetlands identified within the project area. However, vernal pools identified within a 0.5-mile radius of the project area in the Stone Lakes National Wildlife Refuge. Soils sampled within the project area were disturbed silt loams.
<i>Atriplex joaquiniana</i>	San Joaquin spearscale	-	-	1B.2	Alkaline soils, clay soils; playas, meadows and seeps, chenopod scrub, valley and foothill grasslands	5–2,740	Apr–Oct	Highly unlikely to occur; No vernal pools or seasonal wetlands identified within the project area. However, vernal pools identified within a 0.5-mile radius of the project area in the Stone Lakes National Wildlife Refuge. Soils sampled within the project area were disturbed silt loams.

<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>	woolly rose-mallow	-	-	1B.2	Moist soils, freshwater; marshes and swamps, riverbanks including rip-rap levee slopes	0–395	Jun–Sep	May occur; Suitable habitat (moist banks and levees) is present along the Sacramento Drainage Canal and the unnamed (Stone Lake) channel. Five CNDDDB records have been documented within 3 miles of the project area. Species was not observed during the July 2022 field survey.
<i>Lasthenia chrysantha</i>	alkali-sink goldfields	-	-	1B.1	Alkaline soils; vernal pools	0–655	Feb–April	May occur; No vernal pools or seasonal wetlands identified within the project area. However, vernal pools identified within a 0.5-mile radius of the project area in the Stone Lakes National Wildlife Refuge. One CNDDDB record within a 3-mile radius of the project area located approximately 0.25 miles north of Hood-Franklin Road.
<i>Lathyrus jepsonii</i> var. <i>jepsonii</i>	Delta tule pea	-	-	1B.2	Usually grows along the edges of freshwater and brackish marshes and swamps	0–15	May–Jul (Aug–Sept)	Unlikely to occur; Species is most closely associated with coastal, brackish, and estuarine marshes (CNPS 2022), but has been observed approximately 20 miles south of the Natomas Basin in Walnut Grove.

<i>Legenere limosa</i> *	Legenere	-	-	1B.1	Vernal pools and seasonal wetlands	0–2,885	Apr–Jun	May occur; No vernal pools or seasonal wetlands identified within the project area. However, vernal pools identified within a 0.5-mile radius of the project area in the Stone Lakes National Wildlife Refuge. There are three records of this species within a 3-mile radius of the project area, one of which is from a roadside ditch along Hood-Franklin Road (CDFW 2022). Species was not observed during the January or July 2022 surveys.
<i>Lepidium latipes</i> var. <i>heckardii</i>	Heckard's pepper grass	-	-	1B.2	Alkaline flats in valley and foothill grasslands	5–655	Mar–May	Unlikely to occur; No suitable alkaline flats present within the project area. Two CNDDDB records within a 3-mile radius of the project area. The nearest CNDDDB record is approximately 0.5 miles north of Hood-Franklin Road.
<i>Lilaeopsis masonii</i>	Mason's lilaeopsis	-	SR	1B.1	Riparian scrub habitats, brackish and freshwater marshes and swamps	0–35	Apr–Nov	May occur; Suitable habitat present within the project area in the vicinity of the Sacramento Drainage Canal and the unnamed (Stone Lake) channel. CNDDDB records are present along the boundary of the project area.
<i>Limosella australis</i>	Delta mudwort	-	-	2B.1	Muddy watercourse banks and flats; brackish and freshwater marshes and swamps	0–10	May–Aug	Unlikely to occur; Suitable habitat present within the project area in the vicinity of the Sacramento Drainage Canal and the unnamed (Stone Lake) channel. However, nearest CNDDDB record is more than 5 miles south of the project area.

<i>Navarretia luocephala</i> ssp. <i>Bakeri</i>	Baker's navarretia	-	-	1B.1	Mesic habitats; Vernal pools, meadows and seeps, cismontane woodland, lower montane coniferous forest, valley and foothill grasslands	15–5,710	Apr–July	Highly unlikely to occur; No vernal pools or seasonal wetlands identified within the project area. However, vernal pools identified within a 0.5-mile radius of the project area in the Stone Lakes National Wildlife Refuge. Soils sampled within the project area were disturbed silt loams.
<i>Neostapfia colusana</i>	Colusa grass	FT	SE	1B.1	Vernal pools (adobe clay)	15–655	May–Aug	Highly unlikely to occur; No vernal pools or seasonal wetlands identified within the project area. However, vernal pools identified within a 0.5-mile radius of the project area in the Stone Lakes National Wildlife Refuge. Soils sampled within the project area were disturbed silt loams.
<i>Plagiobothrys hystriculus</i>	bearded popcornflower	-	-	1B.1	Vernal swales; Mesic valley and foothill grasslands, vernal pool margins	0–900	Apr–May	Highly unlikely to occur; No vernal pools or seasonal wetlands identified within the project area. However, vernal pools identified within a 0.5-mile radius of the project area in the Stone Lakes National Wildlife Refuge. Soils sampled within the project area were disturbed silt loams.
<i>Puccinellia simplex</i>	California alkali grass	-	-	1B.2	Alkaline flats, lake margins, and vernal mesic habitats within chenopod scrub, vernal pools, meadows and seeps, and valley and foothill grasslands	5–3,050	Mar–May	Highly unlikely to occur; No vernal pools or seasonal wetlands identified within the project area. However, vernal pools identified within a 0.5-mile radius of the project area in the Stone Lakes National Wildlife Refuge. Soils sampled within the project area were disturbed silt loams.
<i>Sagittaria sanfordii</i> *	Sanford's arrowhead	-	-	1B.2	Shallow freshwater marshes and swamps, and slow-moving waterbodies	0–2,135	May–Oct (Nov)	May occur; Suitable habitat present within the project area in the vicinity of the Sacramento Drainage Canal and the unnamed (Stone Lake) channel. One CNDDDB record within 0.25-mile of the project area in the vicinity of the Sacramento Drainage Canal.

<i>Scutellaria galericulata</i>	marsh skullcap	-	-	2B.2	Mesic meadows and seeps, marshes and swamps, and lower montane coniferous forest	0–6,890	Jun–Sep	Unlikely to occur; Occurrences from the delta region need further verification (CNPS 2022). Habitat within the project area is limited due to disturbance. No vernal pools or seasonal wetlands identified within the project area. However, vernal pools identified within a 0.5-mile radius of the project area in the Stone Lakes National Wildlife Refuge. No CNDDDB occurrences within a 3-mile radius of the project area.
<i>Scutellaria lateriflora</i>	side-flowering skullcap	-	-	2B.2	Mesic meadows and seeps, marshes and swamps	0–1,640	Jul–Sep	Highly unlikely to occur; Suitable habitat is not present within the project area. The unnamed (Stone Lake) channel was dominated by common water hyacinth, the Sacramento Drainage Canal is ephemeral and was dry during the July 2022 survey. Himalayan blackberry dominated the Sacramento Drainage Canal.
<i>Sidalcea keckii</i>	Keck's checkerbloom	FE	-	1B.1	Clay and serpentine soils; Cismontane woodlands, valley and foothill grasslands	245–2,135	Apr–May (June)	Highly unlikely to occur; Soils sampled within the project area (in seasonal wetlands) were sandy loams. project area is well below species preferred elevation range.
<i>Symphyotrichum lentum</i>	Suisun Marsh aster	-	-	1B.2	Marshes and swamps (brackish and freshwater)	0–10	(Apr) May–Nov	Highly unlikely to occur; Suitable habitat is not present within the project area. The unnamed (Stone Lake) channel was dominated by common water hyacinth, the Sacramento Drainage Canal is ephemeral and was dry during the July 2022 survey. Himalayan blackberry dominated the Sacramento Drainage Canal.

<i>Trifolium hydrophilum</i>	saline clover	-	-	1B.2	Mesic, alkaline soils; marshes and swamps, valley and foothill grasslands, vernal pools	0–985	Apr–Jun	Highly unlikely to occur; No vernal pools or seasonal wetlands identified within the project area. However, vernal pools identified within a 0.5-mile radius of the project area in the Stone Lakes National Wildlife Refuge. Soils sampled within the project area were disturbed silt loams.
<i>Tuctoria mucronata</i>	Crampton's tuctoria [Solano grass]	FE	SE	1B.1	Vernal pools, mesic valley and foothill grassland habitats	15–35	Apr–Aug	Highly unlikely to occur; No vernal pools or seasonal wetlands identified within the project area. However, vernal pools identified within a 0.5-mile radius of the project area in the Stone Lakes National Wildlife Refuge. Soils sampled within the project area were disturbed silt loams.

¹ Regulatory Status Definitions:

Federal Status Categories

FE = Listed as endangered under the Federal Endangered Species Act

FT = Listed as threatened under Federal Endangered Species Act

California State Status Categories

SE = Listed as endangered under California Endangered Species Act

SR = Listed as Rare

ST = Listed as threatened under California Endangered Species Act

California Rare Plant Rank (CRPR) Categories:

1B = Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA)

2B = Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA)

CRPR Threat Rank Extensions:

.1 Seriously endangered in California (>80% of occurrences are threatened and/or high degree and immediacy of threat)

.2 Fairly endangered in California (20 to 80% of occurrences are threatened)

.3 Not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

² AMSL = above mean sea level

*Covered Species under the South Sacramento Habitat Conservation Plan (SSHCP) AND the project area is within SSHCP modeled habitat for the identified species (County of Sacramento, et al. 2018).

- = not applicable

ft = feet

CEQA = California Environmental Quality Act

ESA = federal Endangered Species Act

CESA = California state Endangered Species Act

Sources: CDFW 2020; CNPS 2022; County of Sacramento, et al. 2018

Table BR-3: Special Status Wildlife Species

Scientific Name	Common Name	Regulatory Status ¹			Habitat Requirements	Distribution	Potential for Occurrence
		Federal	State	CDFW			
Crustaceans							
<i>Branchinecta conservatio</i>	Conservancy fairy shrimp	FE	-	-	Large, turbid vernal pools in valley and foothill grassland habitat; prefers pools that are inundated until June.	Endemic to the grasslands of the northern two-thirds of the Central Valley	Highly unlikely to occur; No vernal pools or seasonal wetlands identified within the project area. However, vernal pools identified within a 0.5-mile radius of the project area in the Stone Lakes National Wildlife Refuge. Soils sampled within the project area were disturbed silt loams.
<i>Branchinecta lynchi</i> *	vernal pool fairy shrimp	FT	-	-	Occurs primarily in small, clear-water sandstone-depression vernal pools and grassland swales or basalt-flow depression vernal pools.	Endemic to California's Central Valley and coastal ranges from Shasta County in the north to Tulare County in the south. A population in Jackson County, Oregon was discovered in 1998.	Highly unlikely to occur; No vernal pools or seasonal wetlands identified within the project area. However, vernal pools identified within a 0.5-mile radius of the project area in the Stone Lakes National Wildlife Refuge. Soils sampled within the project area were disturbed silt loams.

<i>Lepidurus packardi</i> *	vernal pool tadpole shrimp	FE	-	-	Vernal pools in valley and foothill grassland; pools commonly found in grass-bottomed swales of unplowed grasslands. Has been identified in pools that are mud-bottomed and highly turbid. Has also been identified in seasonal pools in unplowed grasslands with historic alluvial soils underlain by hardpan or in sandstone depressions.	Occurs in California's Central Valley and the San Francisco Bay and southern Oregon; however, most individuals are found in the Sacramento Valley.	Highly unlikely to occur; No vernal pools or seasonal wetlands identified within the project area. However, vernal pools identified within a 0.5-mile radius of the project area in the Stone Lakes National Wildlife Refuge. Soils sampled within the project area were disturbed silt loams.
Insects							
<i>Danaus plexippus</i>	monarch butterfly	FC	-	-	Adult monarch butterflies during breeding and migration (spring through fall) require a diversity of blooming nectar resources. Also need milkweed (for both oviposition and larval feeding) within nectaring habitat. In western North America, nectar and milkweed resources are often associated with riparian corridors.	Globally distributed; there are two North American populations, east and west of the Rocky Mountains. Migratory monarchs in the western population primarily overwinter in groves along the coast of California and Baja California.	May occur; Milkweed species are present along the Sacramento Drainage Canal, the unnamed (Stone Lake) channel, and the roadside edges along Hood-Franklin Road (AECOM field surveys January and July 2022).
<i>Desmocerus californicus dimorphus</i> *	valley elderberry longhorn beetle	FT	-	-	Host plant is the elderberry shrub (<i>Sambucus nigra</i>). Prefers to lay eggs in elderberry stems 2–8 inches in diameter; some preference shown for “stressed” elderberries. Elderberry bushes in western North America are associated with riparian forests along rivers and streams but can also occur as isolated shrubs distant from rivers or streams.	Occurs throughout the Central Valley.	Highly unlikely to occur; No suitable habitat (elderberry shrubs) present in the project area. There are no CNDDDB records of the species within 3 miles of the project area.
<i>Elaphrus viridus</i>	Delta green ground beetle	FT	-	-	Inhabits vernal pool grassland habitats; adults are usually found along the margins of vernal pools and bare areas where they hide in mud cracks and low-growing vegetation. Most observations of the delta green ground beetle have been along the margins of playa pools formed on Pescadero clay soils. Dense / high invasive plant cover may disrupt the beetle's feeding regime.	Solano County, California; near Olcott Lake and along the west side of Cook Lane within the Jepson Prairie area. Monitoring efforts continue, however, past and present surveys do not provide adequate information to reveal trends in the distribution of the beetle.	Highly unlikely to occur; No vernal pools or seasonal wetlands identified within the project area. However, vernal pools identified within a 0.5-mile radius of the project area in the Stone Lakes National Wildlife Refuge. Soils sampled within the project area were disturbed silt loams.

Fish							
<i>Oncorhynchus mykiss irideus</i> pop. 11	Steelhead – Central Valley DPS	FT	-	-	Aquatic; Sacramento/San Joaquin Rivers. Cool streams with suitable spawning habitat and conditions allowing migration, as well as marine habitats. Slow-flowing and standing waters.	Populations documented in the Sacramento and San Joaquin rivers, their tributaries, and associated slough channels.	May occur; Straying individuals may occur in Sacramento Drainage Canal and unnamed (Stone Lake) channel but no spawning would occur in these waterways. The channels may provide suitable habitat for juvenile rearing or foraging due to connectivity to the Sacramento River via tributaries, sloughs, floodplains, and irrigation channels. Project area is located within National Marine Fisheries Service (NMFS) designated Essential Fish Habitat - Pacific Coast Salmon FMP (2022).
<i>Acipenser medirostris</i>	Green sturgeon – southern DPS	FT	-	-	Aquatic, anadromous fish; Can live in both fresh and saltwater. Spawning and juvenile rearing activity takes place in rivers followed by a migration to saltwater to feed, grow, and mature before returning to freshwater to spawn. They are a long-lived, slow-growing fish. Spends majority of life in nearshore oceanic waters, bay, and estuaries; spawns in fresh water rivers.	First described in San Francisco Bay in 1857. Can be found from Alaska to Mexico but most commonly encountered north of Point Conception, California.	May occur; Known to spawn in Sacramento River. Unnamed (Stone Lake) channel may provide suitable habitat for foraging, and rearing/foraging due to proximity to the Sacramento River and hydrologic connectivity via tributaries, sloughs, floodplains, and irrigation channels.
<i>Pogonichthys macrolepidotus</i>	Sacramento Splittail	-	-	SSC	Aquatic; estuary, freshwater marsh, Sacramento/San Joaquin flowing waters. Slow moving river sections, dead end sloughs. Requires flooded vegetation for spawning and foraging for young.	Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay, and associated marshes.	May occur; Unnamed (Stone Lake) channel may provide suitable habitat for foraging, and rearing/foraging due to proximity to the Sacramento River and hydrologic connectivity via tributaries, sloughs, floodplains, and irrigation channels.

<i>Spirinchus thaleichthys</i>	Longfin Smelt	FC	ST	-	Aquatic; found in open waters of estuaries, mostly in the middle or bottom of a water column. Prefers salinities of 15–30 ppt, but can be found in completely freshwater to almost pure seawater	Found along the Pacific Coast, from Alaska to California.	May occur; Unnamed (Stone Lake) channel may provide suitable habitat for foraging, and rearing/foraging due to proximity to the Sacramento River and hydrologic connectivity via tributaries, sloughs, floodplains, and irrigation channels. Species is more commonly found in coastal regions.
<i>Hypomesus transpacificus</i>	Delta Smelt	FT	SE	-	Aquatic; inhabits estuarine areas in the Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait & San Pablo Bay. Seldom found at salinities > 10 ppt. Most often at salinities < 2ppt.	Endemic to California; only occurs in the San Francisco Estuary.	May occur; Unnamed (Stone Lake) channel may provide suitable habitat for foraging, and rearing/foraging due to proximity to the Sacramento River and hydrologic connectivity via tributaries, sloughs, floodplains, and irrigation channels. Project area is located within USFWS designated Final Critical Habitat (2022).
<i>Oncorhynchus tshawytscha</i>	Sacramento River Winter-Run Chinook Salmon ESU	FE	SE	-	Aquatic; Cool rivers and large streams that reach the ocean and that have shallow, partly shaded pools, riffles, and runs.	Found along the Pacific Coast and inland rivers and tributaries from Alaska to California.	May occur; Straying individuals may occur in Sacramento Drainage Canal and unnamed Stone Lake channel but no spawning would occur in these waterways. The channels may provide suitable habitat for juvenile rearing or foraging. Project area is located within National Marine Fisheries Service (NMFS) designated Essential Fish Habitat.

<i>Oncorhynchus tshawytscha</i>	Central Valley Spring-Run Chinook Salmon ESU	FT	ST	-	Aquatic; Cool rivers and large streams that reach the ocean and that have shallow, partly shaded pools, riffles, and runs.	Found along the Pacific Coast and inland rivers and tributaries from Alaska to California.	May occur; Unnamed (Stone Lake) channel may provide suitable habitat for migration, foraging, and rearing/foraging due to proximity to the Sacramento River and hydrologic connectivity via tributaries, sloughs, floodplains, and irrigation channels. Project area is located within National Marine Fisheries Service (NMFS) designated Essential Fish Habitat.).
Amphibians							
<i>Spea hammondi</i> *	Western spadefoot	-	-	SSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Throughout the Central Valley and adjacent foothills.	May occur; No vernal pools or seasonal wetlands identified within the project area. However, vernal pools identified within a 0.5-mile radius of the project area in the Stone Lakes National Wildlife Refuge.
<i>Rana draytonii</i>	California red-legged frog	FT	-	SSC	Requires dense, shrubby riparian vegetation associated with deep (>2.3 feet), still or slow-moving water in 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 and must have access to aestivation habitat.	Currently known only from isolated localities in the Sierra Nevada, northern Coast, and northern Transverse Ranges. It is believed to be nearly extirpated from the southern Transverse and Peninsular ranges. This species is still common in the San Francisco Bay area, along the central coast, and portions of Baja Mexico.	Highly unlikely to occur; The project area is outside of the species' currently known range. Suitable habitat within the project area is limited to the slow-moving unnamed (Stone Lake) channel within the project area. It is widely accepted that Valley populations have been nearly extirpated.

<i>Ambystoma californiense</i>	California tiger salamander	FT	ST	WL	Vernal pools and other seasonal wetlands, including stock ponds, with adequate inundation period and adjacent uplands, primarily grasslands, with burrows and other belowground refugia. Tiger salamanders have been documented travelling up to 1 mile between upland refugia and wetland habitats.	Endemic to California. Occurs from near Petaluma and Sonoma Counties, east through the Central Valley in Yolo and Sacramento Counties and south to Tulare County, and from the vicinity of San Francisco Bay south to Santa Barbara County.	Highly unlikely to occur; No vernal pools or seasonal wetlands identified within the project area. However, vernal pools occur within a 0.5-mile radius of the project area in the Stone Lakes National Wildlife Refuge. The nearest extant population is approximately 10 miles east of the project area in vernal pool grasslands in eastern Sacramento County (CDFW 2022). Multiple roadways are a barrier to this species and inhibit movement to the project area.
Reptiles							
<i>Emys marmorata</i> *	western pond turtle	-	-	SSC	Aquatic; ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation. Needs basking sites and suitable (i.e., sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	West of the Sierra-Cascade crest and absent from desert regions, except in the Mojave Desert along the Mojave River and its tributaries. Below 6,000 feet elevation.	May occur; Suitable habitat for the species is present in the Sacramento Drainage Canal and the unnamed (Stone Lake) channel. There are two records of the species within 3 miles of the project area.
<i>Thamnophis gigas</i> *	giant garter snake	FT	ST	-	Occurs in marshes, sloughs, ponds, small lakes, low gradient streams, and other waterways or agricultural wetlands. The habitat must have enough water during breeding season (early spring–mid fall), emergent wetland vegetation, and openings in wetland vegetation for basking, and high elevation uplands to provide cover and refuge during winter seasons.	Historical range was in the Sacramento and San Joaquin valleys but its current range is much reduced, and it apparently is extirpated south of Fresno County, except for western Kern County.	May occur; Suitable habitat for the species is present in the Sacramento Drainage Canal and the unnamed (Stone Lake) channel. There are multiple CNDDB observation records within a 3-mile radius of the project area, one of which is within 0.5-mile.

Birds							
<i>Accipiter cooperii</i> * (nesting)	Cooper's hawk	-	-	WL	Variety of woodland habitats; nests mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	Breeding resident throughout most of the wooded portion of the state.	May occur; Foraging habitat is present within agricultural fields and meadows. Suitable nesting habitat is present within the Valley Oak riparian habitat identified during the surveys.
<i>Agelaius tricolor</i> * (nesting colony)	tricolored blackbird	-	SE	SSC	Highly colonial. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	Most numerous in the Central Valley and vicinity. Generally endemic to California.	May occur; There are five records of the species within 3 miles of the project area, four of which are nesting colonies in blackberry thickets (CDFW 2022).
<i>Ammodramus savannarum</i>	Grasshopper sparrow	-	-	SSC	Occurs in grasslands, prairies, hayfields, and open pastures with little to no scrub cover and often with some bare ground. Can tolerate some brushy habitat but avoid areas that are too overgrown. Winters primarily in grass-dominated fields. During the summer, preys on grasshoppers and other insects. Eats mostly seeds in winter, which they glean exclusively from the ground. Exposed bare ground is critical for effective foraging. Nests on the ground, often at the base of a clump of grass within extensive patches of tall grasses or sedges.	Known breeding range for western species along the coast of California and throughout the Central Valley.	May occur; Open pastures and fields provide suitable foraging habitat and tall sedges / grasses in the vicinity of the Sacramento Drainage Canal and the unnamed (Stone Lake) channel may provide suitable nesting habitat.

<i>Athene cunicularia</i> * (burrow sites and some wintering sites)	Burrowing owl	-	-	SSC	Open, dry, annual or perennial grasslands, deserts, and scrublands, characterized by low-growing vegetation. Dependent on burrowing mammals, most notably, the California ground squirrel, for underground nests.	Resident throughout California in suitable habitat.	Highly unlikely to occur; Habitat within the project area is marginal due to proximity to Sacramento River and large waterways that experience seasonal flooding. No berms, hillocks, or mounds observed beyond project area boundaries. Ground squirrels only observed within Valley Oak Riparian Habitat. No CNDDDB records have been identified within 0.5-mile of the project area. No burrows were observed during field surveys.
<i>Buteo swainsoni</i> * (nesting)	Swainson's hawk	-	ST	-	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.	Uncommon breeding resident and migrant in the Central Valley, Klamath Basin, Northeastern Plateau, Lassen County, and Mojave Desert.	May occur; Foraging habitat is present within agricultural fields and meadows. Suitable nesting habitat is present within the Valley Oak riparian habitat identified during the surveys. There are five CNDDDB observations recorded within 0.5-mile of the project area.
<i>Coccyzus americanus occidentalis</i> (nesting)	Western yellow-billed cuckoo	FT	SE	-	Found in riparian forest along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape. Prefers patches of riparian habitat greater than 81 hectares (0.81 square kilometer) in size and at least 328 feet (100 meters) in width; combined with a canopy height 16-99 feet (5-30 meters) and understory height 3-20 feet (1-6 meters) (Hughes 2020).	In California, breeding restricted to isolated sites in South Fork Kern River, lower Colorado River, and Sacramento River valleys, with current breeding populations in California estimated to be about 40-50 pairs.	Highly unlikely to occur; Riparian forest within the project area is patchy and limited. Last CNDDDB observation in Sacramento County was in 2010. Nearest CNDDDB record is an 1896 record located approximately 2.5 miles north of Hood, CA in the vicinity of Clarksburg, CA.

<i>Elanus leucurus</i> * (nesting)	White-tailed kite	-	-	FP	Open grasslands, meadows, or marshes for foraging, close to dense-topped trees for nesting and perching. Nest trees may be growing in isolation, or at the edge of or within a forest.	Coastal and valley lowlands, and cismontane regions of California.	May occur; Foraging habitat is present within agricultural fields and meadows. Suitable nesting habitat is present within the Valley Oak riparian habitat identified during the surveys. One white-tailed kite was observed roosting in the project area during the January 2022 survey.
<i>Falco peregrinus anatum</i>	American peregrine falcon	FD	SD	FP	Found near wetlands, rivers, lakes, or other water; nests on cliffs, banks, dunes, mounds, tall buildings and bridges. Riparian habitats and inland wetlands are important habitats yearlong, especially during the nonbreeding season.	Active nesting sites are known along the coast north of Santa Barbara, in the Sierra Nevada, and in other mountains of northern California. In winter, found inland throughout the Central Valley.	May occur; No suitable nest sites or foraging habitat within the project area, however flyovers may occur.
<i>Lanius ludovicianus</i> * (nesting)	loggerhead shrike	-	-	SSC	Frequents open habitats with sparse shrubs and trees, other suitable perches, bare ground, and low or sparse herbaceous cover. Prefers habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. Nests in trees or shrubs, often in thorny vegetation.	Lowlands and foothills throughout California.	May occur; Suitable habitat is present in the project area including open areas with scattered trees, agricultural fences, posts, and rural residential shrubs. Western fence lizards (prey species) present.
<i>Laterallus jamaicensis coturniculus</i> (year-round)	California black rail	-	ST	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.	San Francisco Bay area, the Delta, coastal southern California at Morro Bay and a few other locations, the Salton Sea, and lower Colorado River area.	Highly unlikely to occur; No suitable perennial marsh or wet meadow habitat is present within the project area, however, one CNDDB record is present within 0.5-mile of the project area.
<i>Melospiza melodia</i> (year-round)	song sparrow – “Modesto” population	-	-	SSC	Moderately dense vegetation to supply cover for nest sites, a source of standing or running water, semi-open canopies to allow light, and exposed ground or leaf litter for foraging. Seems to prefer emergent freshwater marshes dominated by tules and cattails as well as riparian willow thickets.	Restricted to California, where it is locally numerous in the Sacramento Valley, the Delta, and northern San Joaquin Valley.	Highly unlikely to occur; No suitable marsh or riparian willow habitat in the project area. No CNDDB records within 0.5-mile of the project area.

<i>Xanthocephalus xanthocephalus</i>	Yellow-headed blackbird	-	-	SSC	Breeds in wetlands in prairies, mountain meadows, quaking aspen parklands, and shallow areas of marshes, ponds, and rivers. Nests in cattails, bulrushes, or reeds, often alongside nesting Red-winged Blackbird colonies. Forages in surrounding grasslands, croplands, or savanna. During winter, large flocks forage together in crop fields, ranchlands, and farmyards from Arizona, New Mexico, and Texas through much of Mexico.	Nationwide distribution; Migrates through the Central Valley	Highly unlikely to occur; No suitable marsh expanses or riparian willow habitat in the project area. Last CNDDDB observation in Sacramento County was in 1899.
Mammals							
<i>Taxidea taxus</i> *	American badger	-	-	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.	Throughout most of the state, except in the northern North Coast region	Unlikely to occur; Habitat within the project area is limited due to agricultural disturbance and urban activity, however, one CNDDDB observation was recorded within 0.5-mile of the project area.
<i>Sylvilagus bachmani</i> ssp. <i>riparius</i>	Riparian Brush Rabbit	FE	SE	-	Riparian forests with a dense understory shrub. If the forest canopy is closed, there is rarely adequate brush to support a population. There must be small clearings for the rabbits to bask in the sun and feed on a variety of herbaceous vegetation. They live in tunnels that run through vines and shrubs of low growing mats of California wild rose and Pacific blackberry. Associated species include wild grape, Douglas' coyote bush, and grasses.	Limited to San Joaquin County and northern Stanislaus County. Only two populations occurred at the time of listing, one at Caswell State Park and one at the Faith Ranch. Brushy riparian areas along the Old, Stanislaus, Tuolumne, and San Joaquin rivers, and brushy vegetation along Paradise Cut and Tom Paine Slough. Two rabbit carcasses were collected along the Middle River during March of 2017 .	Highly unlikely to occur; Valley oak riparian woodland documented within the project area is limited. The project area is outside of the species' known range.

<i>Lasiurus blossevillei</i> *	Western red bat	-	-	SSC	Roosts almost exclusively in trees, where their coloring helps them blend in among the leaves and branches. They prefer riparian habitats near water, and roost in sycamore, cottonwood, velvet ash, and elder trees. Can also be found in fruit and nut orchards, particularly in California's Central Valley.	Across western North America, ranging from southern Canada, through the western United States, down to Central America.	May occur; Valley oak riparian woodland adjacent to the project area provides adequate roosting locations while the nearby Sacramento River provides adequate foraging habitat and a large, open, slow-moving water source.
<p>¹ Regulatory Status Definitions: Federal Status Categories FC = Listed as candidate under Federal Endangered Species Act FE = Listed as endangered under the Federal Endangered Species Act FT = Listed as threatened under Federal Endangered Species Act California State Status Categories SCE = Listed as candidate endangered under California Endangered Species Act SE = Listed as endangered under California Endangered Species Act ST = Listed as threatened under California Endangered Species Act California Department of Fish and Wildlife (CDFW) Categories FP = Fully Protected SSC = Species of Special Concern WL = Watch List</p> <p>* Covered Species under the South Sacramento Habitat Conservation Plan (SSHCP) AND the project area is within SSHCP modeled habitat for the identified species (County of Sacramento, et al. 2018). CDFW = California Department of Fish and Wildlife DPS = Distinct Population Segment ppt = parts per thousand</p> <p>Sources: CDFW 2020; CDFW 2022; County of Sacramento, et al. 2018; Western Monarch and Milkweed Occurrence Database 2022</p>							

Plate BR-3: Critical Habitats

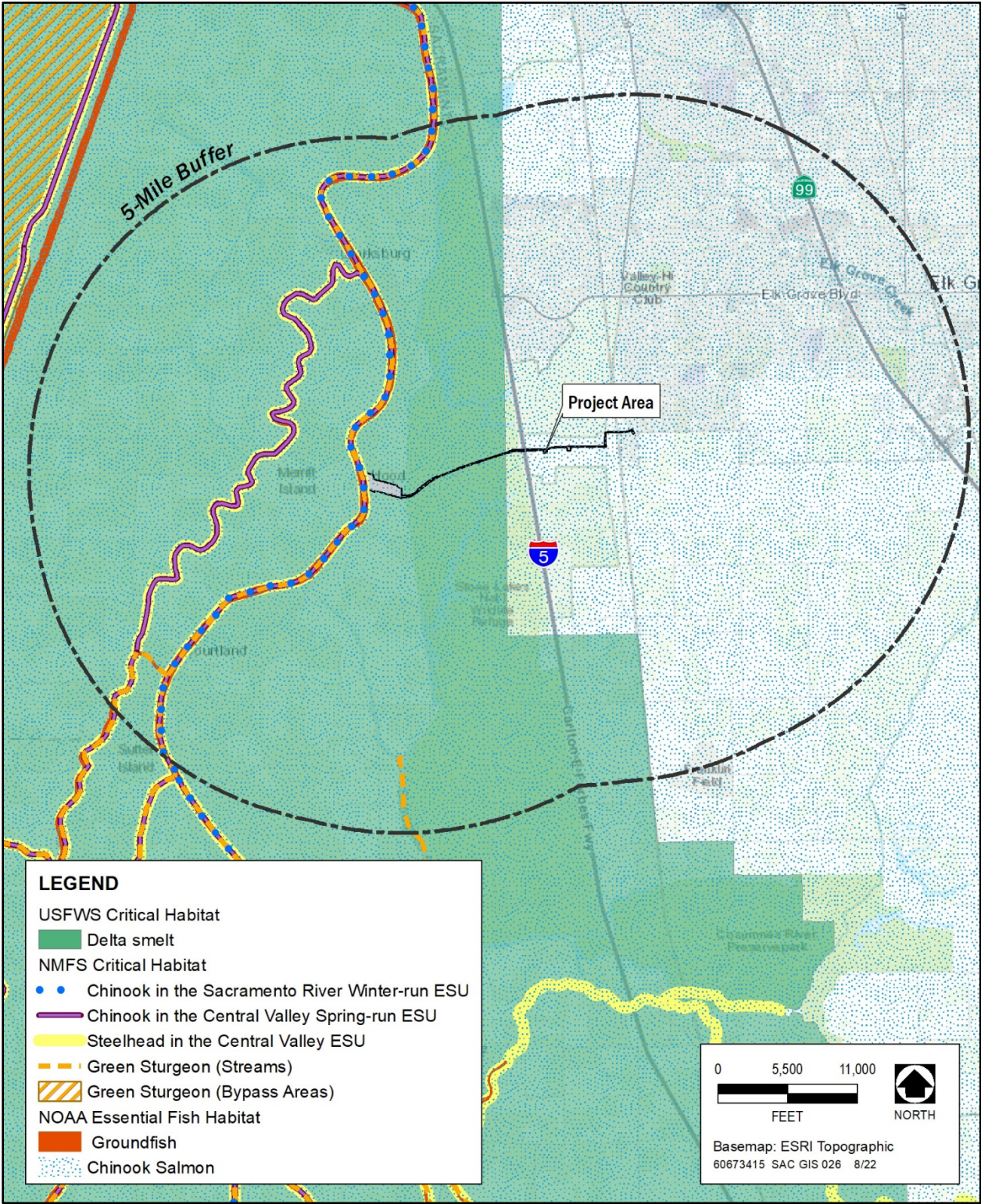
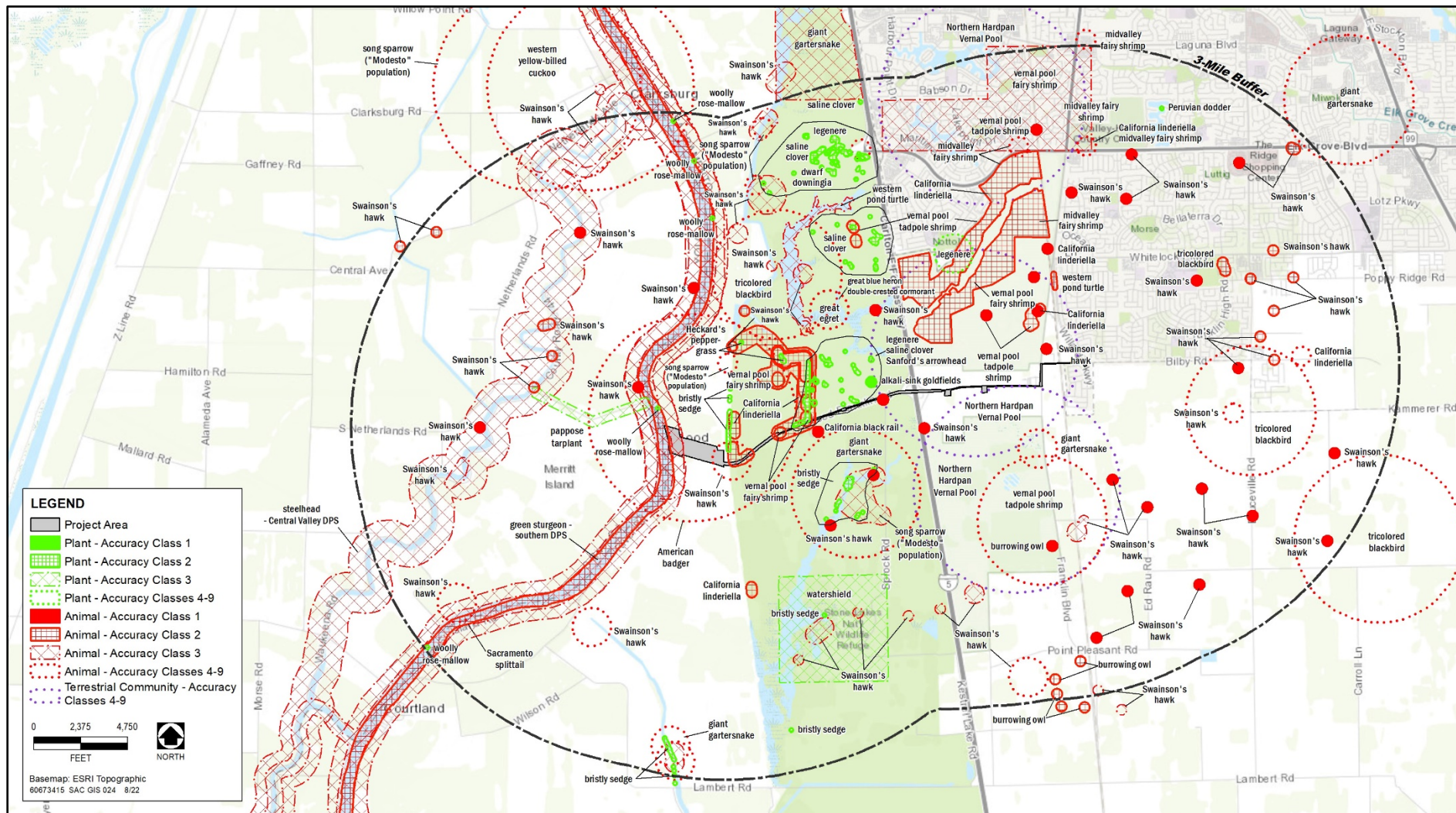


Plate BR-4: CNDDDB 3 Mile Radius



6.3 REGULATORY SETTING

FEDERAL

The two major federal laws regulating impacts to wetlands and wildlife species are the Clean Water Act (Section 404 and 401) and the Endangered Species Act (Section 7, 9, and 10). The U.S. Army Corps of Engineers (USACE) is responsible for administering the Clean Water Act (CWA), Section 404, with the U.S. Environmental Protection Agency serving in an oversight capacity. The U.S. Fish and Wildlife Service (USFWS) is responsible for administering the Endangered Species Act, Sections 7, 9, and 10. The Regional Water Quality Control Board is the regulatory agency that enforces Section 401 of the CWA.

CLEAN WATER ACT SECTION 401 AND 404 PERMIT GUIDELINES

The USACE regulates discharge of dredged or fill material into waters of the United States under Section 404 of the CWA. Waters of the U.S. are generally defined as “navigable waters,” which are defined as traditional navigable waters that are or were used for commerce, or may be used for interstate commerce; tributaries of navigable waters; and wetlands adjacent to navigable waters. “Discharge of fill material” is defined as the addition of fill material into waters of the U.S., including, but not limited to the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; fill for intake and outfall pipes and subaqueous utility lines [33 C.F.R. §328.2(f)].

The Central Valley Regional Water Quality Control Board (Regional Water Board) regulates wetlands pursuant to Section 401 of the CWA. Section 401 of the CWA (33 U.S.C. 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

FEDERAL ENDANGERED SPECIES ACT

Under the Federal Endangered Species Act (FESA) of 1973, the Secretary of the Interior and the Secretary of Commerce jointly have the authority to list a species as endangered or threatened. FESA defines “endangered” species as any species in danger of extinction throughout all or a significant portion of its range. A “threatened” species is any species that is likely to become an “endangered” species within the foreseeable future throughout all or a significant portion of its range. Additional special-status species include “candidate” species and “species of concern.” “Candidate” species are those for which USFWS has enough information on file to propose listing as endangered or threatened. “Species of concern” are those for which listing is possibly appropriate but for which USFWS lacks sufficient information to support a listing proposal. A species that has been “delisted” is one whose population has met its recovery goal target and is no longer in

jeopardy of extinction. Taking of federally listed species is prohibited under Section 9 of FESA. To “take” is defined by FESA (Section 2[19]) to mean “to harass, harm, pursue, hunt, shoot, would, kill, trap, capture, or collect, or attempt to engage in any such conduct.”

All government agencies must review their actions and determine if a “may affect” situation occurs with respect to a federally listed or proposed species. If the agency makes a “may affect” determination, it is then required to formally consult with National Oceanic and Atmospheric Administration, Fisheries.

For federal agencies, the consultation is conducted under Section 7 of FESA. The agency submits a Biological Assessment to USFWS that evaluates the potential adverse effects to federally listed species. USFWS then prepares a Biological Opinion that addresses the requirements that must be followed to avoid, minimize, and compensate for impacts to federally listed species and their habitats.

For non-federal agencies or individuals (i.e. private applicants), the consultation is conducted under Section 10 of FESA. The agency or individual submits an incidental take² permit application to USFWS accompanied by a habitat conservation plan (HCP). The purpose of the habitat conservation planning process associated with the permit is to ensure there is adequate minimization and mitigation of the effects of the authorized incidental take. The purpose of the permit is to authorize the incidental take of a listed species, not to authorize the activities that result in take (USFWS 2005).

Further explanation is provided in the following notification, which was submitted to the County by USFWS for inclusion³ into all environmental documents when threatened or endangered species may be adversely affected:

As a requirement of the Department of Interior, U.S. Fish and Wildlife Service, the following notification is provided to proponents of any Project that has the potential to adversely affect threatened or endangered species:

“The applicant is hereby notified of additional conditions as stipulated by the U.S. Fish and Wildlife Service. Features of the applicant’s Project may adversely affect federally listed threatened or endangered species. An applicant must go through one of two processes to obtain authorization to take federally listed species incidental to completing his or her Project. One of the processes is formal consultation. When the authorization or funding of a Federal agency is an aspect

² Incidental take is take of listed fish or wildlife species that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by a federal agency or applicant (50 CFR 402.2).

³ As a condition of the USFWS Biological Opinion for the “Fazio Water” 101-514 water contract, the County of Sacramento has agreed to include Fish and Wildlife notification language in Initial Studies and EIRs when endangered and threatened species may be adversely affected.

of a Project that may affect federally listed species, Section 7 of the Endangered Species Act requires the Federal agency to formally consult with the Service.

Formal consultation is concluded when the Service issues a biological opinion to the Federal agency. The biological opinion includes terms and conditions to minimize the effect of take on listed species. The Federal agency must make the terms and conditions of the biological opinion into binding conditions of its own authorization to the Project applicant. An example of this process is when the U.S. Army Corps of Engineers consults with the Service prior to issuing a permit to fill jurisdictional waters under Section 404 of the Clean Water Act. The terms and conditions of the biological opinion become binding on the Project applicant through the Corps' 404 authorization. When no Federal funding or authorization is involved in a Project, an applicant must prepare a habitat conservation plan and obtain a permit directly from the Service in accordance with Section 10(a)(1)(B) of the Act. For additional information on these processes please contact the Endangered Species Division of the U.S. Fish and Wildlife Service's Sacramento Fish and Wildlife Office at (916) 414-6600."

MIGRATORY BIRD TREATY ACT

The Migratory Bird Treaty Act (MBTA) of 1916 established federal responsibilities for the protection of nearly all native species of birds, their eggs, and nests. Section 16 U.S.C. 703–712 of the Act states “unless and except as permitted by regulations, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill” a migratory bird. A migratory bird is any native species or family of birds that live, reproduce or migrate within or across international borders at some point during their annual life cycle. Currently, there are 1,093 migratory birds protected nationwide by the MBTA, of which 58 are legal to hunt.

STONE LAKES NATIONAL WILDLIFE REFUGE

Established in 1992, Stone Lakes National Wildlife Refuge is an urban refuge, under the care of USFWS, located 10 miles from downtown Sacramento between the City of Elk Grove and agricultural lands. Conserving and enhancing Central Valley habitat and wildlife, the refuge hosts a variety of Central Valley habitats including grassland savannah, riparian forest, wetlands, and native freshwater lakes. Year-round and seasonal public use activities include the free environmental education site Blue Heron Trails, docent guided walks, wildlife viewing paddle program, and a waterfowl hunting program. In addition to these activities, the refuge also hosts numerous school environmental education field trips and habitat restoration projects.

STATE

The three most important state laws regulating wildlife species, streams, and wetlands are the California Endangered Species Act (CESA) (Section 2081), Section 1600 of the Fish and Game Code, and the Porter-Cologne Water Quality Control Act. The first two are administered by the State Department of Fish and Wildlife (CDFW), and the latter is administered by the Regional Water Board.

CALIFORNIA ENDANGERED SPECIES ACT (CESA)

The CESA (established in Fish and Game Code §2050) generally parallels the main provisions of the FESA and is administered by CDFW for most terrestrial species, with assistance from the National Oceanic and Atmospheric Administration Fisheries for most freshwater fishery species. The CESA prohibits taking state listed species except as otherwise provided by state law. Unlike FESA, the CESA extends the take prohibitions to not only listed species but also for candidate species while CDFW reviews a listing petition it has accepted for consideration. "Take" is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Section 2081 of the CESA identifies the following criteria that must be met for CDFW to authorize the take of endangered, threatened or candidate species:

- The taking of a listed or candidate species can be minimized and fully mitigated.
- The take would not jeopardize the continued existence of the species.
- Authorization for take must be based on the best scientific material that is reasonably available, and that due consideration will be given to the species' ability to survive and reproduce.

CALIFORNIA FISH AND GAME CODE

ANIMALS AND PLANTS

Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the Fish and Game Code or any regulation made pursuant thereto. Section 3503.5 make it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by the Fish and Game Code or any regulation adopted pursuant thereto. Sections 1908, 3511, 4700, 5050 state that Fully Protected plant and animals or parts thereof may not be taken or possessed at any time.

SURFACE WATERS

Fish and Game Code Section 1602 requires any person, State or local governmental agency, or public utility to notify CDFW before beginning any activity that will do one or more of the following: 1) substantially obstruct or divert the natural flow of a river, stream, or lake; 2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or 3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake. Fish and Game Code Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the state.

Notification is generally required for any project that will take place in the vicinity of a river, stream, or lake. CDFW will determine whether a Lake or Streambed Alteration Agreement is required for the activity. An agreement will be required if the activity could substantially adversely affect an existing fish and wildlife resource. If an agreement is required, it will be prepared by CDFW in coordination with the applicant. The agreement will include

measures, as necessary, to protect fish and wildlife resources while conducting the project.

PORTER-COLOGNE WATER QUALITY CONTROL ACT

The Porter-Cologne Water Quality Control Act (State Water Code Section 13020) mandates that all the waters of the state be protected, that activities and factors affecting water quality be regulated to attain the highest water quality “within reason”, and that the state be prepared to exercise its power and jurisdiction to protect water quality from degradation. Waters of the state are defined as any surface or groundwater within the boundaries of the state. The Regional Water Board issues permits, with varying conditions, to allow the discharge of dredge or fill material or a waiver of waste discharge into waters of the state.

LOCAL

SACRAMENTO COUNTY GENERAL PLAN

The General Plan contains numerous goals, policies, concepts and strategies to protect and/or preserve biological resources. The following provides the goals and policies applicable to the proposed Project:

CO-25. Support the preservation, restoration, and creation of riparian corridors, wetlands and buffer zones.

CO-58. Ensure no net loss of wetlands, riparian woodlands, and oak woodlands.

CO-59. Ensure mitigation occurs for any loss of or modification to the following types of acreage and habitat function:

- vernal pools,
- wetlands,
- riparian,
- native vegetative habitat, and
- special status species habitat.

CO-60. Mitigation should be directed to lands identified on the Open Space Vision Diagram and associated component maps (please refer to the Open Space Element).

CO-61. Mitigation should be consistent with Sacramento County-adopted habitat conservation plans.

CO-62. Permanently protect land required as mitigation.

CO-64. Consistent with overall land use policies, the County shall support and facilitate the creation and biological enhancement of large natural

preserves or wildlife refuges by other government entities or by private individuals or organizations.

CO-66. Mitigation sites shall have a monitoring and management program including an adaptive management component including an established funding mechanism. The programs shall be consistent with Habitat Conservation Plans that have been adopted or are in draft format.

CO-69. Avoid, to the extent possible, the placement of new major infrastructure through preserves unless located along disturbed areas, such as existing roadways.

