INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

Routine Maintenance of Stream Channels and Drainage Facilities Project

March 2018

Lead Agency:

CITRUS HEIGHTS
CALIFORNIA

6360 Fountain Square Drive
Citrus Heights, CA 95621
Contact: Stuart Hodgkins
(916) 727- 4770

Prepared by:

Dokken Engineering
110 Blue Ravine Road, Suite 200
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NOTICE OF INTENT
TO ADOPT A MITIGATED NEGATIVE DECLARATION

for the

Routine Maintenance of Stream Channels and Drainage Facilities Project — City of Citrus Heights

Public Notice is hereby given that a Mitigated Negative Declaration (Environmental Report) is available for public review for the Routine Maintenance of Stream Channels and Drainage Facilities Project – City of Citrus Heights.

Project Location: The Proposed Project is located in the creeks, basins, waterways, and associated riparian corridors and floodplains of the City of Citrus Heights (City), Sacramento County, California.

Project Description: The Proposed Project consists of the engineering, regulatory compliance, operations and maintenance, and restoration of the City's storm drain system and natural creeks/channels and detention/water quality basins which convey and store stormwater. The completed project will provide routine maintenance of the natural and constructed water conveyance system throughout the City.

Document Review and Availability: The public review and comment period will extend for 30 days in accordance with California Environmental Quality Act (CEQA) Guidelines Section 15105 starting **March 16th, 2018 and ending April 20th, 2018**. The Initial Study/Mitigated Negative Declaration (IS/MND) is available for public review at the following locations:

City of Citrus Heights
6360 Fountain Square Drive
Citrus Heights, CA 95621
(8:00 A.M. to 5:00 P.M., Monday through Friday)

The IS/MND can also be viewed and/or downloaded at the City of Citrus Heights website via the following: http://www.citrusheights.net/documentcenter

What you should do:

- Please read this document.
- We'd like to hear what you think. If you have any comments about the proposed project, please send your written comments to the City by the deadline.
- Send comments via postal mail to:

  City of Citrus Heights
  ATTN: Stuart Hodgkins
  6360 Fountain Square Drive
  Citrus Heights, CA 95621

- Send comments via email to: shodgkins@citrusheights.net
- Be sure to send comments by the deadline: April 20th, 2018

What happens next:
After comments are received from the public and reviewing agencies, the City may: (1) give environmental approval to the proposed project, (2) do additional environmental studies, or (3) abandon the project. If the project is given environmental approval and funding is obtained, the City could implement all or part of the project. The Planning Commission will review and conduct a public hearing for the document on April 20th, 2018.

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MITIGATED NEGATIVE DECLARATION

PROJECT TITLE:	Routine Maintenance of Stream Channels and Drainage Facilities Project
PROJECT LOCATION:	Creeks, basins and waterways of the City of Citrus Heights, Sacramento County, California
DATE:	March 16th, 2018
PROJECT APPLICANT:	City of Citrus Heights
LEAD AGENCY:	City of Citrus Heights
CONTACT PERSON:	Stuart Hodgkins, Interim City Engineer: (916) 727-4770

PROJECT DESCRIPTION:

The Proposed Project consists of the engineering, regulatory compliance, operations and maintenance, and restoration of the City's storm drain system and natural creeks/channels, detention/water quality basins and associated riparian corridors and floodplains which convey and store stormwater. The completed project will provide routine maintenance of the natural and constructed storm drain system throughout the City.

DECLARATION

The City of Citrus Heights has determined that the above project will have no significant effect on the environment and is therefore exempt from the requirement of an Environmental Impact Report (EIR). The determination is based on the attached initial study and the following findings:

a) *The project will not degrade environmental quality, substantially reduce habitat, cause a wildlife population to drop below self-sustaining levels, reduce the number or restrict the range of special-status species, or eliminate important examples of California history or prehistory.*

b) *The project does not have the potential to achieve short-term, to the disadvantage of long-term, environmental goals.*

c) *The project will not have impacts that are individually limited, but cumulatively considerable.*

d) *The project will not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.*

e) *No substantial evidence exists that the project will have a negative or adverse effect on the environment.*

f) *The project incorporates all applicable mitigation measures identified in the Initial Study.*

g) *This Mitigated Negative Declaration reflects the independent judgment of the lead agency.*

Written comments shall be submitted no later than 5:00 p.m. April 20th, 2018. City Council determination on this Mitigated Negative Declaration is final.