CO-138. Protect and preserve non-oak native trees along riparian areas if used by Swainson's hawk, as well as landmark and native oak trees measuring a minimum of 6 inches in diameter or 10 inches aggregate for multi-trunk trees at 4.5 feet above ground.

CO-139. Native trees other than oaks, which cannot be protected through development, shall be replaced with in-kind species in accordance with established tree planting specifications, the combined diameter of which shall equal the combined diameter of the trees removed.

SOUTH SACRAMENTO COUNTY HABITAT CONSERVATION PLAN

The South Sacramento County Habitat Conservation Plan (SSHCP) is a regional approach to conserving species and addressing issues related to urban development, habitat conservation, open space preservation, and agricultural protection. The SSHCP, is a collaborative effort by the County and its partners including the City of Rancho Cordova, City of Galt, the Sacramento Regional County Sanitation District, the Capital Southeast Connector Joint Powers Authority, and the Sacramento County Water Agency (Permittees).

The intent of the SSHCP is to streamline the permitting process for projects that engage in development-related "Covered Activities" inside the SSHCP urban development area or UDA and provide a mechanism by which the Permittees could be authorized to issue permits that allow landowners to engage in specific development activities that could result in the incidental take of listed species.

The SSHCP Covered Activities fall into eight general categories:

- Urban development within the SSHCP UDA,
- Mining in the SSHCP UDA,
- Rural transportation projects,
- Recycled water projects,
- Covered activities in preserve setbacks in the SSHCP UDA,
- SSHCP preserve system covered activities, and
- Covered activities in the Laguna Creek Wildlife Corridor of the preserve system.

The Permittees have adopted a developer-paid fee based on loss of habitat acreage, habitat type, and long-term management costs. Fees would fund the habitat preservation, restoration and management elements of the SSHCP (SSHCP, 2018). Generally, the SSHCP would allow projects to move forward in the UDA with a refined permitting process resulting the payment of fees, which would then be used toward habitat preservation, restoration and management of larger pieces of land outside of the SSHCP UDA.

6.4 SIGNIFICANCE CRITERIA AND METHODOLOGY

SIGNIFICANCE CRITERIA

Standards for determining thresholds of significance were established based on the State CEQA Guidelines and professional standards. Impacts to biological resources were considered significant if the project would result in the following:

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 CDFW or USFWS;
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plan, policies, regulations, or by the CDFW or USFWS.
3. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, costal, 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 approved local, regional, or state habitat conservation plan.

METHODOLOGY

The methodologies used to determine significance rely on documents published by or endorsed by regulatory agencies. The applicable documents and methods are cited and described in the applicable impact discussions below. In absence of such published documents, the analyses rely on the general definitions of significance. In addition, a biological report and aquatic resources delineation were prepared for the proposed project, as follows:

- Aquatic Resources Delineation Report prepared by AECOM dated July 2022 (Appendix BR-1)
- Biological Resources Survey Report prepared by AECOM dated July 2022 (Appendix BR-2)

DESKTOP SURVEYS

AECOM queried the California Native Plant Society Rare Plant Inventory (CNPS 2022) and California Natural Diversity Database (CDFW 2022) for records of special-status species occurring within a nine-quadrangle area containing and surrounding the project area, including Courtland, Thornton, Isleton, Rio Vista, Liberty Island, Florin, Bruceville, Clarksburg, and Saxon U.S. Geological Survey (USGS) 7.5 minute quadrangles (USGS 2018a–i). Additionally, AECOM reviewed publicly available data provided by USFWS Information for Planning and Conservation project planning tool (USFWS 2022), the USGS National Hydrography Dataset (NHD), the USFWS Critical Habitat Mapper, and the SSHCP (County of Sacramento, et al. 2018).

FIELD SURVEYS

AECOM biologists conducted reconnaissance-level biological surveys on January 11, May 25, and July 7, 2022 within the project area. Surveys were conducted primarily from within the public roadway ROWs and sensitive resource locations and habitat boundaries have been digitized using a combination of aerial imagery, field measurements and observations, and mobile handheld global positioning system (GPS) units. The field survey efforts included mapping and verification of land cover types and vegetation, assessment of habitat conditions for potential to support special-status species, and field assessment of potential project impacts to sensitive biological resources. Weather conditions were sunny and clear during all survey dates, with a high temperature of 58° Fahrenheit in January, 103° Fahrenheit in May, and 92° Fahrenheit in July. Vegetation communities within the project area were characterized and evaluated for their potential to support special-status species. Botanical species observed within the project area were identified to the taxonomic levels necessary to determine regulatory status or protection.

Aquatic resources identification and delineation investigations (Investigations) were conducted on May 26, 2022 and on July 7, 2022 by AECOM within the project area centered on the proposed Project alignment. The Investigations were conducted in accordance with the protocols set forth in the U.S. Army Corps of Engineers (USACE) 1987 Corps of Engineers Wetland Delineation Manual (USACE 1987) and Regional Supplements: Arid West Region (USACE 2012), as well as current industry standards and methods for the classification of waterways.

6.5 IMPACTS AND ANALYSIS

IMPACT BR-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 CDFW OR USFWS

SPECIAL STATUS PLANTS

The Sacramento-San Joaquin Delta contains freshwater, brackish, and saline marshes and swamps, and this habitat supports multiple special-status plants. Eight special-status plant species have potential to occur in the project area: watershield (*Brasenia schreberi*), bristly sedge (*Carex comosa*), Peruvian dodder (*Cuscuta obtusiflora* var. *glandulosa*), woolly rose- mallow (*Hibiscus lasiocarpus* var. *occidentalis*), alkali-sink goldfields (*Lasthenia chrysantha*), Legenere (*Legenere limosa*), Mason's lilaeopsis (*Lilaeopsis masonii*), and Sanford's arrowhead (*Sagittaria sanfordii*) (AECOM 2022).

Although the report prepared by AECOM indicates that suitable habitat for the above plant species are within or adjacent to the project area, no special status plants were observed during site surveys. Most of the noted plants are associated with waterways. Onsite suitable habitat includes the streams, waterways, and roadside ditches shown at the western portion of the site at R1, R2, and R3 shown in Plate BR-2.

Outside of the community of Hood, project related construction activities (with the exception of temporary staging areas addressed separately below) are located within the County Right of Way (ROW) along Hood Franklin Road in areas of existing pavement or disturbed shoulders and will be limited to open cut trenching or horizontal directional boring activities. Lateral connections on private property are constructed with horizontal drilling in front yards or side yards of developed properties. Since trenching and boring will be located in areas already developed or disturbed, it is not expected to directly impact special status plant habit is most areas of the project. Special status plants are most likely to occur in the aquatic habitats in the vicinity of potentially jurisdictional waters. Waters R1 and R3 intersect the forecmain alignment. Waters R2 are located immediately adjacent the paved road. Therefore, special status plants could be located within and immediately adjacent to the project footprint.

Within the Community of Hood, project related construction activities for the installation force mains will be limited to existing roadways and adjacent front or side yards of residential and commercial sites for the installation of sewer laterals. No suitable special status plant habitat was identified by AECOM except for a narrow band of Valley Oak Riparian Forest along the Sacramento River (see sensitive habitats section below).

Project staging areas are proposed within areas identified as annual grassland. Annual grassland is characterized by a predominance of wild oats, brome grasses and other nonnative plants. There is a potential for special status plants to be located within the staging areas and in the vicinity of where horizontal drilling is expected to utilized where Hood Franklin Road crosses features R1 and R3.

In addition to direct impacts, projects can result in indirect impacts when adjacent to sensitive resources. In this case, habitat within and beyond the boundaries of the project area may contain special status plants, which may be impacted by construction dust,

sedimentation, or erosion. Additionally, horizontal direct drilling and bore and jack procedures (to be utilized at waterway crossings) bring the risk of a frac-out (the inadvertent return of drilling lubricant), which could adversely affect waterways in the project area quality and special-status species that depend on them. Also, runoff of contaminants (e.g., fuel, lubricants) from construction vehicles and equipment could adversely affect aquatic habitats should an accidental spill or incident occur. Plant species are also vulnerable to the spread of non-native invasive weeds.

Construction activities in staging areas and in the vicinity of delineated resources R1, R2 and R3 pose a potentially significant impact to individual special status plants if they are present on the project site. Mitigation is included to implement protocol-level species surveys to determine if individual plants are present within the construction footprint. In the event a special status plant is found, measures are in place to work with CDFW and determine appropriate next steps to avoid impacts to plants.

In addition, indirect impacts can be lessened through implementation of a series of best management practices aimed at reducing temporary impacts from construction activities. With Implementation of mitigation measures BR-1 though BR-2 impacts would be ***less than significant***.

INSECTS

MONARCH BUTTERFLY

The iconic black and orange monarch butterfly is known for its annual migration and reliance on milkweed as its obligate larval host plant. Though genetically similar, there are two subpopulations of monarchs in North America, with the eastern population overwintering in Mexico and breeding in the midwestern states, and the western population overwintering in coastal California and fanning out across the west from Arizona to Idaho.

In 2014, monarchs were petitioned to be listed under the federal Endangered Species Act. In December 2020, the U.S. Fish and Wildlife Service found that listing was warranted but precluded by other listing actions on its National Priority List. The monarch is currently slated to be listed in 2024. In California, monarchs are included on the CDFW Terrestrial and Vernal Pool Invertebrates of Conservation Priority list, and identified as a Species of Greatest Conservation Need in California's State Wildlife Action Plan. California law (Fish and Game Section 1002) prohibits the take or possession of wildlife for scientific research, education, or propagation purposes without a valid Scientific Collection Permit (SCP) issued by CDFW.

Protection of monarch butterfly focuses on preservation of their habitat, milkweed. Milkweed, the host plant for Monarch butterflies, was detected within the project area during field surveys in the vicinity of delineated waters. To avoid impacts to this species, a preconstruction survey will be performed prior to the start of construction and if necessary non-disturbance buffers will be established. Milkweed has been included as part of the protocol surveys that will be required for special status plants. Through application of the mitigation measures for special status plants (BR-2), impacts to monarch butterflies will be ***less than significant***.

SPECIAL STATUS FISH SPECIES

The Biological Resources Survey Report prepared by AECOM indicates that the Sacramento Drainage Canal and the unnamed Stone Lake channel within the project area may support special status fish species such as central valley steelhead (*Oncorhynchus mykiss irideus* pop. 11), Green sturgeon (*Acipenser medirostris*), Sacramento Splittail (*Pogonichthys macrolepidotus*), Longfin smelt (*Spirinchus thaleichthys*), Delta smelt (*Hypomesus transpacificus*), Sacramento River Winter- Run Chinook Salmon (*Oncorhynchus tshawytscha*), and Central Valley Spring-Run Chinook Salmon (*Oncorhynchus tshawytscha*). Additionally, the report indicates that the project area contains critical habitat for the delta smelt and Essential Fish Habitat for steelhead and salmon.

Although these waterways may provide habitat for the above listed special status fish species and are designated as critical and essential habitats, the waterways will be crossed via horizontal directional drilling or bore and jack to avoid direct impacts to water quality and sensitive aquatic resources. Direct impacts to the fish and fish habitat are expected to be **less than significant**. Furthermore, mitigation measure BR-1 will implement construction BMPs and will further minimize the potential for impacts to special status fish species and habitat.

AMPHIBIANS

WESTERN SPADEFOOT

The western spadefoot (*Scaphiopus (Spea) hammondi*) occurs in shallow, seasonal wetlands in valley and foothill habitats such as grasslands, open chaparral, sage scrubland, short-grass plains, and pine woodlands. Spadefoot occur in both grazed and ungrazed habitat. Adult spadefoot occupy burrows up to three feet in depth in upland habitat during dry periods to avoid desiccation. Individuals may remain in these burrows for eight to nine months. Most surface activity is nocturnal. The spadefoot leave their upland burrows for wetlands during the breeding season, which lasts from January to August, depending on rainfall. It appears that vernal pools and other temporary wetlands may be optimal for breeding due to the absence or reduced abundance of both native and nonnative predators (bullfrogs, fish, and crawfish), many of which require more permanent water sources. Current research on amphibian conservation suggests that average habitat utilization falls within 1,200 feet of aquatic habitats⁴.

The Biological Resources Survey Report prepared by AECOM indicates that, although no habitat for the western spadefoot toad is present within the project area, vernal pools within the Stone Lakes National Wildlife Refuge north and south of the project area, may provide suitable habitat for this species, and because of species mobility, individual western spadefoot have the potential to traverse the project area along Hood Franklin

⁴ United States Fish and Wildlife Service, 2005. Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. Portland, Oregon.

Road in the vicinity of the Stone Lakes National Wildlife Refuge. Mortality of individual spadefoot would be considered a potentially significant impact.

Mitigation is recommended to reduce impacts to western spadefoot. Measures include implementing protocols to avoid entrapment in the construction site or in erosion materials, and an outlined protocol in the event that western spadefoot are encountered. With the implementation of mitigation measure BR-3, impacts to western spadefoot toads would be ***less than significant***.

REPTILES

GIANT GARTER SNAKE

The following discussions are based on the Programmatic Formal Consultation⁵ published for the giant garter snake (*Thamnophis gigas*). Endemic to wetlands in the Sacramento and San Joaquin valleys, the giant garter snake inhabits marshes, sloughs, ponds, small lakes, low gradient streams, and other waterways and agricultural wetlands, such as irrigation and drainage canals and rice fields. Essential habitat components consist of (1) adequate water during the snake's active period (i.e., early spring through mid-fall) to provide a prey base and cover, (2) emergent, herbaceous wetland vegetation, such as cattails and bulrushes, for escape cover and foraging habitat; (3) upland habitat for basking, cover, and retreat sites; and (4) high elevation uplands for cover and refuge from flood waters. Giant garter snakes are typically absent from larger rivers and other water bodies that support introduced populations of large, predatory fish, and from wetlands with sand, gravel, or rock substrates. Riparian woodlands do not provide suitable habitat because of excessive shade, lack of basking sites, and absence of prey populations.

The Programmatic Formal Consultation defines giant garter snake habitat as 2 acres of upland for every one acre of aquatic habitat – or put another way, it encompasses the water plus 200 feet of upland on either side. This establishes that a 200-foot setback from aquatic habitat must be implemented in order to achieve complete avoidance.

The Biological Resources Report prepared by AECOM indicates that the identified waterways (R1 and R3 - the Sacramento Drainage Canal and the unnamed Stone Lake Channel) within the project area provide suitable aquatic habitat for giant garter snake. Waters R1 and R3 intersect the foremain alignment, so the canals and associated 200 foot upland habitat for giant garter snake lies within the construction footprint for the foremain on Hood Franklin Road.

Mitigation has been included to implement avoidance and minimization measures to avoid impacts to giant garter snake for work occurring within potential giant garter snake habitat. Measures include implementing work in potential giant garter snake habitat within the

⁵ United States Fish and Wildlife Service. November 13, 1997. Programmatic Formal Consultation for U.S. Army Corps of Engineers 404 Permitted Projects with Relatively Small Effects on the Giant Garter Snake within Butte, Colusa, Glenn, Fresno, Merced, Sacramento, San Joaquin, Solano, Stanislaus, Sutter and Yolo Counties, California.

designated work window, conducting pre construction surveys, implementing measures to avoid entrapment, and following snake encounter protocols in the event that a snake is encountered. With implementation of mitigation measures BR-4 impacts to giant garter snake would be ***less than significant***.

WESTERN POND TURTLE

The western pond turtle (*Emys marmorata*)⁶, is listed as a California Species of Special Concern by the California Department of Fish and Wildlife. According to the Fish and Wildlife Life History Account for the species, the western pond turtle is an aquatic turtle that usually leaves the aquatic site to reproduce, to aestivate, or to overwinter. Western pond turtles require some slack- or slow-water aquatic habitat. High-gradient streams with minimal cover or basking habitat are not suitable. In pond environments the species typically only leaves the water to reproduce, whereas in stream environments the turtles more commonly leave the water to aestivate or overwinter, in addition to leaving for reproduction. Turtles leave the water to overwinter in October or November, and typically become active in March or April. Mating typically occurs in late April or early May, but may occur year-round. Most egg-laying occurs in May or June, but may occur as early as April or as late as August. The hatchlings remain in the nest over the winter, and emerge in the spring. Suitable nesting locations have dry soils (usually in a substrate with a high clay or silt fraction) on a slope that is unshaded and may be at least partially south-facing. The nest site can be up to 1,300 feet from the aquatic habitat, but it is more typical for the nest to be within 300 feet of aquatic habitat. The protocols outlined in the SSHCP recommend a survey buffer of 300 feet around aquatic habitat.

The Biological Resources Report prepared by AECOM indicates that the identified waterways (R1, R2 and R3) within the project area provide suitable aquatic habitat for western pond turtle. Waters R1 and R3 intersect the forcemain alignment, so the canals and associated 300 foot upland habitat for western pond turtle lies within the construction footprint for the forcemain on Hood Franklin Road. The drainage ditch delineated as R2 is outside of the project footprint, but the 300 foot upland habitat buffer would intersect the forcemain alignment and associated area of construction activity.

Mitigation has been included to implement avoidance and minimization measures to avoid impacts to western pond turtle for work occurring within potential western pond turtle habitat. Measures include implementing work in potential western pond turtle habitat within the designated work window, conducting pre construction surveys, implementing measures to avoid entrapment, and following western pond turtle encounter protocols in

⁶ The western pond turtle was identified as being comprised of two subspecies, one of which was the northwestern pond turtle (*Clemmys marmorata marmorata*). It is still listed as such in the Fish and Game Life History Account, as the account was written in 1994; however, the current special animals list clarifies that subsequent research has shown that the subspecies designations were not warranted, and the western pond turtle is now tracked only by species, not subspecies.

the event that a turtle is encountered. With implementation of mitigation measure BR-5 impacts to western pond turtle would be ***less than significant***.

BIRDS

The Biological Resources Report prepared by AECOM indicates that the following special status avian species have been identified as having potential to occur on or near the project site: Cooper's hawk (*Accipiter cooperii*), tricolored blackbird (*Agelaius tricolor*), grasshopper sparrow (*Ammodramus savannarum*), Swainson's hawk (*Buteo swainsoni*), white-tailed kite (*Elanus leucurus*), and loggerhead shrike (*Lanius ludovicianus*).

SWAINSON'S HAWK

The Swainson's hawk (*Buteo swainsoni*) is listed as a Threatened species by the State of California and is a candidate for federal listing as threatened or endangered. It is a migratory raptor typically nesting in or near valley floor riparian habitats during spring and summer months. Swainson's hawks were once common throughout the state, but various habitat changes, including the loss of nesting habitat (trees) and the loss of foraging habitat through the conversion of native Central Valley grasslands to certain incompatible agricultural and urban uses has caused an estimated 90% decline in their population.

Swainson's hawks feed primarily upon small mammals, birds, and insects. Their typical foraging habitat includes native grasslands, alfalfa and other hay crops that provide suitable habitat for small mammals. Certain other row crops and open habitats also provide some foraging habitat. The availability of productive foraging habitat near a Swainson's hawk's nest site is a critical requirement for nesting and fledgling success. In central California, about 85% of Swainson's hawk nests are within riparian forest or remnant riparian trees. CEQA analysis of impacts to Swainson's hawks consists of separate analyses of impacts to nesting habitat and foraging habitat.

The CEQA analysis provides a means by which to ascertain impacts to the Swainson's hawk. When the analysis identifies impacts, mitigation measures are established that will reduce impacts to the species to a less than significant level. Project proponents are cautioned that the mitigation measures are designed to reduce impacts and do not constitute an incidental take permit under the California Endangered Species Act (CESA). Anyone who directly or incidentally takes a Swainson's hawk, even when in compliance with mitigation measures established pursuant to CEQA, may violate the California Endangered Species Act.

NESTING HABITAT

Outside of the community of Hood, this portion of Sacramento County is chiefly characterized by large agricultural or natural preserve properties with little to no development and containing scattered trees that can provide suitable nesting habitat. Within the community of Hood, the project area is largely built out with properties designated for residential and industrial uses. This area predominantly contains a landscape typical of rural residential neighborhoods and native and non-native ornamental trees are scattered throughout the community. On the very west edge of the project area along the Sacramento River a riparian area contains larger trees provide

suitable nesting habit for larger birds. Construction activities in close proximity to nesting sites could disturb and disrupt nesting activities and potentially result in nest abandonment. These impacts would be potentially significant.

For determining impacts to and establishing mitigation for nesting Swainson's hawks in Sacramento County, CDFW recommends implementing the measures set forth in the Fish and Wildlife Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California (November 1, 1994). These state that no intensive new disturbances, such as heavy equipment operation associated with construction, should be initiated within ¼ mile of an active Swainson's hawk nest in an urban setting or within ½ mile in a rural setting between March 1 and September 15. The document recommends that surveys be conducted for the two survey periods immediately prior to the start of construction. The five survey periods are defined by the timing of migration, courtship, and nesting in a typical year (refer to Table BR-4). Surveys should extend a ½-mile radius around all project activities, and if active nesting is identified, CDFW should be contacted.

Table BR-4: Recommended Survey Periods for Swainson's Hawk (TAC 2000)

Period #	Timeframe	# of surveys required	Notes
I.	Jan. 1 – Mar. 20	1	Optional, but recommended
II.	Mar. 20 – Apr. 5	3	
III.	Apr. 5 – Apr. 20	3	
IV.	Apr. 21 – June 10	N/A	Initiating surveys is not recommended during this period
V.	June 10 – July 30	3	

For example, if a project is scheduled to begin on June 20, three surveys should be completed in Period III and three surveys in Period V, as surveys should not be initiated in Period IV. It is always recommended that surveys be completed in Periods II, III and V.

Preconstruction surveys will be required to determine if there are nesting Swainson's hawks within ½ mile of the project site. The purpose of the survey requirement is to ensure that construction activities do not agitate nesting hawks, potentially resulting in nest abandonment or other harm to nesting success. If Swainson's hawk nests are found, the applicant is required to contact CDFW to determine what measures need to be implemented in order to ensure that nesting hawks remain undisturbed. The measures selected will depend on many variables, including the distance of activities from the nest,

the types of activities, and whether the landform between the nest and activities provides any kind of natural screening. Measures may include, but are not limited to, the following:

If active nests are identified within the survey area, a 0.25 mile (1,320-foot) buffer shall be established around the active nest in accordance with CDFW guidelines (CDFG 1994). No ground disturbance or other activities with potential to affect the nest shall occur within that buffer until the young have fledged or the nest becomes inactive. The buffer size may be reduced if recommended by a qualified biologist and approved by CDFW. If an active nest tree (a tree with a documented Swainson's hawk nest within the preceding five years) is identified within the Project Area and must be removed, authorization for removal of the tree shall be obtained from CDFW.

According to the 2000 Guidance for Survey Timing and Methodology for Swainson's Hawk and the Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California (November 1, 1994), the mitigation described above and included in mitigation measure BR-6 will ensure that impacts to nesting Swainson's hawks will be ***less than significant***.

NESTING RAPTORS

Raptors are defined as members of the order Falconiformes (vultures, eagles, hawks, and falcons) and the order Strigiformes (owls). Common species of raptors found locally include Cooper's hawk (*Accipiter cooperii*), red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), American kestrel (*Falco sparverius*), barn owl (*Tyto alba*), and great horned owl (*Bubo virginianus*).

Raptors and their active nests are protected by the California Fish and Game Code Sections 3503.5, 3511, and 3513. The Code states the following: "It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird." Because most raptors migrate they are also protected by the Federal Migratory Bird Treaty Act of 1918, which states "unless and except as permitted by regulations, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill" a migratory bird. Section 3(18) of the Federal Endangered Species Act defines the term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Causing a bird to abandon an active nest may cause harm to egg(s) or chick(s) and is therefore considered "take."

The project vicinity generally contains large agricultural lands with few trees but also includes the community of Hood that contains a number of mature native and nonnative trees. Additionally, on the west edge of the project area a narrow band of riparian forest lies along the Sacramento River which contains a number of larger trees. Mature trees of sufficient size to support tree-nesting raptors are located within the project area. Raptors, in general, build nests in large mature trees.

Since the project vicinity may provide suitable tree nesting habitat, construction activities may impact nesting raptors if they occur within 500 feet of suitable nesting trees; 500 feet is the buffer used by Sacramento County and other nearby jurisdictions as a screening

tool, and has been accepted by CDFW. To avoid impacts to tree-nesting raptors, mitigation is recommended requiring pre-construction nesting surveys. The purpose of the survey requirement is to ensure that construction activities do not agitate nesting raptors, potentially resulting in nest abandonment or other harm to nesting success. If raptor nests are found, the applicant is required to contact CDFW to determine what measures need to be implemented in order to ensure that nesting raptors remain undisturbed. The measures selected will depend on many variables, including the distance of activities from the nest, the types of activities, whether the landform between the nest and activities provides any kind of natural screening, and other variables.

Pre-construction surveys for nesting raptors are required prior to project related construction or land clearing activities that occur during nesting season (generally March through mid-September), for all mature trees within 500 feet of project construction activities. If nesting raptors are observed, the applicant shall consult with CDFW and determine the appropriate measures that must be implemented. If no nesting raptors are observed, no further mitigation will be required.

If active nests of protected species are found within the survey area and breeding and fledging success may be affected, a work exclusion zone shall be established around each nest by a qualified biologist. Established exclusion zones shall remain in place until all young in the nest have fledged or the nest otherwise becomes inactive (e.g., due to predation). Appropriate exclusion zone sizes shall be determined by a qualified biologist and may vary dependent upon bird species, nest location, existing visual buffers, noise levels, and other factors (an exclusion zone radius may be as small as 50 feet for common, disturbance-adapted species or as large as 250 feet or more for raptors). Exclusion zone size may be reduced from established levels if supported with nest monitoring findings by a qualified biologist indicating that work activities outside the reduced radius are not adversely impacting the nest. With implementation of recommended mitigation measure BR-7, impacts to nesting raptors are ***less than significant***.

TRICOLORED BLACKBIRD

The tricolored blackbird (*Agelaius tricolor*) is protected under the California Fish and Game Code (Sections 3503 and 3800). In March of 2019, tricolored blackbird was listed as a State threatened species under the California Endangered Species Act.

Reasons for decline of tricolored blackbird populations include loss of nesting and foraging habitat. According to the California Department of Fish and Wildlife Life History Account for the tricolored blackbird (*Agelaius tricolor*), the species is mostly a resident in California, and common locally throughout the Central Valley. The species is a colonial nester which breeds near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, and tall herbs. Nesting colonies usually support a minimum of 50 pairs. The species feeds in grassland and cropland habitats. The usual breeding season is mid-April into late July.

The Biological Resources Report indicates that Himalayan blackberry were observed within the Ruderal/ Disturbed, Valley Oak Riparian Woodland and Sacramento Drainage

Canal areas. These areas may support nesting habitat for tricolored blackbird. Equipment operation and noise associated with construction activities may disturb nesting birds. If construction activities are proposed during the breeding season (March 1 through July 31) pre-construction surveys shall be conducted where suitable nesting habitat is present within 300 feet of the Project site. If tricolored blackbirds are found nesting within 300 feet of the survey area, the California Department of Fish and Wildlife shall be contacted and appropriate avoidance and impact minimization measures shall be implemented. This may include establishing a buffer or postponing construction until fledging of all nestlings (about July 31). Specific measures cannot be outlined at this time, because the extent and type of measures required are highly situational, depending on distance to the nest, the number of nesting individuals, the type of nesting substrate, and other factors. If no tricolored blackbirds are found during the pre-construction survey, no further mitigation would be required. With mitigation measure BR-8, impacts to tricolored blackbird are ***less than significant***.

MAMMALS

WESTERN RED BAT

There are many bat species which can be found in Sacramento County, the following of which are listed as special status: pallid bat (*Antrozous pallidus*), western red bat (*Lasiurus blossevillei*), and Yuma myotis bat (*Myotis yumanensis*). The pallid bat and western red bat are state-listed Species of Special Concern, while the Yuma myotis is a special animal. All three bat species roost within either natural or human-made structures, such as caves, mines, crevices (including under bridges), hollow trees, and in abandoned or seldom-used buildings. Young are born to the species in the spring and early summer (maternity colonies typically begin to form in April, and births occur from May through early July, depending on the species). Threats to the species include loss of foraging and roosting habitat, and disruption of maternity colonies.

The Biological Resources report prepared by AECOM indicates that the Valley Oak Riparian Woodland located along the Sacramento River provide suitable roosting habitat and the Sacramento River Provides suitable foraging habitat for western red bat. No tree removal is expected, but construction activity associated with the project has the potential to disturb roosting bats. Mitigation is included to address the potential for roosting bats in the project area through pre-construction surveys and implementation of protection measures if bats are found. With implementation of mitigation measure BR-9, impacts are ***less than significant***.

IMPACT BR-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

VALLEY OAK RIPARIAN HABITAT

Riparian habitat is simply defined as a distinct community of plants and animals found in and alongside a stream or river. These communities can be up to a mile wide adjacent to large rivers, or a narrow border along the banks of small creeks. A stream is defined as a linear flowing waterway, either ephemeral or perennial, with a defined bed and banks. For riparian habitat, an impact is defined as any direct removal or modification of the habitat.

According to the Biological Resources Assessment prepared by AECOM, the project area consists of eight (8) land cover types including Valley Oak Riparian Habitat. The riparian habitat within the project area is limited to a narrow band along the Sacramento River and westernmost portion of the Southern project area boundary (refer to Plate BR-2).

The proposed project will result in the installation of sewer lines within roadway and developed parcels within the community of Hood, which lies east of the identified riparian habitat. Tree removal would only be necessary if there was enough encroachment that survival of the tree past installation would not be viable. If tree removal is necessary, mitigation would occur on an inch by inch basis for native trees (see native tree section below). The project would not result in the loss of riparian habitat. The western most extent of work related activities is expected to be along River Road, which lies approximately 200 feet east of the riparian habitat along the Sacramento River and no direct or indirect impacts are expected to occur to the habitat along the river. The southern most extent of work will be along Blair Street and within a developed residential property that lies between Alameda Street and 3rd street. Work related activities in this area may be within 50 feet of the riparian habitat along the southern boundary of the project area, however, existing residential structures will be located between the work area and riparian habitat and no indirect impacts are expected. Impacts related to riparian habitat are ***less than significant***.

IMPACT BR-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

WATERWAYS AND ROADSIDE DITCHES

Aquatic resources identification and delineation investigations (Investigations) were conducted on May 26, 2022 and on July 7, 2022 by AECOM within the project area centered on the alignment. The Investigations were conducted in accordance with the protocols set forth in the U.S. Army Corps of Engineers (USACE) 1987 Corps of Engineers Wetland Delineation Manual (USACE 1987) and Regional Supplements: Arid West Region (USACE 2012), as well as current industry standards and methods for the classification of waterways.

During the Investigation, a total of three potentially jurisdictional waterways were identified within the extent of the project area, these have been designated as R1, R2, and R3 by AECOM for the purposes of this assessment. The proposed project area will intersect R1 and R3 and parallels R2 along Hood-Franklin Road. All project waterways are hydrologically connected to North Stone Lake and Stone Lake; R1 and R3 support flow from north to south. All project waterways have been designated by the US Fish and Wildlife Service as Final Critical Habitat for the Delta Smelt (2022) and the National Marine Fisheries Service (NMFS) as Essential Fish Habitat - Pacific Coast Salmon FMP (2022). Additionally, AECOM identified one potentially non jurisdictional, low lying swale/ drainage ditch along the north side of Hood-Franklin Road.

There are two general types of impact to habitats: direct and indirect. A direct impact occurs when a wetland is destroyed by construction activities within the wetland margin. An indirect impact occurs when activities near the wetland cause secondary effects, such as hydrologic changes which reduce the amount of water flowing to the wetland, or drift of pesticides and other pollutants into the wetland. There is no regulatory setback for other surface waters, but the County Environmental Review Section has typically required a minimum 50-foot setback⁷. Maintenance of these setbacks will avoid indirect impacts to the surface water. A direct impact is the filling or excavation of a surface water.

DIRECT IMPACTS

The proposed project will cross two waterways the Sacramento Drainage Canal and an unnamed Stone Lake channel. Where Hood Franklin road crosses these channels

⁷ Research suggests that some of the most common urban runoff pollutants – including sediment, nitrogen, and phosphorus – can be filtered over this distance by intervening vegetation. Source: McElfish, James M. et al. 2008. Planner's Guide to Wetland Buffers for Local Governments. Environmental Law Institute, Washington, D.C.

horizontal directional drilling efforts will be utilized to install the new sewer pipe beneath the waterways.

The Sacramento Drainage Canal, including adjacent associated habitat is approximately 110 feet wide where it intersects with Hood Franklin Road. The proposed project indicates that the sewer pipe will be bored beneath the waterway to a length of approximately 200 feet and impacts to the waterway and its adjacent habitat are not expected. The unnamed stone lake channel, including adjacent associated habitat is approximately 280 feet wide where it intersects with Hood Franklin Road. The proposed projects indicates that the sewer pipe will be bored beneath the waterway to a length of approximately 500 feet and impacts to the waterway and its adjacent habitat are not expected.

No direct impacts to waters are expected, but it is possible that construction activity could take place within the boundaries of the streambed of waters R1 or R3. In the event that in-water work is required, then required permits from the USACE and RWQCB demonstrating compliance with the Clean Water Act and Porter Cologne Water Quality Act would be required. Even though no impacts to the waterways and adjacent habitat are expected, as the work will be conducted in the vicinity of the waterways, CDFW may require that a Streambed Alteration Agreement be obtained. Mitigation has been included to apply for a streambed Alteration Agreement from the CDFW to ensure compliance with State Fish and Wildlife Code is satisfied. Additionally, mitigation is included to obtain necessary permits from the CDFW, USACE and RWQCB in the event that in-water work may be necessary. With mitigation measures BR-10 and BR-11, impacts to waterways are ***less than significant***.

INDIRECT IMPACTS

In addition to direct impacts, projects can result in indirect impacts when adjacent to waterways. In this case, habitat within and beyond the boundaries of the project area contain waterways and a roadside ditch which may be indirectly impacted by construction dust, sedimentation, or erosion. Additionally, horizontal direct drilling and jack and bore procedures (to be utilized at waterway crossings) bring the risk of a frac-out (the inadvertent return of drilling lubricant) which could adversely affect waterways in the project area. In addition, runoff of contaminants (e.g., fuel, lubricants) from construction vehicles and equipment could adversely affect aquatic habitats should an accidental spill or incident occur. These impacts are potentially significant.

These impacts can be avoided by utilizing only existing access roads to accommodate delivery of project components, implementation of BMPs and erosion control measures. In addition, runoff of contaminants (e.g., fuel, lubricants) from construction vehicles and equipment could adversely affect aquatic habitats should an accidental spill or incident occur. With Implementation of mitigation measures BR-1 impacts would be ***less than significant***.

IMPACT BR-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

MIGRATORY NESTING BIRDS

The Migratory Bird Treaty Act of 1918, which states “unless and except as permitted by regulations, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill” a migratory bird. Section 3(19) of the Federal Endangered Species Act defines the term “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Causing a bird to abandon an active nest may cause harm to egg(s) or chick(s) and is therefore considered “take.” To avoid take of nesting migratory birds, mitigation has been included to require that activities either occur outside of the nesting season, or to require that nests be buffered from construction activities until the nesting season is concluded.

Trees in the project vicinity provide potential nesting habitat for migratory birds. Additionally, tall sedges and grasses in the vicinity of the Sacramento Drainage Canal and the unamend Stone Lake channel may provide suitable nesting habitat for grasshopper sparrow. To avoid impacts to nesting birds, mitigation has been included either to require that activities occur outside of the nesting season, or to require that nests be buffered from construction activities until the nesting season is concluded. With mitigation measure BR-12, impacts to migratory birds including grasshopper sparrow are ***less than significant***.

IMPACT BR-5: WOULD THE PROJECT CONFLICT WITH ANY LOCAL POLICIES OR ORDINANCES PROTECTING BIOLOGICAL RESOURCES, SUCH AS A TREE PRESERVATION POLICY OR ORDINANCE

NATIVE TREES

The project area lies outside of the jurisdiction of the County's Tree Ordinance. The Sacramento County General Plan Conservation Element policies CO-138 and CO-139 (see regulatory section above) provide protections for native trees: Native trees other than oaks include Fremont cottonwood (*Populus fremontii*), California sycamore (*Platanus racemosa*), California black walnut (*Juglans californica*), Oregon ash (*Fraxinus latifolia*), western redbud (*Cercis occidentalis*), gray pine (*Pinus sabiniana*), California white alder (*Alnus rhombifolia*), boxelder (*Acer negundo*), California buckeye (*Aesculus californica*), narrowleaf willow (*Salix exigua*), Gooding's willow (*Salix gooddingii*), red willow (*Salix laevigata*), arroyo willow (*Salix lasiolepis*), shining willow (*Salix lucida*), Pacific willow (*Salix lasiandra*), and dusky willow (*Salix melanopsis*).

The project site contains scattered native trees along Hood Franklin and South River Road. Most trees are at a distance far enough from the paved roadway that there is no overhang of tree canopy (and therefore associated sensitive root zone) in the roadway.

There are oak trees located on the shoulder of Hood Franklin Road, just east of the I-5, in which the canopy, and therefore associated root zone, extend over the main road. There are a couple of native trees on the parcels identified as potential staging areas. These trees are on the perimeter of parcels and could be avoided.

The proposed project will result in the installation of sewer lines within roadway and developed parcels. Installation of the force main has the potential to impact native trees either through encroachment within the dripline. Root systems of mature, established trees that extend under the pavement of roadways have the potential to be impacted during force main installation. Utilization of horizontal directional drilling (HDD) construction technology allows for reduced potential impacts to native trees during construction due to the limited amount of ground disturbance. Mitigation focuses on protective measures around native trees during construction, including having an arborist onsite during subsurface construction. The certified arborist will ensure that installation of the forcemain would not permanently impact roadside native trees. In the event that substantial encroachment of individual native trees cannot be avoided, the arborist may recommend full removal.

Construction plans shall identify trees in which the pipeline alignment traverses the canopy zone; mitigation has been included below to address potential impacts. Mitigation has also been included to ensure that there is total avoidance of all trees in construction staging areas. Therefore, with mitigation measure BR-13 and BR-14, impacts to native trees are ***less than significant***.

ANNUAL GRASSLANDS

The proposed project could have temporary impacts on annual grasslands from the utilization of staging areas along Hood Franklin Road. General Plan Policy CO-59 required mitigation for the loss of acreage and habitat function of a number of habitat types including “native vegetation habitat.” The vegetation within the proposed staging areas is as mixture of non native grasses and the use of these areas will not result in the loss of native vegetation. Even though, native vegetation loss is not expected, post project, the staging areas will be returned to their existing condition and any areas subject to grading or clearing associated with staging areas will be revegetated with native or existing non-invasive, non-native plants (e.g., non-native grasses) consistent with Mitigation Measure BR-1. Impacts to annual grasslands are ***less than significant***.

IMPACT BR-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

SOUTH SACRAMENTO HABITAT CONSERVATION PLAN (SSHCP)

The project site is located within the SSHCP Plan Area, but outside the SSHCP defined Urban Development Area (UDA) (reference Plate BR-3). Only limited development activities (i.e., infrastructure) are covered by the SSHCP in areas outside the UDA, and

do not include sewer line installation such as for the proposed project. The vast majority of species habitat preservation that would be accomplished under the SSHCP conservation strategy is planned for areas outside the UDA. While the SSHCP does not preclude the development of non-Covered Activities within the SSCHP Plan Area, non-Covered Activities, especially those outside the UDA, have potential to be inconsistent with the SSHCP, including limiting the availability of lands for accomplishing species habitat preservation under the SSHCP.

The project will not result in the loss of land that could be used for future mitigation/conservation strategies associated with the SSHCP or interfere with the establishment of an integrated preserve system. Furthermore, the project will implement mitigation strategies during construction that are consistent with those described in the SSHCP as avoidance and minimization measures. Project related impacts associates with the SSHCP are ***less than significant***.

STONE LAKES NATIONAL WILDLIFE REFUGE

The Stone Lakes National Wildlife Refuge (Refuge) is located adjacent Hood Franklin Road. This portion of the refuge contains the Stone Lakes Refuge Office Headquarters, public parking areas, and preserve trails.

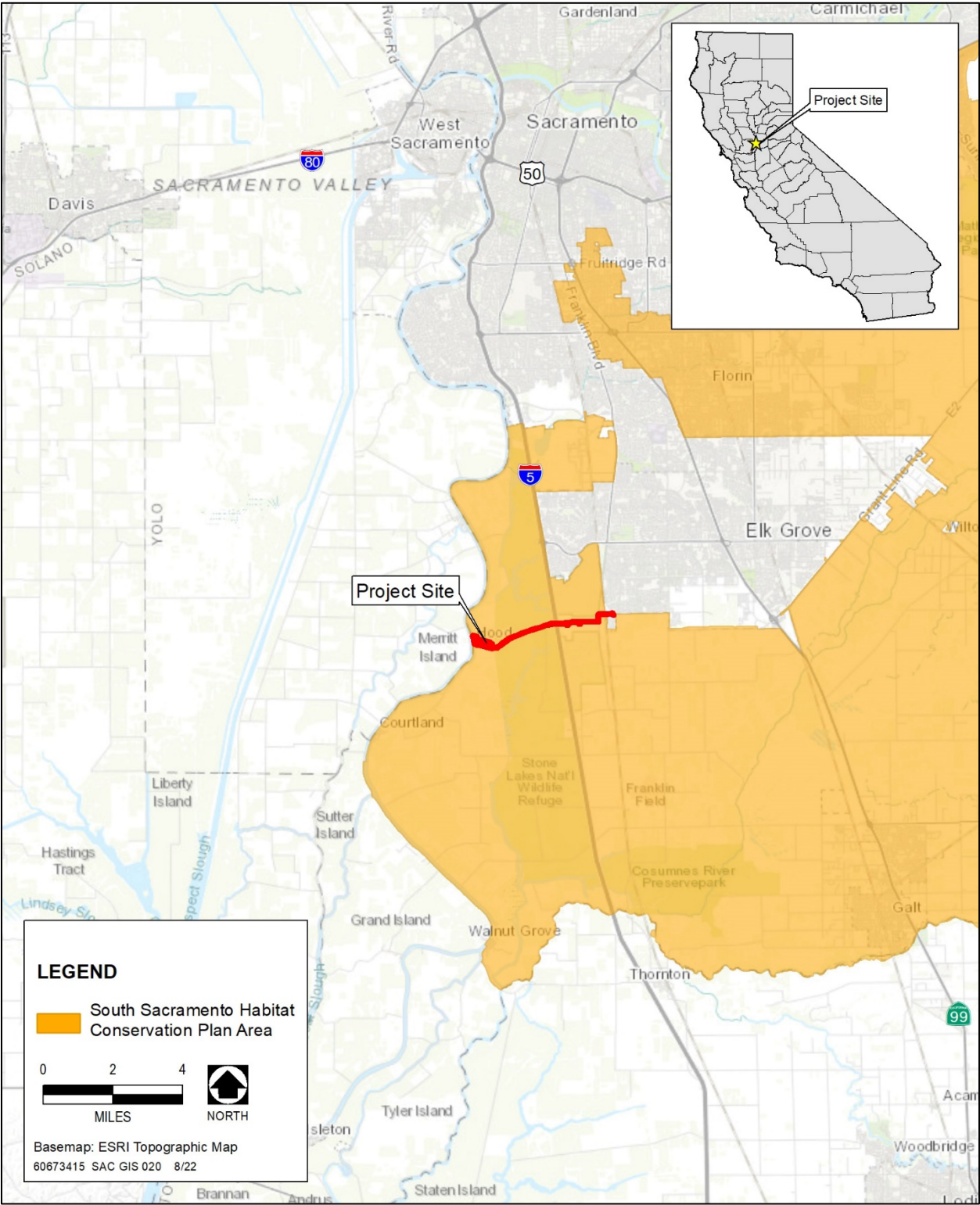
The stated Refuge management goals are to:

- Preserve, enhance, and restore a diverse assemblage of native Central Valley plant communities and their associated fish, wildlife and plants;
- Preserve, enhance, and restore habitat to maintain and assist in the recovery of rare, threatened, and endangered plants and animals;
- Preserve, enhance, and restore wetlands and adjacent agricultural lands to provide foraging and sanctuary habitat needed to achieve the distribution and population levels of migratory waterfowl and other water birds consistent with the goals and objectives of the North American Waterfowl Management Plan and Central Valley Habitat Joint Venture;
- Create linkages between refuge habitats and habitats on adjacent lands to reverse past impacts of habitat fragmentation on wildlife and plants;
- Coordinate refuge land acquisition and management activities with other agencies and organizations to maximize the effectiveness of refuge contributions to regional habitat needs;
- Provide for environmental education, interpretation and fish and wildlife oriented recreation in an urban setting accessible to large populations; and
- Manage riverine wetlands and adjacent floodplain lands in a manner consistent with local, State and Federal flood management; sediment and erosion control, and water quality objectives. (USFWS 2022).

In the vicinity of the Refuge, project related activities will include open cut trenching and/or boring within the paved portion of the Hood Franklin Road or the disturbed shoulder.

The proposed project will not be in conflict with the stated goals of the Refuge. Additionally the project will implement mitigation measure BR-1 that is intended to avoid project related impacts outside of the project area. Project related impacts associates with the Stone Lakes national Wildlife Refuge are ***less than significant***.

Plate BR-5: Project in Relation to SSHCP



6.6 MITIGATION MEASURES

MITIGATION MEASURE BR-1: CONSTRUCTION BMPS FOR BIOLOGICAL RESOURCE PROTECTION

- **Construction fencing:** Orange construction fencing will be installed to ensure that ground disturbance does not extend beyond the allowed construction footprint (i.e., the limit of project construction plus equipment staging areas and access roads).
- **Erosion Control:**
 - SASD or its contractor will install temporary control measures for sediment, stormwater, and pollutant runoff. Silt fencing or other appropriate sediment control device(s) will be installed downslope of any activity that disturbs soils with support stakes installed in such a way as to provide wildlife with a means of egress out of the project area.
 - Fiber rolls and seed mixtures used for erosion control will be certified as free of viable noxious weed seed and will be of appropriate design and materials that will not entrap wildlife (e.g., not contain mesh netting). Regular monitoring and maintenance of the project's erosion control measures will be conducted until project completion to ensure effective operation of erosion control measures.
- **Equipment Storage and Fueling**
 - Sacramento County will ensure that equipment storage and staging will occur in the development footprint only. Fuel storage and equipment fueling will occur away from waterways, stream channels, stream banks, and other environmentally sensitive areas within the development footprint.
 - If project activities result in a spill of fuel, hydraulic fluid, lubricants, or other petroleum products, the spill will be absorbed and waste disposed of in a manner to prevent pollutants from entering a waterway.
- **Erodible Materials:** Erodible materials will not be deposited into waterways, and vegetation clippings, brush, loose soils, or other debris material will not be stockpiled within stream channels or on adjacent banks. Erodible material must be disposed of such that it cannot enter a waterway or aquatic land cover type. If water and sludge must be pumped from a subdrain or other structure, the material will be conveyed to a temporary settling basin to prevent sediment from entering a waterway.
- **Dust Control:** SASD or their contractors will water active construction sites regularly, if warranted, to avoid or minimize impacts from construction dust on adjacent vegetation and wildlife habitats. No surface water will be used from

aquatic land covers; water will be obtained from a municipal source or existing groundwater well.

- **Soil Compaction:** After construction is complete, all temporarily disturbed areas will be restored similar to pre-project conditions, including impacts relating to soil compaction, water infiltration capacity, and soil hydrologic characteristics.
- **Revegetation:** Any grading or clearing associated with staging areas will be revegetated with native or existing non-invasive, non-native plants (e.g., non-native grasses) suitable for the altered soil conditions.
- **Frac-out Contingency Plan:** SASD will prepare a Frac-Out Contingency Plan (Plan) with measures designed to minimize the potential for a frac-out associated with horizontal directional drilling. The Plan will also describe measures for timely detection of frac-outs, protect areas that are considered environmentally sensitive (streams, wetlands, other ecological resources, cultural resources), and ensure an organized, timely, and “minimum-impact” response in the event a frac-out and release of drilling mud occurs.
- **Training of Construction Staff:** A mandatory Worker Environmental Awareness Program will be conducted by a qualified biologist for all construction workers, including contractors, prior to the commencement of construction activities. The training will include how to identify special-status species that might enter the construction site, relevant life history information and habitats, the consequences of non-compliance, the boundaries of the construction area and permitted disturbance zones, litter control training, and appropriate protocols if a special-status species is encountered. Supporting materials containing training information will be prepared and distributed by the biologist. When necessary, training and supporting materials will also be provided in Spanish. Upon completion of training, construction personnel will sign a form stating that they attended the training and understand all of the BMPs and Mitigation Measures.

MITIGATION MEASURE BR-2: SPECIAL STATUS PLANTS

Prior to any grading, grubbing, or excavation within 50 feet of suitable habitat (delineated waterways), rare plant surveys shall be performed. The surveys shall also include surveys for milkweed, which is known to support monarch butterfly. The surveys should be floristic in nature, meaning that all plant species found in the survey area shall be identified to the taxonomic level necessary to determine rarity and listing status. The rare plant surveyor shall have experience as a botanical field investigator and familiarity with the local flora and potential rare plants in the habitats to be surveyed. The surveys shall be conducted when the rare plants at the site will be easiest to identify (i.e. flowering stage), and when the plants reach that stage of maturity. A minimum of three site visits shall be required during the plants flowering period in order to determine absence. Each site visit must be no less than 7 days apart.

Submit a written report to SASD. The survey report should include a brief description of the vegetation, survey results (which includes a list of all species observed), photographs,

time spent surveying, date of surveys, a map showing the location of the survey route and any rare plant populations and copies of any rare plant occurrence forms. If no rare plants are found, no further mitigation for plant species is required. If a special status plant or natural community is located, complete and submit to the CNDDDB a California Native Species (or Community) Field Survey Form or equivalent written report, accompanied by a copy of the relevant portion of a 7.5-minute topographic map with the occurrence mapped. Total avoidance rare plants and milkweed shall be required unless deemed infeasible by SASD or their appointee. Total avoidance is defined as maintenance of a 50-foot buffer around all identified rare plants and milkweed combined with avoidance of substantial channel modifications. If avoidance is infeasible, notify California Fish and Wildlife and U.S. Fish and Wildlife prior to construction and comply with any permit or mitigation requirements stipulated by those agencies. Submit copies of all such correspondence, including a copy of any required permits, to SASD.

MITIGATION MEASURE BR-3: WESTERN SPADEFOOT

- **Avoid Western Spadefoot Entrapment:** All excavated steep-walled holes and trenches more than 6 inches deep will be covered with plywood (or similar material) or provided with one or more escape ramps constructed of earth fill or wooden planks at the end of each work day or 30 minutes prior to sunset, whichever occurs first. All steep-walled holes and trenches will be inspected by the approved biologist each morning to ensure that no wildlife has become entrapped. All construction pipes, culverts, similar structures, construction equipment, and construction debris left overnight within western spadefoot modeled habitat will be inspected for western spadefoot by the approved biologist prior to being moved. If a western spadefoot is encountered, refer to measure BR-14 below.
- **Erosion Control Materials in Western Spadefoot Habitat:** Non-entangling erosion control material will be used to reduce the potential for entrapment of western spadefoot. Tightly woven fiber netting (mesh size less than 0.25 inch) or similar material will be used to ensure that western spadefoots are not trapped (no monofilament). Coconut coir matting and fiber rolls containing burlap are examples of acceptable erosion control materials.
- **Western Spadefoot Encounter Protocol:**
 - If construction activities must be implemented during the breeding and dispersal season (after October 15 and before May 15), and a western spadefoot is encountered during construction activities, an approved biologist will notify the CDFW and USFWS immediately.
 - Construction activities will be suspended in a 100-foot radius of the animal until the animal leaves the project site on its own volition. If necessary, the approved biologist will notify CDFW and USFWS to determine the appropriate procedures related to relocation. If the animal is handled, a report will be submitted, including date(s), location(s), habitat description, and any corrective measures taken to protect the western spadefoot within 1 business day to CDFW and USFWS. The biologist will report any take of listed species to the USFWS and CDFW immediately. Any worker who inadvertently injures or kills a western spadefoot or who finds dead, injured,

or entrapped western spadefoot(s) must immediately report the incident to the approved biologist.

MITIGATION MEASURE BR-4: GIANT GARTER SNAKE

The following measures apply to all work that is to occur within potential giant garter snake habitat, defined as 200 feet surrounding delineated aquatic resources R1, R2, and R3 in the project area.

- **Giant Garter Snake Work Window:** Construction activities that do not fully avoid giant garter snake habitat will be conducted during the snake's active season. Construction and ground disturbing activities will be initiated after May 1 and will end prior to September 15.
- **Giant Garter Snake Monitoring:** An approved biologist experienced with giant garter snake identification and behavior will monitor the project area, including the integrity of any exclusion fencing. The approved biologist will be on site daily while construction-related activities are taking place within 200 feet of aquatic habitat, and will inspect the project area daily for giant garter snake prior to construction activities. The approved biologist will also train construction personnel on the required avoidance procedures, exclusion fencing, and protocols in the event that a giant garter snake enters an active construction zone (i.e., outside the buffer zone).
- **Avoid Giant Garter Snake Entrapment:** Where project related ground disturbing activities occur within 200 feet of the Sacramento Drainage Canal and the unnamed Stone Lake channel, all excavated steep-walled holes and trenches more than 6 inches deep will be covered with plywood (or similar material) or provided with one or more escape ramps at an angle of no more than 30 degrees constructed of earth fill or wooden planks at the end of each work day or 30 minutes prior to sunset, whichever occurs first. All steep-walled holes and trenches will be inspected by the approved biologist each morning to ensure that no wildlife has become entrapped. All construction pipes, culverts, similar structures, construction equipment, and construction debris left overnight within giant garter snake modeled habitat will be inspected for giant garter snake by the approved biologist prior to being moved.
- **Erosion Control Materials in Giant Garter Snake Habitat:** If erosion control is implemented within giant garter snake habitat, non-entangling erosion control material will be used to reduce the potential for entrapment. Tightly woven fiber netting (mesh size less than 0.25 inch) or similar material will be used to ensure snakes are not trapped (no monofilament). Coconut coir matting and fiber rolls containing burlap are examples of acceptable erosion control materials.
- **Giant Garter Snake Encounter Protocol:** If a giant garter snake is encountered during construction activities, the approved biologist will notify the Wildlife Agencies immediately. Construction activities will be suspended in a 100-foot radius of the animal until the animal leaves the project site on its own volition. If necessary, the approved biologist will notify the Wildlife Agencies to determine the appropriate procedures related to relocation. If the animal is handled, a report will be submitted, including date(s), location(s), habitat description, and any corrective

measures taken to protect the giant garter snake within one (1) business day to the Wildlife Agencies. The biologist will report any take of listed species to the U.S. Fish and Wildlife Service and CDFW immediately. Any worker who inadvertently injures or kills a giant garter snake or who finds one dead, injured, or entrapped must immediately report the incident to the approved biologist. Any giant garter snake observed during project activities will be allowed to move away from danger on its own or be moved by the approved biologist with CDFW and USFWS approval to handle the snake and in accordance with a CDFW-approved giant garter snake relocation plan.

- **Giant Garter Snake Post Construction Restoration:** After completion of ground-disturbing project activities, the applicant will remove any temporary fill and construction debris and will restore temporarily disturbed areas to pre-project conditions. Restoration work includes such activities as re-vegetating the banks and active channels with an appropriate native seed mix.. Restoration work may include replanting emergent aquatic vegetation. Refer to the U.S. Fish and Wildlife Service's (USFWS) Guidelines for the Restoration and/or Replacement of Giant Garter Snake Habitat (USFWS 1997), or the most current USFWS guidelines at the time of the activity. A photo documentation report showing pre- and post-project conditions will be submitted to the Implementing Entity 1 month after implementation of the restoration.
- **Giant Garter Snake Relocation Plan:** SASD shall be responsible for preparation of a Giant Garter Snake Relocation Plan (Relocation Plan) for project activities occurring in giant garter snake modeled habitat. Project proponents shall submit the Relocation Plan to CDFW for written approval at least 30 days prior to the beginning of any project activities within giant garter snake habitat. The Relocation Plan shall include, at a minimum, the proposed giant garter snake capture and handling technique; a quantification of the amount, relative location, and quality of suitable habitat (aquatic and upland) within proposed relocation site(s) including invasive and non-native species present, available upland burrows for aestivation and high-water refugia, suitable prey items, and potential barriers for movement; written permission from the landowner to use their land as a relocation site; and identification of a wildlife rehabilitation center or veterinary facility that routinely evaluates or treats snakes and is permitted to handle giant garter snake.
- **Pre-construction surveys:** For project activities that occur within 200 feet of modeled giant garter snake aquatic habitat, the approved biologist(s) shall conduct one pre-construction survey within 24 hours prior to beginning ground disturbing activities. The approved biologist(s) shall investigate all small mammal burrows within suitable upland habitat. The project area will be resurveyed whenever there is a lapse in construction activity of two weeks or more.

MITIGATION MEASURE BR-5: WESTERN POND TURTLE

The following measures apply to all work that is to occur within potential western pond turtle (WPT) habitat, defined as 300 feet surrounding delineated aquatic resources R1, R2 and R3 in the project area.

- **Western Pond Turtle Surveys:** If ground-disturbing construction activities are proposed within 300 feet of delineated aquatic habitat, a qualified biologist will conduct a field investigation to assess the potential for western pond turtle presence. Locations of delineated western pond turtle habitat, and individual observations will be noted on plans and used to finalize project design.
- **Western Pond Turtle Work Window:** Maintenance and improvements to existing structures may occur throughout the year as long as western pond turtle habitat is identified and avoided, and movement of equipment is confined to existing roads. Otherwise, construction and ground-disturbing activities must be conducted outside of western pond turtle's active season. Construction and ground-disturbing activities will be initiated after May 1 and will commence prior to September 15. If it appears that construction activities may go beyond September 15, SASD will consult CDFW for guidance on any additional measures needed to minimize impacts on western pond turtles.
- **Western Pond Turtle Monitoring:** If construction activities will occur within 300 feet of potential WPT aquatic habitat, a qualified biologist experienced with western pond turtle identification and behavior will monitor the project area, including the integrity of any exclusion fencing. The biologist will be on site daily while construction-related activities are taking place in aquatic habitat or within 300 feet of aquatic habitat, and will inspect the project area daily for western pond turtle prior to construction activities. The biologist will also train construction personnel on the required avoidance procedures, exclusion fencing, and protocols in the event that a western pond turtle enters an active construction zone (i.e., outside the buffer zone).
- **Western Pond Turtle Entrapment:** If construction activities occur within 300 feet of potential WPT aquatic habitat, excavated steep-walled holes and trenches more than 6 inches deep in this area will be covered with plywood (or similar material) or provided with one or more escape ramps constructed of earth fill or wooden planks at the end of each work day or 30 minutes prior to sunset, whichever occurs first. All steep-walled holes and trenches will be inspected by the qualified biologist each morning to ensure that no wildlife has become entrapped. All construction pipes, culverts, similar structures, construction equipment, and construction debris left overnight within 300 feet delineated aquatic resources will be inspected for western pond turtle by the qualified prior to being moved.
- **Erosion Control Materials in Western Pond Turtle Habitat:** If erosion control is implemented 300 feet of potential WPT aquatic habitat, non-entangling erosion control material will be used to reduce the potential for entrapment. Tightly woven fiber netting (mesh size less than 0.25 inch) or similar material will be used to ensure that turtles are not trapped (no monofilament). Coconut coir matting and fiber rolls containing burlap are examples of acceptable erosion control materials.
- **Western Pond Turtle Habitat Speed Limit:** Construction and maintenance vehicles will observe a 20-mile-per-hour speed limit within of 300 feet of all potential WPT aquatic habitat.
- **Western Pond Turtle Encounter Protocol:** If a western pond turtle is encountered during construction activities, the biologist will notify CDFW within 24 hours of detection. Construction activities will be suspended in a 100-foot radius

of the animal until the animal leaves the project area on its own volition. If necessary, the qualified biologist will notify CDFW to determine the appropriate procedures related to relocation. Any worker who inadvertently injures, kills, or otherwise harasses a western pond turtle, or who finds one dead, injured, or entrapped must immediately report the incident to a qualified biologist.

- **Western Pond Turtle Post-Construction Encounter Protocol:** After completion of ground disturbing construction activities, SASD will remove any temporary fill and construction debris and will restore temporarily disturbed areas to pre-project conditions. Restoration work includes such activities as re-vegetating the banks and active channels with a seed mix similar to pre-project conditions. Appropriate methods and plant species used to re-vegetate such areas will be determined on a site-specific basis. Restoration work may include replanting emergent aquatic vegetation and placing appropriate artificial or natural basking areas in waterways and wetlands.

MITIGATION MEASURE BR-6: SWAINSON'S HAWK

The project shall comply with the following measures for all areas of the project site to avoid potential impacts to nesting Swainson's hawk.

- A qualified biologist will conduct Swainson's hawk surveys in the project area and within 0.25 miles from the project area boundaries. Surveys will be conducted in accordance with the guidance described in Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (*Swainson's Hawk Technical Advisory Committee 2000*), Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas.
- Pre-construction surveys will be required to determine if active nests are present within a project area or within 0.25 mile of a project area if existing or potential nest sites were found during initial surveys and construction activities will occur during the breeding season (March 1 through September 15). A qualified biologist will conduct pre-construction surveys within 30 days and 3 days of ground-disturbing activities to determine presence of nesting Swainson's hawk. Pre-construction surveys will be conducted during the breeding season (March 1 through September 15).
- If active nests are found within the project area or within 0.25 mile of any project-related construction activity, SASD or their contractor will establish a 0.25 mile disturbance buffer around the active nest until the young have fledged. The size of the exclusion zone may be modified in consultation with CDFW depending on the type of construction activity and associated disturbance anticipated near the nest.
- If nesting Swainson's hawks are present within the project area or within 0.25 mile of any project-related activity, then a qualified biologist experienced with Swainson's hawk behavior will be retained by SASD or their contractor to regularly monitor the nest and to determine when the young have fledged. The qualified biologist will be on site daily while construction-related activities are taking place within the buffer. If nesting Swainson's hawks begin to exhibit agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying

off the nest, the biologist will have the authority to shut down construction activities. If agitated behavior is exhibited, the biologist, and Sacramento County will consult with CDFW to determine the best course of action to avoid nest abandonment or take of individuals. The qualified biologist will also train construction personnel on the required avoidance procedures, buffer zones, and protocols in the event that a Swainson's hawk flies into an active construction zone (i.e., outside the buffer zone).

MITIGATION MEASURE BR-7: NESTING RAPTORS

The following measures apply to the entirety of the project site to avoid impacts to nesting raptors

- **Raptor Pre-Construction Surveys:** Pre-construction surveys will be required to determine if active raptor nests are present with a project area or within 500 feet of the project area if construction activities will occur during the raptor breeding season. A qualified biologist will conduct pre-construction surveys within 30 days and 3 days of ground disturbing activities within the proposed project area and within 500 feet of the proposed project area to determine presence of nesting raptor species. Pre-construction surveys will be conducted during the raptor breeding season.
- **Raptor Nest/Roost Buffer:** If active nests are found within the project area or within 500 feet of any project-related construction activity, SASD or their contractor will establish a temporary nest disturbance buffer around the active nest until the young have fledged. A 500-foot exclusion zone shall be established around the nest in which no work will be allowed until the young have successfully fledged or nesting activity has ceased. The determination of fledging or cessation of nesting will be made by a qualified biologist with experience in nest searching and monitoring for raptors. In consultation with CDFW, the size of the exclusion zone may be modified depending on the species and the type of construction activity and associated disturbance anticipated near the nest. Active nests will be monitored periodically throughout the nesting season to identify any sign of disturbance and to document nest status.
- **Raptor Nest/Roost Buffer Monitoring:** If project-related construction activities within the temporary nest disturbance buffer are determined to be necessary during the nesting season, then SASD or their contractor will retain a qualified biologist experienced with raptor behavior to monitor the nest throughout the nesting season and to determine when the young have fledged. The biologist will be on site daily while construction-related activities are taking place within the disturbance buffer. If nesting raptors begin to exhibit agitated behavior, such as defensive flights at intruders, getting up from a brooding position, or flying off the nest, the biologist/monitor will have the authority to shut down construction activities. If agitated behavior is exhibited, the biologist and SASD will consult with CDFW to determine the best course of action to avoid nest abandonment or take of individuals. The biologist will also train construction personnel on the required avoidance procedures, buffer zones, and protocols in the event that a covered raptor species flies into an active construction zone (i.e., outside the buffer zone).

MITIGATION MEASURE BR-8: TRICOLORED BLACKBIRD

The following measures shall apply to the project areas around delineated waters R1, R2 and R3 avoid impacts to nesting tricolored blackbirds.

- **Tricolored Blackbird Pre-Construction Surveys:** If construction activities will occur within 500 feet of the seasonal marsh habitats in and surrounding delineated waters R1, R2 and R3 during the breeding season (March 1 through September 15) a pre-construction survey will be conducted for tricolored blackbird nesting activity. A qualified biologist will conduct pre-construction surveys within 30 days and within 3 days of ground-disturbing activities, within the proposed project area and 500 feet of the proposed project area to determine the presence of nesting tricolored blackbird. Pre-construction surveys will be conducted during the breeding season (March 1 through August 31). Surveys conducted in February (to meet pre-construction survey requirements for work starting in March) must be conducted within 14 days and 3 days in advance of ground-disturbing activities.
- **Tricolored Blackbird Nest Buffer:** If active nests are found within the project area or within 500 feet of any project-related construction activity, SASD or their contractor will establish a 500-foot temporary buffer around the active nest until the young have fledged.
- **Tricolored Blackbird Nest Buffer Monitoring:** If nesting tricolored blackbirds are present within the project area or within 500 feet of any project-related construction activity, then a qualified biologist experienced with tricolored blackbird behavior will monitor the nest throughout the nesting season and to determine when the young have fledged. The biologist will be on site daily while construction-related activities are taking place near the disturbance buffer. If the biologist determines that tricolored blackbirds are exhibiting agitated behavior, construction will cease until the buffer size is increased to a distance necessary to result in no harm or harassment to the nesting tricolored blackbirds. If the biologist determines that the colonies are at risk, a meeting with CDFW will be held to determine the best course of action to avoid nest abandonment or take of individuals. The biologist will also train construction personnel on the required avoidance procedures, buffer zones, and protocols in the event that a tricolored blackbird flies into an active construction zone (i.e., outside the buffer zone).

MITIGATION MEASURE BR-9: SPECIAL STATUS BATS

- **Winter Hibernaculum Surveys:** Prior to any ground disturbance related, an approved biologist will conduct a pre-construction survey within 3 days of ground-disturbing activities within the project footprint and 300 feet of the project footprint to determine the presence of winter hibernaculum sites. Pre-construction surveys will be conducted during the winter hibernaculum season (November 1 through March 31). The approved biologist will inform the SASD of species locations, and they in turn will notify the Wildlife Agencies.
- **Winter Hibernaculum Buffer:** If active winter hibernaculum sites are found within the project footprint or within 300 feet of the project footprint, the SASD or their contractor will establish a 300-foot temporary disturbance buffer around the active

winter hibernaculum site until bats have vacated the hibernaculum and the Wildlife Agencies concur.

- **Bat Eviction Methods:** An approved biologist will determine if non-maternity and non-hibernaculum day and night roosts are present on the project site. If necessary, an approved biologist will use safe eviction methods to remove bats if direct impacts to non-maternity and non-hibernaculum day and night roosts cannot be avoided. If a winter hibernaculum site is present, ground disturbance will not occur within 300 feet until the hibernaculum is vacated, or, if necessary, safely evicted using methods acceptable to the Wildlife Agencies.

MITIGATION MEASURE BR-10: IMPACTS TO JURISDICTIONAL WATERS

If construction activities will be required within delineated waters or within the associated stream channel, the SASD shall perform one or a combination of the following prior to ground disturbance, and shall also obtain all applicable permits from the Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Central Valley Regional Water Quality Control Board, and the California Department of Fish and Wildlife:

- A. Where a Section 404 Permit has been issued by the Army Corps of Engineers, or an application has been made to obtain a Section 404 Permit, the Mitigation and Management Plan required by that permit or proposed to satisfy the requirements of the Corps for granting a permit may be submitted for purposes of achieving a no net-loss of wetlands. The required Plan shall be submitted to the Sacramento County Environmental Coordinator, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service for approval prior to its implementation.
- B. If regulatory permitting processes result in less than a 1:1 compensation ratio for loss of wetlands, the Project applicant shall demonstrate that the wetlands which went unmitigated/uncompensated as a result of permitting have been mitigated through other means. Acceptable methods include payment into a mitigation bank or protection of off-site wetlands through the establishment of a permanent conservation easement, subject to the approval of the Environmental Coordinator.

MITIGATION MEASURE BR-11: LAKE AND STREAMBED ALTERATION AGREEMENT

If any work is to occur within designated streambanks of the two channel crossings, following measures will be implemented to avoid or compensate for the loss or degradation of riparian habitat, consistent with Fish and Game Code Section 1602:

- A. SASD will notify CDFW before commencing any activity within the bed, bank, or riparian corridor of any waterway. SASD and its Contractor will conduct construction activities in accordance with the agreement, including implementing reasonable measures in the agreement necessary to protect the fish and wildlife resources, when working within the bed or bank of waterways that function as a fish or wildlife resource or in riparian habitats associated with those waterways.

MITIGATION MEASURE BR-12: MIGRATORY BIRD NEST PROTECTION

To avoid impacts to nesting migratory birds the following shall apply:

1. If construction activity (which includes clearing, grubbing, or grading) is to commence within 50 feet of nesting habitat between February 1 and August 31, a survey for active migratory bird nests shall be conducted no more than 14 day prior to construction by a qualified biologist.
2. Trees slated for removal shall be removed during the period of September through January, in order to avoid the nesting season. Any trees that are to be removed during the nesting season, which is February through August, shall be surveyed by a qualified biologist and will only be removed if no nesting migratory birds are found.
3. If active nest(s) are found in the survey area, a non-disturbance buffer, the size of which has been determined by a qualified biologist, shall be established and maintained around the nest to prevent nest failure. All construction activities shall be avoided within this buffer area until a qualified biologist determines that nestlings have fledged, or until September 1.

MITIGATION MEASURE BR-13: NATIVE TREE REMOVAL

In the event that final project design requires removal of native trees, then tree removal shall be compensated for by planting in-kind native trees equivalent to the dbh inches lost, based on the ratios listed below, at locations that are authorized by the Environmental Coordinator. Native trees include: valley oak (*Quercus lobata*), interior live oak (*Quercus wislizenii*), blue oak (*Quercus douglasii*), or oracle oak (*Quercus morehus*), California sycamore (*Platanus racemosa*), California black walnut (*Juglans californica*, which is also a List 1B plant), Oregon ash (*Fraxinus latifolia*), western redbud (*Cercis occidentalis*), gray pine (*Pinus sabiniana*), California white alder (*Alnus rhombifolia*), boxelder (*Acer negundo*), California buckeye (*Aesculus californica*), narrowleaf willow (*Salix exigua*), Gooding's willow (*Salix gooddingii*), red willow (*Salix laevigata*), arroyo willow (*Salix lasiolepis*), shining willow (*Salix lucida*), Pacific willow (*Salix lasiandra*), and dusky willow (*Salix melanopsis*).

Replacement tree planting shall be completed prior to completion of the project

Equivalent compensation based on the following ratio is required:

- one D-pot seedling (40 cubic inches or larger) = 1 inch dbh
- one 15-gallon tree = 1 inch dbh
- one 24-inch box tree = 2 inches dbh
- one 36-inch box tree = 3 inches dbh

Prior to ground disturbance, a Replacement Tree Planting Plan shall be prepared by a certified arborist or licensed landscape architect and shall be submitted to the SASD for

approval. The Replacement Tree Planting Plan(s) shall include the following minimum elements:

1. Species, size and locations of all replacement plantings and < 6-inch dbh trees to be preserved
2. Method of irrigation
3. If planting in soils with a hardpan/duripan or claypan layer, include the Sacramento County Standard Tree Planting Detail L-1, including the 10-foot deep boring hole to provide for adequate drainage
4. Planting, irrigation, and maintenance schedules;
5. Identification of the maintenance entity and a written agreement with that entity to provide care and irrigation of the trees for a 3-year establishment period, and to replace any of the replacement trees which do not survive during that period.
6. Designation of 20-foot root zone radius and landscaping to occur within the radius of trees < 6 inches dbh to be preserved on-site.

No replacement tree shall be planted within 15 feet of the driplines of existing native trees or landmark size trees that are retained on-site, or within 15 feet of a building foundation or swimming pool excavation. The minimum spacing for replacement native trees shall be 20 feet on-center. Examples of acceptable planting locations are publicly owned lands, common areas, and landscaped frontages (with adequate spacing). Generally unacceptable locations are utility easements (PUE, sewer, storm drains), under overhead utility lines, private yards of single-family lots (including front yards), and roadway medians.

If tree replacement plantings are demonstrated to be infeasible for any or all trees removed, then compensation shall be through payment into the County Tree Preservation Fund. Payment shall be made at a rate of \$325.00 per dbh inch removed but not otherwise compensated, or at the prevailing rate at the time payment into the fund is made.

MITIGATION MEASURE BR-14: NATIVE TREE CONSTRUCTION PROTECTION

For the purpose of this mitigation measure, a native tree is defined as a valley oak (*Quercus lobata*), interior live oak (*Quercus wislizenii*), blue oak (*Quercus douglasii*), or oracle oak (*Quercus morehus*), having a diameter at breast height (dbh) of at least 6 inches, or if it has multiple trunks of less than 6 inches each, a combined dbh of at least 10 inches.

With the exception of the trees removed and compensated for through Mitigation Measure BR-13, above, all native trees and portions of adjacent off-site native trees which have driplines that extend onto the project site, and all off-site native trees which may be impacted by utility installation and/or improvements associated with this project, shall be depicted on construction plans, and preserved and protected as follows:

1. A circle with a radius measurement from the trunk of the tree to the tip of its longest limb shall constitute the dripline protection area of the tree. Limbs must not be cut back in order to change the dripline. The area beneath the dripline is a critical portion of the root zone and defines the minimum protected area of the tree. Removing limbs which make up the dripline does not change the protected area.
2. Chain link fencing or a similar protective barrier shall be installed one foot outside the driplines of the native trees prior to initiating project construction, in order to avoid damage to the trees and their root system.
3. No signs, ropes, cables (except cables which may be installed by a certified arborist to provide limb support) or any other items shall be attached to the native trees.
4. No vehicles, construction equipment, mobile home/office, supplies, materials or facilities shall be driven, parked, stockpiled or located within the driplines of the native trees.
5. Any soil disturbance (scraping, grading, trenching, and excavation) is to be avoided within the driplines of the native trees. Where this is necessary, an ISA Certified Arborist will provide specifications for this work, including methods for root pruning, backfill specifications and irrigation management guidelines.
6. All underground utilities and drain or irrigation lines shall be routed outside the driplines of native trees. Trenching within protected tree driplines is not permitted. If utility or irrigation lines must encroach upon the dripline, they should be tunneled or bored under the tree under the supervision of an ISA Certified Arborist.
7. If temporary haul or access roads must pass within the driplines of oak trees, a roadbed of six inches of mulch or gravel shall be created to protect the root zone. The roadbed shall be installed from outside of the dripline and while the soil is in a dry condition, if possible. The roadbed material shall be replenished as necessary to maintain a six-inch depth.
8. Tree pruning that may be required for clearance during construction must be performed by an ISA Certified Arborist or Tree Worker and in accordance with the American National Standards Institute (ANSI) A300 pruning standards and the International Society of Arboriculture (ISA) "Tree Pruning Guidelines".

6.7 CUMULATIVE IMPACTS

The project has the potential to impact individual special status species that may be present within the project impact area. Mitigation is recommended that would reduce potential impacts to all special status species to less than significant. The project would not result in permanent habitat loss for any special status species, sensitive habitats, or

jurisdictional waters. Therefore, cumulative impacts for all biological resource areas would be ***less than significant***.

6.8 REFERENCES CITED

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07- CULTURAL RESOURCES

7.1 INTRODUCTION

This chapter addresses the potential cultural resources impacts associated with the proposed Hood Septic to Sewer Conversion project (proposed project), which involves extension of Sacramento Area Sewer District (SASD) service to the unincorporated community of Hood in the delta area of the County of Sacramento (County). The analysis in this chapter considers the potential impacts of the project related to cultural resources. Tribal cultural resources (TCRs) are separate and distinct from cultural resources, and are discussed in Chapter 12, Tribal Cultural Resources.

On behalf of SASD, the County released a Notice of Preparation for this Environmental Impact Report (EIR) on March 25, 2022. The County received no response regarding cultural resources. The Notice of Preparation and comments received are provided in Appendix PD-1. The Initial Study is provided in Appendix PD-2.

This discussion of cultural resources in this chapter are based on, and contain portions of, a Historical Property Identification Report (AECOM 2022) (Appendix CR-1). Note that due to the confidential nature of cultural resources, this appendix is not publicly published (see Archaeological Resource Protection Act under the regulatory setting below).

7.2 ENVIRONMENTAL SETTING

HISTORICAL CONTEXT

The community of Hood was originally established in 1860 as “Richland” and was a shipping point for grain, the major crop grown in the region at the time. Sited on the Sacramento River 25 miles south of Sacramento and 40 miles north of Stockton, the townsite was founded by a “Mr. Hoyt” of Sacramento and by March 1861 plans were underway for the construction of a permanent wharf at the riverfront for freight and passengers (Sacramento Bee 1861 Mar 13). In the 1860s, the community included a warehouse along the waterfront, a hotel, grocery store, church, school, and post office. Within twenty years, the agricultural focus in the vicinity shifted to fruit and the area declined until the post office closed in 1888 (Delta Protection Commission 2018:6).

By 1909, with the construction of the Southern Pacific railroad south from Sacramento through the area, the town of Hood was established at the former Richland site that same year. Named after William Hood, Chief Construction Engineer of the Southern Pacific Railroad, the townsite was surveyed in 1909 and platted in May 1910. A Sacramento Southern Railroad depot was sited along the eastern boundary of the townsite (no longer extant) on the main line of the Sacramento Southern Railroad and a “R.R. Wharf & Docks” was located between the Sacramento River and the “River Spur SSRR” at the western boundary of the townsite (Sacramento County Assessor 1910).

Within a few years, the Southern Pacific had built a large storage depot, a railroad spur down to the wharf to service fruit producers like California Fruit Exchange and Stillwater Orchards. With easy access to the railroad, the economy of Hood began to grow. A large packing shed, seed farms, creameries, a hardware store, grocery store, cafe, hotel and church were built and in 1912 a post office was established. In 1918, the western boundary of the townsite was amended to account for the construction of the Sacramento County Highway Road along the Sacramento River levee that dropped into Hood along Second Street and then continued along the levee route (Sacramento County Assessor 1918).

Today, the western boundary of the community of Hood is bound by Second Street, which is called “River Road” along the levee highway State Route 160. Developed by Sacramento County in the late 1910s. The 34-mile long principal highway system connects the area south of the city of Sacramento to Rio Vista (Blow 1920: 208). The area south of the City of Sacramento along the east side of the Sacramento River was dubbed “The Netherlands of America” in 1920s promotional materials, as the flat land, levees, ample water supply, and rich soil was reminiscent of the Dutch landscape (Blow 1920: 208; Delta Protection Commission 2018:6).

Residential development of the Hood townsite appears to have been slow after the original circa 1910 subdivision and first decade of growth associated with construction of the railroad spur supporting the local fruit industry. A 1937 aerial photograph reveals residential subdivision was limited to between 2nd and 3rd streets north and south of Hood-Franklin Road (UCSB 1937). In 1945, the large warehouse at 10724 State Highway 160 was constructed and by 1952, residential development had expanded eastward to 5th street. By 1971 there was little additional development east of 5th street as parcels were infilled with residences in the west end of town (Sacramento County Assessor 2022; UCSB 1952). Between 1971 and 1981 the mobile home park at 10701 Rover Road was constructed north of the original townsite (UCSB 1971; UCSB 1981). Based on a review of Sacramento County Assessor records, the residential building stock in Hood largely dates from 1910 to 2016 with a majority dating from the post-World War II period (Sacramento County Assessor 2022).

In 1978, Southern Pacific abandoned the Walnut Grove Branch and commercial traffic in the town waned and population growth has been minimal. In 2010, the Hood community had a population of 271. As of 2018, the post office, grocery store, and community park remain. Several historic-age buildings, including the former fruit processing and storage facility along the Sacramento River, have been repurposed to house retail businesses to attract tourism and revitalized the waterfront area (Delta Protection Commission 2018:5-7).

HOOD-FRANKLIN ROAD

The Sacramento County Highway Commission proposed to improve the Hood-Franklin Road in 1914 as part of a county-wide good roads movement to improve more than 40 roads with voter-approved bond money. The 3.83-mile road connecting the communities of Hood and Franklin was to be widened to 12 feet and paved with macadam; however, the road was ultimately paved with concrete when completed in December 1915. The

paved road provided a passable road from Hood and Franklin to Sacramento during the winter months (Sacramento Bee 1914 Oct 3; Sacramento Bee 1915a Oct 13; Sacramento Bee 1915b Dec 10). Today, the Hood-Franklin Road is 30 feet wide having been brought up to modern road standards.

7.3 REGULATORY SETTING

FEDERAL

ARCHAEOLOGICAL RESOURCES PROTECTION ACT

The Archaeological Resources Protection Act establishes a clear, national legal policy that all types of archaeological, paleontological, and cultural resource site locations must be kept confidential in order to preserve them. (16 U.S.C. § 470hh.) The California Public Records Act recognizes the confidentiality principles of federal law. (Gov. Code, § 6254(k).)

SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT, 1966

Federal regulations for cultural resources are governed primarily by Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended). Section 106 of the NHPA requires Federal agencies to take into account the effects of their undertakings on historic properties and affords the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings. The ACHP's implementing regulations are the "Protection of Historic Properties" 36 Code of Federal Regulations (CFR) Part 800. The Federal agency first must determine whether it has an undertaking that is a type of activity that could affect historic properties. Historic properties are those that meet the criteria for or are listed in the NRHP.

NATIONAL REGISTER OF HISTORIC PLACES

"Historic properties," as defined by the ACHP, include any "prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the NRHP maintained by the Secretary of the Interior" (CFR Section 800.16(l)). Eligibility for inclusion in the NRHP is determined by applying the following criteria, developed by the National Park Service in accordance with the NHPA:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. That are associated with the lives of persons significant in our past; or

- C. That embody the distinctive characteristics of a type, period, or method of construction, 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; or
- D. That have yielded, or may be likely to yield, information important in prehistory or history.

Integrity is defined in NRHP guidance as “the ability of a property to convey its significance. To be listed in the NRHP, a property must not only be shown to be significant under the NRHP criteria, but it also must have integrity” (National Parks Service 2009). NRHP guidance further asserts that properties must have been completed at least 50 years before evaluation to be considered for eligibility. Properties with construction completed fewer than 50 years before evaluation must be proven to be “exceptionally important” (criteria consideration G) to be considered for listing.

STATE

CALIFORNIA ENVIRONMENTAL QUALITY ACT AND THE CALIFORNIA REGISTER OF HISTORICAL RESOURCES

Under CEQA, lead agencies must consider the effects of their projects on historical resources. The California Environmental Quality Act (CEQA) defines a “historical resource” as a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR), a resource included in a local register of historical resources, and any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant (Section 15064.5[a] of the Guidelines). Sacramento County does not currently have a local register. Public Resources Code (PRC) Section 5024.1 requires that any properties that can be expected to be directly or indirectly affected by a proposed project be evaluated for CRHR eligibility. According to PRC Section 5024.1(c)(1–4), a resource may be considered historically significant if it retains integrity and meets at least one of the following criteria. A property may be listed in the CRHR if the resource:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region or method of installation, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

To be considered eligible, a resource must meet one of the above stated criteria and also retain integrity. Integrity has been defined by the National Park Service as consisting of

seven elements: location, design, setting, materials, workmanship, feeling, and association.

Impacts to historical resources that materially impair those characteristics that convey its historical significance and justify its inclusion or eligibility for the NRHP or CRHR are considered a significant effect on the environment (CEQA Guidelines 15064.5).

In addition to historically significant resources, which can include archaeological resources that meet the criteria listed above, an archeological site may meet the definition of a “unique archeological resource” as defined in PRC Section 21083.2(g):

An archaeological 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) 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.
- (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (Public Resources Code Section 21083.2 (a), (b) and (c)). State CEQA Guidelines Section 15064.5, subdivision (e), requires that excavation activities be stopped whenever human remains are uncovered and that the county coroner be called in to assess the remains. If the county coroner determines that the remains are those of Native Americans, the Native American Heritage Commission (NAHC) must be contacted within 24 hours. At that time, the lead agency must consult with the appropriate Native Americans, if any, as timely identified by the NAHC. Section 15064.5 directs the lead agency (or applicant), under certain circumstances, to develop an agreement with the Native Americans for the treatment and disposition of the remains.

PUBLIC RESOURCES CODE, SECTION 5097.5

Public Resources Code Section 5097 specifies the procedures to follow in the event of the unexpected discovery of human remains on nonfederal land. The disposition of Native American burial falls within the jurisdiction of the NAHC. Public Resources Code Section 5097.5 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.

PUBLIC RESOURCES CODE, SECTION 5097.98

Public Resources Code Section 5097.98 states that whenever the NAHC receives notification of Native American human remains from a county coroner, the NAHC shall immediately notify the most likely descendant (MLD). The MLD may, with permission from the owner of the land in which the human remains were found, inspect the site and recommend to the owner or the responsible party conducting the excavation work a means for treating and/or disposing of the human remains and any associated grave goods. The MLD is required to complete their site inspection and make their recommendation within 48 hours of their notification from the NAHC.

HEALTH AND SAFETY CODE, SECTION 7052 AND 7050.5

Section 7052 of the Health and Safety Code states that the disturbance, mutilation, or removal of interred human remains is a felony if the remains are within a dedicated cemetery and a misdemeanor if interred outside of a dedicated cemetery. Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner examines the find and determines whether the remains are subject to various laws, including recognizing whether the remains are or may be those of a Native American. If determined to be Native American, the coroner must contact the NAHC.

CALIFORNIA NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION ACT, HEALTH AND SAFETY CODE SECTION 8010 THROUGH 8030

In the California Health and Safety Code, Division 7, Part 2, Chapter 5 broad provisions are made for the protection of Native American cultural resources. The Act sets the state policy to ensure that all California Native American human remains and cultural items are treated with due respect and dignity. The Act also provides the mechanism for disclosure and return of human remains and cultural items held by publicly funded agencies and museums in California. Likewise, the Act outlines the mechanism with which California Native American tribes not recognized by the federal government may file claims to human remains and cultural items held in agencies or museums.

CALIFORNIA NATIVE AMERICAN HISTORICAL, CULTURAL, AND SACRED SITES ACT

The California Native American Historical, Cultural, and Sacred Sites Act applies to both state and private lands. This law requires that if human remains are discovered, construction or excavation activity must cease and the County Coroner must be notified. If the remains are of a Native American, the coroner must notify the NAHC. The NAHC then notifies those persons most likely to be descended from the Native American whose remains were discovered. The California Native American Historical, Cultural, and Sacred Sites Act stipulates the procedures the descendants may follow for treating or disposing of the remains and associated grave goods.

CALIFORNIA HEALTH AND SAFETY CODE

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains can occur until the county coroner has examined the remains (Section 7050.5b). PRC Section 5097.98 also outlines the process to be followed in the event that remains are discovered. If the coroner determines or has reason to believe the remains are those of a Native American, the coroner must contact the California NAHC within 24 hours (Section 7050.5c). The NAHC will notify the most likely descendant. With the permission of the landowner, the most likely descendant may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the most likely descendant by the NAHC. The most likely descendant may recommend means of treating or disposing of, with appropriate dignity, the human remains, and items associated with Native Americans.

LOCAL

*SACRAMENTO COUNTY GENERAL PLAN***CULTURAL RESOURCES**

The *Sacramento County General Plan of 2005–2030* (Sacramento County 2011, as updated in 2017) Conservation Element, states under Section VI, Cultural Resources, the following goal and six objectives:

Promote the inventory, protection and interpretation of the cultural heritage of Sacramento County, including historical and archaeological settings, sites, buildings, features, artifacts and/or areas of ethnic historical, religious or socio-economical importance.

1. Comprehensive knowledge of archeological and historic site locations.
2. Attention and care during project review and construction to ensure that cultural resource sites, either previously known or discovered on the project site, are properly protected with sensitivity to Native American values.
3. Structures with architectural or historical importance preserved to maintain contributing design elements.
4. Known cultural resources protected from vandalism unauthorized excavation, or accidental destruction.
5. Properly stored and classified artifacts for ongoing study.

6. Public awareness and appreciation of both visible and intangible historic and cultural resources.

To implement the primary goal and the objectives, the Conservation Element contains the following policies relevant to the project:

- **Policy CO-150:** Utilize local, state and national resources, such as the North Central Information Center (NCIC), to assist in determining the need for a cultural resources survey during project review.
- **Policy CO-152:** Consultations with Native American tribes shall be handled with confidentiality and respect regarding sensitive cultural resources on traditional tribal lands.
- **Policy CO-153:** Refer projects with identified archeological and cultural resources to the Cultural Resources Committee to determine significance of resource and recommend appropriate means of protection and mitigation. The Committee shall coordinate with the Native American Heritage Commission in developing recommendations.
- **Policy CO-154:** Protection of significant prehistoric, ethnohistoric and historic sites within open space easements to ensure that these resources are preserved in situ for perpetuity.
- **Policy CO-155:** Native American burial sites encountered during preapproved survey or during construction shall, whenever possible, remain in situ. Excavation and reburial shall occur when in situ preservation is not possible or when the archeological significance of the site merits excavation and recording procedure. On-site reinterment shall have priority. The project developer shall provide the burden of proof that off site reinterment is the only feasible alternative. Reinterment shall be the responsibility of local tribal representatives.
- **Policy CO-156:** The cost of all excavation conducted prior to completion of the project shall be the responsibility of the project developer.
- **Policy CO-157:** Monitor projects during construction to ensure crews follow proper reporting, safeguards, and Policy procedures.
- **Policy CO-158:** As a condition of approval of discretionary permits, a procedure shall be included to cover the potential discovery of archaeological resources during development or construction.
- **Policy CO-159:** Request a Native American Statement as part of the environmental review process on development projects with identified cultural resources.

- **Policy CO-164:** Structures having historical and architectural importance shall be preserved and protected.
- **Policy CO-165:** Refer projects involving structures or within districts having historical or architectural importance to the Cultural Resources Committee to recommend appropriate means of protection and mitigation.
- **Policy CO-166:** Development surrounding areas of historic significance shall have compatible design in order to protect and enhance the historic quality of the areas.
- **Policy CO-169:** Restrict the circulation of cultural resource location information to prevent potential site vandalism. This information is exempt from the "Freedom of Information Act".
- **Policy CO-171:** Design and implement interpretive programs about known archeological or historical sites on public lands or in public facilities. Interpretation near or upon known sites should be undertaken only when adequate security is available to protect the site and its resources.

7.4 SIGNIFICANCE CRITERIA AND METHODOLOGY

SIGNIFICANCE CRITERIA

CULTURAL RESOURCES

The significance criteria used to evaluate a project's impacts to cultural resources under CEQA are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to cultural resources would occur if the project would:

- cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.
- cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
- disturb any human remains, including those interred outside of formal cemeteries.

METHODOLOGY

Archival research, Native American consultation, and fieldwork were conducted to establish what cultural resources may be present within the project area, and may be impacted as a result of the implementation of the proposed project. The impact analysis for archaeological, historical resources, and human remains are based on, and contain portions of, the Historical Property Identification Report prepared for the project (AECOM 2022). The analysis is also informed by the provisions and requirements of federal, state, and local laws and regulations that apply to cultural resources.

FIELD SURVEY

On January 11, 2022, AECOM Archaeologist Diana Ewing conducted a cultural resources pedestrian survey of the project area in the community of Hood within the County public street right of ways and west along Hood-Franklin Road west of U.S. Interstate 5. The majority of the project area is covered with built environment including sidewalks, buildings, paved roads and shoulders, and fenced private property, limiting surface visibility of soil surfaces.

The study area east of Interstate 5, and three potential construction staging areas were surveyed on May 13, 2022 by AECOM Archaeologist Diana Ewing. The westernmost staging area within the Hood community is part of a vacant parcel with a gravel driveway and the soil visibility was good. No cultural material was observed. The second staging area was a fallow field assessed from the road as there was no way to access the fenced area. The third staging area was an open leveled field with no vegetation which was surveyed utilizing 12 to 15 meter transects. The soil visibility was good and no cultural material was observed.

NCIC RECORDS SEARCH

The NCIC, an affiliate of the California Office of Historic Preservation (OHP), is the official state repository of cultural resource records and studies for Sacramento County. A cultural records search was conducted by the NCIC, of the California Historical Resources Information System, California State University, Sacramento on January 5, 2022 (File No. SAC-22-5).

An additional records search was conducted by the NCIC on March 30, 2022 to include the project area eastward along Hood-Franklin Road and the proposed construction staging areas were added to the project (File No. SAC-22-73). Additional resources and investigations in Hood that were not on file at the NCIC for the January 2022 records search were identified in the additional records search. The combined NCIC records searches (Files No. SAC 22-5 and SAC 22-73) indicate that thirteen previous investigations have been conducted in the project area within the town of Hood, along the east side of the Sacramento River and north and south of Hood Franklin Road, and at the easternmost end of the project.

The records search also indicated that 16 investigations have been conducted within 0.25 miles of the project area and resulted in the documentation of 11 cultural resources outside the project area.

7.5 IMPACTS AND ANALYSIS

IMPACT CR-1: CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF A HISTORICAL RESOURCE PURSUANT TO §15064.5.

The record searches revealed 18 recorded cultural resources that have been previously identified within the project area. Of these 18 resources, 17 are historic-age built

environment resources. Additionally, based on the results of the NCIC records search, the west half project area, west of I-5, is within a large 55-mile long region identified as the Sacramento River Traditional Cultural Landscape (TCL) (P-34- 005225) that is eligible for listing on the CRHR and NRHP, is considered a historical resource for the purposes of CEQA, and a historic property under Section 106 of the NHPA. During the field survey, none of the character-defining elements of the Sacramento River TCL (P-34-005225) were identified in the project area, such as waterways, tule habitat, fisheries, or other wildlife (Tremaine and Brunzell 2016). No additional resources were identified through background research or field surveys.

Components of the project related to force main installation would be restricted to below-grade improvements within the existing County street right of ways, and temporary staging areas within vacant parcels. On private properties, the project would result in the conversion of septic to sewer below ground, using horizontal directional drilling and jack and bore methods. While these above-ground built-environment historic-age resources have been provided within the search results of the NCIC records, no potential direct or indirect effects on the historic-age built environment would occur. Impacts are ***less than significant***.

IMPACT CR-2: CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF AN ARCHAEOLOGICAL RESOURCE PURSUANT TO §15064.5.

No potentially sensitive archaeological resources were identified during the field surveys in January and May 2022. Based on records search results, there are no archaeological resources identified within the project boundary but there are several recorded sites within 0.25 miles of the project. Given the project's proximity to the Sacramento River, which is historically known to contain archaeological resources, there remains a potential for inadvertent discoveries of archaeological resources during construction. Mitigation is included below in the event that an archaeological resource is uncovered during subsurface construction activities. With implementation of mitigation measure CR-1, impacts would be ***less than significant***.

IMPACT CR-3: DISTURB ANY HUMAN REMAINS, INCLUDING THOSE INTERRED OUTSIDE OF DEDICATED CEMETERIES.

No prehistoric or historic-era burials were identified within the project area as a result of the records search. The project is not part of a dedicated cemetery. No prehistoric or historic-era burials were identified within the project site during field efforts in support of the project; however, based on known sensitivity in the vicinity of the Sacramento River, there is potential for encountering unanticipated human remains during construction.

Recommended mitigation measures detailed below include appropriate compliance with California Health and Safety Code Section 7050.5, PRC Section 5097.98, and other pertinent regulatory requirements. The mitigation measures would identify and protect human remains, and as a result, would reduce the potential impacts in the event of the

accidental discovery or recognition of any human remains during construction. Therefore, with implementation of Mitigation Measure CR-2, this project impact would be ***less than significant***.

7.6 MITIGATION MEASURES

MITIGATION MEASURE CR-1: INADVERTENT DISCOVERY OF CULTURAL RESOURCES

Should any cultural resources, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains be encountered during any development activities, work shall be suspended to allow for review by tribal monitors. SASD or designated staff implementing the MMRP shall be immediately notified. The project applicant shall be required to implement any mitigation deemed necessary for the protection of the cultural resources per the treatment plan, as outlined in Mitigation Measure TCR-2.

MITIGATION MEASURE CR-2: UNANTICIPATED HUMAN REMAINS.

Pursuant to Sections 5097.5 and 5097.98 of the State Public Resources Code, and Section 7050.5 of the State Health and Safety Code, if a human bone or bone of unknown origin is found during construction, all work is to stop and the County Coroner and Planning and Environmental Review shall be immediately notified. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission within 24 hours, and the Native American Heritage Commission shall identify the person or persons it believes to be the most likely descendent from the deceased Native American. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposition of, with appropriate dignity, the human remains and any associated grave goods.

7.7 CUMULATIVE IMPACTS

No historical or archaeological resources were identified within the project study area; however, there are known cultural resources within one-quarter mile of the project site. Due to the proximity of the known resources, mitigation measures are included to address the potential for inadvertent discoveries of cultural resources during construction. Cumulative impacts to cultural resources are ***less than significant***.

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08- AIR QUALITY

8.1 INTRODUCTION

This chapter addresses the potential air quality impacts associated with the proposed Hood Septic to Sewer Conversion project (proposed project), which involves extension of Sacramento Area Sewer District (SASD) service to the community of Hood in the larger Delta community of the unincorporated County of Sacramento (County). The analysis in this chapter considers the potential impacts of the project related to air quality.

On behalf of SASD, the County released a Notice of Preparation for this Environmental Impact Report (EIR) on March 25, 2022. The County received no response regarding air quality. The Notice of Preparation and comments received are provided in Appendix PD-1. The Initial Study is provided in Appendix PD-2.

8.2 ENVIRONMENTAL SETTING

The Sacramento Metropolitan Area is a federal ozone non-attainment area, and one of the top 25 worst air quality areas nationally¹. In Sacramento County, pollutants of greatest concern are ozone precursors (hydrocarbons and nitrogen oxides), carbon monoxide (CO), particulate matter (PM₁₀ and PM_{2.5}), and other visibility-reducing material.

ATMOSPHERIC CONDITIONS

The geography and weather patterns of the Sacramento Valley are conducive to high air pollution levels. The mountain ranges surrounding the valley are natural air current barriers, which restrict most of the circulating winds of lower elevations from mixing and dispersing air pollutants of the valley. Sacramento is also subject to thermal air inversions, especially during the summer and fall months, wherein a layer of cool air is overlain by warmer air. Also, solar radiation from the abundant sunshine in Sacramento acts as a catalyst to drive chemical reactions between atmospheric pollutants such as reactive hydrocarbons and nitrogen oxides; the result is photochemical smog. Thus, the combination of surrounding mountains, abundant sunshine, thermal air inversions and wind patterns make the Sacramento area susceptible to high levels of air pollution.

EXISTING AIR QUALITY

The Sacramento Federal Nonattainment Area for ozone (SFNA) is comprised of five air districts in the southern portion of the Sacramento air basin. The SFNA air districts include all of Sacramento and Yolo Counties, and portions of El Dorado, Placer, Sutter and Solano Counties (see Plate AQ-1). With the exception of ozone and particulate matter

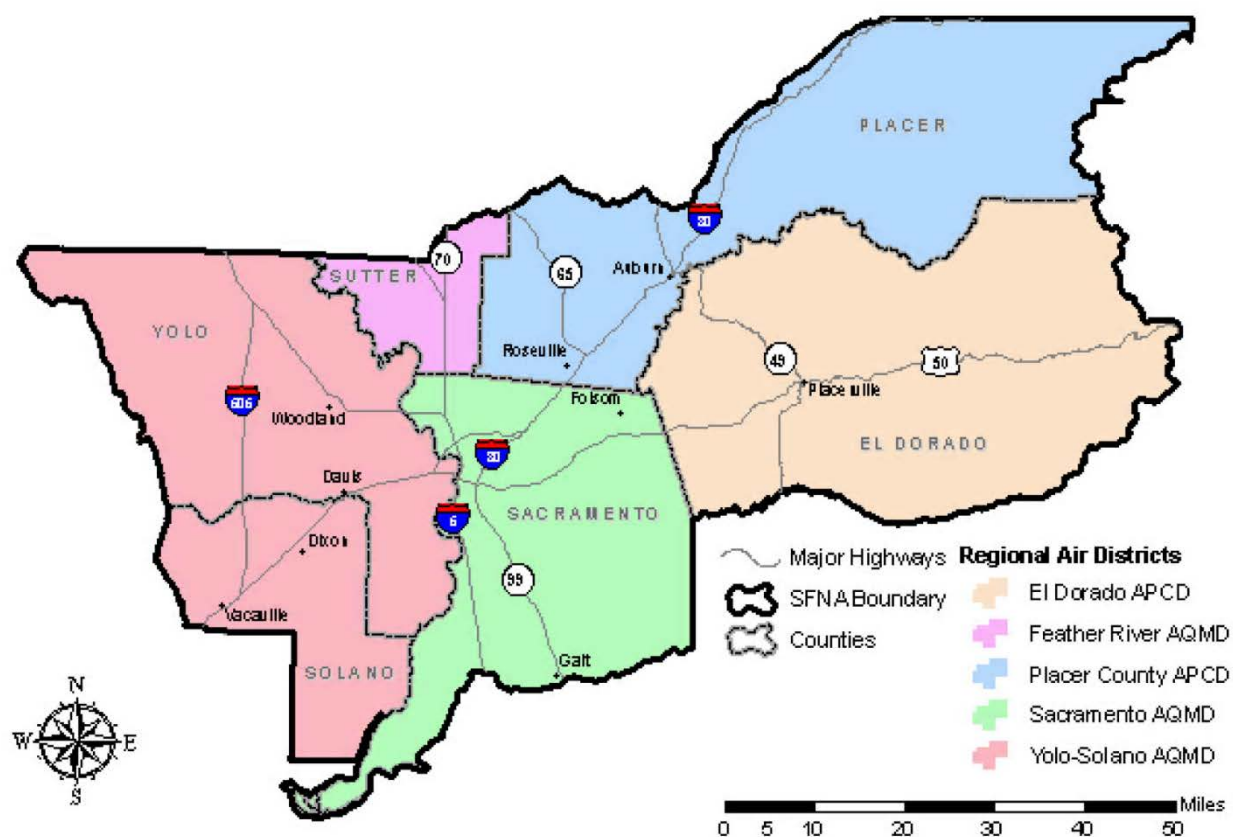
¹ American Lung Association, State of the Air 2022, ranked #22 for ozone.

standards, this area is in attainment for all state and national ambient air quality standards (AAQS). However, the SFNA is designated a “severe” nonattainment area for the federal eight hour AAQS for ozone. As a part of the SFNA, Sacramento County is out of compliance with the state one hour and the federal eight hour AAQS for ozone.

With respect to particulate matter, Sacramento County is designated as nonattainment for the state PM₁₀ 24 hour standard and annual mean, the state PM_{2.5} annual standard and the federal PM_{2.5} 24 hour standard.

Ambient air quality standards define clean air. Specifically, federal and state AAQS establish the concentration above which a pollutant is known to cause adverse health effects to sensitive groups within the population, such as children and the elderly. Because AAQS have been established for specific pollutants using health-based criteria, the pollutants for which standards have been set are known as “criteria” pollutants. For some of the criteria pollutants, the state standards are more stringent than the federal standards. The differences in the standards are due to variations in health studies and interpretations involved in the standard-setting process.

The amount of pollutants released and the atmosphere’s ability to transport and dilute the pollutants affect a given pollutant’s concentration in the atmosphere. Factors affecting transport and dilution include terrain, wind, atmospheric stability, and, for photochemical pollutants, sunlight. Sacramento’s poor air quality can largely be attributed to emissions, geography, and meteorology.

Plate AQ-1: Sacramento Federal Nonattainment Area (SNFA) for Ozone

Source: Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan, December 19, 2008 (revised in 2011, 2013 and 2017). The map in the adopted plan and the proposed revision are identical

REGULATORY SETTING

POLLUTANTS AND AIR QUALITY STANDARDS

The criteria pollutants of greatest concern are due to construction activities and vehicle emissions. The pollutants from these activities are carbon monoxide (CO), ozone (O₃), and respirable particulate matter (PM₁₀ and PM_{2.5}). A summary of state and federal ambient air quality standards for criteria pollutants is shown in Table AQ-1, below. Table AQ-2 shows the pollutants of concern within Sacramento County and their attainment status with state and federal standards.

CARBON MONOXIDE (CO)

State and federal CO standards have been set for both 1-hour and 8-hour averaging times. The state 1-hour standard is 20 parts per million (ppm) by volume, while the federal 1-hour standard is 35 ppm. Both state and federal standards are 9 ppm for the 8-hour averaging period. CO is a public health concern because it combines readily with hemoglobin and thus reduces the amount of oxygen transported in the bloodstream.

Motor vehicles are the dominant source of CO emissions in most areas. High CO levels develop primarily during winter when periods of light winds combine with the formation of ground level temperature inversions (typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased CO emission rates at low air temperatures.

PARTICULATE MATTER (PM₁₀ & PM_{2.5})

Health concerns associated with suspended particulate matter focus on those particles small enough to reach the lungs when inhaled. Few particles larger than 10 microns in diameter reach the lungs, but the smaller particles have been shown to have the most serious health risks. Consequently, there are federal and state air quality standards for particulate matter 10 microns or less in diameter (PM₁₀) and for particulate matter 2.5 microns or less in diameter (PM_{2.5}).

The state PM₁₀ standards are 50 micrograms per cubic meter (µg/m³) as a 24-hour average and 20 µg/m³ as an annual arithmetic mean. The federal PM₁₀ standard is 150 µg/m³ as a 24-hour average. The PM_{2.5} standard has been set by the state at a concentration of 12 µg/m³ as an annual arithmetic mean, and the federal standards are 12 µg/m³ as an annual arithmetic mean and 35 µg/m³ in a 24-hour period.

Particulate matter conditions in Sacramento County reflect a mix of rural and urban sources, including agricultural activities, industrial emissions, dust suspended by vehicle traffic, and secondary aerosols formed by reactions in the atmosphere.

OZONE (O₃)

Ozone is not usually emitted directly into the air, but is created at ground level by a chemical reaction between oxides of nitrogen (NO_x) and volatile organic compounds (VOC) in the presence of sunlight. The United States Environmental Protection Agency formerly called VOC reactive organic gases, or ROG – the latter term is still in use in most modeling programs and by the Sacramento Metropolitan Air Quality Management District. For this reason, both the term VOC and ROG may be used; the reader should be aware that these are the same constituents. Because photochemical reaction rates depend on the intensity of ultraviolet light and air temperature, ozone is primarily a summer air pollution problem. Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials.

State and federal standards for ozone have been set for an 8-hour averaging time, and the state also has set a standard for a 1-hour averaging time. There is a federal 1-hour standard in existence, but the standard only applies to Early Action Compact Areas, and Sacramento County is not in such an area. The state 8-hour standard is 0.070 ppm (137 µg/m³) and the 1-hour standard is 0.09 ppm (180 µg/m³). The federal 8-hour standard is 0.070 ppm (137 µg/m³).

Table AQ-1: State and Federal Ambient Air Quality Standards

Pollutant	Symbol	Average Time	Standard, as <u>parts per million</u>		Standard, as <u>micrograms per cubic meter</u>		<u>Violation Criteria</u>	
			California	National	California	National	California	National
Ozone	O ₃	1 hour	0.09	--	180	--	If exceeded	If exceeded more than 3 days in 3 years
		8 hours	0.070	0.070	137	--	If exceeded	If exceeded more than 3 days in 3 years
Carbon monoxide	CO	8 hours	9.0	9	10,000	10,000	If exceeded	If exceeded more than 1 day per year
		1 hour	20	35	23,000	40,000	If exceeded	If exceeded more than 1 day per year
Nitrogen dioxide	NO ₂	Annual arithmetic mean	0.030	0.053	57	100	If exceeded	If exceeded
		1 hour	0.18	0.100	339	188	If exceeded	
Sulfur dioxide	SO ₂	24 hours	0.04	--	105	--	If exceeded	If exceeded more than 1 day per year
		3 hour	--	0.5	--	1,300	N/A	If exceeded more than 1 day per year
		1 hour	0.25	0.075	655	196	If exceeded	N/A
Hydrogen sulfide	H ₂ S	1 hour	0.03	--	42	--	If ≥	N/A
Vinyl chloride	C ₂ H ₃ Cl	24 hours	0.01	--	26	--	If ≥	N/A
Respirable particulate matter	PM ₁₀	Annual arithmetic mean	--	--	20	--	If exceeded	N/A
		24 hours	--	--	50	150	If exceeded	If exceeded more than 1 day per year
Fine particulate matter	PM _{2.5}	Annual arithmetic mean	--	--	12	12	If exceeded	If exceeded over 3-year average
		24 hours	--	--	--	35	If exceeded	If exceeded over 3-year average
Sulfate particles	SO ₄	24 hours	--	--	25	--	If ≥	N/A
Lead particles	Pb	Calendar Quarter	--	--	--	1.5	N/A	If exceeded more than 1 day per year
		Rolling 3-month average	--	--	--	0.15	If ≥	N/A
		30-day average	--	--	1.5	--	If ≥	N/A

Source: California Air Resources Board. "Ambient Air Quality Chart". May 4, 2016. Accessed: March 15, 2019. <http://www.arb.ca.gov/research/aags/aags2.pdf>

NOTES: **1)** All standards are based on measurements at 25 C and 1 atmosphere pressure. **2)** National standards shown are the primary (health effects) standards. **3)** N/A = not applicable

Table AQ-2: Sacramento County Attainment Status

Pollutant	Attainment with State Standards	Attainment with Federal Standards
Ozone	Non-Attainment (1 hour Standard ¹ and 8 hour Standard)	Attainment (1 hour Standard ²) Non-Attainment, Classification = Severe -15* (8 hour ³ Standards)
Particulate Matter 10 Micron	Non-Attainment (24 hour Standard and Annual Mean)	Attainment (24 hour Standard)
Particulate Matter 2.5 Micron	Attainment (Annual Standard)	Non-Attainment (24 hour Standard) and Attainment (Annual)
Carbon Monoxide	Attainment (1 hour and 8 hour Standards)	Attainment (1 hour and 8 hour Standards)
Nitrogen Dioxide	Attainment (1 hour Standard and Annual)	Unclassified/Attainment (1 hour and Annual)
Sulfur Dioxide ⁴	Attainment (1 hour and 24 hour Standards)	Attainment/Unclassifiable ⁵
Lead	Attainment (30 Day Standard)	Attainment (3-month rolling average)
Visibility Reducing Particles	Unclassified	No Federal Standard
Sulfates	Attainment (24 hour Standard)	No Federal Standard
Hydrogen Sulfide	Unclassified (1 hour Standard)	No Federal Standard
<p>1. Per Health and Safety Code (HSC) § 40921.59(c), the classification is based on 1989-1001 data, and therefore does not change.</p> <p>2. Air Quality meets Federal 1-hour Ozone standard (77 FR 64036). EPA revoked this standard, but some associated requirements still apply. The SMAQMD attained the standard in 2009.</p> <p>3. For both that 1997 and the 2008 Standard.</p> <p>4. Cannot be classified.</p> <p>5. Designation was made as part of EPA's designations for the 2010 SO₂ Primary National Ambient Air Quality Standard – Round 3 Designation in December 2017.</p> <p>*Designations based on information from http://www.arb.ca.gov/desig/changes.htm#reports</p> <p>Source: SMAQMD. "Air Quality Pollutants and Standards". Web. Accessed: April 28, 2022. http://airquality.org/air-quality-health/air-quality-pollutants-and-standards</p>		

8.3 REGULATORY SETTING

FEDERAL, STATE AND LOCAL AGENCIES

Air quality in Sacramento County is regulated by several agencies, which include the U.S. Environmental Protection Agency (EPA), California Air Resources Board (CARB), and Sacramento Metropolitan Air Quality Management District (SMAQMD). Each of these agencies develops rules and/or regulations to attain the goals or directives imposed upon them through legislation. Although EPA regulations may not be superseded, both state and local regulations may be more stringent. In general, air quality is evaluated based upon standards developed by federal and state agencies. Mobile sources of air pollutants are largely controlled by federal and state agencies, while local air pollution control districts or air quality management districts (AQMD) regulate stationary sources.

Air pollution problems in Sacramento County are primarily the result of locally generated emissions. However, Sacramento County has been identified as a source of ozone precursor emissions that occasionally contribute to air quality problems in the San Joaquin Valley Air Basin and the Northern Sacramento Valley Air Basin. Consequently, the air quality planning for Sacramento County must not only correct local air pollution problems but must also reduce the impacts from the area on downwind air basins.

SACRAMENTO METROPOLITAN AIR QUALITY RULES AND REGULATIONS

SMAQMD regulates air quality in Sacramento County through its permit authority over stationary sources of emissions, through its vehicle and fuels management program, and through planning and review activities. All projects are subject to SMAQMD Rules and Regulations in effect at the time of construction. Several SMAQMD Rules pertinent to the project include:

RULE 201: GENERAL PERMIT REQUIREMENTS. Any project that includes the use of equipment capable of releasing emissions to the atmosphere may require permit(s) from SMAQMD prior to equipment operation. The applicant, developer or operator of a project that includes an emergency generator, boiler, or heater should contact the District early to determine if a permit is required, and to begin the permit application process. Portable construction equipment (e.g. generator, compressors, pile drives, lighting equipment, etc.) with an internal combustion engine over 50 horsepower are required to have a SMAQMD permit or a California Air Resources Board portable equipment registration.

RULE 403: FUGITIVE DUST. The developer or contractor is required to control dust emissions from earth moving activities or any other construction activity to prevent airborne dust from leaving the project site.

The SMAQMD was created by state law to enforce local, state, and federal air pollution regulations within the Sacramento Valley Air Basin. The SMAQMD's overall mission is to achieve clean air goals by leading the Sacramento region in protecting public health and the environment through effective programs, community involvement, and public

education. The SMAQMD interacts with local, state, and federal government agencies, the business community, environmental groups, and private citizens to achieve these goals. The SMAQMD regulates air pollutant emissions from stationary sources through permit limitations and inspection programs and oversees compliance with state and federal mandates by adopting rules and regulations as necessary.

Because the Sacramento Valley Air Basin is in nonattainment for ozone, PM₁₀, and PM_{2.5}, the SMAQMD requires the implementation of the following Basic Construction Emission Control Practices (BCECPs), regardless of the project's significance determination under CEQA. Since these are already required by existing rules and regulations, it is not necessary to include them as mitigation.

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to, soil piles, graded areas, unpaved parking areas, staging areas, and access roads;
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered;
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited;
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph);
- All roadways, driveways, sidewalks, and parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used;
- Minimize idling time by either shutting equipment off when not in use or reducing time of idling to 5 minutes. Provide clear signage that posts this requirement for workers at the entrances to the site; and
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.

SACRAMENTO COUNTY

Local governments, such as Sacramento County, have the authority and responsibility to reduce air pollution through the land use decision-making authority allowed by their police power. Specifically, local governments are responsible for the mitigation of emissions resulting from land use decisions and for the implementation of transportation control measures as outlined in federal, state and local air quality attainment plans. In general, a first step toward implementation of a local government's responsibility is accomplished by identifying air quality goals, policies, and implementation measures in its general plan.

Through capital improvement programs, local governments can fund infrastructure that contributes to improved air quality, by requiring such improvements as bus turnouts, energy-efficient street lights, and synchronized traffic signals. In accordance with CEQA requirements and the CEQA review process, local governments assess air quality impacts, require mitigation of potential air quality impacts by conditioning discretionary permits, and monitor and enforce implementation of such mitigation.

The Sacramento County General Plan includes the following policies that pertain to air quality for the proposed project:

- AQ-4. Developments which meet or exceed thresholds of significance for ozone precursor pollutants as adopted by the Sacramento Metropolitan Air Quality Management District (SMAQMD), shall be deemed to have a significant environmental impact. An Air Quality Mitigation Plan shall be submitted to the County of Sacramento prior to project approval, subject to review and recommendation as to technical adequacy by the Sacramento Metropolitan Air Quality Management District.
- AQ-16. Prohibit the idling of on-and off-road engines when the vehicle is not moving or when the off-road equipment is not performing work for a period of time greater than five minutes in any one-hour period.
- AQ-19. Require all feasible reductions in emissions for the operation of construction vehicles and equipment on major land development and roadway construction projects.

8.4 SIGNIFICANCE CRITERIA AND METHODOLOGY

SIGNIFICANCE CRITERIA

According to the CEQA Appendix G criteria, a project may be deemed to have a significant effect on the environment if it:

1. Conflicts with or obstructs 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 non-attainment,
3. Expose sensitive receptors to substantial pollutant concentrations, or
4. Result in other emissions (e.g. odors) adversely affecting a substantial number of people.

SMAQMD has adopted significance thresholds for CEQA projects within the District. The adopted significance thresholds for criteria pollutants of the greatest concern in the Sacramento area are shown below in Table AQ-3:

Table AQ-3: SMAQMD Significance Thresholds

	ROG ¹ (lbs/day)	NO _x (lbs/day)	CO (µg/m ³)	PM ₁₀ (lbs/day)	PM _{2.5} (lbs/day)
Construction (short-term)	None	85	CAAQS ²	80 ³	82 ³
Operational (long-term)	65	65	CAAQS	80 ³	82 ³
1. Reactive Organic Gas 2. California Ambient Air Quality Standards: 20 ppm 1-hour standard (23mg/m ³); 9 ppm 8-hour standard (10mg/m ³) 3. Only applies to projects for which all feasible best available control technology (BACT) and best management practices (BMPs) have been applied. Projects that fail to apply all feasible BACT/BMPs must meet a significance threshold of 0 lbs/day. 4. Annual Thresholds are determined for PM ₁₀ and PM _{2.5} , 14.6 tons/year and 15 tons/year, for both construction and operational.					

METHODOLOGY

CONSTRUCTION IMPACT METHODOLOGY

The SMAQMD “Guide to Air Quality Assessment in Sacramento County” (April 2020), as amended, hereinafter called the SMAQMD Guide) contains screening thresholds for significant impacts. This project is unique and does not fit the traditional project types for which the screening thresholds were created. Therefore, air quality modeling was conducted for all aspects of the project. For the construction and operation of the new sewer line, the model used was the Roadway Construction Emissions Model version 9.0 – a model developed by SacMetro Air District to provide a uniform platform to quantify air quality emissions including greenhouse gas emissions, from linear projects such as roadways, bridges, and utility lines projects (reference Appendix AQ-1).

Construction air quality modeling requires detailed information about the exact amount of acreage of construction involved, the amount of pavement, and the number and type of construction equipment. For the proposed project, construction impacts are limited to the construction of the new sewer line.

The Roadway Emissions Model version 9.0 was used to calculate the emissions generated during the construction of the new sewer pipeline. The length of pipeline installation, material to be imported/exported and modifications to the number and distance of trips were entered into the model. Model results are then compared with the significance thresholds of 80 lbs/day (14.6 tons/year) for PM₁₀, 82 lbs/day (15 tons/year) for PM_{2.5} and 85lbs/day for NO_x.

ISSUES NOT DISCUSSED FURTHER

Operational emissions impacts will not be discussed further. Beyond the occasional inspection of the pipeline route that would likely be using a light truck, which would not generate a substantial impact given the limited nature of the activity, the operations of the pipeline itself would not generate emissions separate from the operations of the

sewage treatment system as a whole. Operational emissions for the sewage treatment system have been previously analyzed and addressed.

An analysis of emissions associated with carbon monoxide and toxic air contaminants do not apply to this project for the following reasons: the project does not involve a significant increase in traffic congestion, nor is the project cited near sensitive receptors.

The analyses below focus on ozone precursors and particulate matter (ROG, NO_x, PM₁₀ and PM_{2.5}), which is consistent with the SMAQMD Guidelines. Analyses are not included for sulfur dioxide, lead, and other constituents because there are no mass emission thresholds; these are concentration-based limits in the AAQS which require substantial, point-source emissions before exceedance will occur. The Project does not include any elements that will generate substantial point-source emissions.

The proposed pipeline project as detailed below would not result in any significant impacts related to air quality. Impacts are temporary and only associated with the timeline necessary to install the pipeline facilities. Therefore the project would not conflict or obstruct the implementation of applicable air quality plan.

8.5 IMPACTS AND ANALYSIS

In the following section, impacts of the proposed project related to air quality are discussed. As provided above, these determinations are based on the criteria identified by the SMAQMD and the air quality analysis provided in Appendix AQ-1. The results of air quality modeling are described, and a determination of significance is made.

IMPACT AQ-1: CONSTRUCTION EMISSIONS – INCREASE OF ANY CRITERIA POLLUTANT FOR WHICH THE PROJECT REGION IS NON-ATTAINMENT

Construction activities require the use of various combinations and types of construction equipment. Much of this equipment is likely to be diesel-fueled and would emit NO_x and particulate matter as part of the fuel combustion process. In addition, the disturbance of soils produces fugitive dust.,

The Roadway Emissions Model version 9.0 was used to calculate the emissions generated during the construction of the new sewer pipeline, utilizing the equipment and project characteristics outlined in the project description. The results of the model are shown in Table AQ-4.

As shown on Table AQ-4 the construction emissions for both ozone precursors and particulate matter (ROG, NO_x, PM₁₀ and PM_{2.5}), are below the established significance thresholds. Therefore the impacts from the project construction from ozone precursors and particulate matter are ***less than significant***.

Table AQ-4: Results of Roadway Emission Model

	ROG ¹ (lbs/day)	NO _x (lbs/day)	PM ₁₀ (lbs/day)	PM _{2.5} (lbs/day)
Construction significance threshold	None	85	80 ³	82 ³
Construction emissions	6.09	39.34	37.00	8.70
Significant	No	No	No	No

MOBILE SOURCE CO EMISSIONS

The SMAQMD CEQA Guide (SMAQMD Guide) provides a preliminary screening methodology to determine whether project related vehicle trips will result in CO emissions that contribute to an exceedance of the threshold of significance. According to the SMAQMD Guide:

The proposed project will result in a less-than-significant impact to air quality for local CO if:

- Traffic generated by the proposed project will not result in deterioration of intersection level of service (LOS) to LOS E or F; and
- The project will not contribute additional traffic to an intersection that already operates at LOS of E or F.

Project intersections to be most affected by construction related traffic include:

- Willard Parkway/Bilby Road
- Bilby Road/Franklin Boulevard
- Franklin Boulevard/Hood Franklin Road
- The I-5 Freeway on and off ramps to Hood Franklin Road
- Hood Franklin Road/6th Street
- Hood Franklin Road/5th Street
- Hood Franklin Road/4th Street
- Hood Franklin Road/3rd Street
- River Road/Hood Franklin Road

These nine intersections do not currently operate at LOS E or F, and project-related traffic will not cause them to operate at LOS E or F. Therefore, project related mobile source

CO concentrations do not exceed SMAQMD thresholds and impacts are ***less than significant***.

IMPACT AQ-2: EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS

CRITERIA POLLUTANT HEALTH RISKS

All criteria air pollutants can have human health effects at certain concentrations. Air districts develop region-specific CEQA thresholds of significance in consideration of existing air quality concentrations and attainment designations under the national ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS). The NAAQS and CAAQS are informed by a wide range of scientific evidence, which demonstrates that there are known safe concentrations of criteria air pollutants. Because the NAAQS and CAAQS are based on maximum pollutant levels in outdoor air that would not harm the public's health, and air district thresholds pertain to attainment of these standards, the thresholds established by air districts are also protective of human health. Sacramento County is currently in nonattainment of the NAAQS and CAAQS for ozone. Projects that emit criteria air pollutants in exceedance of SMAQMD's thresholds would contribute to the regional degradation of air quality that could result in adverse human health impacts.

Acute health effects of ozone exposure include increased respiratory and pulmonary resistance, cough, pain, shortness of breath, and lung inflammation. Chronic health effects include permeability of respiratory epithelia and the possibility of permanent lung impairment (EPA 2016).

HEALTH EFFECTS SCREENING

In order to estimate the potential health risks that could result from the operational emissions of ROG, NOX, and PM2.5, PER staff implemented the procedures within SMAQMD's Instructions for Sac Metro Air District Minor Project and Strategic Area Project Health Effects Screening Tools (SMAQMD's Instructions). To date, SMAQMD has published three options for analyzing projects: small projects may use the Minor Project Health Screening Tool, while larger projects may use the Strategic Area Project Health Screening Tool, and practitioners have the option to conduct project-specific modeling.

Both the Minor Project Health Screening Tool and Strategic Area Project Health Screening Tool are based on the maximum thresholds of significance adopted within the five air district regions contemplated within SMAQMD's Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District (SMAQMD's Friant Guidance; October 2020). The air district thresholds considered in SMAQMD's Friant Guidance included thresholds from SMAQMD as well as the El Dorado County Air Quality Management District, the Feather River Air Quality Management District, the Placer County Air Pollution Control District, and the Yolo Solano Air Quality Management District. The highest allowable emission rates of NO_x, ROG, PM₁₀, and PM_{2.5} from the five air

districts is 82 pounds per day (lbs/day) for all four pollutants. Thus, the Minor Project Health Screening Tool is intended for use by projects that would result in emissions at or below 82 lbs/day, while the Strategic Area Project Health Screening Tool is intended for use by projects that would result in emissions between two and eight times greater than 82 lbs/day. The Strategic Area Project Screening Model was prepared by SMAQMD for five locations throughout the Sacramento region for two scenarios: two times and eight times the threshold of significance level (2xTOS and 8xTOS). The corresponding emissions levels included in the model for 2xTOS were 164 lb/day for ROG and NOX, and 656 lb/day under the 8xTOS for ROG and NOX (SMAQMD 2020).

As noted in SMAQMD's Friant Guidance, "each model generates conservative estimates of health effects, for two reasons: The tools' outputs are based on the simulation of a full year of exposure at the maximum daily average of the increases in air pollution concentration... [and] [t]he health effects are calculated for emissions levels that are very high" (SMAQMD 2020).

The model derives the estimated health risk associated with operation of the project based on increases in concentrations of ozone and PM_{2.5} that were estimated using a photochemical grid model (PGM). The concentration estimates of the PGM are then applied to the U.S. Environmental Protection Agency's Benefits Mapping and Analysis Program (BenMAP) to estimate the resulting health effects from concentration increases. PGMs and BenMAP were developed to assess air pollution and human health impacts over large areas and populations that far exceed the area of an average land use development project. These models were never designed to determine whether emissions generated by an individual development project would affect community health or the date an air basin would attain an ambient air quality standard. Rather, they are used to help inform regional planning strategies based on cumulative changes in emissions within an air basin or larger geography.

It must be cautioned that within the typical project-level scope of CEQA analyses, PGMs are unable to provide precise, spatially defined pollutant data at a local scale. In addition, as noted in SMAQMD's Friant Guidance, "BenMAP estimates potential health effects from a change in air pollutant concentrations, but does not fully account for other factors affecting health such as access to medical care, genetics, income levels, behavior choices such as diet and exercise, and underlying health conditions" (2020). Thus, the modeling conducted for the health risk analysis is based on imprecise mapping and only takes into account one of the main public health determinants (i.e., environmental influences).

DISCUSSION OF PROJECT IMPACTS: CRITERIA POLLUTANT HEALTH RISKS

Since the project has negligible operational emissions, the Minor Project Health Screening Tool was used to estimate health risks. The results are shown in Table AQ-5 and Table AQ-6.

Table AQ-5: PM_{2.5} Health Risk Estimates

PM _{2.5} Health Endpoint	Age Range ¹	Incidences Across the Reduced Sacramento o 4-km Modeling Domain Resulting from Project Emissions (per year) ^{2,5}	Incidence s Across the 5-Air-District Region Resulting from Project Emissions (per year) ²	Percent of Backgroun d Health Incidences Across the 5-Air-District Region ³	Total Number of Health Incidences Across the 5-Air-District Region (per year) ⁴
		(Mean)	(Mean)		
Respiratory					
Emergency Room Visits, Asthma	0 - 99	0.74	0.63	0.0034%	18419
Hospital Admissions, Asthma	0 - 64	0.047	0.041	0.0022%	1846
Hospital Admissions, All Respiratory	65 - 99	0.24	0.20	0.0010%	19644
Cardiovascular					
Hospital Admissions, All Cardiovascular (less Myocardial Infarctions)	65 - 99	0.13	0.11	0.00045%	24037
Acute Myocardial Infarction, Nonfatal	18 - 24	0.000063	0.000052	0.0014%	4
Acute Myocardial Infarction, Nonfatal	25 - 44	0.0052	0.0046	0.0015%	308
Acute Myocardial Infarction, Nonfatal	45 - 54	0.013	0.012	0.0016%	741
Acute Myocardial Infarction, Nonfatal	55 - 64	0.022	0.019	0.0016%	1239

Acute Myocardial Infarction, Nonfatal	65 - 99	0.080	0.070	0.0014%	5052
Mortality					
Mortality, All Cause	30 - 99	1.6	1.3	0.0029%	44766
Notes: <ol style="list-style-type: none"> 1. Affected age ranges are shown. Other age ranges are available, but the endpoints and age ranges shown here are the ones used by the USEPA in their health assessments. The age ranges are consistent with the epidemiological study that is the basis of the health function. 2. Health effects are shown in terms of incidences of each health endpoint and how it compares to the base (2035 base year health effect incidences, or "background health incidence") values. Health effects are shown for the Reduced Sacramento 4-km Modeling Domain and the 5-Air-District Region. 3. The percent of background health incidence uses the mean incidence. The background health incidence is an estimate of the average number of people that are affected by the health endpoint in a given population over a given period of time. In this case, the background incidence rates cover the 5-Air-District Region (estimated 2035 population of 3,271,451 persons). Health incidence rates and other health data are typically collected by the government as well as the World Health Organization. The background incidence rates used here are obtained from BenMAP. 4. The total number of health incidences across the 5-Air-District Region is calculated based on the modeling data. The information is presented to assist in providing overall health context. 5. The technical specifications and map for the Reduced Sacramento 4-km Modeling Domain are included in Appendix A, Table A-1 and Appendix B, Figure B-2 of the <i>Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District</i>. 					

Table AQ-6: Ozone Health Risk Estimates

Ozone Health Endpoint	Age Range ¹	Incidences Across the Reduced Sacramento 4-km Modeling Domain Resulting from Project Emissions (per year) ^{2,5} (Mean)	Incidences Across the 5-Air-District Region Resulting from Project Emissions (per year) ² (Mean)	Percent of Background Health Incidences Across the 5-Air-District Region ³	Total Number of Health Incidences Across the 5-Air-District Region (per year) ⁴
Respiratory					
Hospital Admissions, All Respiratory	65 - 99	0.062	0.048	0.00024%	19644
Emergency Room Visits, Asthma	0 - 17	0.34	0.27	0.0047%	5859
Emergency Room Visits, Asthma	18 - 99	0.51	0.42	0.0033%	12560
Mortality					

Mortality, Non-Accidental	0 - 99	0.037	0.030	0.000099%	30386
Notes: 1. Affected age ranges are shown. Other age ranges are available, but the endpoints and age ranges shown here are the ones used by the USEPA in their health assessments. The age ranges are consistent with the epidemiological study that is the basis of the health function. 2. Health effects are shown in terms of incidences of each health endpoint and how it compares to the base (2035 base year health effect incidences, or “background health incidence”) values. Health effects are shown for the Reduced Sacramento 4-km Modeling Domain and the 5-Air-District Region. 3. The percent of background health incidence uses the mean incidence. The background health incidence is an estimate of the average number of people that are affected by the health endpoint in a given population over a given period of time. In this case, the background incidence rates cover the 5-Air-District Region (estimated 2035 population of 3,271,451 persons). Health incidence rates and other health data are typically collected by the government as well as the World Health Organization. The background incidence rates used here are obtained from BenMAP. 4. The total number of health incidences across the 5-Air-District Region is calculated based on the modeling data. The information is presented to assist in providing overall health context. 5. The technical specifications and map for the Reduced Sacramento 4-km Modeling Domain are included in Appendix A, Table A-1 and Appendix B, Figure B-2 of the <i>Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District</i> .					

Again, it is important to note that the “model outputs are derived from the numbers of people who would be affected by [the] project due to their geographic proximity and based on average population through the Five-District-Region. The models do not take into account population subgroups with greater vulnerabilities to air pollution, except for ages for certain endpoints” (SMAQMD 2020). Therefore, it would be misleading to correlate the levels of criteria air pollutant and precursor emissions associated with project implementation to specific health outcomes. While the effects noted above could manifest in individuals, actual effects depend on factors specific to each individual, including life stage (e.g., older adults are more sensitive), preexisting cardiovascular or respiratory diseases, and genetic polymorphisms. Even if this specific medical information was known about each individual, there are wide ranges of potential outcomes from exposure to ozone precursors and particulates, from no effect to the effects listed in the tables. Ultimately, the health effects associated with the project, using the SMAQMD guidance “are conservatively estimated, and the actual effects may be zero” (SMAQMD 2020).

Neither SMAQMD nor the County of Sacramento have adopted thresholds of significance for the assessment of health risks related to the emission of criteria pollutants. Furthermore, an industry standard level of significance has not been adopted or proposed. Due to the lack of adopted thresholds of significance the health risks, this data is presented for informational purposes and does not represent an attempt to arrive at any level-of-significance conclusions.

IMPACT AQ-3: RESULT IN OTHER EMISSIONS (SUCH AS THOSE LEADING TO ODORS) ADVERSELY AFFECTING A SUBSTANTIAL NUMBER OF PEOPLE?

Sources that may emit odors during construction activities include exhaust from diesel construction equipment and heavy-duty trucks, which could be considered offensive to some individuals. Odors from these sources would be localized and generally confined to the immediate area surrounding the project site. The project would use typical

construction techniques, and the odors would be typical of most construction sites and temporary in nature. Project operation would also not add any new sources of odors. The project would continue to utilize land for use as a roadway. As such, potential emissions, such as those leading to odors would remain similar to existing conditions. The land uses associated with the project are utility-related and would not include the typical odor-generating land uses, such as composting facilities, wastewater treatment plants, or rendering plants. As a result, the project would not result in other emissions, such as those leading to odors, affecting a substantial number of people. This impact would be ***less than significant***.

8.6 MITIGATION MEASURES

No mitigation is required.

8.7 CUMULATIVE IMPACTS

The project would not result in significant air quality impacts related to construction activities, and the project itself would not generate operational emissions. The operation of the project upon completion would generate sewage that will result in an increase of operational emissions associated with the operations of the sewage treatment system as a whole (SASD conveyance systems and the SRWTP). The systems provide sewer service for the Sacramento area and generate operational emissions from the conveyance and treatment of sewage. The project is not within the current service area of the treatment system. Therefore, while the sewage transported to the SRWTP is not significant in terms of volume, it would be in excess of what is currently considered for the service area. As such, the project would contribute to the cumulatively considerable impacts associated with operational air quality emissions for the whole of the sewage treatment system. The impacts from the operation of the sewer system would remain ***cumulatively significant and unavoidable***.

8.8 REFERENCES

SMAQMD. 2020. Guide to Air Quality Assessment in Sacramento County. Available at: <http://www.airquality.org/Businesses/CEQA-Land-Use-Planning/CEQA-Guidance-Tools>

09 - CLIMATE CHANGE

9.1 INTRODUCTION

This chapter addresses the potential climate change impacts associated with the proposed Hood Septic to Sewer Conversion project (proposed project), which involves extension of Sacramento Area Sewer District (SASD) service to the Community of Hood in the larger Delta community of the unincorporated County of Sacramento (County).

On behalf of SASD, the County released a Notice of Preparation for this Environmental Impact Report (EIR) on March 25, 2022. The County received no response regarding climate change/greenhouse gas emissions. The Notice of Preparation and comments received are provided in Appendix PD-1. The Initial Study is provided in Appendix PD-2.

9.2 ENVIRONMENTAL SETTING

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Certain gases in the earth's atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface, and a smaller portion of this radiation is reflected back toward space through the atmosphere. However, infrared radiation is selectively absorbed by GHGs in the atmosphere. As a result, infrared radiation released from the earth that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the "greenhouse effect," is responsible for maintaining a habitable climate on Earth. Anthropogenic (e.g., human caused) emissions of GHGs lead to atmospheric levels in excess of natural ambient concentrations and have the potential to adversely affect the environment because such emissions contribute, on a cumulative basis, to global climate change.

The Intergovernmental Panel on Climate Change (IPCC) concluded that variations in natural phenomena, such as solar radiation and volcanoes, produced most of the warming of the earth from pre-industrial times to 1950. Some variations in natural phenomena also had a small cooling effect. From 1950 to the present, increasing GHG concentrations resulting from human activity, such as fossil fuel burning and deforestation, have been responsible for most of the observed temperature increase (IPCC 2021).

Global surface temperature has increased by approximately 1.96 degrees Fahrenheit (°F) over the last 140 years (IPCC 2021); the likely total human-caused global surface temperature increase is 1.93°F. The rate of increase in global average surface temperature has not been consistent; the last four decades have warmed at a much faster rate per decade (IPCC 2021).

During the same period when increased global warming has occurred, many other changes have occurred in other natural systems. Sea levels have risen; precipitation patterns throughout the world have shifted, with some areas becoming wetter and others drier; snowlines have increased elevation, resulting in changes to the snowpack, runoff, and water storage; and numerous other conditions have been observed. Although it is difficult to prove a definitive cause-and-effect relationship between global warming and other observed changes to natural systems, there is a high level of confidence in the scientific community that these changes are a direct result of increased global temperatures caused by the increased presence of GHGs in the atmosphere (IPCC 2021).

PRINCIPAL GREENHOUSE GASES AND SOURCES

GHGs are present in the atmosphere naturally, are released by natural and anthropogenic (human-caused) sources, and are formed from secondary reactions taking place in the atmosphere. Natural sources of GHGs include the respiration of humans, animals, and plants; decomposition of organic matter; volcanic activity; and evaporation from the oceans. Anthropogenic sources include the combustion of fossil fuels by stationary and mobile sources, waste treatment, and agricultural processes. The following are the principal GHG pollutants that contribute to climate change and their primary emission sources:

- Carbon Dioxide (CO₂): Natural sources of CO₂ include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; and evaporation from oceans. Anthropogenic (human) sources include burning of coal, oil, natural gas, and wood.
- Methane (CH₄): CH₄ is emitted during the production and transport of coal, natural gas, and oil. CH₄ emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.
- Nitrous Oxide (N₂O): N₂O is produced by both natural and human-related sources. Primary human-related sources of N₂O are agricultural soil management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. N₂O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests.
- Fluorinated gases: These gases are typically emitted in smaller quantities, but because they are potent greenhouse gases, they are sometimes called High Global Warming Potential (High GWP) gases. These High GWP gases include:
 - Chlorofluorocarbons (CFCs): These GHGs are used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants.
 - Perfluorinated Chemicals (PFCs): PFCs are emitted as by-products of industrial processes and are also used in manufacturing.

- Sulfur hexafluoride (SF₆): This is a strong GHG used primarily as an insulator in electrical transmission and distribution systems.
- Hydrochlorofluorocarbons (HCFCs): These have been introduced as temporary replacements for CFCs and are also GHGs.
- Hydrofluorocarbons (HFCs): These were introduced as alternatives to ozone-depleting substances in serving many industrial, commercial, and personal needs. HFCs are GHGs emitted as by-products of industrial processes and are also used in manufacturing.

GHGs are not monitored at local air pollution monitoring stations and do not represent a direct impact to human health. Rather, GHGs generated locally contribute to global concentrations of GHGs, which result in changes to the climate and environment.

GLOBAL WARMING POTENTIAL

GWP is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and the length of time the gas remains in the atmosphere (its “atmospheric lifetime”). The GWP of each gas is measured relative to CO₂. Therefore, CO₂ has a GWP of 1. GHGs with lower emissions rates than CO₂ may still contribute to climate change because they are more effective at absorbing outgoing infrared radiation than CO₂ (i.e., high GWP). For example, SF₆, while comprising a relatively small fraction of the total GHGs emitted annually worldwide, has a GWP of 22,800, meaning that 1 ton of SF₆ has the same contribution to the greenhouse effect as approximately 22,800 tons of CO₂. The concept of CO₂ equivalence (CO₂e) is used to account for the different GWP potentials of GHGs. GHG emissions are typically measured in terms of pounds or tons of CO₂e and are often expressed in MT CO₂e.

Climate change is a global issue because GHGs can have global effects, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern (see Chapter 9 “Air Quality”). Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about 1 day), GHGs have long atmospheric lifetimes (1 year to several thousand years), or long enough to be dispersed around the globe.

POTENTIAL EFFECTS OF CLIMATE CHANGE

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. The IPCC’s 2021 Synthesis Report indicated that warming of the climate system is unequivocal and, since the 1950s, many of the observed changes are unprecedented over decades to millennia. Signs that global climate change has occurred include warming of the atmosphere and ocean, diminished amounts of snow and ice, and rising sea levels (IPCC 2021).

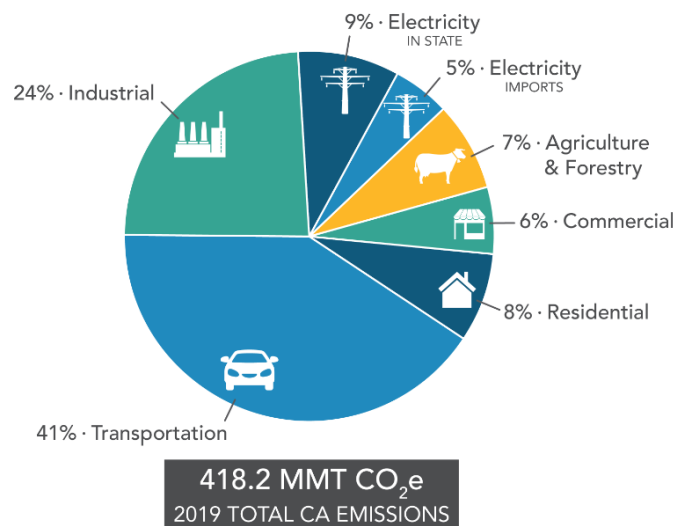
Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. A scientific consensus confirms that climate change is already affecting California. As noted in the Sacramento Valley Regional Report of the California's Fourth Climate Change Assessment, climate change is expected to make the Sacramento region hotter, drier, and increasingly prone to extremes like megadroughts, flooding, and large wildfires. These changing conditions are likely to affect water and energy availability, agricultural systems, plants and wildlife, public health, housing, and quality of life.

In Sacramento County, potential hazards (or exposures) related to climate change have also been analyzed as part of the Climate Change Vulnerability Assessment for the Sacramento County Climate Action Plan: Communitywide Greenhouse Gas Reduction and Climate Change Adaptation (Communitywide CAP) (County of Sacramento County, 2022). The direct, or primary, effects of climate change analyzed for Sacramento County include: increased temperature, changes in precipitation patterns, and sea level rise. Secondary consequences, which could occur as result of one or a combination of these primary effects, are also analyzed. These include: increased frequency, intensity, and duration of extreme heat days and heat waves/events; loss of snowpack and decreased water supplies; increased wildfire; and increased flooding.

STATE GREENHOUSE GAS EMISSIONS INVENTORY AND TRENDS

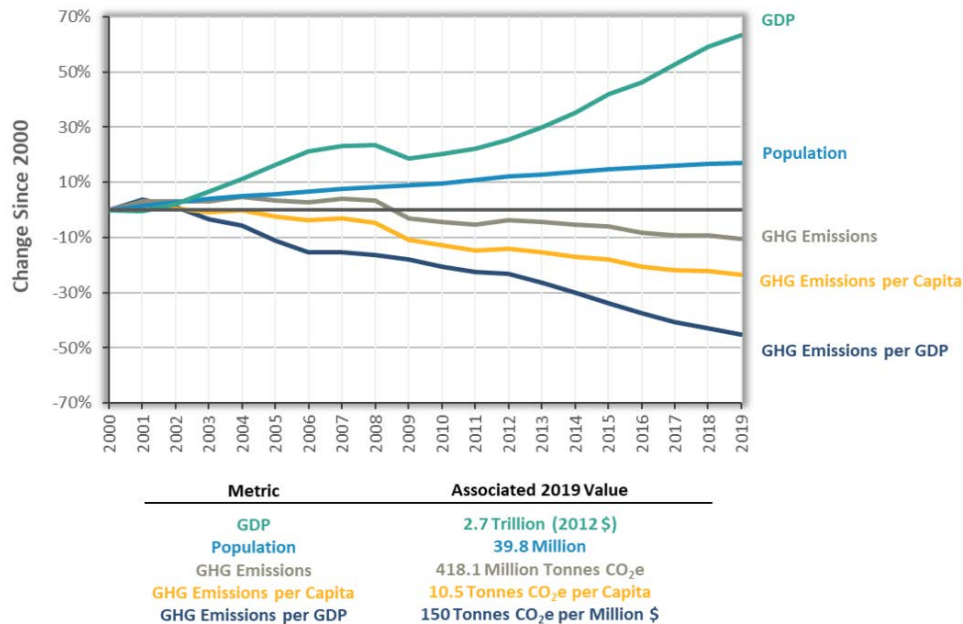
The CARB prepares an annual inventory of statewide GHG emissions. GHGs are typically analyzed by sector, a term that refers to the type of activity. As shown in Plate CC-1, 418.2 million MT CO₂e were generated in 2019. Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2019, accounting for 41 percent of total GHG emissions. Transportation was followed by industry, which accounted for 24 percent, and then the electric power sector (including in-state and out-of-state sources), which accounted for 14 percent of total GHG emissions (Plate CC-1) (CARB 2021).

Plate CC-1: California Emissions - 2019



California has implemented several programs and regulatory measures to reduce GHG emissions. Plate CC-2 demonstrates California's progress in reducing statewide GHG emissions. Since 2007, California's GHG emissions have been declining, even as population and gross domestic product have increased. Per-capita GHG emissions in 2019 were 25 percent lower than the peak per-capita GHG emissions recorded in 2001. Similarly, GHG emissions per million dollars of gross domestic product have decreased by 47 percent since the peak in 2001 (CARB, 2021).

Plate CC-2: Trends in California Greenhouse Gas Emissions (2000-2019)



LOCAL GREENHOUSE GAS EMISSIONS INVENTORY

As described below, under “Sacramento County Climate Action Plan,” the County of Sacramento is in the process of developing the County’s Climate Action Plan (CAP). The Revised Final Draft CAP includes a baseline and forecasted GHG emissions inventory for the community and government operations.

GHG emissions associated with wastewater conveyance/pumping were included the 2015 inventory of GHG emissions for Sacramento County, and estimated based on wastewater pumping energy use data provided by SASD and Regional San as well as total wastewater treatment volumes also provided by Regional San. Emissions were scaled to the unincorporated County population (community inventory) (Table CC-1).

Based on modeling conducted, wastewater generation in 2015 resulted in emissions of approximately 27,253 MTCO₂e, less than one percent of total emissions, primarily from fugitive CH₄. Wastewater emissions were estimated in two components: (1) pumping-related energy for wastewater conveyance from the source to the treatment facility, and (2) wastewater treatment process emissions (Table CC-2).

Table CC-1: 2015 Unincorporated Sacramento County Community Greenhouse Gas Inventory

Sectors	2015 (MTCO ₂ e/year)	Percent of Total
Residential Energy	1,193,311	25%
Commercial/Industrial Energy	890,603	18%
Building Total	2,083,914	43%
On-Road Vehicles	1,671,596	34%
Off-Road Vehicles	196,769	5%
Transportation Total	1,868,365	39%
Solid Waste	352,909	7%
Agriculture	254,899	5%
High-GWP Gases	251,085	5%
Wastewater	27,253	<1%
Water-Related	15,222	<1%
Total	4,853,647	100%
Notes: Totals may not add due to rounding. MTCO ₂ e = metric tons of carbon dioxide equivalent; NA = Not applicable		

Table CC-2: 2015 Unincorporated Sacramento County Community Wastewater Emissions

Wastewater Emission Type	(MTCO ₂ e/year)
Wastewater Conveyance (SASD)	2,088
Wastewater Treatment	25,166
Total Wastewater Emissions	27,253
Notes: Totals may not add due to rounding. MT = metric tons; CO ₂ e = carbon dioxide equivalent.	

9.3 REGULATORY SETTING

While most do not directly inform proposed project implementation or impact determinations, federal, state, regional, and local GHG-related plans, policies, and regulations are helpful for understanding the overall context for GHG emissions impacts and strategies to reduce GHG emissions.

FEDERAL

The U.S. Environmental Protection Agency (EPA) is the federal agency responsible for implementing the federal Clean Air Act (CAA). On April 2, 2007, the U.S. Supreme Court held that the EPA must consider regulation of motor vehicle GHG emissions. In

Massachusetts v. Environmental Protection Agency et al., 12 states and cities (including California) along with several environmental organizations sued to require EPA to regulate GHGs as pollutants under the CAA (127 S. Ct. 1438 [2007]). The Supreme Court ruled that GHGs fit within the CAA's definition of a pollutant and that EPA had the authority to regulate GHGs.

U.S. ENVIRONMENTAL PROTECTION AGENCY "ENDANGERMENT" AND "CAUSE OR CONTRIBUTE" FINDINGS

On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA:

- *Endangerment Finding:* The current and projected concentrations of the six key GHGs—carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆)—in the atmosphere threaten the public health and welfare of current and future generations.
- *Cause or Contribute Finding:* The combined emissions of these GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare.

STATE

The legal framework for GHG emission reductions has come about through Executive Orders, legislation, and regulations. The major components of California's climate change initiatives are outlined below.

EXECUTIVE ORDER S-3-05

Executive Order S-3-05, issued in recognition of California's vulnerability to the effects of climate change, set forth the following target dates by which statewide GHG emissions would be progressively reduced: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels.

EXECUTIVE ORDER B-55-18

Executive Order B-55-18 established a new statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. The Executive Order states that this new goal is in addition to the existing statewide targets of reduction GHG emissions.

ASSEMBLY BILL 32 AND THE STATE CLIMATE CHANGE SCOPING PLAN

In 2006, California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500, et seq.). AB 32 further details and puts into law the mid-term GHG reduction target established in Executive Order S-3-05: reduce GHG emissions below 1990 levels by 2020. AB 32 also identifies

CARB as the State agency responsible for the design and implementation of emissions limits, regulations, and other measures to meet the target.

In December 2008, CARB adopted the Climate Change Scoping Plan (Scoping Plan), which contains the main strategies California will implement to achieve the required GHG reductions required by AB 32 (CARB 2008). The Scoping Plan also includes CARB-recommended GHG reductions for each emissions sector of California's GHG inventory. CARB acknowledges that land use planning decisions will have large impacts on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emissions sectors. The Scoping Plan details the regulations, alternative compliance mechanisms, voluntary actions and incentives, etc. proposed to meet the target emission reduction levels.

EXECUTIVE ORDER B-30-15

In April 2015, Governor Edmund Brown issued an executive order establishing a statewide GHG reduction goal of 40 percent below 1990 levels by 2030. The emission reduction target acts as an interim goal between the AB 32 goal (i.e., achieve 1990 emission levels by 2020) and Governor Brown's Executive Order S-3-05 goal of reducing statewide emissions 80 percent below 1990 levels by 2050. In addition, the executive order aligns California's 2030 GHG reduction goal with the European Union's reduction target (i.e., 40 percent below 1990 levels by 2030) that was adopted in October 2014.

SENATE BILL 32

Approval of SB 32 in September 2016 extended the provisions of AB 32 from 2020 to 2030 with a new target of 40 percent below 1990 levels by 2030. The companion bill, AB 197, adds two non-voting members to the CARB, creates the Joint Legislative Committee on Climate Change Policies consisting of at least three Senators and three Assembly members, requires additional annual reporting of emissions, and requires Scoping Plan updates to include alternative compliance mechanisms for each statewide reduction measure, along with market-based compliance mechanisms and potential incentives.

MANDATORY REPORTING OF GREENHOUSE GAS EMISSIONS (17 CCR §95100 TO 95158)

This rule applies to entities of certain sources categories, including suppliers of transportation fuels and generators of electricity. However, no specific reporting requirements apply to electric power generation from solar resources.

LOCAL

SACRAMENTO COUNTY CLIMATE ACTION PLAN

Sacramento County is currently in the process of developing the CAP. The Revised Final Draft CAP was presented to the Board of Supervisors on March 23, 2022, and a Second Revised Final Draft CAP public review period and hearing are planned for fall 2022. The Revised Final Draft CAP details specific measures that will be implemented in the County by 2030 to reduce GHG emissions from communitywide activities and government

operations (County of Sacramento 2022). It also includes an adaptation plan that recommends actions to reduce the community's vulnerability to the anticipated impacts of climate change. The Revised Final Draft CAP has been developed in response to mitigation measures contained in the County's General Plan, the County's adoption of a Climate Emergency Resolution in December 2020, and State legislation including Assembly Bill 32, SB 32, and SB 743 as well as Executive Orders S-3-05 and B-55-18. The strategies and measures contained in the Revised Final Draft CAP complement a wide range of policies, plans, and programs that have been adopted by the County, State, and regional agencies to protect communities from hazards and activities contributing to GHG emissions.

SACRAMENTO COUNTY GENERAL PLAN

The Land Use Element of the Sacramento County General Plan contains the following applicable policy:

LU-115. It is the goal of the County to reduce greenhouse gas emissions to 1990 levels by the year 2020. This shall be achieved through a mix of State and local action.

9.4 SIGNIFICANCE CRITERIA AND METHODOLOGY

SIGNIFICANCE CRITERIA

GHG emissions have the potential to adversely affect the environment because such emissions contribute cumulatively to global climate change. It is unlikely that a single project will contribute significantly to climate change, but cumulative emissions from many projects could affect global GHG concentrations and the global climate system. Therefore, impacts are analyzed within the cumulative context of the project's potential contribution to the significant impact of global climate change.

Based on Appendix G of the CEQA Guidelines, implementation of the proposed project would result in a cumulatively considerable contribution to the significant impact of climate change if it would:

- generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, or
- conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Section 15064.4(b) of the CEQA Statute and Guidelines, concerning determining the significance of impacts from GHG emissions, states that a lead agency may consider the following three factors in assessing the significance of impacts from GHG emissions.

- The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting.

- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

As stated in Appendix G of the CEQA Guidelines, the significance criteria established by the applicable air quality management district may be relied on to make the above determinations.

On April 23, 2020, the SMAQMD Board of Directors adopted the Update to the Recommended GHG Emissions Thresholds of Significance, which established thresholds of significance for GHG emissions designed to analyze a project's compliance with applicable State laws, including AB 32 and SB 32 (SMAQMD 2020). The Sacramento County Board of Supervisors adopted the same threshold in December 2020. The SMAQMD developed the thresholds for Sacramento County based on determining Sacramento County's share of statewide 2030 GHG emissions by sector, determining the share of Sacramento County 2030 emissions from existing development versus new development, allocating 2030 GHG emissions from new development among land uses and place types to set numeric thresholds, and setting best management practices by land use and place types that achieve those numeric thresholds. Specifically, the SMAQMD adopted a mass emissions based threshold for the construction phase of all project types of 1,100 MT CO₂e per year (SMAQMD 2021).

For operational emissions, the SMAQMD has developed an operational screening table, which shows sizes of development projects at which 1,100 MT CO₂e would not be exceeded, including implementation of Tier 1 Best Management Practices¹. Tier 1 Best Management Practices requires that projects be designed and constructed without natural gas infrastructure (BMP 1), and that projects meet the current CALGreen Tier 2 standards and that all electric vehicle (EV) capable spaces shall instead be EV ready. For projects that do not meet the screening criteria, then utilization of the significance thresholds in Table CC-3 would apply.

¹ 1,100 MT CO₂e/year is the current SMAQMD de minimis threshold. By complying with Best Management Practices 1 and 2 (removing natural gas, EV-ready), small projects would reduce emissions to be consistent with State goals (SMAQMD 2020a).

Table CC-3: Sacramento Metropolitan Air Quality Management District Threshold of Significance for Greenhouse Gases

Land Development and Construction Projects		
	Construction Phase	Operational Phase
Greenhouse Gas as CO ₂ e	1,100 metric tons per year	1,100 metric tons per year
Stationary Source Only		
	Construction Phase	Operational Phase
Greenhouse Gas as CO ₂ e	1,100 metric tons per year	10,000 metric tons per year

ISSUES NOT DISCUSSED FURTHER

All issues identified in the significance criteria are evaluated below.

METHODOLOGY

The Roadway Emissions Model version 9.0 was used to calculate the emissions generated during the construction of the new sewer force main pipeline (Appendix AQ-1). The length of pipeline installation, material to be imported/exported and modifications to the number and distance of trips were entered into the model. Model results are then compared with the significance thresholds for GHG emissions.

9.5 IMPACTS AND ANALYSIS

The following section discloses the potential impacts of the proposed project on global climate change.

IMPACT CC-1: GENERATE GREENHOUSE GAS EMISSIONS, EITHER DIRECTLY OR INDIRECTLY, THAT MAY HAVE A SIGNIFICANT IMPACT ON THE ENVIRONMENT

The Roadway Construction Emissions Model found that the construction of the force main pipeline, and associated property connections, over the 16 months of construction would generate 813.37 MT (metric tons) of CO₂e. This is less than the 1,100 MT of CO₂e annual threshold of significance. Upon completion, the force main and associated lateral connections would not result in the release of additional GHG emissions. There are no pumping facilities associated with the project that would require additional energy use. Periodic maintenance may require general construction equipment or light duty trucks for inspections purposes. The project would transport sewage to the existing SASD system and SRWTP. There are GHG emissions associated with the ongoing operation of the SRWTP (see cumulative impacts below), but no improvements or expansion of the existing system would be required to accommodate the proposed project. Therefore, emissions associated with the project are considered ***less than significant***.

IMPACT CC-2: CONFLICT WITH AN APPLICABLE PLAN, POLICY, OR REGULATION ADOPTED FOR THE PURPOSE OF REDUCING THE EMISSIONS OF GREENHOUSE GASES

The construction of the pipeline would generate less the 1,100 MT threshold level of emissions associated with CO₂e. Because the project itself would generate emissions below the established threshold, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Impacts are considered ***less than significant***.

9.6 MITIGATION MEASURES

None recommended.

9.7 CUMULATIVE IMPACTS

The operation of the project upon completion would generate sewage that will result in an increase of operational emissions associated with the operations of the sewage treatment system as a whole (SASD conveyance systems and the SRWTP). In the 2015 inventory of Sacramento County GHG emissions, emissions associated with wastewater facilities were 2,088 (MTCO₂e/year) associated with wastewater conveyance, and 25,166 (MTCO₂e/year) associated with wastewater treatment (see environmental setting section above). The baseline GHG emissions associated with these facilities exceed the significance thresholds for GHG emissions, and would be considered to have a significant impact as it relates to GHG emission. Therefore, while the project itself would have negligible GHG emissions, it would contribute to an already significant impact. Therefore the impacts from the operation of the sewer system would remain ***cumulatively significant and unavoidable***.

9.8 REFERENCES

Ascent Environmental. 2016. Sacramento County Climate Action Plan: Communitywide Greenhouse Gas Reduction & Climate Change Adaptation (Communitywide CAP) Task 1 Technical Memorandum: 2015 Greenhouse Gas Emissions Inventory and Forecasts. Available at: <https://planning.sacounty.net/PlansandProjectsIn-Progress/Pages/CAP.aspx>

California Air Resources Board. 2021. Current California GHG Emission Inventory Data. Accessed August 2022. Available at: <https://ww2.arb.ca.gov/ghg-inventory-data>

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Sacramento County. 2021. Draft Communitywide Climate Action Plan. Available at:
<https://planning.saccounty.net/PlansandProjectsIn-Progress/Pages/CAP.aspx>

SMAQMD. 2020. Greenhouse Gas Thresholds for Sacramento County. Available at:
<http://www.airquality.org/LandUseTransportation/Documents/SMAQMDGHGThresholds2020-03-04v2.pdf>

10- NOISE

10.1 INTRODUCTION

This chapter addresses the potential noise impacts associated with the proposed Hood Septic to Sewer Conversion project (proposed project), which involves extension of Sacramento Area Sewer District (SASD) service to the community of Hood in the greater Delta community of the unincorporated County of Sacramento (County). The analysis in this chapter considers the potential impacts of the project related to the potential impacts to noise regarding construction related noise.

On behalf of SASD, the County released a Notice of Preparation for this Environmental Impact Report (EIR) on March 25, 2022. The County received no comments regarding noise. The Notice of Preparation and comments received are provided in Appendix PD-1. The Initial Study is provided in Appendix PD-2.

10.2 ENVIRONMENTAL SETTING

EXISTING AMBIENT NOISE LEVELS

The project site consists of a primarily residential neighborhood within the Hood Community. Outside of Hood, the environment is rural in nature, surrounded by agriculture, open space preserve land, and scattered rural residential residences. Site specific ambient noise measurements have not been established, but there are no operational uses in the area that would create significant noise. The roadways in the project area do not generate substantial traffic such that existing ambient noise levels would be elevated due to traffic noise (with the exception of the vicinity of Interstate-5, and there are no sensitive uses near I-5). Agricultural uses could result in temporary elevated noise levels for short durations of time. In the vicinity of sensitivity uses as it relates to noise (residential uses), existing noise levels are within the thresholds established by the General Plan (additional information below).

ACOUSTIC FUNDAMENTALS

Noise is generally defined as sound that is loud, disagreeable, unexpected, or unwanted. Sound, as described in more detail below, is mechanical energy transmitted in the form of a wave because of a disturbance or vibration, and as any pressure variation in the air that the human ear can detect.

SOUND PROPERTIES

A sound wave is introduced into a medium (air) by a vibrating object. The vibrating object (e.g., vocal cords, the string and soundboard of a guitar, the diaphragm of a radio speaker) is the source of the disturbance that moves through the medium. Regardless of the type of source that creates the sound wave, the particles of the medium through which

the sound moves are vibrating in a back-and-forth motion at a given frequency (pitch).¹ A commonly used unit for frequency is cycles per second, called hertz (Hz).²

A wave transports energy along a medium. The amount of energy carried by a wave is related to the amplitude (loudness) of the wave. A high-energy wave is characterized by high amplitude; a low-energy wave is characterized by low amplitude. The amplitude of a wave refers to the maximum amount of displacement of a particle from its rest position. The energy transported by a wave is directly proportional to the square of the amplitude of the wave. This means that a doubling of the amplitude of a wave is indicative of a quadrupling of the energy transported by the wave.

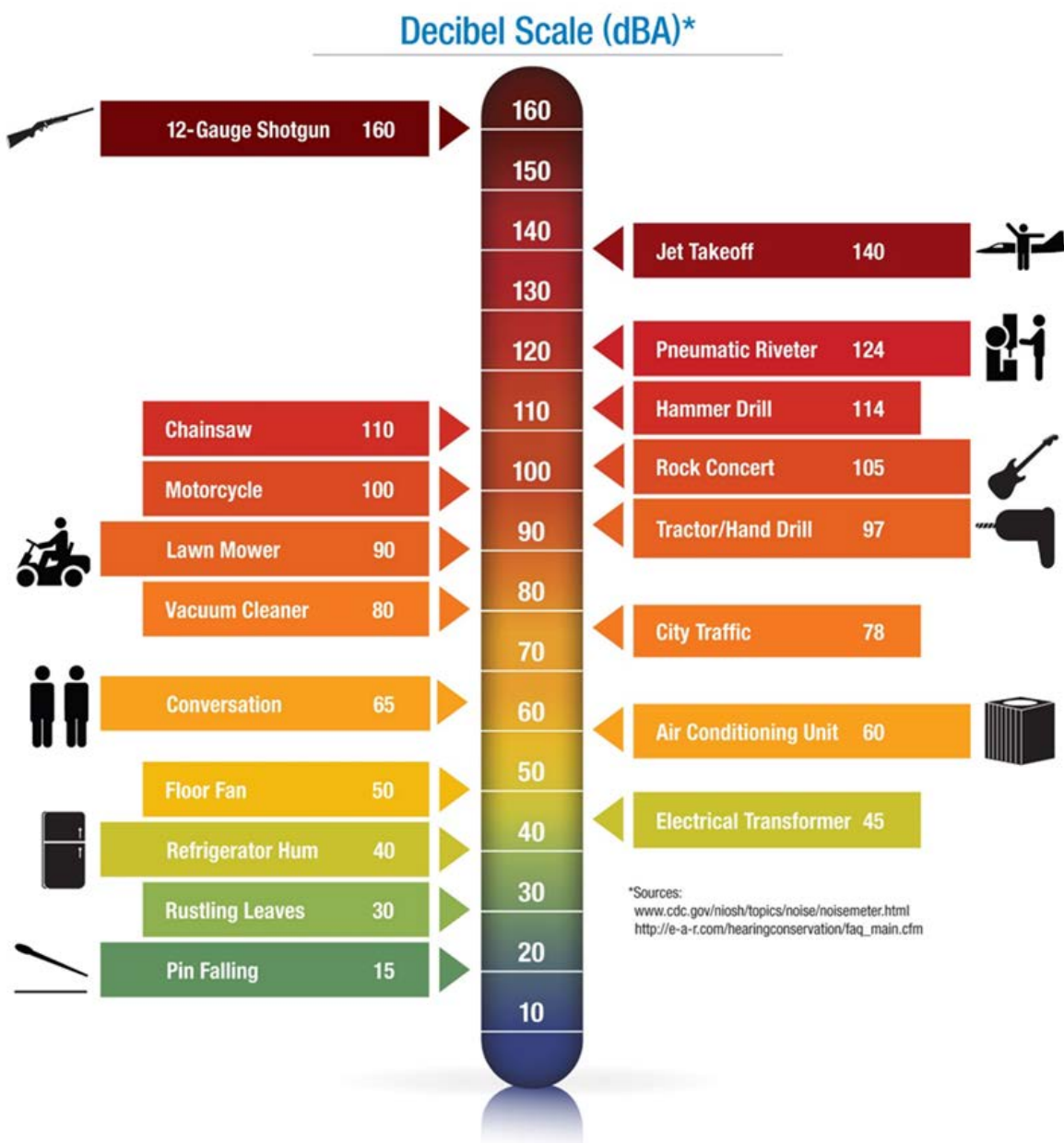
SOUND AND THE HUMAN EAR

Because of the ability of the human ear to detect a wide range of sound-pressure fluctuations, sound-pressure levels are expressed in logarithmic units called decibels (dB) to avoid a very large and awkward range in numbers. The sound pressure level in decibels is calculated by taking the log of the ratio between the actual sound pressure and the reference sound pressure squared. The reference sound pressure is considered the absolute hearing threshold (Caltrans 2013). Use of this logarithmic scale reveals that the total sound from two individual sources, each measured at 65 A-weighted decibels (dBA), is 68 dBA, not 130 dBA; that is, doubling the source strength increases the sound pressure by 3 dBA. Typical noise levels associated with various sources are shown on (Plate NOI-1).

¹ The frequency of a wave refers to how often the particles vibrate when a wave passes through the medium. The frequency of a wave is measured as the number of complete back-and-forth vibrations of a particle per unit of time. If a particle of air undergoes 1,000 longitudinal vibrations in 2 seconds, then the frequency of the wave would be 500 vibrations per second.

² Hertz (abbreviated: Hz) is the standard unit of measurement used for measuring frequency. Since frequency is measured in cycles per second, one hertz equals one cycle per second. Hertz is commonly used to measure wave frequencies, such as sound waves, light waves, and radio waves. For example, the average human ear can detect sound waves between 20 and 20,000 Hz. Sound waves close to 20 Hz have a low pitch and are called "bass" frequencies. Sound waves above 5,000 Hz have a high pitch and are called "treble" frequencies.

Plate NOI-1: Common Noise Sources



Because the human ear is not equally sensitive to all sound frequencies, a specific frequency-dependent rating scale was devised to relate noise to human sensitivity. A dBA scale performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear. The basis for compensation is the faintest sound audible to the average ear at the frequency of maximum sensitivity. This dBA scale has been chosen by most authorities to regulate environmental noise. With respect to how humans perceive and react to changes in noise levels, a 1-dBA increase is imperceptible, a 3-dBA increase is barely perceptible, a 6-dBA increase is clearly noticeable, and a 10-dBA increase is subjectively perceived as approximately twice as loud (Egan 1988), as presented in Table NOI-1.³

Table NOI-1. Subjective Reaction to Changes in Noise Levels of Similar Sources

Change in Level, dBA	Subjective Reaction	Factor Change in Acoustical Energy
1	Imperceptible (except for tones)	1.3
3	Just barely perceptible	2.0
6	Clearly noticeable	4.0
10	About twice (or half) as loud	10.0

Note: dBA = A-weighted decibels
Source: Egan 1988

NOISE ATTENUATION

Stationary “point” sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate of approximately 6+ dBA per doubling of distance from the source, depending upon environmental conditions (i.e., atmospheric conditions and noise barriers, either vegetative or manufactured, etc.). Widely distributed noises, such as a large industrial facility, spread over many acres or a street with moving vehicles (a “line” source), would typically attenuate at a lower rate, approximately 4 to 6 dBA per doubling distance from the source (also dependent upon environmental conditions) (Caltrans, 2020). Noise from large construction sites (with heavy equipment moving dirt and trucks entering and exiting the site daily) would have characteristics of both “point” and “line” sources, so attenuation would generally range between 4.5 and 7.5 dBA per doubling of distance.

VIBRATION

Vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of groundborne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains,

³ Table NOI-1 was developed on the basis of the reactions of test subjects to changes in the levels of steady-state pure tones or broadband noise and changes in levels of a given noise source. It is probably most applicable to noise levels in the range of 50–70 dBA, as this is the usual range of voice and interior noise levels.

construction equipment). Vibration sources may be continuous, such as operating factory machinery, or transient, such as explosions. As is the case with airborne sound, groundborne vibrations may be described by amplitude and frequency.

Vibration amplitudes are usually expressed in peak particle velocity (PPV) or root mean square (RMS), as in RMS vibration velocity. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is often used in monitoring of blasting vibration because it is related to the stresses that are experienced by buildings (FTA 2018). PPV and RMS are normally described in inches per second (in/sec).

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table NOI-2, which was developed by the California Department of Transportation (Caltrans), shows the vibration levels which would normally be required to result in damage to structures. The vibration levels are presented in terms of peak particle velocity in inches per second.

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. It takes some time for the human body to respond to vibration signals. In a sense, the human body responds to average vibration amplitude. The RMS of a signal is the average of the squared amplitude of the signal, typically calculated over a period of one second. Like airborne sound, the RMS velocity is often expressed in decibel notation, as vibration decibels (VdB), which serves to compress the range of numbers required to describe vibration (FTA 2018). This is based on a reference value of one microinch per second ($\mu\text{in/sec}$).

The background vibration-velocity level in residential areas is usually approximately 50 VdB. Groundborne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels (FTA 2018).

Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. Construction activities can generate groundborne vibrations, which can pose a risk to nearby structures. Constant or transient vibrations can weaken structures, crack facades, and disturb occupants (FTA 2018).

Table NOI-2. Effects of Various Vibration Levels on People and Buildings

Velocity Level, PPV (in/sec)	Vibration Level, VdB	Human Reaction	Effect on Buildings
0.01	68	Barely perceptible	No effect
0.04	80	Distinctly perceptible	Vibration unlikely to cause damage of any type to any structures
0.08	86	Distinctly perceptible to strongly perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
0.1	88	Strongly perceptible	Virtually no risk of damage to normal buildings
0.3	98	Strongly perceptible to Severe	Threshold at which there is a risk of damage to older residential structures
0.5	102	Severe – Vibration considered unpleasant	Threshold at which there is a risk of damage to newer residential structures

Notes:

PPV=peak particle velocity

In/sec=inches per second VdB = Vibration Decibel

Source: Caltrans 2020

Construction vibrations can be transient, random, or continuous. Transient construction vibrations are generated by blasting, impact pile driving, and wrecking balls. Continuous vibrations result from vibratory pile drivers, large pumps, horizontal directional drilling, and compressors. Random vibration can result from jackhammers, pavement breakers, and heavy construction equipment. “Architectural” damage can be classified as cosmetic only, such as minor cracking of building elements, while “structural” damage may threaten the integrity of a building. Safe vibration limits that can be applied to assess the potential for damaging a structure vary by researcher and there is no general consensus as to what amount of vibration may pose a threat for structural damage to a building. Construction-induced vibration that can be detrimental to the building is very rare and has only been observed in instances where the structure is in a high state of disrepair and the construction activity occurs immediately adjacent to the structure. Table NOI-3 shows the criteria established by the Federal Transit Administration (FTA) for the likelihood of structural damage due to vibration.

Table NOI-3. Groundborne Vibration Criteria: Architectural Damage

Building Category	PPV (in/sec)	Lv (VdB) ^a
I. Reinforced concrete, steel, or timber (no plaster)	0.5	102
II. Engineered concrete masonry (no plaster)	0.3	98
III. Non-engineered timber and masonry buildings	0.2	94
IV. Buildings extremely and susceptible to vibration damage	0.12	90

Notes: in/sec = inches per second; PPV = peak particle velocity; Lv = Vibration Level; VdB = Vibration Decibel.

^a RMS velocity calculated from vibration level (VdB) using the reference of one micro-inch/second.

Source: FTA 2018.

10.3 REGULATORY SETTING

FEDERAL

Although not directly applicable to the proposed project, the research that supported the development of federal community noise standards is broadly applicable in understanding human response to different noise levels and is summarized below for the reader's edification.

U.S. ENVIRONMENTAL PROTECTION AGENCY NOISE CONTROL ACT

The Federal Noise Control Act of 1972 (Public Law 92-574) established a requirement that all federal agencies administer their programs to promote an environment free of noise that would jeopardize public health or welfare.⁴ Although the EPA was given a major role in disseminating information to the public and coordinating federal agencies, each federal agency retains authority to adopt noise regulations pertaining to agency programs.⁵

In 1974, in response to the requirements of the federal Noise Control Act, the EPA identified indoor and outdoor noise level limits to protect public health and welfare (communication disruption, sleep disturbance, and hearing damage). Outdoor and indoor noise exposure limits of 55 dB L_{dn} and 45 dB L_{dn}, respectively, are identified as desirable to protect against speech interference and sleep disturbance for residential, educational, and healthcare areas. The sound-level criterion identified to protect against hearing damage in commercial and industrial areas is 70 dB 24-hour L_{eq} (both outdoors and indoors).

The U.S. Environmental Protection Agency's (EPA's) Office of Noise Abatement and Control was established to coordinate federal noise control activities. In 1981, EPA administrators determined that subjective issues such as noise would be better addressed at lower levels of government. Consequently, in 1982 responsibilities for regulating noise control policies were transferred to state and local governments.

U.S. DEPARTMENT OF TRANSPORTATION AND U.S. EPA VIBRATION GUIDELINES

To address the human response to groundborne vibration, the FTA of the U.S. Department of Transportation has set forth guidelines for maximum-acceptable vibration

⁴ The U.S. Environmental Protection Agency (EPA) was given the responsibility for providing information to the public regarding identifiable effects of noise on public health and welfare, publishing information on the levels of environmental noise that will protect the public health and welfare with an adequate margin of safety, coordinating federal research and activities related to noise control, and establishing federal noise emission standards for selected products distributed in interstate commerce. The Noise Control Act also directed that all federal agencies comply with applicable federal, State, interstate, and local noise control regulations.

⁵ The EPA can, however, require other federal agencies to justify their noise regulations in terms of the Noise Control Act policy requirements.

criteria for different types of land uses. These include 65 VdB for land uses where low ambient vibration is essential for interior operations (e.g., hospitals, high-tech manufacturing, laboratory facilities); 80 VdB for residential uses and buildings where people normally sleep; and 83 VdB for institutional land uses with primarily daytime operations (e.g., schools, churches, clinics, offices) (FTA 2018).

Standards have also been established to address the potential for groundborne vibration to cause structural damage to buildings. These standards were developed by the Committee of Hearing, Bio Acoustics, and Bio Mechanics (CHABA) at the request of the U.S. Environmental Protection Agency (FTA 2018). For fragile structures, CHABA recommends a maximum limit of 0.25 in/sec PPV (FTA 2018).

STATE

The California Department of Health Services (DHS) Office of Noise Control has studied the relationship between noise levels and different land uses. As a result, the DHS has established four categories for judging the severity of noise intrusion on specified land uses. Noise in the “normally acceptable” category places no undue burden on affected receptors and would need no mitigation. As noise rises into the “conditionally acceptable” range, some mitigation of exposure (as established by an acoustical study) would be warranted. At the next level, noise intrusion is so severe that it is classified “normally unacceptable” and would require extraordinary noise reduction measures to avoid disruption. Finally, noise in the “clearly unacceptable” category is so severe that it cannot be mitigated.

In 1971, the State required cities and counties to include noise elements in their general plans (Government Code Section 65302 et seq.). The State of California General Plan Guidelines (Office of Planning and Research 2015) identify guidelines for the noise elements of local general plans, including a sound level/land-use compatibility chart. The noise element guidelines identify the “normally acceptable” range of noise exposure for low-density residential uses as less than 60 dB L_{dn} , and the “conditionally acceptable” range as 55-70 dB L_{dn} . Overlapping noise level ranges are intended to indicate that local conditions (existing sound levels and community attitudes toward dominant sound sources) should be considered in evaluating land use compatibility at specific locations. The State’s guidance for land use/noise compatibility is summarized in Table NOI-4.

Table NOI-4. Land Use Noise Compatibility Guidelines

Land Use Category	Community Noise Exposure (CNEL/L _{dn} , dBA)			
	Normally Acceptable ¹	Conditionally Acceptable ²	Normally Unacceptable ³	Clearly Unacceptable ⁴
Residential-Low Density Single Family, Duplex, Mobile Home	<60	55–70	70–75	75+
Residential-Multiple Family	<65	60–70	70–75	75+
Transient Lodging, Motel, Hotel	<65	60–70	70–80	80+
School, Library, Church, Hospital, Nursing Home	<70	60–70	70–80	80+
Auditorium, Concert Hall, Amphitheater		<70	65+	
Sports Arenas, Outdoor Spectator Sports		<75	70+	
Playground, Neighborhood Park	<70		67.5–75	72.5+
Golf Courses, Stable, Water Recreation, Cemetery	<75		70–80	80+
Office Building, Business Commercial and Professional	<70	67.5–77.5	75+	
Industrial, Manufacturing, Utilities, Agriculture	<75	70–80	75+	

Notes: CNEL = Community Noise Equivalent Level; dBA = A-weighted decibels; L_{dn} = day-night average noise level.

¹ Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

² New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

³ New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. Outdoor areas must be shielded.

⁴ New construction or development should generally not be undertaken.

Source: OPR 2015

CALIFORNIA DEPARTMENT OF TRANSPORTATION

For the protection of fragile, historic, and residential structures, Caltrans recommends for highway construction analysis a threshold of 0.2 in/sec PPV for normal residential buildings and 0.08 in/sec PPV for old or historically significant structures (Caltrans 2013). These standards are more stringent than the recommended guidelines established by the Federal Transit Administration (FTA), presented above. Table NOI-5 shows the general thresholds for structural responses to vibration levels.

Table NOI-5. Structural Responses to Vibration Levels, Peak Vibration Threshold (in/sec PPV)

Structure and Condition	Peak Vibration Threshold (in/sec PPV) Transient Sources	Peak Vibration Threshold (in/sec PPV) Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Notes: in/sec = inches per second; PPV = peak particle velocity

Source: Caltrans 2020

CRITERIA FOR ACCEPTABLE VIBRATION EXPOSURE

Sacramento County has no adopted vibration standards. As a result, Caltrans-recommended criteria are applied for this project, as described below. Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. The Caltrans publication, *Transportation and Construction Vibration Guidance Manual*, April 2020, provides guidelines for acceptable vibration limits for transportation and construction projects in terms of the induced peak particle velocity (PPV). Those standards are reproduced below in Table NOI-6.

Table NOI-6: Vibration Criteria

Human Response	Maximum Peak Particle Velocity(ppv) (inches/second)	
	Transient Sources ¹	Continuous or Frequent Intermittent Sources ²
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Notes:

¹ Transient sources create a single isolated vibration event, such as blasting or drop balls.

² Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Current Caltrans research illustrates that there are different thresholds of perception for different types of vibration sources. Section XI(b) of Appendix G of the CEQA guidelines requires that a project result in exposure of persons to, or generation of, *excessive* groundborne vibration levels or groundborne noise levels, for the finding of a significant impact. The CEQA guidelines specifically mention “excessive” vibration, rather than just perceptible vibration.

The general range at which vibration becomes distinctly to strongly perceptible to people is noted in Table NO-1 as being 0.04–0.10 in/sec ppv for continuous or frequent sources. Similarly, damage to structures is considered likely at 0.25 in-sec ppv.

LOCAL

COUNTY OF SACRAMENTO GENERAL PLAN

Sacramento County General Plan (updated in 2011) and serves as the overall guiding policy document for land use, development, and environmental quality for the County. Sacramento County Noise Element of the General Plan contains noise standards for transportation as well as non-transportation or “stationary” noise sources. The non-transportation criteria, shown in Table NOI-7, would apply to noise generated from the on-site heavy equipment construction activities of the proposed project. Satisfaction of the County’s exterior noise level standards would ensure compliance with interior noise level standards. This is because the interior noise level standards are 15–20 dB lower than the exterior noise level standards, and typical noise reduction for residential structures is 25 dB with windows in the closed position. Pursuant to footnote 3 of Table NOI-7, noise level standards are applied with windows in the closed position. Therefore, provided exterior noise levels do not exceed the Table NOI-7 standards outside the nearest residences, noise levels inside the residences would be below the interior noise level standards shown in Table NOI-7. As a result, this analysis focuses on the more restrictive exterior noise level standards.

**Table NOI-7: Non-Transportation Noise Standards
Sacramento County General Plan Noise Element**

Receiving Land Use	Outdoor Area ²		Interior ³	Notes
	Daytime (7 a.m. – 10 p.m.)	Nighttime (10 p.m. – 7 a.m.)	Day & Night	
All Residential	55 / 75	50 / 70	35 / 55	
Transient Lodging	55 / 75	--	35 / 55	4
Hospitals & Nursing Homes	55 / 75	--	35 / 55	5,6
Theaters & Auditoriums	--	--	30 / 50	6
Churches, Meeting Halls Schools, Libraries, etc.	55 / 75	--	35 / 60	6
Office Buildings	60 / 75	--	45 / 65	6
Commercial Buildings	--	--	45 / 65	6
Playgrounds, Parks, etc.	65 / 75	--	--	6
Industry	60 / 80	--	50 / 70	6
Notes: L ₅₀ = sound level exceeded by 50% of a specific period of time; L _{max} = maximum sound level (the maximum instantaneous sound level during a specific period); Leq = equivalent or energy-averaged noise level. ¹ The Table 2 standards shall be reduced by 5 dB for sounds consisting primarily of speech or music, and for recurring impulsive sounds. If the existing ambient noise level exceeds the standards of Table 1, then the noise level standards shall be increased at 5 dB increments to encompass the ambient. ² Sensitive areas are defined in the acoustic terminology section. ³ Interior noise level standards are applied within noise-sensitive areas of the various land uses, with windows and doors in the closed positions. ⁴ Outdoor activity areas of transient lodging facilities are not commonly used during nighttime hours. ⁵ Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients. ⁶ The outdoor activity areas of these uses (if any), are not typically used during nighttime hours. ⁷ Where median (L ₅₀) noise level data is not available for a particular noise source, average (L _{eq}) values may be substituted for the standards of this table provided the noise source in question operates for at least 30 minutes of an hour. If the source in question operates less than 30 minutes per hour, then the maximum noise level standards shown would apply. Source: Sacramento County General Plan Noise Element (Amended 2011)				

COUNTY OF SACRAMENTO NOISE ORDINANCE

Section 6.68 of the Sacramento County Code (noise control) establishes standards for acceptable noise exposure at residential uses. Table NOI-8 outlines excerpts for noise standards from the County's Noise Control Ordinance. Regarding project construction activities, the Sacramento County Code Section 6.68.090 (Exemptions), states that the following activities shall be exempted from the provisions of the Noise Ordinance:

Table NOI-8. Excerpts from the County of Sacramento Noise Control Ordinance

Noise Area	County Zoning Districts	Time Period	Exterior Noise Standard
1	RE-1, RD-1, RE-2, RD-2, RE-3, RD-3, RD-4, R-1-A, RD-5, R-2, RD-10, R-2A, RD-20, R-3, R-D-30, RD-40, RM-1, RM-2, A-1-B, AR-1, A-2, AR-2, A-5, AR-5	7 a.m.–10 p.m.	55 dB
		10 p.m.–7 a.m.	50 dB

- a Noise standards, unless otherwise specifically indicated in this chapter, shall apply to all properties within a designated noise area.
- b It is unlawful for any person at any location within the County to create any noise which causes the noise levels on an affected property, when measured in the designated noise area, to exceed for the duration of time set forth following, the specified exterior noise standards in any one hour by:

Cumulative Duration of the Intrusive Sound	Allowance Decibels (dB)
1. Cumulative period of 30 minutes per hour	0
2. Cumulative period of 15 minutes per hour	+ 5
3. Cumulative period of 5 minutes per hour	+10
4. Cumulative period of 1 minute per hour	+15
5. Level not to be exceeded for any time per hour	+20

- c. Each of the noise limits specified in subdivision (b) of this section shall be reduced by five dB for impulsive or simple tone noises, or for noises consisting of speech or music.
- d. If the ambient noise level exceeds that permitted by any of the first four noise-limit categories specified in subdivision (b), the allowable noise limit shall be increased in five dB increments in each category to encompass the ambient noise level. If the ambient noise level exceeds the fifth noise level category, the maximum ambient noise level shall be the noise limit for that category.

Notes: dB = A-weighted decibels

Source: County of Sacramento Code, Noise Control 1976

Excerpt from the Sacramento County noise ordinance:

- e. Noise sources associated with construction, repair, remodeling, demolition, paving or grading of any real property, provided said activities do not take place between the hours of eight p.m. and six a.m. on weekdays and Friday commencing at eight p.m. through and including seven a.m. on Saturday; Saturdays commencing at eight p.m. through and including seven a.m. on the next following Sunday and on each Sunday after the hour of eight p.m. Provided, however, when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in process be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work after eight p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner.

10.4 SIGNIFICANCE CRITERIA AND METHODOLOGY

SIGNIFICANCE CRITERIA

The CEQA Guidelines define “significant” as “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 objectives of historic or aesthetic significance.” Based on the CEQA Guidelines, a noise impact is significant if the project results in any of the following:

1. 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.
2. Generation of 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, would the project expose people residing or working in the project area to excessive noise levels.

ISSUES NOT DISCUSSED FURTHER

No private airstrips were identified in the project vicinity. The project would not expose people residing or working in the project area to excessive noise levels; therefore, an evaluation of aircraft noise impacts associated with such facilities is not warranted for this project.

Additionally, the project would not result in any operational noise. Therefore, the following analysis focuses on the potential impacts surrounding construction activities and associated noise/vibration associated with construction.

METHODOLOGY

To assess potential short-term, temporary (i.e., construction-related) noise impacts, sensitive receptors and their relative exposure were identified. Noise levels of specific construction equipment were determined and resultant noise levels at those receptors (at given distances from the source) were calculated. Predicted noise levels during construction are shown in Table NOI-9 that were compared with applicable County standards for determination of significance.

Table NOI-9: Construction Equipment Noise Level

Anticipated Type of Equipment that May Be Utilized by the Contractor	East Noise Level at 50 ft (L _{max} , dBA / L _{eq} , dBA)	
Construction		
Grader	85	81
Dozer	82	78
Roller	80	76
Tractor	84	80
Excavator	81	77
Drill Rig	84	80
Paver	89	85
Loader	85	80
Concrete Mixer	85	81

10.5 IMPACTS AND ANALYSIS

IMPACT NO-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

Construction noise associated with the Proposed Project would be temporary and would vary depending on the nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for onsite construction activities as well as construction vehicle traffic on area roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., grading, excavation, trenching, paving). Noise generated by construction equipment can reach high levels. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). During construction, exterior noise levels could negatively affect sensitive land uses in the vicinity of the construction site.

DAYTIME CONSTRUCTION

Short-term construction source noise levels could exceed the applicable County standards at nearby noise-sensitive receptors. Construction activities associated with the proposed project have the potential to result in varying degrees of temporary noise.

Residences located adjacent to areas of construction activity could be exposed to construction noise from on-site construction. Construction noise impacts primarily result when the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction durations last over extended periods of time.

To assess noise levels associated with the various equipment types and operations, construction equipment can be considered to operate in two modes, mobile and stationary. Mobile equipment sources move around a construction site performing tasks in a recurring manner (e.g., loaders, graders, dozers). Stationary equipment operates in a given location for an extended period of time to perform continuous or periodic operations. Thus, determining the location of stationary sources during specific phases, or the effective acoustical center of operations for mobile equipment during various phases of the construction process is necessary. Operational characteristics of heavy construction equipment are additionally typified by short periods of full-power operation followed by extended periods of operation at lower power, idling, or powered-off conditions.

Construction activities that occur within the hours prescribed by the County Noise ordinance (refer to Table NOI-8) are exempt from the County noise standards, and as a result would not violate County standards. Thus, the impact of construction noise, including that resulting from construction-related traffic, which occurs during daytime hours conforming to the County Noise ordinance, is considered ***less than significant***.

EVENING AND NIGHTTIME CONSTRUCTION

Nighttime construction activities are not anticipated, but may be required in the event of unforeseen circumstances or if a compressed construction schedule would be required. Project construction could expose existing off-site sensitive receptors to equipment noise levels that exceed the ambient noise conditions during evening and nighttime hours (i.e., outside the hours prescribed in the Noise Ordinance). As noted previously, the nearest sensitive receptor to the project site is adjacent roadways within the Hood community and could be exposed to noise levels in excess of 85 dB. As a result, nighttime construction could substantially exceed the measured ambient noise levels of the generally quiet community, as well as the applicable exterior nighttime noise standard of 50 dB provided on Table NOI-7. Moreover, with the assumption that closed windows would reduce interior noise levels by 25 dB, the resulting interior noise level of 52 to 68 dBA would exceed the interior nighttime noise standard of 35 dB provided on Table NO-8 as well as the EPA sleep disturbance criteria of 45 dB Ldn. Therefore, construction activities occurring during the evening and nighttime hours is a potentially significant impact.

With the implementation of Mitigation Measure NO-1, impacts from temporary exposure of sensitive receptors to nighttime noise would be reduced. This would entail eliminating certain construction activities at night, using noise enclosures and acoustic barriers, and locating construction equipment away from sensitive receptors – e.g., given a minimum noise reduction of 6 dB for each doubling of distance, attenuated noise levels of 80 dB at 50 feet would be reduced to 50 dB exterior at 1,600 feet. To help ensure nighttime construction activity does not exceed County noise standards or result in sleep disturbance, temporary relocation would be offered and construction noise levels would

be monitored at or near proximate residences, with activities ceased if measurements exceed the nighttime noise limit of 50 dB. As a result, with implementation of Mitigation Measure NO-1, the impact would be ***less than significant with mitigation***.

IMPACT NO-2: WOULD THE PROJECT RESULT IN GENERATION OF EXCESSIVE GROUND BORNE VIBRATION OF GROUND BORNE NOISE LEVELS

This project would not result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels. To quantify reference vibration levels generated by heavy equipment typically used in the proposed construction activities, the analysis uses vibration measurement results from similar pieces equipment conducting similar activities (Table NOI-10).

Table NOI-10: Reference Heavy Equipment Vibration Levels

Vibration Source	Measurement Distance (Feet)	Peak Particle Velocity (inch/second)
Bulldozer	35	0.0209
Front-Loaders	100	0.0047
Haul Truck	100	0.0062
Water Truck	100	0.0070
Rock Drill	50	0.0187

The California Department of Transportation (Caltrans) has developed criteria that are commonly applied as an industry standard to determine the impacts of project vibration relative to human annoyance and structural damage. Caltrans determines that the vibration level of 80 VdB (0.04 in/sec PPV) would be distinctly perceptible. Therefore, remaining less than 80 VdB at residential uses would avoid human annoyance. Also, Caltrans recommends staying below 0.3 (in/sec PPV at older residential structures and below 0.5 in/sec PPV for new residential structures (Table NOI-5), to avoid structural damage (Caltrans 2020).

The project proposes the use of horizontal drilling in order to connect the project to the existing pipelines, which could result in excessive vibration for sensitive receptors. For continuous or frequent intermittent vibration sources, a vibration level of 0.25 inch per second peak particle velocity (in/sec ppv) is considered a criterion that would protect against significant architectural or structural damage. The general range at which vibration becomes distinct to strongly perceptible is 0.04–0.10 in/sec ppv. Vibration measurement results shown in Table NOI-10 indicate that heavy equipment-generated vibration levels would be below the thresholds for annoyance and damage to structures even at the very close measurement locations of 35–100 feet from the operating equipment. As a result, given the setback from the proposed operations relative to the

nearest receivers, project vibration levels generated by heavy earthmoving equipment are expected to be well below the threshold of perception. Therefore, the exposure of persons to or generation of excessive groundborne vibration or noise levels as a result of implementing the proposed project would be ***less than significant***.

10.6 MITIGATION MEASURES

MITIGATION MEASURE NO-1: FOR EVENING AND NIGHTTIME CONSTRUCTION, IMPLEMENT NOISE-REDUCING CONSTRUCTION PRACTICES AND MONITOR AND RECORD CONSTRUCTION NOISE NEAR SENSITIVE RECEPTORS.

SASD and their primary contractors for engineering design and construction of all project phases shall ensure that the following requirements are implemented at each worksite during project construction to avoid and minimize construction noise effects on sensitive receptors. The project proponent and primary construction contractor(s) shall employ noise-reducing construction practices. Measures that shall be used to limit noise shall include the measures listed below:

- Noisy construction equipment and equipment staging areas shall be located as far as possible from nearby noise-sensitive land uses.
- All construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation.
- All motorized construction equipment shall be shut down when not in use to prevent idling.
- Individual operations and techniques shall be replaced with quieter procedures (e.g., using welding instead of riveting, mixing concrete off-site instead of on-site).
- Noise-reducing enclosures shall be used around stationary noise-generating equipment (e.g., compressors and generators).
- Written notification of construction activities shall be provided to all noise-sensitive receptors located surrounding the project site. Notification shall include anticipated dates and hours during which construction activities are anticipated to occur and contact information, including a daytime telephone number, for the project representative to be contacted in the event that noise levels are deemed excessive. Recommendations to assist noise-sensitive land uses in reducing interior noise levels (e.g., closing windows and doors) shall also be included in the notification.

- Notification provided as part of this measure shall include the option to receive temporary relocation during the period in which construction activities could result in noise levels exceeding County nighttime noise standards, as provided in the Noise Element of the General Plan.
- To reduce construction noise levels at affected noise-sensitive land uses to ambient condition and to levels consistent with applicable policies, acoustic barriers (e.g., lead curtains, sound barriers) shall be constructed at the project site boundary or at the boundaries of the construction site activities. The barriers shall be designed to obstruct the line of sight between the noise-sensitive land use and on-site construction equipment.
- Provide real-time noise monitoring at the boundary of the nearest sensitive receptor(s) during evening and nighttime construction activity occurring outside the hours exempted by the County Noise Ordinance. Any activity resulting in a measured exterior noise level that exceeds 50 dB at the property boundary of an occupied residence shall immediately cease.

10.7 CUMULATIVE IMPACTS

The project would result in short-term, temporary noise impacts associated with construction activities. Impacts associated with groundborne vibration have been found to be less than significant for the project. Upon completion of the project, there would not be any additional construction noise. Therefore, cumulative impacts associated with noise are considered ***less than significant***.

10.8 REFERENCES CITED

Caltrans, 2020. Transportation and Construction Vibration Guidance Manual (Caltrans, April 2020)

Egan, David M. 1988. Architectural Acoustics.

Federal Transit Agency. 2018. Policy Manual. <https://www.transit.dot.gov/ntd/manuals>

11- TRIBAL CULTURAL RESOURCES

11.1 INTRODUCTION

This chapter describes the environmental and regulatory setting for tribal cultural resources (TCRs) in the project area, identifies and analyzes impacts to TCRs from implementation of the Hood Septic to Sewer Conversion Project, and, if necessary, recommends mitigation measures to reduce or eliminate significant impacts. Tribal cultural resources are separate and distinct from cultural resources, which are discussed in Chapter 7, Cultural Resources.

On behalf of SASD, the County released a Notice of Preparation for this Environmental Impact Report (EIR) on March 25, 2022. The County received no response regarding tribal cultural resources. The Notice of Preparation and comments received are provided in Appendix PD-1. The Initial Study is provided in Appendix PD-2.

Tribal cultural resources include sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either listed on or determined to be eligible for inclusion on the CRHR or included in a local register of historical resources, or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant. Tribal cultural resources provide the backdrop to:

- religious understanding;
- traditional stories;
- knowledge of resources, such as varying landscapes, bodies of water, animals and plants; and
- self-identity.

Tribal cultural resources may contain physical cultural remains or may be places within a landscape. A cultural landscape that meets these criteria is a TCR to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. Historical resources, unique archaeological resources, or non-unique archaeological resources may also be TCRs if they meet these criteria.

11.2 ENVIRONMENTAL SETTING

PLAINS MIWOK ETHNOHISTORY

The Hood community is approximately 18 miles south of Downtown Sacramento where Hood- Franklin Road dead-ends at River Road and the Sacramento River in Sacramento County situated within the lands traditionally occupied by the Plains Miwok. The territory of the Plains Miwok, a Miwokan socio-linguistic subgroup belonging to the California

Penutian language family (Kroeber 1925; Levy 1978), included riverine fishing, hunting and resource gathering areas at the lower reaches of the Mokelumne and Cosumnes Rivers and both banks of the Sacramento River from Rio Vista to Freeport. Politically, the Plains Miwok belonged to formal lineages and were organized in small tribes or tribelets, each consisting of a primary village with satellite villages. In the hills, Miwok settled in the small riverine valleys, particularly along the Mokelumne and upper Cosumnes Rivers. However, the river delta plains were less hospitable, and villages were sparse due to expansive marshlands and seasonal flooding (Levy 1978). No ethnographic village sites have been documented within the project area.

Plains Miwok culture, language, and subsistence and settlement information is found in historical documents and ethnographic studies (Levy 1978). Subsistence economies were primarily based on the collection of plant foods, the Valley Oak acorn (*Quercus lobata*) being a staple component, while fishing and hunting played a more subsidiary role (Levy 1978). There is archaeological and historical evidence of the emergence of professional specialization and extensive external trade systems among a scoop-political organization that was focused on large, multi-lineage, patrilineal villages (Bennyhoff 1977). The largest political unit, headed by a chief, was the tribelet, which could consist of a single village or a primary village with up to six smaller settlements. Land was held communally between villages, while individuals could inherit rights to certain seed tracts and fishing stations (Bennyhoff 1977).

The nineteenth century saw a precipitous change within the traditional territory of the Plains Miwok. First visited by the Spanish as early as 1806 by Moraga's expedition, Native populations experienced rapid effects of Spanish-era Catholic missionization, diseases introduced by non-Native settlers, and the incursion of Gold Rush-era settlements (Bennyhoff 1977; Levy 1978). With the influx of Europeans during the Gold Rush era, the population was further reduced by disease and violent relations with the miners.

ETHNOGRAPHIC LANDSCAPE

The TCL in the project area is identified by the Nisenan as Hoyo Sayo/Tah Sayo (United Auburn Indian Community) and the Plains Miwok as Waka-ce/Waka-Ly (Wilton Rancheria). The primary character-defining elements of this landscape are its waterways, tule habitat, fisheries, and other wildlife. Today, relics of historical habitat still survive, with the river supporting anadromous and resident fish populations, as well as shellfish, and waterfowl. The natural levees lining the riverbanks historically were covered with riparian forests. Behind the levee/forests were flood basins, filled with tidal and non-tidal freshwater emergent wetlands, hosting vast stands of tules and large backwater lakes. The upland margins behind these wetlands/lakes, vegetated with willow thickets, were dissected by tributary networks of creeks that emptied into the flood basin sinks. Although generally defined, no specific locations were identified. There are no remnant natural landscape features, as described above, within the project boundaries.

NATIVE AMERICAN COMMUNITIES

Of the tribes contacted to consult under AB-52, the Wilton Rancheria actively participated. The following provides a summary of their current status provided by the tribe.

WILTON RANCHERIA

Wilton Rancheria is a federally recognized tribe. The land the Tribe's ancestors inhabited were located along a path of massive death and destruction of California Indians caused by Spanish, Mexican, and American military incursions, disease, and slavery, and the violence accompanying mining and settlements (Wilton Rancheria 2022). Between March 1851 and January 1852, three commissioners hastily negotiated eighteen treaties with representatives of some of the indigenous population in California. The Treaty of the Forks of the Cosumnes River ceded the lands on which the Wilton Rancheria in Sacramento County was later established, but promised to establish a rancheria on the Cosumnes River.

The Tribe's ancestors came back from nearly being annihilated only to have their children taken to boarding schools that stripped their indigenous language and culture further. Finally, in July 1928, the United States acquired land in trust for the Miwok people that were living in Sacramento County. A 38.77-acre tract of land in Wilton was purchased from the Cosumnes Company which formally established the Wilton Rancheria. However, under the California Rancheria Act of 1958, the federal government terminated federal recognition of the tribe in 1964.

In 1991, surviving members of Wilton Rancheria reorganized their tribal government and in 1999 requested the United States formally restore their federal recognition. A U.S. District Court Judge restored Wilton Rancheria as a Federally Recognized Tribe in 2009 and its administration office is located in the city of Elk Grove (Wilton Rancheria 2022).

11.3 REGULATORY SETTING

FEDERAL

SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT, 1966

Federal regulations for cultural resources are governed primarily by Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended). Section 106 of the NHPA requires Federal agencies to take into account the effects of their undertakings on historic properties and affords the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings. The ACHP's implementing regulations are the "Protection of Historic Properties" 36 Code of Federal Regulations (CFR) Part 800. The Federal agency first must determine whether it has an undertaking that is a type of activity that could affect historic properties. Historic properties are those that meet the criteria for or are listed in the NRHP.

TRADITIONAL CULTURAL PROPERTIES

Traditional Cultural Properties (TCPs) are resources eligible for the NRHP based on cultural significance derived from the "beliefs, customs, and practices of a living community of people that have been passed down through the generations" ([NPS] 1998:1). TCPs embrace a wide range of historic properties, such as the location

associated with a Native American group's origin or the origin of the world (cosmogony), or an urban neighborhood that is the traditional home of a particular cultural group and that still reflects and is associated with their beliefs and practices. Other examples include places where traditional people historically have gone and continue to visit for ceremonial practices. These examples are not intended to be exhaustive, but instead to illustrate the range of possible TCPs. The NPS National Register Bulletin 38 defines a historical property as a place that is eligible for NRHP inclusion "because of its association with cultural practices or beliefs of a living community that (a) are rooted in the community's history and (b) are important in maintaining the continuing cultural identity of the community" (NPS 1998:1). The identification and evaluation of TCPs can be conducted only by consultation with members of the relevant group of people that ascribe value to the resource, or through other forms of ethnographic research.

EVALUATION OF TCPs

Federal agencies must evaluate TCPs for eligibility for listing in the NRHP to determine if they are historic properties subject to management as required under Section 106 of the NHPA. Evaluation of TCPs requires two major steps: first the Federal agency evaluates the integrity of the resource as a TCP, then evaluates the resource for eligibility listing on the NRHP under the process for assessing significance and integrity of historic properties. As with any resource that is evaluated for listing in the NRHP, the TCP must be a tangible district, site, building, structure, or object (NPS 1998:11). This consideration requires merely that the TCP be a physical place or tangible object, in the broadest sense, rather than the intangible beliefs or values alone.

INTEGRITY OF TCPs

The TCP must have integrity, like any property eligible for listing in the NRHP. For traditional cultural resources, this means that they must have "integrity of relationship" and "integrity of condition" (NPS 1998:11–12). Integrity of relationship means simply that the specific place is integral and necessary to a traditional cultural group's beliefs or specific practices (NPS 1998:11). National Register Bulletin 38 gives the example of two different cultures, one that believes that baptism at a specific river is necessary to accept individuals as members, and another that simply requires baptism in any body of water. For the first example, the river is integrated into beliefs and practices of a traditional culture and thus has integrity of relationship.

Integrity of condition requires simply that the TCP has not been altered in such a way that it no longer can serve its function for the traditional cultural group. For example, a pilgrimage route to a sacred site would no longer have integrity of condition if modern construction had physically interrupted the route and thus made it unusable. This requirement does not mean that the TCP must be completely intact without any changes to the setting or features of the resource; rather, the test is whether the resource can still function for traditional cultural purposes or whether the presence of new elements disrupts the function. National Register Bulletin 38 offers an example of a resource that has integrity despite changes to the setting. If the TCP has integrity of relationship and integrity of condition, evaluation progresses to the second step of evaluating the resource for eligibility for listing in the NRHP, as described above.

STATE

CALIFORNIA ENVIRONMENTAL QUALITY ACT

CEQA requires public agencies to consider the effects of their actions on historical resources, unique archaeological resources, and tribal cultural resources (TCRs). Under Public Resources Code Section 21084.1, a “project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.” Under Public Resources Code Section 21084.2, 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.” Section 21083.2 requires agencies to determine whether projects would have effects on unique archaeological resources.

TRIBAL CULTURAL RESOURCES

CEQA requires lead agencies to consider whether projects will affect TCRs. TCRs may or may not manifest as archaeological sites. In some cases, TCRs are viewsheds, plant gathering areas, or other sacred spaces that are not readily identifiable to non-tribal members. In many cases, TCRs also include an archaeological component, such as artifacts, features, and sites (with or without human remains). Public Resources Code Section 21074 states the following:

- (a) “Tribal cultural resources” are either of the following:
 - (1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
 - (A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.
 - (B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
 - (2) 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.
- (b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.
- (c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a “nonunique archaeological resource” as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

ASSEMBLY BILL AB 52

AB 52 (effective July 1, 2015) added Public Resources Code Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to CEQA, relating to consultation with California Native American tribes, consideration of “tribal cultural resources,” and confidentiality. AB 52 provides procedural and substantive requirements for lead agency consultation with California Native American tribes and consideration of effects on tribal cultural resources, as well as examples of mitigation measures to avoid or minimize impacts to tribal cultural resources. AB 52 establishes that if a project may cause a substantial adverse change in the significance of a tribal cultural resource, that project may have a significant effect on the environment. Lead agencies must avoid damaging effects to tribal cultural resources, when feasible, and shall keep information submitted by tribes confidential.

AB 52 requires a lead agency to consult with California Native American tribes that are traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation. Section 21080.3.1(d) states that within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project location and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to requests consultation pursuant to this section.

LOCAL

SACRAMENTO COUNTY GENERAL PLAN

The *Sacramento County General Plan of 2005–2030* (Sacramento County 2011, as updated in 2017) Conservation Element, states under Section VI, Cultural Resources, the following goal and six objectives:

Promote the inventory, protection and interpretation of the cultural heritage of Sacramento County, including historical and archaeological settings, sites, buildings, features, artifacts and/or areas of ethnic historical, religious or socio-economic importance.

1. Comprehensive knowledge of archeological and historic site locations.
2. Attention and care during project review and construction to ensure that cultural resource sites, either previously known or discovered on the project site, are properly protected with sensitivity to Native American values.
3. Structures with architectural or historical importance preserved to maintain contributing design elements.

4. Known cultural resources protected from vandalism unauthorized excavation, or accidental destruction.
5. Properly stored and classified artifacts for ongoing study.
6. Public awareness and appreciation of both visible and intangible historic and cultural resources.

To implement the primary goal and the objectives, the Conservation Element contains the following policies relevant to the project and TCRs:

- **Policy CO-150:** Utilize local, state and national resources, such as the NCIC, to assist in determining the need for a cultural resources survey during project review.
- **Policy CO-151:** Projects involving an adoption or amendment of a General Plan or Specific Plan or the designation of open space shall be noticed to all appropriate Native American tribes in order to aid in the protection of traditional tribal cultural places.
- **Policy CO-152:** Consultations with Native American tribes shall be handled with confidentiality and respect regarding sensitive cultural resources on traditional tribal lands.
- **Policy CO-153:** Refer projects with identified archeological and cultural resources to the Cultural Resources Committee to determine significance of resource and recommend appropriate means of protection and mitigation. The Committee shall coordinate with the Native American Heritage Commission in developing recommendations.
- **Policy CO-154:** Protection of significant prehistoric, ethnohistoric and historic sites within open space easements to ensure that these resources are preserved in situ for perpetuity.
- **Policy CO-155:** Native American burial sites encountered during preapproved survey or during construction shall, whenever possible, remain in situ. Excavation and reburial shall occur when in situ preservation is not possible or when the archeological significance of the site merits excavation and recording procedure. On-site reinterment shall have priority. The project developer shall provide the burden of proof that off-site reinterment is the only feasible alternative. Reinterment shall be the responsibility of local tribal representatives.
- **Policy CO-157:** Monitor projects during construction to ensure crews follow proper reporting, safeguards, and procedures.
- **Policy CO-159:** Request a Native American Statement as part of the environmental review process on development projects with identified cultural resources.

11.4 SIGNIFICANCE CRITERIA AND METHODOLOGY

SIGNIFICANCE CRITERIA

Based on Appendix G of the CEQA Guidelines, a project may have a significant impact on TCRs if it would:

Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
- ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

METHODOLOGY

RECORDS SEARCH RESULTS

The NCIC, an affiliate of the California Office of Historic Preservation (OHP), is the official state repository of cultural resource records and studies for Sacramento County. A cultural records search was conducted by the NCIC, of the California Historical Resources Information System, California State University, Sacramento on January 5, 2022 (File No. SAC-22-5).

An additional records search was conducted by the NCIC on March 30, 2022 to include the project area eastward along Hood-Franklin Road and the proposed construction staging areas were added to the project (File No. SAC-22-73). Additional resources and investigations in Hood that were not on file at the NCIC for the January 2022 records search were identified in the additional records search. The combined NCIC records searches (Files No. SAC 22-5 and SAC 22-73) indicate that thirteen previous investigations have been conducted in the project area within the town of Hood, along the east side of the Sacramento River and north and south of Hood Franklin Road, and at the easternmost end of the project.

The records search also indicated that 16 investigations have been conducted within 0.25 miles of the project area and resulted in the documentation of 11 cultural resources outside the project area.

NATIVE AMERICAN CONSULTATION AND COORDINATION

AECOM contacted the Native American Heritage Commission (NAHC) via email requesting a Sacred Lands File and Native American Contacts List Request. The NAHC responded via email on May 2, 2022 with negative results and attached a list of Native American tribes who may have knowledge of cultural resources in the project area.

On February 25, 2022, pursuant to AB 52, Sacramento County staff sent formal notification letters to tribes who previously requested to be notified of Sacramento County projects. The AB 52 notification package included a brief cover letter, complete project description, and cultural report. All tribes were then sent a copy of the Notice of Preparation for this project on March 25, 2022.

No responses were received during the 30 day AB-52 review period. During a phone call with Wilton Rancheria staff on May 10, 2022, Wilton Rancheria indicated that the project is located in a sensitive area and that they would like to be afforded the opportunity to consult on the project. Subsequently, a conference call was held on June 10, 2022 between County and Wilton Rancheria staff to discuss the project further.

FIELD ASSESSMENT

On January 11, 2022, AECOM Archaeologist Diana Ewing conducted a cultural resources pedestrian survey of the project area in the community of Hood within the County public street right of ways and west along Hood-Franklin Road west of U.S. Interstate 5. The majority of the project area is covered with built environment including sidewalks, buildings, paved roads and shoulders, and fenced private property, limiting surface visibility of soil surfaces.

The study area east of Interstate 5, and three potential construction staging areas were surveyed on May 13, 2022 by AECOM Archaeologist Diana Ewing. The westernmost staging area within the Hood community is part of a vacant parcel with a gravel driveway and the soil visibility was good. No cultural material was observed. The second staging area was a fallow field assessed from the road as there was no way to access the fenced area. The third staging area was an open leveled field with no vegetation which was surveyed utilizing 12 to 15 meter transects. The soil visibility was good and no cultural material was observed.

11.5 IMPACTS AND ANALYSIS

IMPACT TCR-1: WOULD THE PROJECT CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF A TRIBAL CULTURAL RESOURCE

The California Native American Heritage Commission (NAHC) Sacred Lands File (SLF) records search response on May 2, 2022 indicated that no Native American resources on file at the NAHC fall within the project area.

NCIC records search results included the Sacramento River Tribal Cultural Landscape (TCL) (P-34-005225), an approximately 55-mile-long narrow corridor of the Lower Sacramento River from the confluence with the Mokelumne River at Collinsville north to the confluence with the Feather River at Verona. The TCL boundary overlaps with the project project area. The TCL is identified by the Nisenan as Hoyo Sayo/Tah Sayo (United Auburn Indian Community) and the Plains Miwok as Waka-ce/Waka-Ly (Wilton Rancheria). The primary character-defining elements of this landscape are its waterways, tule habitat, fisheries, and other wildlife.

Conducting consultation early in the CEQA process allows tribal governments, public lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to TCRs, and reduce the potential for delay and conflict in the environmental review process. The intent of the consultations is to provide an opportunity for interested Native American contacts to work together with the County during the project planning process to identify and protect TCRs.

Pursuant to the AB 52 consultation requirement, formal AB 52 notification letters were sent on February 25, 2022 to Native American tribal contacts who previously requested to be notified of Sacramento County projects within their traditionally and culturally affiliated area. No responses were received during the 30 day AB-52 review period. Via a phone call on May 10, 2022, Wilton Rancheria requested to consult on the project. A conference call was held on June 10, 2022 between Wilton Rancheria and Sacramento County staff. Wilton Rancheria indicated that the project site is located in a sensitive area, given the proximity to the Sacramento River. This area contains a high probability of subsurface resources, and is located within an identified tribal cultural landscape along the Sacramento River (as described above). Wilton Rancheria responded that with the implementation of tribal monitoring, a cultural resources treatment plan, and cultural awareness training, they did not have further questions or concerns.

Because specific locations of potential resources are unknown, mitigation focuses on preventative measures that reduce the probability of impacting the integrity of a resource, as well as plans and processes for properly handling unanticipated discoveries. In the case that an object resembling a tribal or cultural resource is uncovered, construction can halt while the resource is investigated and a conclusion reached for appropriate next steps.

As described in Chapter 7, the implementation of MM-CR-1 and MM-CR-2 would generally reduce the potential impacts to any unknown cultural sites or buried human remains that could be determined to be TCRs. In addition, mitigation measures are recommended below to specifically address the potential for the project to encounter tribal cultural resources. Mitigation has been included to address the sensitivity of the project site with regards to tribal resources, including enlisting the services of a Native American monitor during construction activities, developing a cultural resource treatment plan prior to construction, and conducting cultural resource sensitivity training for all workers on the site. Impacts to tribal resources are ***less than significant with mitigation***.

11.6 MITIGATION MEASURES

IMPLEMENT MITIGATION MEASURE CR-1 AND CR-2

MITIGATION MEASURE TCR-1: TRIBAL MONITORING

To minimize the potential for destruction of or damage to existing or previously undiscovered TCRs and to identify any such resources at the earliest possible time during project-related earthmoving activities, the project proponent or their contractor will implement the following measures:

1. Prior to construction, Wilton Rancheria shall be contacted and allowed to provide a tribal monitor, reimbursable by the project proponent, during ground disturbing activities. If an excavation area is too large for one monitor to effectively observe the soil removal, one or more additional monitors may be retained to observe the area.
2. Native American Representatives and Native American Monitors have the authority to identify sites or objects of significance to Native Americans and to request that work be stopped, diverted, or slowed if such sites or objects are identified within the direct impact area; however, only a Native American Representative can recommend appropriate treatment of such sites or objects.

MITIGATION MEASURE TCR-2: CULTURAL RESOURCE TREATMENT PLAN

Prior to construction, a cultural resource treatment plan shall be developed, subject to review by Wilton Rancheria representatives. The treatment plan shall address the protocol in case of an inadvertent cultural resource discovery, including when to halt work, proper handling and notification procedures, significance evaluation, and procedures for reinitiating ground-disturbing activities.

MITIGATION MEASURE TCR-3: CULTURAL AWARENESS TRAINING

Prior to the beginning of ground disturbance and during all periods of ground disturbance, a qualified person approved by Wilton Rancheria, will provide cultural resources training to all new employees within their first week of employment on the proper procedures to follow in the event that cultural resources are uncovered during project excavations. Employees working in ground-disturbing activities will not begin job-related tasks until they have received this training. Employee education will focus on the following issues:

- The rationale for cultural resources monitoring
- Regulatory policies and laws protecting resources and penalties for violations
- Basic identification of cultural resources
- The procedures to follow in case of a discovery of such resources

11.7 CUMULATIVE IMPACTS

No tribal cultural resources were identified within the project study area; however, there are known tribal cultural resources within one-quarter mile of the project site. Due to the proximity of the known tribal resources, mitigation measures were recommended through consultation with local tribes to ensure proper treatment of tribal resources if discovered. Impacts are ***less than significant***.

11.8 REFERENCES CITED

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12- GEOLOGY, SOILS AND PALEONTOLOGICAL RESOURCES

12.1 INTRODUCTION

This chapter addresses the potential geology and soils impacts associated with the proposed Hood Septic to Sewer Conversion project (proposed project), which involves extension of Sacramento Area Sewer District (SASD) service to the community of Hood located in the larger Delta community of the unincorporated County of Sacramento (County). The analysis in this chapter considers the potential impacts of the project related to geology and soils regarding earthquakes, ground shaking, liquefaction, erosion, landslides, and soil instability. The chapter also considers paleontological resources, which are contained within geologic resources.

On behalf of SASD, the County released a Notice of Preparation for this Environmental Impact Report (EIR) on March 25, 2022. The Notice of Preparation and comments received are provided in Appendix PD-1. The Initial Study is provided in Appendix PD-2.

12.2 ENVIRONMENTAL SETTING

The community of Hood, within the County of Sacramento, is located in the Great Valley geomorphic province of California. The geologic parent material within the region was primarily formed from erosion of Sierra Nevada range to the east and, to a lesser extent, the Coastal Ranges to the west and geologic uplift along the western margin of the North American continent. About 245 million years ago, the Great Valley province began forming with crustal warping and deposition of marine sediments until approximately 30 million years ago.

These sediment deposits, known as the Great Valley sequence, accumulated to a depth of almost six miles. About 30 million years ago, Great Valley deposition became dominated by fresh water runoff from the growing Sierra Nevada and Coast Ranges mountains. This runoff created large alluvial fan complexes and vast lakes that filled the valley with thick accumulations of river and lacustrine sediments.

The Great Valley Province is bounded to the west by the pre-Tertiary and Tertiary semiconsolidated to consolidated marine sedimentary rocks of the Coast Ranges. The faulted and folded sediments of the Coast Ranges extend eastward beneath most of the Central Valley. The east side of the Central Valley is underlain by pre-Tertiary igneous and metamorphic rocks of the Sierra Nevada. The north end is underlain by Tertiary volcanic rocks of the Coast Ranges, and bounded by the pre-Tertiary metavolcanics and granitic and metamorphic rocks, and by the Cenozoic volcanic rocks of the Cascade Range.

REGIONAL SEISMICITY

The Great Valley is generally considered less seismically active than other areas of

California. The majority of significant, historic faulting (and groundshaking) in the County of Sacramento has been generated along distant faults. Although its potential as a source of historic earthquake activity remains controversial, the Foothills Faults System is located at least 20 miles east of the alignments.

The Alquist-Priolo Special Studies Zone Act of December 1972 (AP Zone Act) regulates development near active faults so as to mitigate the hazard of surface fault rupture. The AP Zone Act requires that the State Geologist (Chief of the California Department of Mines and Geology [CDMG]) delineates “special study zones” along known active faults in California. Cities and counties affected by these zones must regulate certain development projects with these zones.

The AP Zone Act prohibits the development of structures for human occupancy across the traces of active faults. According to the AP Zone Act, “active faults” have experienced surface displacement during the last 11,000 years (Holocene Epoch). “Potentially” active faults are those that show evidence of surface displacement during the last 1.6 million years (Quaternary period). A fault may be presumed to be inactive based on satisfactory geologic evidence; however, the evidence necessary to prove inactivity sometimes is difficult to obtain and locally may not exist. The proposed Project does not include any facilities that will be occupied.

Known faults do not exist within the greater Sacramento region and Planning Area as identified in the Sacramento 2030 General Plan Master EIR. Sacramento is in an area of relatively low severity and the maximum earthquake intensity expected between VII and VIII on the Modified Mercalli Intensity Scale. Buildings in the City are at varying degrees of risk for damage during such earthquakes. The 2030 General Plan further states that the earthquake resistance of any building is dependent upon an interaction of seismic frequency, intensity and duration with the structure’s height, condition, and construction materials.

SOIL CONDITIONS

Soils have characteristics that can limit to their suitability to support different uses. These limitations include shrink-swell potential, erosion potential, corrosion potential, and subsidence. Each of these constraints is described below.

SHRINK-SWELL POTENTIAL

The shrink-swell capacity of soils refers to the extent certain clay minerals will expand when wet and retract when dry. Expansion and contraction of expansive (i.e., reactive) soils in response to change in moisture content can cause differential and cyclical movements that can cause damage and/or distress to shallowly founded structures and equipment. Issues with expansive soils typically occur near the ground surface where changes in moisture content typically occur and overburden pressures are the least. Oftentimes, grading, site preparations, and backfill operations can eliminate the potential for expansion.

EROSION

Erosion is the wearing-away of soil and rock by processes such as mechanical or

chemical weathering, mass wasting, and the action of waves, wind and groundwater. Excessive soil erosion can eventually lead to damage of building foundations and roadways. Typically, soil erosion potential is reduced once the soil is graded and covered with concrete, structures, asphalt, or slope protection. Erosion potential along the Project alignment is minimal due to flat topography and established groundcover.

CORROSION

Corrosion potential refers to soil-induced electrochemical or chemical actions that could corrode or deteriorate concrete, reinforcing steel in concrete structures, and bare-metal structures exposed to these soils. The potential corrosion rate for concrete is based mainly on sulfate and sodium contents, texture, moisture content, and soil acidity, while the corrosion rate for uncoated steel is related to soil moisture, particle-size distribution, acidity, and the electrical conductivity of the soil. Concrete or steel that intersects soil boundaries or layers is more susceptible to corrosion than the same components that are entirely within one kind of soil or soil layer.

SUBSIDENCE

Subsidence is the gradual settling or sinking of the earth's surface with little or no horizontal motion, due to compaction of underlying materials. Sacramento County is affected by five types of subsidence: compaction of unconsolidated soils by earthquake shaking, compaction of unconsolidated soils by heavy structures, erosion of peat soils, peat oxidation, and fluid withdrawal. Fluid withdrawal, through groundwater pumping for residential, commercial and agricultural uses, causes the greatest amount of subsidence in Sacramento County.

SOILS

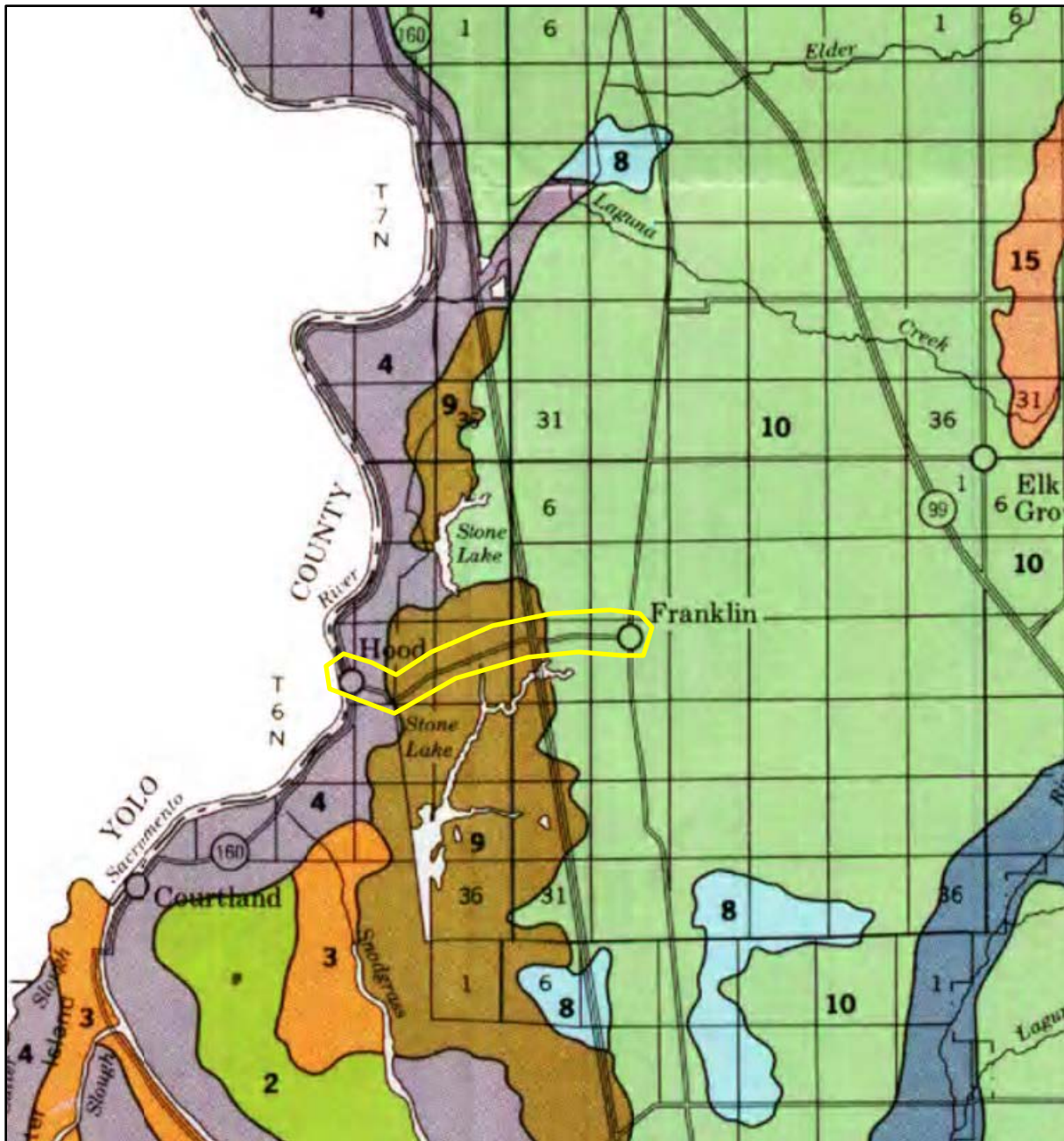
Plate GEO-1 illustrates the general soil types in Sacramento County, fitted to the project site. General soil classifications in the project area fall into one of three classifications: Egbert-Valpac, Dierssen, and San Joaquin. Site specific soils were further outlined in the Biological Resources Assessment prepared by AECOM for the project:

- Clear Lake clay, hardpan substratum, drained, 0 to 1 percent slopes, The Clear Lake series consists of very deep, poorly drained soils that formed in fine textured alluvium derived from mixed rock sources. Clear Lake soils are in flood basins, flood plains and in swales of drainageways. The shrink swell potential is high, runoff is low, and erosion is a slight hazard or none at all.
- Dierssen sandy clay loam, drained, 0 to 2 percent slopes, The Dierssen series consists of moderately deep, somewhat poorly drained soils that formed in alluvium derived from mixed but dominantly granitic sources. The shrink swell potential is high, runoff is low, and erosion is slight.
- Egbert clay, partially drained, 0 to 2 percent slopes, The Egbert series consists of very deep, poorly drained soils formed in alluvium from mixed sources. Egbert soils are in basins of river deltas and have slopes of 0 to 5 percent. The shrink swell potential is high, runoff is low, and erosion is slight.
- Galt clay, leveled, 0 to 1 percent slopes, The Galt Series consists of moderately

deep, moderately well drained soils that formed in fine textured alluvium from mixed but dominantly granitic rock sources. The shrink swell potential is high, runoff is low, and erosion is a slight hazard or none at all.

- San Joaquin silt loam, leveled, 0 to 1 percent slopes, 0 to 3 percent slopes, The San Joaquin series consists of moderately deep to a duripan, well and moderately well drained soils that formed in alluvium derived from mixed but dominantly granitic rock sources. The shrink swell potential is high, runoff is low, and erosion is slight.
- Scribner clay loam, partially drained, 0 to 2 percent slopes, The Scribner series consists of very deep, poorly drained soils that formed in mixed alluvium. These soils are on edges of backswamps and have slopes of 0 to 2 percent. The shrink swell potential is high, runoff is low, and erosion is slight.
- Tinnin loamy sand, 0 to 2 percent slopes, and The Tinnin series consists of very deep, well drained soils formed in predominantly granitic alluvium or eolian sands. Tinnin soils are on low alluvial terraces of fans and narrow ridges and mounds and have slopes of 0 to 9 percent. The shrink swell potential is high, runoff is low, and erosion is slight.
- Valpac loam, partially drained, 0 to 2 percent slopes (NRCS 2022). The Valpac series consists of very deep, somewhat poorly drained soils formed in alluvium derived from mixed rocks. Valpac soils are on natural levees of high flood plains. The shrink swell potential is moderate, runoff is low, and erosion is slight or moderate.

Plate GEO-1: Sacramento County Soil Map



4. Egbert-Valpac: Somewhat poorly drained and poorly drained soils have a high water table throughout the year or during part of the year and are protected by levees.

9. Dierssen: Somewhat poorly drained soils that have a perched water table, are protected by levees, and are moderately deep or deep over cemented hardpan.

10. San Joaquin: Moderately well drained soils that are moderately deep over a cemented hardpan.

** Project area is outlined in yellow.

United States Department of Agriculture. General Soil Map, Sacramento County.

PALEONTOLOGICAL RESOURCES

Paleontological resources are the remains or traces of prehistoric plant and animal life, exclusive of human remains or artifacts, and the geologic units that house them. Paleontological resources are useful in education in that they promote the understanding of the history of life and the diversity of the Earth's biota. In Sacramento County, fossil vertebrates have been recovered from the Riverbank Formation at Arco Arena, along Chicken Ranch Slough near Howe Avenue and Arden Way, at the Teichert Gravel Pit, the Davis Gravel Pit, and on Ehrhardt Avenue, near the Sacramento Regional Wastewater Treatment Plant (Sacramento County 2010).

Based on a review of relevant geologic mapping, the project site is underlain by the Modesto, Riverbank, Laguna, and Mehrten Formations (Wagner et al. 1981). The geologic formations at the project site are shown in Plate GEO-2. The project site contains the following formations: alluvium, basin deposits, and riverbank formation.

PALEONTOLOGICAL SENSITIVITY ASSESSMENT CRITERIA

A paleontologically sensitive geologic formation is one that is rated high for potential paleontological productivity (i.e., the recorded abundance and types of fossil specimens, and the number of previously recorded fossil sites) and is known to have produced unique, scientifically important fossils. Exposures of a specific geologic formation at any given project site are most likely to yield fossil remains representing particular species or quantities similar to those previously recorded from that geologic formation in other locations. Therefore, the paleontological sensitivity determination of a rock formation is based primarily on the types and numbers of fossils that have been previously recorded from that formation.

In its standard guidelines for assessment and mitigation of adverse impacts on paleontological resources, the Society of Vertebrate Paleontology (SVP 2010) established four categories of sensitivity for paleontological resources: high, low, no, and undetermined. Rock units classified as having high potential for producing paleontological resources include, but are not limited to, sedimentary formations and some volcaniclastic formations (e. g., ashes or tephras), and some low-grade metamorphic rocks which contain significant paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils (e. g., middle Holocene and older, fine-grained fluvial sandstones, argillaceous and carbonate-rich paleosols, cross-bedded point bar sandstones, fine-grained marine sandstones, etc.). Paleontological potential consists of both (a) the potential for yielding abundant or significant vertebrate fossils or for yielding a few significant fossils, large or small, vertebrate, invertebrate, plant, or trace fossils and (b) the importance of recovered evidence for new and significant taxonomic, phylogenetic, paleoecologic, taphonomic, biochronologic, or stratigraphic data. Rock units which contain potentially datable organic remains older than late Holocene, including deposits associated with animal nests or middens, and rock units which may contain new vertebrate deposits, traces, or trackways are also classified as having high potential.

PALEONTOLOGICAL SENSITIVITY ASSESSMENT

Table GEO-1 presents the results of the paleontological sensitivity assessment based on a review of USGS geologic maps, and associated literature review.

Table GEO-1: Paleontological Sensitivity Assessment

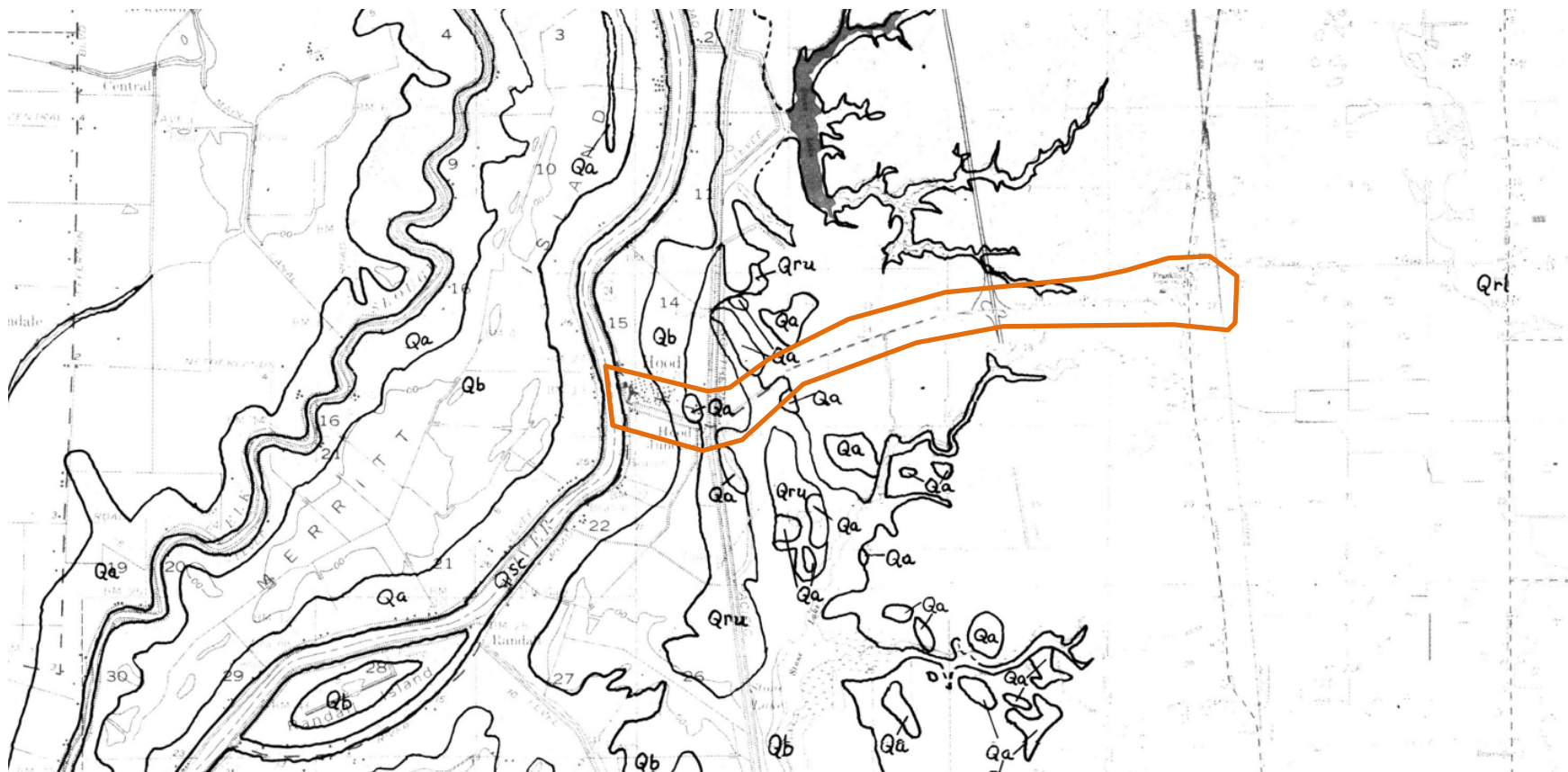
Formation Name and Age	Composition	Fossils	Sensitivity
Riverbank Formation, Pleistocene (130,000–450,000 years B.P.)	Weathered reddish gravel, sand, and silt comprising older alluvial fans and terraces of the American River and other major rivers and streams in the Sacramento Valley	Nine recorded vertebrate fossil localities in the Sacramento area, including a Teichert Gravel Pit approximately 6 miles southwest of the project site. Localities have yielded remains of Rancholabrean-age mammoth, bison, camel, coyote, horse, Harlan's ground sloth, mammoth, antelope, deer, rabbit, woodrat, fish, mole, mice, squirrel, snake, and gophers, dire wolf, frog, Pacific pond turtle, and the family Anatidae (ducks, geese, and swans). There are numerous additional vertebrate fossil localities from the Riverbank Formation and from similar unnamed Rancholabrean-age alluvial sediments in Yolo, San Joaquin, Merced, Stanislaus, Fresno, and Madera Counties.	High
Alluvium, Holocene (12,000 to 11,500 years through today)	Unweathered gravel, sand and silt deposited by present-day stream and river systems that drain the Coast Ranges, Klamath Mountains and Sierra Nevada.	No recorded fossils in the Sacramento area. This formation is younger than Pleistocene area formations and, in the project area, highly altered by Delta hydrology. However, this formation may overlay older formations that have higher potential for fossil occurrences.	Low
Basin deposits, undivided, Holocene (12,000 to 11,500 years through today)	Fine-grained silt and clay derived from the same sources as modern alluvium. The undivided basin deposits provide rich and valuable farmland especially for rice production in the Sacramento Valley.	No recorded fossils in the Sacramento area. This formation is younger than Pleistocene area formations and, in the project area, highly altered by Delta hydrology. However, this formation may overlay older formations that have higher potential for fossil occurrences.	Low

Note: B.P. = Before Present

Helley and Harwood, 1986.

USGS, 1986.

Plate GEO-2: Geologic Formations



Qa: Alluvium, Holocene

Qb: Basin deposits, Holocene

Qru/Qrl: Riverbank formation, Pleistocene

USGS, 1986: https://pubs.usgs.gov/mf/1985/1790/mf1790_plate1.pdf

12.3 REGULATORY SETTING

FEDERAL

EARTHQUAKE HAZARDS REDUCTION ACT

In October 1977, the U.S. Congress passed the Earthquake Hazards Reduction Act to “reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards and reduction program.” To accomplish this, the act established the National Earthquake Hazards Reduction Program (NEHRP). NEHRP’s mission includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improvement of building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improvement of mitigation capacity; and accelerated application of research results. The National Earthquake Hazards Reduction Program Act designates the Federal Emergency Management Agency as the lead agency of the program and assigns it several planning, coordinating, and reporting responsibilities.

STATE

CALIFORNIA BUILDING STANDARDS CODE

The State of California provides minimum standard for building design through the California Building Standards Code (CBC) (CCR, Title 24). Where no other building codes apply, Chapter 29 of the CBC regulates excavation, foundations, and retaining walls. The CBC also applies to building design and construction in the State and is based on the Federal Uniform Building Code (UBC) used widely throughout the country (generally adopted on a State-by-State or district-by-district basis). The CBC has been modified for California conditions with numerous, more detailed and/or more stringent regulations.

The State earthquake protection law (California Health and Safety Code Section 19100 et seq.) requires that structures be designed to resist stresses produced by lateral forces caused by wind and earthquakes. Specific minimum seismic safety and structural design requirements are set forth in Chapter 16 of the CBC. The CBC identifies seismic factors that must be considered in structural design.

Chapter 18 of the CBC regulates the excavation of foundations and retaining walls, and Appendix Chapter A33 regulates grading activities, including drainage and erosion control, and construction on expansive soils. Construction activities are subject to occupational safety standards for excavation, shoring, and trenching as specified in California Occupational Safety and Health Administration regulations (Title 8 of the CCR and in A33 of the CBC).

The proposed Project would require drainage and erosion control, which must conform to the CBC, during construction or excavation activities associated with the Project alignment.

CALIFORNIA SEISMIC HAZARDS MAPPING ACT

The California Seismic Hazards Mapping Act of 1990 (California PRC Sections 2690–2699.6) was developed to protect the public from the effects of strong ground shaking, liquefaction, landslides, or other ground failure, and from other hazards caused by earthquakes. The act requires the State Geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones. Before a development permit is granted for a site within a seismic hazard zone, a geotechnical investigation of the site has to be conducted and appropriate mitigation measures incorporated into the design of the project to reduce hazards associated with seismicity and unstable soils. There are no active faults in the project vicinity.

LOCAL

SACRAMENTO COUNTY GENERAL PLAN

The Safety Element of the Sacramento County General Plan (Sacramento County 2011) contains the following policies related to seismic and geologic hazards that may be applicable to the proposed Project:

- Policy SA-1. The County shall require geotechnical reports and impose the appropriate mitigation measures for new development located in seismic and geologically sensitive areas.
- Policy SA-3. The County shall support efforts by Federal, State, and other local jurisdictions to investigate local seismic and geological hazards and support those programs that effectively mitigate these hazards.

PALEONTOLOGICAL RESOURCES

The *Sacramento County General Plan of 2005–2030* (Sacramento County 2011, as updated in 2017) Conservation Element includes the following policies related to paleontological resources that apply to the proposed project.

- **Policy CO-161:** As a condition of approval for discretionary projects, require appropriate mitigation to reduce potential impacts where development could adversely affect paleontological resources.
- **Policy CO-162:** Projects located within areas known to be sensitive for paleontological resources, should be monitored to ensure proper treatment of resources and to ensure crews follow proper reporting, safeguards and procedures.

- **Policy CO-163:** Require that a certified geologist or paleoresources consultant determine appropriate protection measures when resources are discovered during the course of development and land altering activities.

SACRAMENTO COUNTY CODE, TITLE 16, CHAPTER 16.44

Sacramento County enacted the Land Grading and Erosion Control Ordinance for the expressed purpose of minimizing damage to surrounding properties and public rights-of-way; limiting degradation of the water quality of water courses; and curbing the disruption of drainage system flow caused by the activities of clearing, grubbing, grading, filling, and excavating land. The ordinance establishes administrative procedures, minimum standards of review, and implementation and enforcement procedures for the control of erosion and sedimentation that are directly related to land grading activities.

The standards of the ordinance include the appropriate design and placement of erosion and sediment control best management practices (BMPs), as specified in the Sacramento County Guidance Manual for Development of Erosion and Sediment Control Plans. Erosion-control BMPs include seeding, mulching, vegetative buffer strips, sod, plastic covering, burlap covering, water and other measures that control the movement of the ground surface or soil. Sediment control measures include dikes, sediment detention traps, sediment detention basins, filters, fences, barriers, swales, berms, drains, check dams, and other measures that control the deposit of soil or earth material. Project compliance with these regulations, as administered by the County Public Works Agency, will ensure that project-related erosion and siltation impacts are less than significant.

To facilitate coordination of utility work, Sacramento County Department of Transportation maintains an up-to-date listing of public and private utility related entities. This list is consulted for utility related contacts whenever utility relocation work is necessary. "ABC Plan" procedures were established to assist local cities, counties and utilities in coordinating utility relocation work. These procedures were established by the local chapter of the American Public Works Association Joint Utilities Coordination Committee.

The County does not issue itself permits in accordance with the provisions of the County Land Grading and Erosion Control Ordinance, but the County must comply with applicable rules and regulations. If the project size is one acre or more, a State permit may be required. In this case a notice of intent must be filed to obtain coverage under the SWRCB General Construction Stormwater Permit. This must be done prior to starting construction. As a condition of the General Permit, a Stormwater Pollution Prevention Plan (SWPPP) must also be developed for the project. This program is administered by the State Water Board. The need for a State Water Board General Construction Stormwater Permit and SWPPP is discussed further in Chapter 13 "Hydrology and Water Quality." SASD and Regional San projects are circulated to agency plan check groups to ensure compliance with applicable rules and regulations throughout the design process and prior to construction.

12.4 SIGNIFICANCE CRITERIA AND METHODOLOGY

SIGNIFICANCE CRITERIA

GEOLOGY AND SOILS

Based on the CEQA Guidelines, impacts to geology, soils, and seismic areas of concern would be significant if a Project would:

1. Directly or indirectly cause potentially substantial adverse effects, including the risk of loss, injury, or death involving:
 - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist of the area or based on other substantial evidence of a known fault
 - Strong seismic ground shaking
 - Seismic-related ground failure, including liquefaction
 - Landslides
 - Unsafe exposure to naturally occurring asbestos
2. Result in substantial soil erosion or the loss of topsoil.
3. Be located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.
4. Be located on expansive soil as defined in Table 18-1-B of the Uniform Building Code, creating substantial direct or indirect risks to life or property.
5. Result in the loss of availability of, including obstruction of access to or removal of, mineral resources. In particular for aggregate resources, removal or disruption of mineral resources delineated on a local general plan, specific plan, or other land use plan.
6. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

PALEONTOLOGICAL RESOURCES

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant impact on paleontological resources if it would:

1. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

A “unique paleontological resource or site” is one that is considered significant under the following professional paleontological standards. An individual vertebrate fossil specimen may be considered unique or significant if it is identifiable and well preserved, and it meets one of the following criteria:

- a type specimen (i.e., the individual from which a species or subspecies has been described);
- a member of a rare species;
- a species that is part of a diverse assemblage (i.e., a site where more than one fossil has been discovered) wherein other species are also identifiable, and important information regarding life history of individuals can be drawn;
- a skeletal element different from, or a specimen more complete than, those now available for its species; or
- a complete specimen (i.e., all or substantially all of the entire skeleton is present).

The value or importance of different fossil groups varies, depending on several factors: the age and depositional environment of the rock unit that contains the fossils; their rarity; the extent to which they have already been identified and documented; and the ability to recover similar materials under more controlled conditions (such as for a research project). Marine invertebrates generally are common, the fossil record is well developed and well documented, and they would generally not be considered a unique paleontological resource. Identifiable vertebrate marine and terrestrial fossils generally are considered scientifically important because they are relatively rare.

ISSUES NOT DISCUSSED FURTHER

There are no known earthquake faults located within the project area, or in the vicinity, so there would be no risk of fault rupture. In addition, Sacramento County is in one of the areas least prone to earthquake shaking potential. Further, compliance with the Uniform Building Code would ensure that buildings are built to withstand minor groundshaking. Though there is topographical variation on the site, there are no major bluffs or other features that would make the Project susceptible to damage related to landslides. Based on the existing regulatory framework that governs new development within Sacramento County, which addresses safety issues and requires that development adhere to the CBC and other relevant policies, regulations, and design standards related to seismic activity, seismically induced groundshaking effects are not expected to be substantial hazards.

The project area is not located in or near an area with naturally occurring asbestos. The proposed project would not exacerbate any risk of exposure by people or structures to adverse effects related to fault rupture, strong seismic ground-shaking, landslides, or naturally occurring asbestos.

None of the soils present on the site, as described in *The Soil Survey of Sacramento County, California*, are listed as unstable, so no impacts related to unstable soils (e.g., landslide, lateral spreading, subsidence, liquefaction, or collapse) would occur.

The project would connect to a public sewer system, so there would be no impact involving septic systems. Additionally, the project would not result in a reduction in the availability of (i.e., access to or removal of) any mineral resource, because none exist within the proposed project area. Implementation of the project would not obstruct access to adjacent mineral resources because all project activities would occur in the County road ROW.

None of the above issues will be discussed further in this section.

METHODOLOGY

GEOLOGY AND SOILS

The geotechnical characteristics of the project area determine the potential for structural and safety hazards. The Project was analyzed in terms of its potential to exacerbate geologic or soils-related hazards to people and property in the project area. Soil types were examined in the Biological Resources Assessment prepared by AECOM (2022), and the project was analyzed against available data including NRCS and USDA soil data, including maps and available GIS data.

PALEONTOLOGICAL RESOURCES

The evaluation of potential impacts related to unique paleontological resources was based on a review of published geologic literature and maps published by USGS. The information obtained from these sources was reviewed and summarized to document existing conditions and to identify the potential environmental effects of the proposed project.

12.5 IMPACTS AND ANALYSIS

IMPACT GS-1: WOULD THE PROJECT RESULT IN SUBSTANTIAL SOIL EROSION OR THE LOSS OF TOPSOIL

Erosion is a natural process that occurs when wind and water reshape or wear down landforms and the eroded materials are deposited in another location. The erosion of soil can be accelerated when existing groundcover is removed from the surface of the ground such as during grading or clearing activities that expose underlying soil to erosional forces. The most likely potential for erosion to occur is as a result of construction activity where soils may be exposed. According to the soil characteristic found on the project site (see environmental setting above), all but valpac loam soil have low to slight potential for erosion.

The project would comply with the Sacramento County Land Grading and Erosion Control Ordinance (Sacramento County Code Ch. 16.44). The ordinance was established to minimize damage to surrounding properties and public rights-of-way; limit degradation to the water quality of watercourses; and curb the disruption of drainage system flow caused by the activities of clearing, grubbing, grading, filling, and excavating land. The ordinance establishes administrative procedures, minimum standards of review, and implementation and enforcement procedures for the control of erosion and sedimentation that are directly related to land grading activities.

The project would also comply with the NPDES General Construction Permit, which requires that any construction activity affecting 1 acre or more implement a SWPPP, which identifies BMPs to reduce construction effects on receiving water quality. The BMPs include sediment and erosion control measures and other measures to control potential chemical contaminants. Also refer to Chapter 13, "Hydrology and Water Quality."

In compliance with these regulations, any development related to the project would be subject to erosion and sediment control measures. As such, the project would not result in substantial soil erosion or the loss of topsoil. Impacts to soil resources would be ***less than significant***.

IMPACT GS-2: WOULD THE PROJECT BE LOCATED IN A GEOLOGICAL UNIT OR SOIL THAT IS UNSTABLE, OR THAT WOULD BECOME UNSTABLE AS A RESULT OF THE PROJECT, AND POTENTIALLY RESULT IN ON OR OFF-SITE LANDSLIDE, LATERAL SPREADING, SUBSIDENCE, LIQUEFACTION OR COLLAPSE

All soil types present within the project area have some potential for expansion. According to the soil characteristic found on the project site (see environmental setting above), all but valpac loam soil have a high shrink swell potential.

Construction related to the project may result in the addition of pipelines located in areas containing expansive soils that could cause damage to underground utilities. To address this, the construction permitting process within Sacramento County requires completed geotechnical reports for development located within areas known to contain expansive soils; the purpose of this is to identify potential hazards that may impact a project as well as measures to eliminate the hazardous soil conditions. Measures related to eliminating potential hazards of expansive soils can include the excavation of silts and clays to a suitable depth, the replacement of these materials with engineered fill and compacted granular fill material, or the mixing of onsite soils to achieve a consistent soil composition. Implementation of these measures effectively removes expansive soils from an area or ensures that any expansion and contraction under the foundation is evenly distributed. In addition, structural design of any development in the project area must conform to the criteria detailed in the UBC and CBC (Chapters 16, 18, 33 and the Appendix to Chapter 33).

Any construction would need to adhere to the existing UBC and CBC, which would ensure the maximum necessary protection available for development within areas known to contain expansive soils. Therefore, implementation of the project would not exacerbate any risk to life or property from impacts related to expansive soils; this impact would be ***less than significant***.

IMPACT GS-3: WOULD THE PROJECT DIRECTLY OR INDIRECTLY DESTROY A UNIQUE PALEONTOLOGICAL RESOURCE OR SITE OR UNIQUE GEOLOGICAL FEATURE

The eastern end of the project site is located in the Riverbank rock formations; therefore, construction activities could result in accidental damage to, or destruction of, unknown unique paleontological resources. Construction of the Project would involve some grading activities and trenching or horizontal drilling for infrastructure development. Because ground disturbing activities would be relatively shallow and not require deep digging and trenching, the potential for encountering buried paleontological resources is low.

However, as noted in Plate GEO-2, numerous vertebrate fossils have been recovered from the Riverbank formation throughout the greater Sacramento area, and throughout the Sacramento and San Joaquin Valleys. Thus, this formation is considered to be of high paleontological sensitivity. This formation is exposed at the surface on the eastern half of project site, and also extends beneath the surface to depths of several hundred feet. Therefore, earthmoving activities during construction in this formation could result in accidental damage to or destruction of unique paleontological resources.

Mitigation is recommended to address the potential for inadvertent discoveries of paleontological resources. Construction workers and operational personnel would be alerted to the possibility of encountering paleontological resources and professionally accepted and legally compliant procedures for the discovery of paleontological resources would be implemented in the event of a find. With the implementation of the Mitigation Measure GS-1, below, impacts would be reduced to ***less than significant with mitigation***.

12.6 MITIGATION MEASURES

GS-1. The project proponent shall retain a qualified paleontologist to conduct an on-site training that will alert all construction personnel and operational staff about the possibility of encountering fossils. The appearance and types of fossils likely to be seen during construction will be described. Construction personnel shall be trained about the proper notification procedures should fossils be encountered.

If paleontological resources are discovered during earthmoving activities, the project proponent shall immediately halt operations within 100 feet of the find and notify SASD or their designee. The project proponent shall retain a qualified

paleontologist for identification and salvage of fossils so that construction delays can be minimized. If large specimens are discovered, the paleontologist shall have the authority to halt or divert grading and construction equipment while the finds are removed. The paleontologist shall be responsible for implementing all tasks summarized below:

- In the event of discovery, salvage of unearthed fossil remains, typically involving simple excavation of the exposed specimen but possibly also plaster-jacketing of large and/or fragile specimens, or more elaborate quarry excavations of richly fossiliferous deposits.
- Recovery of stratigraphic and geologic data to provide a context for the recovered fossil remains, typically including description of lithologies of fossil-bearing strata, measurement and description of the overall stratigraphic section, and photographic documentation of the geologic setting.
- Laboratory preparation (cleaning and repair) of collected fossil remains to a point of curation, generally involving removal of enclosing rock material, stabilization of fragile specimens (using glues and other hardeners), and repair of broken specimens.
- Cataloging and identification of prepared fossil remains, typically involving scientific identification of specimens, inventory of specimens, assignment of catalog numbers, and entry of data into an inventory database.
- Preparation of a final report summarizing the field and laboratory methods used, the stratigraphic units inspected, the types of fossils recovered, and the significance of the curated collection.
- Preparation of a plan for museum curation in the event fossilized deposits are uncovered.

12.7 CUMULATIVE IMPACTS

Most geologic and soils impacts are generally site-specific and not cumulative in nature. The exception is in cases where projects may obstruct access to valuable mineral resources, in which case losses can accumulate over multiple projects. The Project does not obstruct access to mineral resources, and thus does not contribute to a substantial impact; cumulative impacts are ***less than significant***.

12.8 REFERENCES CITED

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13 - HYDROLOGY AND WATER QUALITY

13.1 INTRODUCTION

This chapter addresses the potential hydrology and water quality impacts associated with the proposed Hood Septic to Sewer Conversion project (proposed project), which involves extension of Sacramento Area Sewer District (SASD) service to the community of Hood located in the larger Delta community of the unincorporated County of Sacramento (County). The analysis in this chapter considers the potential impacts of the project related to hydrology and water quality.

On behalf of SASD, the County released a Notice of Preparation for this Environmental Impact Report (EIR) on March 25, 2022. The County received no responses regarding hydrology and water quality. The Notice of Preparation and comments received are provided in Appendix PD-1. The Initial Study is provided in Appendix PD-2.

13.2 ENVIRONMENTAL SETTING

The project is located within a rural area of Sacramento County outside of the Urban Services Boundary (USB), and there are no engineered stormwater drainage systems. All stormwater drainage is carried through small ephemeral drainages, creeks and eventually the rivers. Areas outside of the USB are not subject to the County's water quality permit. The project site is located within federal floodplain zone AE, indicating that the site is within the Federal Emergency Management Act (FEMA) 100 year floodplain (Plate HYD-1). See the Project Description chapter for additional information regarding the general environmental setting for the community of Hood.

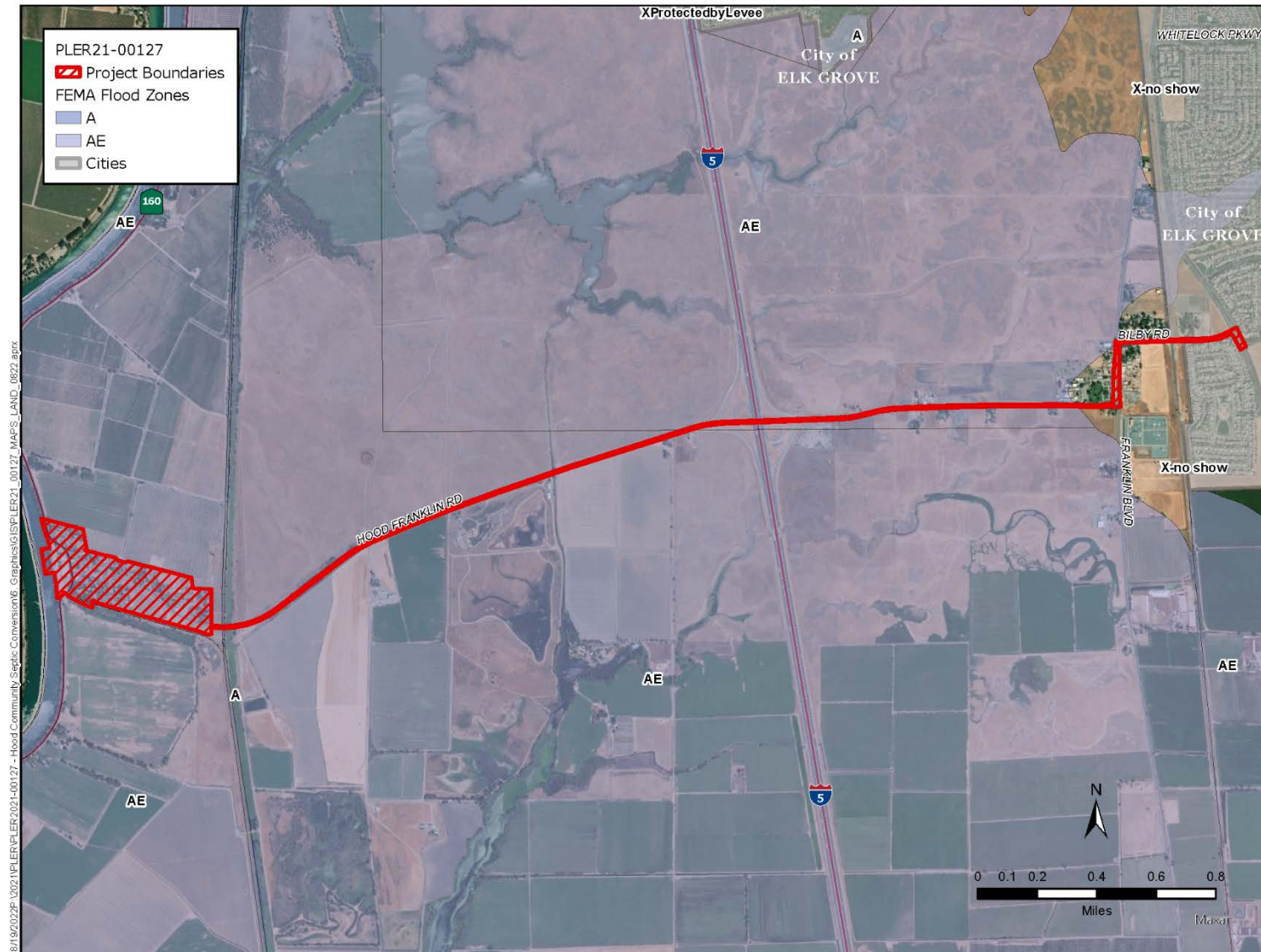
13.3 REGULATORY SETTING

FEDERAL

Government agencies regulate potential impacts to water quality in order to comply with legislative acts such as: the Clean Water Act (CWA), the Porter-Cologne Water Quality Act (Porter-Cologne), the Rivers and Harbors Act, and the California Environmental Quality Act (CEQA). The Clean Water Act contributes to the dramatic improvement of surface water bodies in the United States. The Rivers and Harbors Act prevents obstructions to navigation, including dumping of trash and sewage. CEQA prevents avoidable damage to water quality by requiring changes in projects through the use of alternatives or mitigation measures [PRC §15002(a)(3)]. Coordinated efforts by the following agencies protect water supplies from degradation:

- County of Sacramento
- Sacramento Area Flood Control Agency (SAFCA)

Plate HYD-1: Hood FEMA Floodplain



- California Department of Fish and Wildlife (CDFW)
- State Water Resources Control Board (State Water Board)
- Regional Water Quality Control Board (Regional Water Board)
- State Lands Commission
- U.S. Coast Guard (Coast Guard)
- National Park Service (NPS)
- State Department of Water Resources Reclamation Board
- U.S. Army Corps of Engineers (USACE)

CLEAN WATER ACT

The Clean Water Act (CWA) is the federal regulation covering surface water quality – it does not address either groundwater or water quantity. Surface waters protected by the CWA must either be navigable or hydrologically connected to a navigable water. The provisions of the CWA are administered and regulated primarily by the Environmental Protection Agency (EPA), the California EPA (Cal EPA), the USACE, and the State and Regional Water Boards. Under the “umbrella” of Cal EPA, the State and Regional Water Boards are responsible for administration of the National Pollutant Discharge Elimination System program, which deals with stormwater pollution from construction, industrial areas, and municipal areas. The USACE is responsible for issuance of the CWA Section 404 permit, which deals with the discharge of dredged or fill material in a surface water, and the State and Regional Water Boards are responsible for issuance of the CWA Section 401 permit, which covers the same activity. Section 303(d) of the Clean Water Act (CWA) also requires States to identify waters that do not meet water quality standards, and to develop plans to address polluted water bodies on the 303(d) list (called Total Maximum Daily Load plans, or TMDLs).

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

FEMA maintains and updates the National Flood Insurance Program maps, called the Federal Insurance Rate Maps (FIRM), that define areas of federal flood hazard. In Sacramento County and elsewhere the floodplains are identified based on U.S. Army Corps of Engineers (USACE) studies. FIRM maps denote the location of the federal 100-year flood area, 500-year flood area, and the Base Flood Elevation. In a 100-year floodplain, there is a 1% chance of flooding in a given year, and in a 500-year floodplain, there is a 0.2% chance of flooding in a given year. If an area is within a 100-year floodplain, flood insurance is required by most mortgage companies. FEMA is also responsible for the accreditation of levee systems (certification is by the USACE).

Not all 100-year floodplains are mapped by FEMA, because the focus of the FEMA FIRM maps is to provide information for insurance programs. Areas that have very little development that would be at risk from flooding, such as rural areas and wilderness areas, typically are not mapped. Areas not mapped by FEMA, or areas where there are

additional site-specific constraints that change the shape of the floodplain, are referred to as local floodplains in this EIR.

STATE REGULATORY SETTING

PORTER-COLOGNE WATER QUALITY ACT

Porter-Cologne is enacted as part of the California Water Code, and is intended to protect the quality of waters within the State. Porter-Cologne covers many of the same issues as the Federal Clean Water Act (see below), but is specific to the needs and objectives of the State. Waters protected by the Clean Water Act must be navigable or hydrologically connected to navigable waters, whereas Porter-Cologne protects non-navigable, or “isolated”, waters. The State Water Resources Control Board (State Water Board) and the Regional Water Quality Control Boards (Regional Water Board) are responsible for the coordination and control of water quality protection efforts related to Porter-Cologne.

STREAMBED ALTERATION AGREEMENT

Section 1602 of the Fish and Game Code requires applicants to notify CDFW before beginning a project if the project will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake or use materials from a streambed. Notification is generally required for any project that will take place in the vicinity of a river, stream, or lake. The recommendations of CDFW may include steps to protect water quality.

SUSTAINABLE GROUNDWATER MANAGEMENT ACT

The Sustainable Groundwater Management Act (SGMA) was signed into law in 2014. SGMA tasks California DWR to draft a Strategic Plan for its Sustainable Groundwater Management (SGM) Program. DWR's SGM Program will implement new and expanded responsibilities identified in the 2014 SGMA. Some of these expanded responsibilities include: (1) developing regulation to revise groundwater basin boundaries; (2) adopting regulations for evaluation and implementing Groundwater Sustainability Plans (GSPs) and coordination agreements; (3) identifying basins subject to critical conditions of overdraft; (4) identifying water available for groundwater replenishment; and (5) publishing best management practices for the sustainable management of groundwater.

It is too soon to understand how the objectives of a GSP will be implemented through land use practices, but it is known that January 1, 2015 will be used as a base line for sustainability in managing activities related to groundwater levels such that there is no adverse impact to identified beneficial uses, which includes chronic overdraft, reduction in groundwater, seawater intrusion, impacts to water equality, land subsidence, and impacts on beneficial use of surface water.

LOCAL REGULATORY SETTING

COUNTY OF SACRAMENTO GENERAL PLAN

The General Plan includes multiple Elements containing policies relevant to flooding and water quality: the Agriculture Element, Circulation Element, Conservation Element, and Safety Element. There are many policies within each Element, but the policies of greatest relevance to the project are included below.

CO-26. Protect areas susceptible to erosion, natural water bodies, and natural drainage systems.

CO-28. Comply with other water quality regulations and NPDES permits as they apply to County projects or activities, such as the State's Construction General Permit and Aquatic Pesticides Permit.

COUNTY OF SACRAMENTO DEPARTMENT OF WATER RESOURCES

As discussed above, not all floodplains are mapped by FEMA. Though not mapped by FEMA, many local 100-year floodplains have been identified by the Sacramento County Department of Water Resources (County DWR). Local floodplains in the County are typically mapped either in response to an area having flooding problems, or in response to a request by a property owner to make modifications to their parcel. In such circumstances, County DWR staff investigate the property and either decide if there is sufficient existing information to determine the floodplain elevation on the property or that a drainage study is required before a determination can be made. Further, pursuant to Senate Bill-5, County DWR has amended the General Plan and Zoning Code requiring a 200-year Urban Level of Flood Protection. The Urban Level of Flood Protection (ULOP) applies if the area is urban or urbanizing; is in a contributing basin of more than 10 square miles; and has a potential flood depth of more than three feet. Floodplains, whether local or FEMA, are regulated by the provisions of the Sacramento County Floodplain Management Ordinance, Improvement Standards, and Local Floodplain Management Plan.

SACRAMENTO COUNTY FLOODPLAIN MANAGEMENT ORDINANCE

Sacramento County Municipal Code Title 16, Chapter 16.02, Section 16.02.060 (Ordinance SZC-2016-0023) requires a Floodplain Management Permit for any new construction, substantial improvements, or alteration of land within a special flood hazard area (FEMA Zones A, AO, AI-A30, AE, A99, AH, or AR). These standards control filling, grading, and other development which may increase flood damage; and are intended to prevent or regulate the construction of flood barriers that would unnaturally divert flood waters or which may increase flood hazards in other areas. Per Ordinance SZC-2016-0023, Section 905-01, a project applicant must apply for a development permit for construction in a FEMA flood zone, and approval by the City's floodplain administrator is required. The permit application must include plans showing elevations of proposed structures and the elevations of areas proposed for materials and equipment storage; the proposed elevation in relation to mean sea level, of the lowest floor of all structures; the

proposed elevation in relation to mean sea level to which any structure will be flood-proofed; the location, volume, and depth of proposed fill and excavation within the 100-year floodplain and floodway; and a description of the extent to which any watercourse will be altered or relocated as a result of project development.

13.4 SIGNIFICANCE CRITERIA AND METHODOLOGY

SIGNIFICANCE CRITERIA

According to the CEQA Guidelines, impacts may be significant if the Project results in one of the following:

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 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 off-site;
 - iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater systems or provide substantial additional sources of polluted runoff; or
 - iv. impede or redirect flood flows?
4. In 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?

ISSUES NOT DISCUSSED FURTHER

The project will not increase the demand for water, and would not result in an increase of impervious surfaces. Therefore, the project will not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.

The project is located near the Sacramento River and within a federally designated flood zone, but the project is not located near a dam that would put the project site in a seiche zone nor is the project located near the coast that would put the project in a tsunami zone. All improvements associated with the project would be located subsurface and, therefore, implementation of the project would not exacerbate risk due to inundation of project site.

The project would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Implementation of the project would result in a net benefit to groundwater quality by removing the potential for contamination as a result of failing septic systems. The project would not install new wells, or increase impervious surfaces of the site and thus would have no impact on groundwater recharge or the management of a groundwater basin.

None of the above issues will be discussed further in this section.

13.5 IMPACTS AND ANALYSIS

IMPACT HY-1: VIOLATE ANY WATER QUALITY STANDARDS OR WASTE DISCHARGE REQUIREMENTS OR OTHERWISE SUBSTANTIALLY DEGRADE SURFACE OR GROUND WATER QUALITY

The project would not result in operational impacts as it relates to water quality. Implementation of the project would result in a net benefit to water quality by removing the potential for failing septic systems to impair surface and groundwater quality. The potential impacts associated with the project would occur during the construction phase. Therefore, the impact analysis focuses on the potential for impacts during construction.

The County has established a Stormwater Ordinance (Sacramento County Code 15.12). The Stormwater Ordinance prohibits the discharge of unauthorized non-stormwater to the County's stormwater conveyance system and local creeks. It applies to all private and public projects in the County, regardless of size or land use type. Upon completion of construction, the project would not result in operational impacts that would impair surface or groundwater quality. The network of public sewer treatment facilities would convey wastewater to the Regional Wastewater Treatment plant, thus alleviating potential surface or groundwater contamination that could result from the existing condition of failing septic systems within the Hood community. Potential impacts associated with degradation of surface or groundwater quality would be a result of construction activities, which is the focus of the analysis below. For additional information, also refer to the Hazards chapter (Chapter 14).

The project would be subject to water quality control provisions to minimize the potential for introduction of pollutants, including fuels, oils, and other materials used on-site that, if not properly handled, could be introduced to soils or stormwater. The project is required under existing laws to implement a spill prevention control and countermeasure plan (SPCC Plan) that would provide for fuels storage and containment, refueling procedures, vehicle maintenance, and emergency cleanup procedures in the event of an accidental spill. The project is also required to prepare and implement a construction and industrial stormwater pollution prevention plan (SWPPP), for ground disturbing activities on-site. The SWPPP would identify potential sources of sediment and other pollutants that could affect the quality of stormwater discharges from disturbed areas and would identify site-specific measures (known as best management practices [BMPs]) that would eliminate

or minimize sediment and other pollutants in stormwater discharges from disturbed areas. Incorporation of these water quality protection measures would minimize the potential for water quality impacts to sensitive habitats.

Compliance with the County's Stormwater Ordinance, and preparation and implementation of the required site-specific SWPPP which requires that the project minimize potential effects on surface stormwater flows to aquatic features in and outside the development would ensure impacts are ***less than significant***.

IMPACT HY-2: SUBSTANTIALLY ALTER THE EXISTING DRAINAGE PATTERN OF THE SITE OR AREA, INCLUDING THROUGH THE ALTERATION OF THE COURSE OF A STREAM OR RIVER OR THROUGH THE ADDITION OF IMPERVIOUS SURFACES, IN A MANNER WHICH WOULD RESULT IN:

- i. 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 OFF-SITE;
- iii. CREATE OR CONTRIBUTE RUNOFF WATER WHICH WOULD EXCEED THE CAPACITY OF EXISTING OR PLANNED STORMWATER SYSTEMS OR PROVIDE SUBSTANTIAL ADDITIONAL SOURCES OF POLLUTED RUNOFF; OR
- iv. IMPEDE OR REDIRECT FLOOD FLOWS.

The project would not result in operational impacts as it relates to existing drainage patterns. The project will not result in any above ground facilities that would increase impervious surfaces or alter the course of flood waters. The potential impacts associated with the project would occur during the construction phase. Therefore, the impact analysis focuses on the potential for impacts during construction.

EROSION AND STORMWATER RUNOFF

Construction on undeveloped land exposes bare soil, which can be mobilized by rain or wind and displaced into waterways or become an air pollutant. Construction equipment can also track mud and dirt onto roadways, where rains will wash the sediment into storm drains and thence into surface waters. The project would install subsurface facilities (sewer forcemain, and lateral connections to existing structures), and therefore, impacts associated with erosion and grading would be limited to construction activities. Upon completion of construction, the project would not induce further erosion, grading, or runoff of materials or pollutants in an operational setting.

In addition to complying with the County's ordinances and requirements, construction sites disturbing one or more acres are required to comply with the State's General

Stormwater Permit for Construction Activities. The Construction General Permit is issued by the State Water Resources Control Board (http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml) and enforced by the Regional Water Board. Coverage is obtained by submitting a Notice of Intent (NOI) to the State Water Board prior to construction. The General Permit requires preparation and implementation of a site-specific Stormwater Pollution Prevention Plan (SWPPP) that must be kept on site at all times during construction for review.

The project must include an effective combination of erosion, sediment and other pollution control BMPs in compliance with the County ordinances and the State's CGP.

Erosion controls should always be the *first line of defense*, to keep soil from being mobilized in wind and water. Examples include stabilized construction entrances, tackified mulch, 3-step hydroseeding, spray-on soil stabilizers and anchored blankets. Sediment controls are the *second line of defense*; they help to filter sediment out of runoff before it reaches the storm drains and local waterways. Examples include rock bags to protect storm drain inlets, staked or weighted straw wattles/fiber rolls, and silt fences.

In addition to erosion and sediment controls, the project must have BMPs in place to keep other construction-related wastes and pollutants out of the storm drains. Such practices include, but are not limited to: filtering water from dewatering operations, providing proper washout areas for concrete trucks and stucco/paint contractors, containing wastes, managing portable toilets properly, and dry sweeping instead of washing down dirty pavement.

It is the responsibility of the project proponent to verify that the proposed BMPs for the project are appropriate for the unique site conditions, including topography, soil type and anticipated volumes of water entering and leaving the site during the construction phase. In particular, the project proponent should check for the presence of colloidal clay soils on the site. Experience has shown that these soils do not settle out with conventional sedimentation and filtration BMPs. The project proponent may wish to conduct settling column tests in addition to other soils testing on the site, to ascertain whether conventional BMPs will work for the project.

Project compliance with requirements outlined above, as administered by the County and the Regional Water Board will ensure that project-related erosion and pollution impacts are ***less than significant***.

FLOODING AND FLOODPLAIN IMPACTS

The Hood community is located in a potential flood area as shown on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map. Several parcels within the community lie within flood hazard area Zone AE, which includes areas subject to inundation by the 1-percent annual chance flood event with a base flood elevation of 18 feet. The 1-percent annual flood (100-year flood), also known as the base flood, is the flood that has a 1-percent chance of being equaled or exceeded in any given year. Hence,

during this flood event, the community's septic systems are vulnerable to flooding and consequently could potentially contaminate the surrounding area and groundwater.

Policies of the General Plan and Sacramento County Floodplain Management Ordinance (Floodplain Ordinance) state that structures should not impede or redirect flow within a 100-year floodplain or expose people or structures to a substantial risk of loss, injury or death involving flooding. Flooding of the project site would not be impeded by the project because the nature of the construction of the project will not create barriers to impede the inundation of water. The project will serve a population that is already existing, and therefore does not expose people to substantial risk or loss of life in the case of a flood event. Structures, as defined by the Floodplain Ordinance are those that have walls and a roof. The project does not propose any new structures as defined in the Floodplain Ordinance, so there is not a substantial risk of loss of structures in a flood event. Therefore, impacts are ***less than significant***.

13.6 MITIGATION MEASURES

None recommended.

13.7 CUMULATIVE IMPACTS

The project will not result in hydrology and water quality impacts. Compliance with existing County ordinances and water quality permits ensures that the project will not contribute to a cumulative impact to downstream hydrology or water quality. Impacts are ***less than significant***.

14 – HAZARDS, HAZARDOUS MATERIALS, AND WILDFIRE

14.1 INTRODUCTION

This chapter addresses the potential hazardous impacts associated with the proposed Hood Septic to Sewer Conversion project (proposed project), which involves extension of Sacramento Area Sewer District (SASD) service to the community of Hood located in the larger Delta community of the unincorporated County of Sacramento (County). The analysis in this chapter considers the potential impacts of the project related to hazards and wildfire.

On behalf of SASD, the County released a Notice of Preparation for this Environmental Impact Report (EIR) on March 25, 2022. The County received no response regarding hazards and wildfire. The Notice of Preparation and comments received are provided in Appendix PD-1. The Initial Study is provided in Appendix PD-2.

14.2 ENVIRONMENTAL SETTING

The project area is located in the southwestern portion of the County. The community of Hood is located in a semi-rural area surrounded by mostly vacant, undeveloped land; however, there are some single-family agricultural residences, located mainly along Hood-Franklin Road. Other surrounding areas include farming, grazing, and wetland preserve land uses. The western boundary of the project area is the Sacramento River. See the Project Description chapter for additional environmental setting information related to the Hood community.

HAZARDS AND HAZARDOUS USES

The extent of Hood Franklin Road is largely surrounded by agricultural uses. The area has been in under agricultural production since the early 1900s, and as a result, remnant surface and subsurface materials from current and past uses could be present. This includes potential contamination from equipment, machinery, pesticide and herbicide use.

Additionally, hazards could exist due to potential interference with large equipment supporting agricultural uses, including machinery and heavy equipment that may be present on roadways during project construction.

WILDFIRE HAZARDS

While all of California is subject to some degree of wildfire hazard, there are specific features that make certain areas more hazardous. The California Department of Forestry and Fire Protection (CAL FIRE) is required by law to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors (Public Resources Code [PRC] 4201-4204 and Government Code 51175-89).

WILDFIRE CLASSIFICATION AND BEHAVIOR

Fires are classified by where in the fuel strata they burn: surface fires, understory fires, and crown fires (California Forest Stewardship Program 2015). Surface fires are the most common. Depending on the fuels, weather, and topography, these fires can be low to high intensity. Understory fires have flame lengths of up to 10 feet. They consume surface fuels, small trees, brush, and lower branches of overstory trees. Crown fires reach into the crowns of trees with flame lengths of more than 10 feet.

Fire season is the period when fires are expected to occur, based on knowledge of long-term climate patterns. Wildland fire behavior is based on three primary factors: topography, weather, and fuels. The following discussion briefly describes how each of these factors influences wildfire behavior within and in the vicinity of the project site.

TOPOGRAPHY

Topographic features such as slope and aspect influence a fire's intensity, direction, and rate of spread. Fires burning in flat or gently sloping areas tend to burn more slowly and spread in wider ellipses than fires on steep slopes. Streams, rivers, and canyons can channel local diurnal and general winds, which can accelerate a fire's speed and affect its direction, especially during foehn (warm, dry, and unusually strong) wind events (California Forest Stewardship Program 2015). The project site is generally flat, in low lying elevations, near sea level. Outside of residential uses, the Stone Lake Preserves consists of wetland and vernal pool complexes and naturalized grasslands, and surrounding agricultural activities consist of actively managed row and seasonal crops.

WEATHER

Weather conditions influence the potential for fire ignition, rates of spread, intensity, and the direction(s) toward which a fire burns. Temperature, relative humidity, and wind are the variables used to predict fire behavior.

The project region has a mild Mediterranean climate, with hot dry summers and cool, wet winters. Most of the precipitation falls during winter months, from November to April. About 75 percent of the annual precipitation occurs then, but measurable rain falls only on an average of nine days per month during that period (National Oceanic and Atmospheric Administration [NOAA] 2021). On average, the months with the highest rainfall are December and January, and July has the least precipitation (NOAA 2022).

The project site has average annual temperatures that range from approximately 53° to 91°F, and the average annual precipitation is 19.14 inches (California Department of Water Resources 2021, NOAA 2021). According to data from NOAA, the total precipitation recorded from January 1, 2021 through December 31, 2021 at the Sacramento WB Station was 18.90 inches (NOAA 2021).

Wind plays a role in the flammability of fuels by removing moisture through evaporation, preheating fuels in a fire's path, and increasing spotting distances (the distance at which a flying ember might ignite a spot fire). The prevailing wind in Sacramento County is southerly except for November, when it is northerly. Topographic effects, the north-south

alignment of the valley, the coast range, and the Sierra Nevada strongly influence the wind flow in the valley (NOAA 2021). In 2021, the average windspeed in Sacramento County was 2.7 miles per hour (NOAA 2021).

FIRE HAZARD SEVERITY ZONES

Fire hazard severity zones are measured qualitatively, based on vegetation, topography, weather, crown fire potential (a fire's tendency to burn upward into trees and tall brush), and ember production and movement within the area in question.

Fire prevention areas considered to be under state jurisdiction are referred to “state responsibility areas” or SRAs, and CAL FIRE is responsible for vegetation fires within SRA lands.¹ In general, SRA lands contain trees producing, or capable of producing, forest products; timber, brush, undergrowth, and grass, whether of commercial value or not, that provide watershed protection for irrigation or for domestic or industrial use; or lands in areas that are principally used, or are useful for, range or forage purposes.

Public Resources Code Sections 4201–4204 and Government Code Sections 51175–51189 require identification of fire hazard severity zones within the State of California. In SRAs, CAL FIRE is required to delineate three wildfire hazard ranges: moderate, high, and very high. The project site is not within a SRA, but within a local responsibility area, overseen by The Sacramento Metropolitan Fire District (Metro Fire).

SACRAMENTO METROPOLITAN FIRE DISTRICT

Metro Fire provides fire suppression and emergency medical services along with various other public safety and hazard mitigation community services to 720,000 residents in an approximately 359 square-mile area that includes two cities, Citrus Heights and Rancho Cordova, most of the unincorporated area of Sacramento County, including the project site, and a portion of Placer County. Metro Fire provides all-hazard fire suppression and emergency medical services from 41 fire stations located across its service area with the intent to respond to any emergency within its goal of a 4-minute travel time (Metro Fire 2021). In 2021, Metro Fire average response time was 4 minutes and 12 seconds to reach structure fires and 6 minutes and 9 seconds to provide medical aid (Metro Fire 2021).

14.3 REGULATORY SETTING

DEFINITIONS

The term “hazardous substances” refers to both hazardous materials and hazardous wastes. A material is defined as hazardous if it appears on a list of hazardous materials

¹ California Public Resources Code (PRC) Sections 4125–4127 define a State Responsibility Area as lands in which the financial responsibility for preventing and suppressing wildland fire resides with the State of California.

prepared by a Federal, state or local regulatory agency, or if it has characteristics defined as hazardous by such an agency. A “hazardous material” is defined in the Code of Federal Regulations (CFR) as “a substance or material that is capable of posing an unreasonable risk to health, safety, and property when transported in commerce” (49 CFR 171.8). California Health and Safety Code Section 25501 defines a hazardous material as follows:

“Hazardous material” means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. “Hazardous materials” include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

The definition of a hazardous waste, as regulated by the California Environmental Protection Agency (Cal EPA), Department of Toxic Substances Control (DTSC), is found in the California Health and Safety Code Section 25141 (b), as follows:

“...as hazardous waste because of its quantity, concentration, or physical, chemical, or infectious characteristics: (1) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; (2) pose a substantial present or potential hazard to human health or the environment, due to factors including, but not limited to, carcinogenicity, acute toxicity, chronic toxicity, bio-accumulative properties, or persistence in the environment, when improperly treated, stored, transported, or disposed of, or otherwise managed.”

A hazardous waste is a “solid waste” that exhibits hazardous characteristics. The U. S. Environmental Protection Agency (EPA) has defined the term “solid waste” to include the following: any gaseous, liquid, semi-liquid, or solid material that is discarded or has served its intended purpose, unless the material is excluded from regulation. Such materials are considered wastes whether they are discarded, reused, recycled, or reclaimed. The EPA classifies a waste as hazardous if it (1) is listed on the EPA’s list of hazardous waste and/or (2) exhibits one or more of the following properties: ignitability (including oxidizers, compressed gases, and extremely flammable liquids and solids), corrosivity (including strong acids and bases), reactivity (including materials that are explosive or generate toxic fumes when exposed to air or water), or toxicity (including materials listed by the EPA as capable of inducing systemic damage in humans or animals).

FEDERAL PLANS, POLICIES, REGULATIONS AND LAWS

The federal government adopted laws, generally known as the Resource Conservation and Recovery Act (RCRA), to provide for the regulation of hazardous wastes and substances. The RCRA requires any business, institution, or other entity generating hazardous waste to identify and track such waste from its generation until it is recycled,

reused, or disposed. The RCRA, subsequently amended in 1984 by the Hazardous and Solid Waste Act, extended the “cradle-to-grave” tracking system to hazardous substances, specifically prohibiting certain techniques of disposing specified hazardous substances.

The U.S. EPA was given primary responsibility for implementation of the RCRA. Individual states may implement their own hazardous substance management programs, if approved by the EPA, with regulations at least as strict as the RCRA. In August 1992, the Cal EPA received authorization to implement California’s RCRA program, called the Hazardous Waste Control Act (HWCA). The HWCA and associated regulations are similar to RCRA but have a broader definition of “hazardous material” and, as a consequence, regulate more chemicals. Cal EPA DTSC is the responsible agency for the implementation of the HWCA. The DTSC has the authority to delegate enforcement responsibility to local jurisdictions that enter into an agreement with the State agency for the generation, transport and disposal of hazardous substances under HWCA.

STATE OF CALIFORNIA PLANS, POLICIES, REGULATIONS, AND LAWS

HAZARDOUS MATERIALS

California regulations governing hazardous materials are as stringent as (and in some cases, more stringent than) federal regulations. The state has been granted primacy (primary responsibility for oversight) by the EPA to administer and enforce hazardous waste management programs. State regulations also have detailed planning and management requirements to ensure that hazardous materials are handled, stored, and disposed of properly to reduce human health risks. California regulations pertaining to hazardous waste management are published in the CCR. The CCR is updated yearly and incorporates all legislation and final regulations enacted during the year, as well as specifying the agencies responsible for enforcing the various regulations.

- Department of Toxic Substances Control. 22 CCR gives the California DTSC responsibility for regulating hazardous waste management at the state level. The DTSC regulates the treatment, storage, and disposal of hazardous waste in accordance with 22 CCR and the RCRA. The DTSC administers the state and federal Superfunds for cleanup of major hazardous waste contamination sites.
- Regional Water Quality Control Board. 23 CCR charges the nine Regional Water Quality Control Boards (RWQCBs) with responsibility for overseeing water quality control. The RWQCBs are responsible for protecting actual or potential beneficial uses of water, including municipal, industrial, and agricultural water supplies and recreation. Each RWQCB has authority to supervise hazardous waste cleanup at sites referred by local agencies and in cases where water quality is affected or threatened. Either the DTSC or the RWQCB may be responsible for cleanup of sites of significant contamination by hazardous wastes. The two agencies often work together to ensure that their requirements are consistent and are implemented as intended.

- California Occupational Safety and Health Administration. Health and safety regulations applying to the investigation and cleanup of sites contaminated with hazardous waste are enforced by Cal-OSHA under 8 CCR and the adopted federal regulations (29CFR 1910).

CALIFORNIA FIRE CODE

The California Fire Code (CFC) is Chapter 9 of CCR Title 24. It 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 CFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The CFC and the California Building Code use a hazard classification system to determine what protective measures are required to protect fire and life safety. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, the CFC employs a permit system based on hazard classification. The CFC is updated every 3 years.

CALIFORNIA CODE OF REGULATIONS, TITLE 14

Title 14 of the CCR sets forth the minimum development standards for emergency access, fuel modification, setback, signage, and water supply, which help prevent damage to structures or people by reducing wildfire hazards.

LOCAL PLANS, POLIIES, REGULATIONS, AND ORDINANCES

ENVIRONMENTAL MANAGEMENT DEPARTMENT

Sacramento County is responsible for enforcing the State regulations, both in the incorporated cities and unincorporated areas of the County, governing hazardous waste generators, hazardous waste storage, and underground storage tanks (including inspections, enforcement and removals). The Sacramento County Environmental Management Department (EMD) regulates the use, storage and disposal of hazardous materials in Sacramento County by issuing permits, monitoring regulatory compliance, investigating complaints, and other enforcement activities. The EMD also oversees remediation of certain contaminated sites resulting from leaking underground storage tanks.

SACRAMENTO COUNTY GENERAL PLAN

The following are the most pertinent General Plan policies related to hazardous materials that pertain to the project. Any potential environmental impacts related to these policies will be discussed in the Impacts and Analysis section below.

HM-4: The handling, storage, and transport of hazardous materials shall be conducted in a manner so as not to compromise public health and safety standards.

HM-10: Reduce the occurrences of hazardous material accidents and the subsequent need for incident response by developing and implementing effective prevention strategies.

SACRAMENTO COUNTY EVACUATION PLAN

The Sacramento County Evacuation Plan is developed as an Annex to the Sacramento County 2008 All-Hazards Emergency Operations Plan. The purpose of this evacuation plan is to document the agreed upon strategy for the County's response to emergencies that involve the evacuation of persons from an impacted area to a safe area. This involves coordination and support for the safe and effective evacuation of the general population, and for those who need additional support to evacuate. Focus areas within this evacuation plan include public alert and warning, transportation, and care and shelter.

Primary evacuation routes are established for each of the seven County Sheriff Districts. These include major interstates, highways and prime arterials within Sacramento County. Local jurisdictions work with the county, and especially the Operation's Section, Law Enforcement Branch and the Evacuation Movement Unit to identify and update evacuation routes and evacuation transfer points. The primary evacuation routes will usually be major interstates and other highways, and major roadways within and out of the county - unless otherwise determined by the County DOT. During an evacuation, County DOT traffic engineers calculate traffic flow capacity and decide which of the available traffic routes should be used to move people in the correct directions.

14.4 SIGNIFICANCE CRITERIA AND METHODOLOGY

SIGNIFICANCE CRITERIA

Based on the CEQA Guidelines, a hazard or hazardous materials impact is significant if implementation of the Project 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. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

ISSUES NOT DISCUSSED FURTHER

The project is not within 0.25 miles of a school, therefore, the project would not result in hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.

The project is not 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 not create a significant hazard to the public or the environment.

Upon completion, the project would not result in any above-ground facilities. Therefore, the project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

These topics will not be discussed further in this chapter.

14.5 IMPACTS AND ANALYSIS

IMPACT HZ-1: WOULD THE PROJECT CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR THE ENVIRONMENT THROUGH THE ROUTINE TRANSPORT, USE, OR DISPOSAL OF HAZARDOUS MATERIALS?

The project would not result in operational impacts as it relates to hazards and hazardous materials. Implementation of the project would result in a net benefit to the community by removing the potential for failing septic systems to result in the release of hazardous materials. The potential impacts associated with the project would occur during the construction phase. Therefore, the impact analysis focuses on the potential for impacts during construction.

The project would not transport hazardous material, but construction activities associated with future development would temporarily increase the regional transport, use, storage, and disposal of petroleum products (such as diesel fuel, lubricants, paints and solvents, and cement products containing strong basic or acidic chemicals) that are commonly used at construction sites. Hazardous waste generated during construction may consist of welding materials, fuel and lubricant containers, paint and solvent containers, and cement products containing strong basic or acidic chemicals. Release of these materials into the environment would be a potentially significant impact.

Pursuant to 40 CFR 112, the Project would be required to prepare a spill prevention and treatment plan for rapidly, effectively, and safely cleaning up and disposing of any spills or releases that may occur during construction. As required under state and federal law, notification and evacuation procedures for site workers and local residents would be included as part of the plan in the event of a hazardous materials release during on-site construction. In addition to 40 CFR 112, SWRCB Construction General Permit (2009-0009 DWQ) requires spill prevention and containment plans to avoid spills and releases of hazardous materials and wastes into the environment. Inspections would be conducted to verify consistent implementation of general construction permit conditions and best management practices (BMPs) to avoid and minimize the potential for spills and releases, and of the immediate cleanup and response thereto. BMPs include, for example, the designation of special storage areas and labeling, containment berms, coverage from rain, and concrete washout areas. In addition, workplace rules administered by the California Occupational Safety and Health Administration (enacted by the California Code of Regulations) ensure that the hazards of all chemicals are evaluated and that information concerning chemical hazards is transmitted to employees. This is accomplished through container labeling and other warnings, Material Safety Data Sheets, and employee training. Compliance with the aforementioned regulations would minimize the potential risk of a spill or accidental release of hazardous materials during

construction. Mitigation measure HZ-1 has been included to require the aforementioned spill protection and treatment plan, and mitigation measure HZ-2 has been included to address worker safety in the vicinity of potentially hazardous materials. This impact would be *less than significant with mitigation*.

IMPACT HZ-2: WOULD THE PROJECT CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR THE ENVIRONMENT THOUGH REASONABLY FORESEEABLE UPSET AND ACCIDENT CONDITIONS INVOLVING THE RELEASE OF HAZARDOUS MATERIALS INTO THE ENVIRONMENT?

The project would not result in operational impacts as it relates to hazards and hazardous materials. Implementation of the project would result in a net benefit to the community by removing the potential for failing septic systems to result in the release of hazardous materials. The potential impacts associated with the project would occur during the construction phase. Therefore, the impact analysis focuses on the potential for impacts during construction.

Potential impacts associated with the use of hazardous materials are discussed in the section above. In addition to routine use of materials addressed in the previous section, construction crews may be exposed to release of materials that are existing in the environment as outlined below.

LEAD AND CHROMIUM

Lead and chromium can be found in traffic stripes in existing roadways. The Project would be required to implement and comply with federal, state, and local hazardous materials regulations and codes monitored by the state (e.g., California Occupational Safety and Health Administration, Department of Toxic Substances Control, California Highway Patrol, California Department of Transportation) and/or local jurisdictions (e.g., Sacramento Metropolitan Fire District and Sacramento County Environmental Management Department).

AERIALY DEPOSITED LEAD

Aerially deposited lead can be found in existing roadways and shoulders as a result of vehicle exhaust settling within the road ROW. In the even that there is an encounter with ADL, notification and compliance with Title 8, Section 1532.1 will be addressed in contracting and construction documents for potential hazardous waste/ material issues associated with soil potentially containing aerially deposited lead.

UNFORESEEN CONTAMINATION

Agricultural land uses surround the extent of Hood Franklin Road, where the largest extent of the force main would be installed. Past agricultural practices and use of associated equipment and management substances could result in unforeseen, subsurface contamination. Compliance with existing state and federal regulations ensure that impacts associated with the impacts related to reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment are

less than significant. Out of an abundance of caution, mitigation has been included such that the project proponent will be required to draft a health and safety plan to protect workers in the event of an unforeseen contamination. This impact would be ***less than significant with mitigation***.

IMPACT HZ-3: WOULD THE PROJECT IMPAIR IMPLEMENTATION OF OR PHYSICALLY INTERFERE WITH AN ADOPTED EMERGENCY RESPONSE PLAN OR EMERGENCY EVACUATION PLAN OR RESULT IN INADEQUATE EMERGENCY ACCESS?

The project would not result in any above ground infrastructure, and therefore, would not result in operational impacts as it relates to emergency response plans and emergency access. The potential impacts associated with the project would occur during the construction phase. Therefore, the impact analysis focuses on the potential for impacts during construction.

Emergency response plans are maintained at the federal, state, and local level for all types of disasters, including human-made and natural. Emergency response plans include elements to maintain continuity of government, emergency functions of governmental agencies, mobilization, and application of resources, mutual aid, and public information. In the event of an emergency that would require citizens to evacuate, Sacramento County would implement its emergency operations plan, evacuation plan, and mass care and shelter plan.

Construction activities could result in temporary lane closures, increased truck traffic, and other roadway effects that could slow or stop emergency vehicles, temporarily increasing response times and impeding existing services. Construction activities in the project area do not, however, have the potential to substantially hinder emergency response activities or physically interfere with established circulation or evacuation routes. The project would not require full road closures or detours. Construction may require single lane closures and traffic control during pipeline installation, which would be limited to the area of work. Projects requiring encroachment permits for temporary construction activities in public roadways that could be used for emergency response or evacuation are required to prepare traffic mitigation plans that address traffic control during the period the project is occurring within public right of way. To address any temporary road closures that would be required during construction, standard construction mitigation includes notification of emergency responders and development of a traffic control plan. Additionally, mitigation to address necessary roadway repairs as a result of construction has been included below. The potential for construction activities to impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan would be ***less than significant with mitigation***.

14.6 MITIGATION MEASURES

MITIGATION MEASURE HZ-1: SPILL PREVENTION & CONTAINMENT PLAN

Prior to construction, the contractor will be required to develop a hazardous materials spill prevention and containment plan for the project. The plan would not allow any discharge resulting from construction of the project to enter adjacent lands or waterways. In the event of accidental discharge, the contractor would be responsible for containment and the immediate cleanup and disposal of all contaminated materials, in accordance with the requirements of the Sacramento County Environmental Management Department.

MITIGATION MEASURE HZ-2: HEALTH AND SAFETY PLAN

- A. As necessary, and as required by federal and state regulations, plans such as a health and safety plan, BMPs, and/or an injury and illness prevention plan will be prepared and implemented by SASD to address worker safety when working with potentially hazardous materials, including potential asbestos containing materials, lead base paint, lead or chromium in traffic stripes, ADL, and other construction-related materials within the ROW during any soil-disturbing activity.
- B. Develop a contingency plan in the event that construction activities uncover unforeseen contamination.

MITIGATION MEASURE HZ-3: TRAFFIC CONTROL PLAN

The project proponent (in coordination with the County of Sacramento Department of Transportation, the California Highway Patrol, *Caltrans* and local emergency services) shall develop and implement a traffic control plan for the construction project to reduce the effects of construction on the roadway system throughout the construction period. Proposed lane closures during the a.m. and p.m. commuting hours shall be coordinated with the appropriate jurisdiction. Lane closures shall be limited to the immediate vicinity of the open trench, and the length of trenches shall be kept as short as possible. Construction site(s) shall be secured to prevent pedestrians and bicyclists from entering the work site. One traffic lane shall remain open along major streets.

MITIGATION MEASURE HZ-4: TRAFFIC AND CIRCULATION

The project proponent shall implement the following measures (a) repair any roadway damage to its original conditions immediately after construction has been completed; (b) coordinate with the local jurisdiction to determine appropriate routes for truck travel before beginning construction; (c) coordinate with the local jurisdiction regarding planned improvements near the infrastructure to limit interference with the implementation of roadway improvements or trenching in newly completed facilities before beginning construction.

14.7 CUMULATIVE IMPACTS

Most impacts in this category are existing hazardous conditions which have the potential to impact projects, but which are not exacerbated by projects. The only impact discussed in this chapter to which the project could cumulatively contribute is increases in the transport, use, and disposal of hazardous materials. As concluded for the Project, all of the cumulative developments would be required to implement and comply with federal, state, and local hazardous materials regulations and codes monitored by the state and/or local jurisdictions, and as such would not create a cumulatively significant hazard; impacts are ***less than significant***.

14.8 REFERENCES

California Forest Stewardship Program. 2015. Fire Behavior. Available: <http://placerrcd.org/wp-content/uploads/2019/09/58-Foreststeward-Summer-2015.pdf> Accessed May 2, 2022.

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15 ALTERNATIVES

15.1 INTRODUCTION

This chapter describes alternative versions of the proposed project that may lessen environmental impacts, or that provide meaningful information to foster informed decisions. Impact discussions are presented in a qualitative rather than quantitative manner and are briefer than those found in the project chapters, consistent with the California Environmental Quality Act (CEQA) Guidelines Section 15126.6(d). This chapter does not repeat background discussions or other subject matter that has already been described in the topical chapters of this EIR, but focuses on those Alternative impacts, which are substantively different from the impacts described for the project. Where impacts are similar, the reader is referred to the appropriate topical chapter for further detail and discussion. The discussion of each alternative describes the fundamental differences between the alternative and the proposed project and the effect of the alternative in avoiding or lessening any of the significant environmental impacts associated with the proposed project. Reviewers are encouraged to read the topical chapters describing project impacts prior to reading the Alternatives chapter.

The purpose of this section is to identify alternative project designs that would mitigate, lessen, or avoid the significant effects of the Project. To foster meaningful public discussion and informed decision-making, a range of reasonable alternatives to the Project is provided. This range includes the “no project” alternative, the purpose of which is to allow the hearing body to compare the impacts of approving the Project to the impacts of not approving the Project. The “no project” alternative describes what would happen if the existing land use designations or zoning remained in effect.

The CEQA Guidelines require that a “No Project” alternative be evaluated. (Guidelines § 15126.6(e)(1)). The “no project” alternative analysis is not the baseline for determining whether the proposed project’s environmental impacts may be significant unless it is identical to the existing environmental setting analysis which does establish the baseline. The EIR must also identify the environmentally superior alternative. If the “no project” alternative is the environmentally superior alternative, the EIR must identify an environmentally superior alternative from among the other alternatives (Guidelines § 15126.6(e)(2)). An EIR need not evaluate an alternative that is considered speculative, theoretical, or unreasonable (Guidelines § 15126.6(f)(3)). Not every potentially feasible alternative need be considered; rather, the relevant test is whether a “reasonable range” of feasible alternatives is considered for that particular project (Guidelines § 15126.6(a)).

A range of alternatives that could possibly reduce or eliminate some of the project’s significant impacts were considered. Some of the alternatives considered were infeasible and rejected without detailed analysis, for the reasons explained below. Other feasible alternatives are discussed with further detail below. Alternatives were considered to address the Project’s significant impacts (below), as well as impacts that are less than significant with mitigation that could be reduced to less than significant (aesthetics,

biological resources, cultural resources, tribal cultural resources, noise, hydrology and water quality, geology and soils, hazards and wildfire).

SIGNIFICANT AND UNAVOIDABLE IMPACTS

The proposed project would result in significant and unavoidable impacts related to growth inducement because the project would place new infrastructure in undeveloped areas that are not currently planned for future development. The project would remove a barrier (provision of sewer service) to future growth, thus creating a significant and unavoidable impact.

15.2 RANGE OF ALTERNATIVES

According to Section 15126.6 of CEQA Guidelines:

An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibility attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.

The purpose of this section is to identify alternative project designs that would mitigate, lessen, or avoid the significant effects of the project.

The alternatives proposed below are designed to reduce potential impacts – even if the impacts are not significant. To foster meaningful public discussion and informed decision-making, a range of reasonable alternatives to the project is provided. This range includes Alternative A, the “No Project” alternative, the purpose of which is to allow the hearing body to compare the impacts of approving the project to the impacts of not approving the project. The “No Project” alternative describes what would happen if the project were not implemented, and the Hood community is continued to be served by onsite septic systems. In addition to Alternative A, Alternative B, Alternative C, and Alternative D, a range of considered but rejected alternatives are discussed below.

15.3 DESCRIPTION OF ALTERNATIVES

ALTERNATIVE A: NO PROJECT

The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The No Project alternative analysis is not the baseline for determining whether the proposed project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that baseline (State CEQA Guidelines Section 15126.6(e)(1)). In this case, the No Project alternative is identical to the existing environmental setting, as described in the topical chapters.

ALTERNATIVE B: ALTERNATIVE ALIGNMENT

The Alternative Alignment alternative proposes similar facilities as the project, but the force main would traverse a separate alignment. Within the Hood community, facilities would remain the same. Private properties would still connect via lateral connections, and a grinder pump would be installed at each connecting property. The 4" force main would connect to the existing system outside of Walnut Grove, rather than the existing system in Elk Grove. This alignment is highlighted in Plate ALT-1 and the alignment would occur as follows:

From the Community of Hood:

- South on Highway 160, River Road;
- Southwest on Lambert Road, following the alignment of Lambert Road for approximately 2.8 miles; and
- Connect to existing SASD system on Lambert Road.

ALTERNATIVE C: GRAVITY FED PIPELINE

A Gravity Fed Pipeline alternative would implement an alternative technology for transmitting sewage over the same alignment as the proposed project. Gravity fed pipelines utilize gravity to transport sewage, and pump stations then move the sewage vertically to connect to other facilities. Key differences between the gravity pipeline and the proposed force main is that the gravity pipe is 8" in diameter, as opposed to the maximum 4" force main. Construction must also occur via open trench methods to allow for proper placement and backfill. Trenching has a larger and deeper footprint than what would be required for forcemain installation and there are additional facilities (pump stations) required to lift sewage to grade or to existing system facilities. The analysis below will assess the impacts associated with construction of the gravity pipeline as it relates to the proposed project.

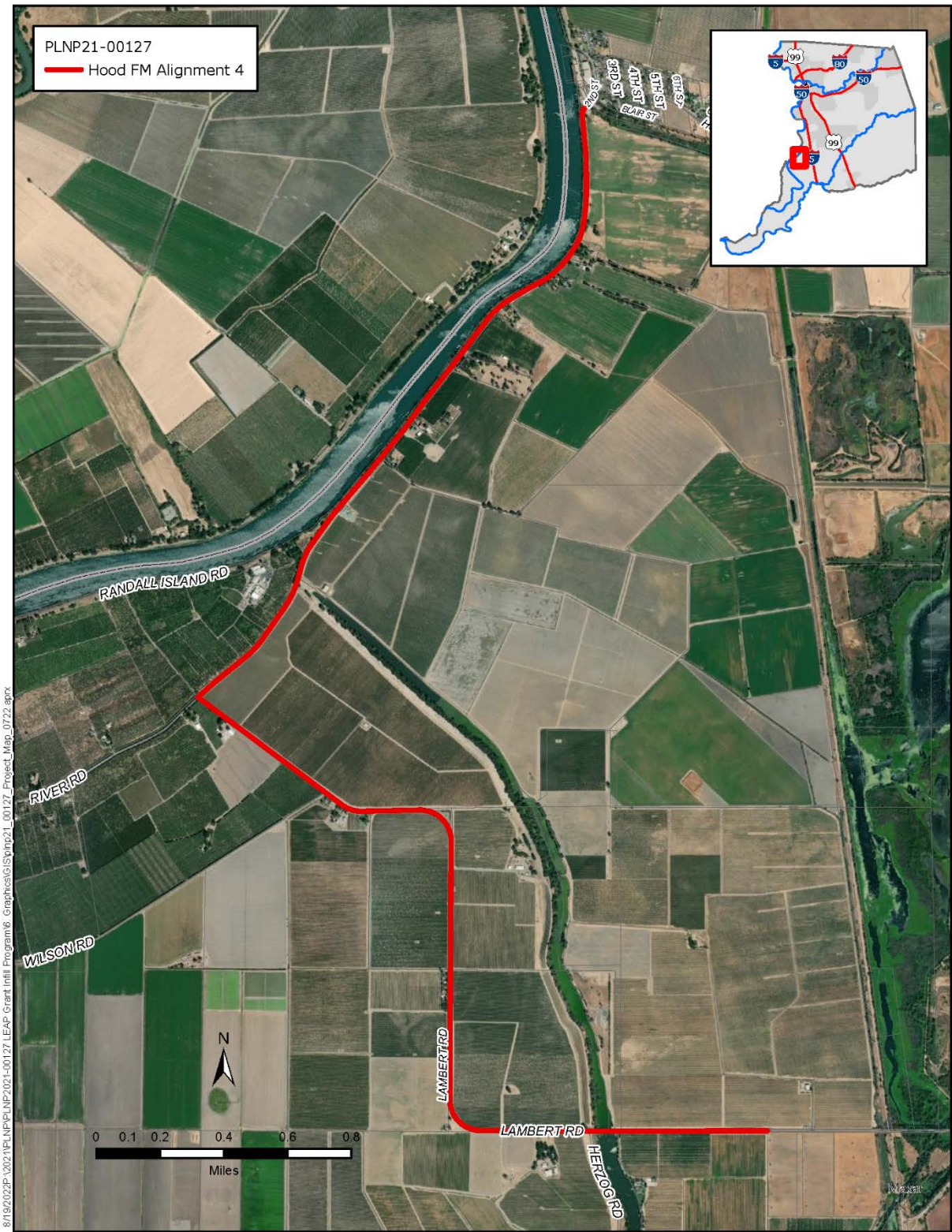
ALTERNATIVE D: SELF CONTAINED TREATMENT SYSTEM

The self-contained treatment system alternative assumes that the project would develop a self-serving treatment system for the Hood Community. This alternative would include the siting and construction of necessary treatment facilities, in addition to the conveyance and lateral lines within the Hood Community. This alternative would not include a new force main on Hood Franklin Rd, but rather, sewage treated onsite and discharged to the Sacramento River, adjacent the project site. In addition to construction of facilities, this alternative would require extensive permitting and oversight be State and Federal agencies to allow for the construction of the facility and associated disposal of treated wastewater to the Sacramento River. The analysis below will assess the impacts as it relates to both the construction and operation of this alternative.

ALTERNATIVES CONSIDERED BUT REJECTED

Several alternatives to the proposed project were considered but ultimately rejected from further analysis and consideration. CEQA Guidelines Section 15126.6 states that:

Plate ALT-1: Alternative B – Alternative Alignment



The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination. Additional information explaining the choice of alternatives may be included in the administrative record. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility or (iii) inability to avoid significant environmental impacts.

An agency need not find that an alternative is literally impossible before it can reject an alternative as infeasible. The finding may be made based on policy considerations or project objectives (ex: *California Native Plant Society, et al. v. City of Santa Cruz, et al.*) or based on specific economic, legal, social, technological, or other considerations (CEQA Guidelines Section 15091). There is no ironclad definition of infeasibility, only guidance, and so it is left to the discretion of the lead agency to determine and explain what reasons are sufficient to exclude an alternative from analysis.

ALTERNATIVE LOCATION

An alternative location does not meet the principal objectives of the project. The project is intended to provide public sewer service to the Community of Hood. Hood is identified as a severely disadvantaged community through the median household income survey. Because of its geographic location, it is not within existing service areas for SASD and Regional San. Past land development is equivalent to urban levels of development but does not have the infrastructure to support the existing development. Implementing the project in an alternative location would not bring sewer service to Hood, and would not meet project objectives 1, 2 and 5 (outlined below). Therefore, this alternative is not considered further.

REDUCED SERVICE

This alternative would focus on providing sewer service only when septic systems are shown to be infeasible, thus limiting the potential for growth inducement. However, the base infrastructure and force main would require installation regardless of the level of service. Therefore, impacts related to construction would be similar to the project. This alternative would not meet project objectives 3, 4 and 5. Therefore, this alternative is not considered further.

15.4 ALTERNATIVES ANALYSIS

The Proposed Project is fully discussed, with regulatory and environmental setting discussions, in the chapters of the main EIR document. The discussions below focus on impacts analyses and do not repeat the regulatory and environmental settings contextual background. A summary matrix is included at the end of this document clearly identifying the range of Alternatives and their respective impacts to select environmental topics in relation to the proposed project.

PROJECT OBJECTIVES

The project applicant has provided the following statement of basic project objectives consistent with CEQA Guidelines Section 15124 (b). SASD has indicated that the project should accomplish the following:

1. Provide public sewer service to the Community of Hood at existing zoned densities to alleviate potential groundwater contamination, protect the environment, and improve public health and safety.
2. Remove the need for replacement septic systems in Hood, which can be difficult to locate on small parcels, and in some cases infeasible or cost prohibitive.
3. Implement the County of Sacramento General Plan policies applicable to health and safety to remove septic use on small parcels, adjacent to the Sacramento River. Enforcement action as a result of increased Sacramento County EMD groundwater reporting requirements and health and environmental concerns are drivers for the septic-to-sewer conversions.
4. Utilize available federal funding for the health and safety benefit of a severely disadvantaged community, based on Median Household Income (MHI). A severely disadvantaged community is one with a population less than 10,000 the persons and whose combined MHI is less than 60 percent of the statewide MHI.
5. Extend the SASD service boundary to include existing zoned densities in the Community of Hood, through annexation required by LAFCO.

ALTERNATIVE A: NO PROJECT ALTERNATIVE

AESTHETICS

Alternative A would result in no changes to the current land use in Hood. As such, there would be no impact as it relates to aesthetics.

LAND USE

Alternative A would result in no changes to the current land use in Hood. As such, properties would continue to rely on old and failing septic systems for wastewater disposal. This would result in an inconsistency with General Plan policy promoting the health and safety of communities, particularly disadvantaged communities. This would be considered a potentially significant impact related to consistency with policies adopted for the purpose of mitigating an environmental impact.

PUBLIC UTILITIES

Alternative A would have no impact on public utilities. Under the no project alternative, individual properties would continue to be served by on-site septic systems and there would not be a need for additional public utility services.

BIOLOGICAL RESOURCES

Alternative A would have no direct impact on biological resources. Individual properties would continue to be served by on-site septic systems. This would not create any additional direct impacts, but could result in indirect impacts to biological resources. Specifically, groundwater contamination that could occur as a result of failed or poorly maintained septic systems can infiltrate to groundwater, causing an impact to aquatic resources and associated species, such as fish that utilize aquatic areas as habitat. Additionally, in the event that septic systems need to be replaced onsite, parcel size limitations could result in impacts to onsite trees because replacement septic systems may require tree removal or may encroach upon critical root zones of onsite and neighboring trees.

CULTURAL RESOURCES

Alternative A would could have more substantial impacts on cultural resources than the project. Under the no project alternative, existing septic systems would be used until no longer operational. However, when septic systems need to be replaced, that would result in ground disturbance that could impact undiscovered, subsurface resources, similar to the project. Under the no project alternative, septic systems would be replaced without the benefit of included mitigation to address the event of inadvertent discoveries. If a cultural resource were to be uncovered, there would be no protocol in place to protect the resource, thereby risking direct impacts to cultural resources.

AIR QUALITY

Alternative A would result in less impacts to air quality than the proposed project. Under the no project alternative, no construction would be proposed until individual septic systems require replacement. In that event, the replacement of individual septic systems would result in fewer impacts related to air quality emissions than the project.

CLIMATE CHANGE

Alternative A would result in less impacts to climate change than the proposed project. Under the no project alternative, no construction would be proposed until individual septic systems require replacement. In that event, the replacement of individual septic systems would result in fewer impacts related to climate change emissions than the project.

NOISE

Alternative A would result in no impacts to Noise. Continued use of on-site septic systems do not result in operational noise. Replacement and servicing of septic systems would generate short-term, typical construction noise during daytime hours.

TRIBAL CULTURAL RESOURCES

Alternative A could have more substantial impacts on tribal cultural resources than the project. Under the no project alternative, existing septic systems would be used until no longer operational. However, when septic systems need to be replaced, that would result in ground disturbance that could impact undiscovered, subsurface resources, similar to

the project. Under the no project alternative, septic systems would be replaced without the benefit of included mitigation to address the event of inadvertent discoveries. If a tribal cultural resource were to be uncovered, there would be no protocol in place to protect the resource, thereby risking direct impacts to tribal cultural resources.

GEOLOGY AND SOILS

Alternative A would result in less than significant impacts to geology and soils. Permits for new septic systems are subject to review and approval by Sacramento County EMD, including assessment for soils viable to support use of septic onsite. Use of on-site septic systems is not likely to disturb paleontological resources. The Hood community is located in an area of alluvium soils, which have not been identified as likely to contain paleontological resources.

HYDROLOGY AND WATER QUALITY

Alternative A could result in potentially significant impacts to hydrology and water quality. The No Project alternative is not expected to impact drainage patterns or inhibit floodwaters. The no-project alternative could result in groundwater quality impairment as a result of failing and leaking septic systems.

HAZARDS AND WILDFIRE

Alternative A would not result in an impact related to wildfire. This alternative would not result in a change to the landscape that would increase risk of wildfire. There could be an increased risk as it relates to hazardous material. Similar to the water quality impacts described above, leaking and failing septic systems can impair groundwater quality and lead to the release of hazardous material from septic disposal into the environment, creating a risk to environmental and human health.

ALTERNATIVE B: ALTERNATIVE ALIGNMENT

AESTHETICS

Alternative B would result in the similar or slightly increased impacts as it relates to aesthetics. Upon completion of construction, there would not be above ground infrastructure that would impact the visual quality of the area. Construction methods would be the same as the project. As such, there would be the potential for nighttime construction and use of nighttime lighting. Alternative B could result in slightly increased impacts related to aesthetics due to the longer length of the alternative alignment and, therefore, potential for longer use of nighttime lighting for construction purposes.

LAND USE

Alternative B would result in no changes to the current land use in the Community of Hood. The impacts related to land use would be similar to the proposed project. This alternative would be consistent with plans and policies but may have the potential for growth inducement due to the project removing a barrier to growth by placing new infrastructure in a greenfield area. The alternative alignment may have slightly less potential to induce growth outside of the Hood Community, due to the alignment being

placed in a more remote, agricultural setting. Unlike the proposed project, this alternative would not extend infrastructure adjacent to existing agricultural-residential uses. The zoning in this area is exclusively agriculture, within the primary zone of the Delta, and further away from existing urban uses. This would imply less probability of future requests for urbanization along this alignment, but the impacts related to growth inducement would remain significant and unavoidable due to placement of new infrastructure in a greenfield area, and the potential induced further growth within the community of Hood itself.

PUBLIC UTILITIES

Alternative B would have similar impacts related to public utilities as the project. The same amount of project sewage would be added to the larger regional system. The SRWTP has the capacity to treat the sewage that would result from connecting Hood to public sewer. It is not known at this point if there is sufficient existing capacity at the connection point identified outside of the community of Walnut Grove to accept the sewage. In the event there is not existing capacity in the system, this would be a potentially significant impact, and may require further construction or system upgrades to make this a technically feasible alternative.

BIOLOGICAL RESOURCES

Alternative B would have similar impacts on biological resources as the proposed project. Species impacts would be temporary and mitigation would be recommended to reduce potential impacts to species such as special status birds, giant garter snake and western pond turtle. Similar to the project, this alignment would require traversing sloughs and canals. If construction methods were unable to avoid in-water work, then permitting through State and Federal agencies such as the California Department of Fish and Wildlife, Regional Water Quality Control Board and US Army Corps of Engineers would be required. Similar to the project, it is not expected that tree removal would be required. However, this alignment spans a stretch of the levee along the Sacramento River, which contains a number of large trees that are not present along the proposed project alignment. There is potential under Alternative B that there could be substantially more construction impacts to a greater number of large, mature trees along the lengths of the Alternative B alignment.

CULTURAL RESOURCES

Alternative B would have similar or more substantial impacts on cultural resources than the project. Similar to the proposed project, Alternative B would have the potential to uncover previously undiscovered cultural resources. The project could have more substantial impacts due to the fact that the alignment under Alternative B is longer than the proposed project, and therefore, there could be a greater likelihood of uncovering an inadvertent discovery related to cultural resources.

AIR QUALITY

Alternative B would result in slightly more impacts than the proposed project. Under the alternative alignment, construction methods would be similar, but due to the longer alignment, the project would require either a longer construction period, or additional

crews onsite to accommodate a similar construction timeframe. Additional construction would generate additional impacts as it relates to construction emissions. Similar to the project, Alternative B would not result in additional, unforeseen operational air quality impacts.

CLIMATE CHANGE

Alternative B would result in slightly more climate change and greenhouse gas impacts than the proposed project. Under the alternative alignment, construction methods would be similar, but due to the longer alignment, the project would require either a longer construction period, or additional crews onsite to accommodate a similar construction timeframe. Additional construction would generate additional impacts as it relates to construction emissions. Similar to the project, Alternative B would not result in additional, unforeseen operational climate change/greenhouse gas impacts.

NOISE

Alternative B would result Noise impacts similar to the proposed project. There would be potential for short term, temporary noise impacts associated with construction and nighttime construction (if necessary). Mitigation measures applicable to the proposed project would also be applicable to Alternative B.

TRIBAL CULTURAL RESOURCES

Alternative B would have similar or more substantial impacts on tribal cultural resources than the project. Similar to the proposed project, Alternative B would have the potential to uncover previously undiscovered tribal cultural resources. The project could have more substantial impacts due to the fact that the alignment under Alternative B is longer than the proposed project, and therefore, there could be a greater likelihood of uncovering an inadvertent discovery related to tribal cultural resources.

GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES

Alternative B would have similar or more substantial impacts on geology and soils than the project. This alternative would have similar impacts to geology and soils due the same construction methods and applicability of existing rules and regulations. Similar to the proposed project, Alternative B would have the potential to uncover previously undiscovered paleontological resources. The project could have more substantial impacts due to the fact that the alignment under Alternative B is longer than the proposed project, and therefore, there could be a greater likelihood of uncovering an inadvertent discovery related to paleontological resources.

HYDROLOGY AND WATER QUALITY

Alternative B would result in similar impacts to hydrology and water quality as the proposed project. The project would utilize the same construction methods as the project and be subject to the same rules and regulations that ensure impacts to hydrology and water quality remain less than significant.

HAZARDS AND WILDFIRE

Alternative B would result in similar impacts to hazards and wildfire as the proposed project. The project would utilize the same construction methods but on a different alignment. The rules, regulations and mitigation proposed for the project would be applicable to Alternative B.

ALTERNATIVE C: GRAVITY FED PIPELINE

AESTHETICS

Alternative C would result in similar or slightly increased impacts related to aesthetics as the proposed project. This alternative could have a short term construction impact associated with nighttime lighting that would cease upon completion of the project. Mitigation associated with the project would also be appropriate for Alternative C. This alternative has the potential for additional above ground facilities due to the need to for pump stations to move sewage from the gravity line to the existing system. The visual impact from these facilities may not be considered a significant impact, but it would be an increased change to the visual quality of the project area compared to the proposed project.

LAND USE

Alternative C would result in no changes to the current land use in Hood. The impacts related to land use would be similar to the proposed project. This alternative would be consistent with plans and policies but may have the potential for growth inducement due to the project removing a barrier to growth by placing new infrastructure in a greenfield area.

PUBLIC UTILITIES

Alternative C would have similar impacts related to public utilities as the project. The same amount of project sewage would be added to the larger system. The SRWTP has the capacity to treat the sewage that would result from connecting Hood to public sewer. A feasibility study conducted by SASD identified that this alternative would be technically feasible utilizing a pump station at the end of the alignment to distribute sewage into the existing SASD system in the City of Elk Grove.

BIOLOGICAL RESOURCES

Alternative C would have similar or greater impacts on biological resources as the proposed project. Species impacts would be temporary and mitigation would be recommended to reduce potential impacts to species such as special status birds, giant garter snake and western pond turtle. Similar to the project, this alignment would require traversing sloughs and canals. The gravity line generally requires open trench construction for installation purposes. As such, the project could result in additional impacts and permitting requirements in the event that in-water work would be required to cross sloughs and canals. If construction methods were unable to avoid in-water work, then permitting through State and Federal agencies such as the California Department of Fish and Wildlife, Regional Water Quality Control Board and US Army Corps of Engineers

would be required. Similar to the project, it is not expected that tree removal would be required but there could be temporary encroachment in staging areas or along the alignment if there are large native trees in the road right of way; the open trench construction method could result in greater impacts due to tree encroachment compared to the proposed project.

CULTURAL RESOURCES

Alternative C would have similar or less impacts on cultural resources than the project. Similar to the proposed project, Alternative C would have the potential to uncover previously undiscovered cultural resources. The impact has the potential to be less substantial due to the open trench construction method, which allows for additional visibility of subsurface resources. In the even that there is an inadvertent discovery, utilizing the open trench construction method allows for a higher probability of identification and recovery of resources.

AIR QUALITY

Alternative C would result in slightly more air quality impacts than the proposed project. Under the gravity fed alternative, more intensive construction methods are required. To accommodate a larger pipe, there is additional ground disturbance in both area and depth, as well as additional construction/disturbance that is required for installation of pump stations. This alternative would require additional hauling of material, both to the site and away from the site, to haul off excess material and to bring in necessary backfill material that is used to stabilize the pipe. This increases the amount of mobile source emissions that are associated with hauling and truck trips. Similar to the project, Alternative C would not result in additional, unforeseen operational air quality impacts.

CLIMATE CHANGE

Alternative C would result in slightly more climate change/greenhouse gas impacts than the proposed project. Under the gravity fed alternative, more intensive construction methods are required. To accommodate a larger pipe, there is additional ground disturbance in both area and depth, as well as additional construction/disturbance that is required for installation of pump stations. This alternative would require additional hauling of material, both to the site and away from the site, to haul off excess material and to bring in necessary backfill material that is used to stabilize the pipe. This increases the amount of mobile source emissions that are associated with hauling and truck trips. Similar to the project, Alternative C would not result in additional, unforeseen operational climate change/greenhouse gas impacts.

NOISE

Alternative C would result in noise impacts similar to the proposed project. There would be potential for short term, temporary noise impacts associated with construction and nighttime construction (if necessary). Mitigation measures applicable to the proposed project would also be applicable to Alternative C.

TRIBAL CULTURAL RESOURCES

Alternative C would have similar or less impacts on tribal cultural resources from the proposed project. Similar to the proposed project, Alternative C would have the potential to uncover previously undiscovered tribal cultural resources. The impact has the potential to be less substantial due to the open trench construction method, which allows for additional visibility of subsurface resources. In the event that there is an inadvertent discovery, utilizing the open trench construction method allows for a higher probability of identification and recovery of resources.

GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES

Alternative C would have similar or less impacts on geology and soils from the proposed project. This alternative would have similar impacts to geology and soils due the same construction methods and applicability of existing rules and regulations. Similar to the proposed project, Alternative C would have the potential to uncover previously undiscovered paleontological resources. The impact has the potential to be less substantial due to the open trench construction method, which allows for additional visibility of subsurface resources. In the event that there is an inadvertent discovery paleontological resources, utilizing the open trench construction method allows for a higher probability of identification and recovery of resources.

HYDROLOGY AND WATER QUALITY

Alternative C would result in similar impacts to hydrology and water quality as the proposed project. The same rules and regulations that ensure impacts to hydrology and water quality remain less than significant for the proposed project would be applicable to Alternative C.

HAZARDS AND WILDFIRE

Alternative C would result in similar or slightly increased impacts related to hazards and wildfire as the proposed project. The project would utilize the same alignment, but construction methods would result in more ground disturbance for longer periods of time. This would necessitate longer and/or additional road closures along the project alignment. The rules, regulations and mitigation proposed for the project would be applicable to Alternative C.

ALTERNATIVE D: ONSITE TREATMENT FACILITY

AESTHETICS

Alternative D would result in increased impacts associated with aesthetics. In addition, for the potential for nighttime construction, this alternative would result in the need for additional, above ground treatment facilities that would likely not be consistent with the visual nature of the existing community.

LAND USE

Alternative D would potentially result in additional impacts related to land use because it would remove a barrier to additional growth within Hood. Growth inducement could still be a concern with Alternative D. Additionally, there is no clear site that would be ideal for placing the necessary treatment facilities required under this alternative. Locating facilities within the Hood Community could pose land use compatibility issues. Similarly, placing the facilities outside of the community could result in potential environmental impacts to surrounding agricultural and/or undeveloped land.

PUBLIC UTILITIES

Alternative D would likely have greater public utilities impacts than the proposed project due to construction and operation of a new treatment facility. Theoretically, the facility would be sized to service the existing community, so capacity constraints of a newly designed facility would not be a concern.

BIOLOGICAL RESOURCES

Alternative D would have greater impacts on biological resources as compared to the proposed project. Species impacts would be temporary and mitigation would be recommended to reduce potential impacts to species such as special status birds, giant garter snake and western pond turtle. Depending on the location of the permanent operational treatment facilities, this alternative could result in permanent, site specific, impacts to species and habitat, and/or require tree removal. In addition, a treatment outfall to the river would require extensive permitting considerations, as well as physical construction of facilities to transport treated wastewater to the Sacramento River, which would include additional mitigation to ensure that there are no adverse impacts to the Sacramento River or Delta system.

CULTURAL RESOURCES

Alternative D would have similar impacts to cultural resources as the proposed project. Similar to the proposed project, Alternative D would have the potential to uncover previously undiscovered cultural resources. While the project would not traverse a long force main alignment, it is expected that there would be additional ground disturbance required as a result of installing an on-site treatment facility. Mitigation proposed for the proposed project would likely be appropriate under this alternative.

AIR QUALITY

Alternative D would result in more air quality impacts than the proposed project. Under this scenario, construction and operational air quality impacts due to a new, stand-alone treatment facility, could be considerable as compared to tying into the existing system through a force main. Construction impacts associated with Alternative D would be greater than the proposed project due to a lengthier construction timeline and more intensive construction equipment that would be required.

CLIMATE CHANGE

Alternative D would result in more climate change/greenhouse impacts than the proposed project. Under this scenario, construction and operational greenhouse impacts due to a new, stand-alone treatment facility, could be considerable as compared to tying into the existing system through a force main. Construction impacts associated with Alternative D would be greater than the proposed project due to a lengthier construction timeline and more intensive construction equipment that would be required.

NOISE

Alternative D would result in additional noise impacts compared to the proposed project. There would be potential for short term, temporary noise impacts associated with construction and nighttime construction (if necessary). In addition, this alternative is likely to have operational noise associated with the new treatment facility. The extent and level of noise is unknown at this point, as well as if the noise level could be mitigated to level of less than significance.

TRIBAL CULTURAL RESOURCES

Alternative D would have similar impacts on tribal cultural resources as compared to the proposed project. Similar to the proposed project, Alternative D would have the potential to uncover previously undiscovered tribal cultural resources. While the project would not traverse a long force main alignment, it is expected that there would be additional ground disturbance required as a result of installing an on-site treatment facility. Mitigation proposed for the project would likely be appropriate under this alternative.

GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES

Alternative D would have similar impacts on geology and soils as compared to the proposed project due the same construction methods and applicability of existing rules and regulations. Similar to the proposed project, Alternative D would have the potential to uncover previously undiscovered paleontological resources. Mitigation proposed with the proposed project would also be appropriate for Alternative D.

HYDROLOGY AND WATER QUALITY

Alternative D would result in similar impacts to hydrology and water quality as compared to the proposed project. The same rules and regulations that ensure impacts to hydrology and water quality remain less than significant for the proposed project would be applicable to Alternative D. Additional permitting would also be required in order to ensure there are no water quality standards that would be violated through discharge of treated wastewater to the Sacramento River.

HAZARDS AND WILDFIRE

Alternative D would not result in similar or slightly increased impacts related to hazards and wildfire as the proposed project. The rules, regulations and mitigation proposed for the project would be applicable to Alternative D. Alternative D would not require the same road closures as the project, due to construction being limited to the boundaries of the

Hood community. However, operation of a stand-alone facility introduces the potential to operational impacts, utilization or upset of substances necessary to run an onsite treatment facility.

15.5 SUMMARY OF COMPARISON OF ALTERNATIVES

For comparison purposes, Table ALT-1 provides the impacts of the proposed project and Alternatives A-D.

- LS Indicates the project's impact is Less than Significant
- PS Indicates the project's impact is Potentially Significant
- S Indicates the project's impact is Significant
- Greater: Indicates the impact is greater than the proposed project.

Table ALT-1: Alternatives Summary Matrix

Environmental Impact	Project	Alternative A: No Project	Alternative B: Alternative Alignment	Alternative C: Gravity Line	Alternative D: Onsite Treatment
Aesthetics	LS	LS	LS	LS	Greater
Land Use	SU	LS	SU	SU	SU
Public Utilities	LS	LS	LS	LS	Greater
Biological Resources	LS	Greater	Greater	Greater	Greater
Cultural Resources	LS	Greater	Greater	LS	LS
Air Quality	LS	LS	Greater	Greater	Greater
Climate Change	LS	LS	Greater	Greater	Greater
Noise	LS	LS	LS	LS	Greater
Tribal Cultural Resources	LS	Greater	Greater	LS	Greater
Hydrology and Water Quality	LS	Greater	LS	LS	LS
Hazards and Wildfire	LS	Greater	LS	LS	Greater

15.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines Section 15126.6(e)(2) provides that an environmentally superior alternative will be identified among the alternatives evaluated in an EIR. In addition, if the environmentally superior alternative is the No Project Alternative, the EIR will identify an environmentally superior alternative among the other alternatives.

Considering the range of alternatives, the environmentally superior alternative is the proposed project. The significant and unavoidable impact associated with the project is growth inducement. Based on the analysis in this chapter and the table above, all alternatives (besides the no project alternative) would still have the potential for growth inducement. In addition, all other alternatives would result in additional impacts beyond those of the proposed project in at least one or more topical areas. The no project alternative also results in additional environmental impacts because of the potential impacts related to the risk of failing and leaking septic systems.

LIST OF ACRONYMS

AAQS	Ambient Air Quality Standards
ACHP	Advisory Council on Historic Preservation
ADU	Accessory Dwelling Unit
amsl	Average Mean Sea Level
APN	Assessors Parcel Number
AP Zone Act	Alquist-Priolo Special Studies Zone Act
ARB	California Air Resources Board
ARFF	Airport Rescue and Fire Fighting
BCECP	Basic Construction Emission Control Practices
BMPs	Best Management Practices
CAAQS	California Ambient Air Quality Standard
CalEEMod	California Emissions Estimator Model
Cal EPA	California Environmental Protection Agency
CAP	Climate Action Plan
CARB	California Air Resources Board
CBC	California Uniform Building Code
CDMG	California Department of Mines and Geology
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CDFW	California Department of Fish and Wildlife
CFD	California Fire Code
CFR	Code of Federal Regulations
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	Carbon Monoxide
CRPR	California Rare Plant Rank
CWA	Clean Water Act
dB	Decibel
dBA	A-weighted decibels
DTSC	State Department of Toxic Substances Control
DWR	California Department of Water Resources
EIR	Environmental Impact Report
EMD	Sacramento County Environmental Management Department
EMFAC	Emissions Factor Model
EPA	Environmental Protection Agency
FEIR	Final Environmental Impact Report
FEMA	Federal Emergency Management Agency

FESA	Federal Endangered Species Act
FIRM	Federal Insurance Rate Map
FMP	Fish Management Plan
GHG	Greenhouse Gas
GPS	Global Positioning System
GSP	Groundwater Sustainability Plan
HDD	Horizontal Directional Drilling
HDPE	High-density Polyethylene
HWCA	Hazardous Waste Control Act
Hz	Hertz
LAFCo	Local Area Formation Commission
LAMP	Local Area Management Program
LOS	Level of Service
MBTA	Migratory Bird Treaty Act
MGD	Million Gallons per Day
MHI	Median Household Income
MLD	Most Likely Descendent
NAAQS	National Ambient Air Quality Standard
NAHC	Native American Heritage Commission
NCIC	North Central Information Center
NOx	Nitrogen Oxides
NHPA	National Historic Preservation Act
NOI	Notice of Intent
NOP	Notice of Preparation
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System Permit
OHP	Office of Historic Preservation
OPR	Office of Planning and Research
OWTS	Onsite Wastewater Treatment System
PER	Office of Planning and Environmental Review
PGM	Photochemical Grid Model
PM	Particulate Matter
PPV	Peak Particle Velocity
PRC	Public Resources Code
PUE	Public Utility Easement
Regional Water Board (RWQCB)	Central Valley Regional Water Quality Control Board
RMS	Root Mean Square
ROG	Reactive Organic Gasses
ROW	Right of way
SACOG	Sacramento Area Council of Governments
SASD	Sacramento Area Sewer District
SCC	Sacramento County Code

SCP	Scientific Collection Permit
SCWA	Sacramento County Water Agency
SAFCA	Sacramento Area Flood Control Agency
SRWTP	Sacramento Regional Wastewater Treatment Plant
SGMA	Sustainable Groundwater Management Act
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality District
SMUD	Sacramento Municipal Utility District
SNFA	Sacramento Federal Nonattainment Area
SOI	Sphere of Influence
SPCC	Spill Prevention and Countermeasure Plan
SRCSO	Sacramento Regional County Sanitation District
SSHCP	South Sacramento Habitat Conservation Plan
SWA	Solid Waste Authority
SWRCB	California State Water Resources Control Board
SWPPP	Stormwater Pollution Prevention Plan
TAC	Toxic Air Contaminants
TCL	Tribal Cultural Landscape
TCP	Traditional Cultural Property
TCR	Tribal Cultural Resource
TMDL	Total Maximum Daily Load
UBC	Federal Uniform Building Code
UDA	Urban Development Area
UPRR	Union Pacific Railroad
USB	Urban Services Boundary
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
Vdb	Vibration Decibels
VOC	Volatile Organic Gasses
WDID	Waste Dischargers Identification Number
WPT	Western Pond Turtle