Submit comments to:

City of Citrus Heights
ATTN: Stuart Hodgkin
Public Works and Engineering
6360 Fountain Square Drive
Citrus Heights, CA 95621

Posting Period:

March 16th, 2018 and ending April 20th, 2018.

Initial Study approved by:

Stuart Hodgkins, Interim City Engineer

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Initial Study/Mitigated Negative Declaration
Routine Maintenance of Stream Channels and Drainage Facilities Project

Lead Agency:

City of Citrus Heights
6360 Fountain Square Drive
Citrus Heights, CA 95621

Prepared by:

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March 2018

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1.0 INTRODUCTION

This project-level Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared for the City of Citrus Heights (City) Routine Maintenance of Stream Channels and Drainage Facilities Project (Project) to satisfy the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] 21000 *et seq.*) and State CEQA Guidelines (14 California Code of Regulations [CCR] 15000 *et seq.*). The City is the lead agency for this project under CEQA.

1.1 Initial Study Purpose

CEQA requires that all State and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. An Initial Study is a public document used by the decision-making lead agency to determine whether a project may have a significant impact on the environment. If it is determined that the Proposed Project may have a significant impact on the environment, but that these impacts would be reduced to a Less Than Significant Level through implementation of specific recommended mitigation measures, a Mitigated Negative Declaration shall be prepared.

This Initial Study has been prepared to identify and assess the anticipated environmental impacts of the Routine Maintenance of Stream Channels and Drainage Facilities Project and relies on site-specific studies to address in detail the effects or impacts associated with the Proposed Project.

This IS/MND is a public information document that describes the Proposed Project, existing environmental setting at the project site, and potential environmental impacts of construction and operation of the Proposed Project. It is intended to inform decision-makers of the Proposed Project's compliance with CEQA and the State CEQA Guidelines.

CEQA requires the Lead Agency to examine the effects of a project on the physical conditions that exist within the area that would be affected by the project. CEQA also requires a discussion of any inconsistency between the proposed project and applicable general plans and regional plans.

For the purposes of this document, the City of Citrus Heights General Plan EIR (2011) was referenced.

1.2 Review Process

This IS/MND will be circulated for a 30-day public review and comment period as required by CEQA. During the review period, written comments may be submitted to:

City of Citrus Heights
ATTN: Stuart Hodgkins
6360 Fountain Square Drive
Citrus Heights, CA 95621
shodgkins@citrusheights.net

2.0 PROJECT DESCRIPTION

The following sections provide background information on routine maintenance activities discussed in this document:

2.1 Project Location

Routine maintenance activities would take place within creeks, improved and unimproved drainage channels, detention basins and constructed water quality swales, associated riparian vegetation, and low floodplains throughout the City for a period of 12 years (Figure1 Project Vicinity, Figure 2 Project Location). The City's Routine Maintenance Agreement (RMA) would cover all areas of California Department of Fish and Wildlife (CDFW) jurisdiction within City limits. The following creeks (and drainages) are located within the City's existing boundaries and could require maintenance: Arcade Creek, Brook Tree Creek, Cripple Creek, Coyle Creek, Mariposa Creek, and San Juan Creek (Figure 3 Project Area). In addition, multiple unnamed drainage ditches, canals, drainage swales, detention basins and overland relief channels within the City limits would also undergo routine maintenance.

2.2 Project Setting

Natural communities found in the areas discussed in Section 2.1 include the following:

Barren/Developed

Barren/developed areas include buildings, parking lots, hardscape, concrete lining, rock slope protection, or other areas with little vegetative cover. These areas are defined by the absence of vegetation with less than 2% total vegetative cover by herbaceous growth and less than 10% cover by trees or shrubs.

Valley Foothill Riparian

The valley foothill riparian community is typified by a dense, deciduous, riparian forest, with a canopy often composed of cottonwoods (*Populus* sp.), valley oak, and California sycamore (*Platanus racemosa*), while the sub-canopy is often composed of box elder (*Acer negundo*), and Oregon ash (*Fraxinus latifolia*). The understory is shade tolerant and typically composed of wild grape (*Vitis californica*), California blackberry (*Rubus ursinus*), buttonbush (*Cephalanthus occidentalis*), elderberry (*Sambucus* sp.), poison oak (*Toxicodendron diversilobum*), wild rose (*Rosa* sp.) and willows (*Salix* sp.). This habitat is most commonly found along river/creek channels and flood plains with fine-textured alluvium where flooding occurs and is commonly found at elevations between sea level and 3,000 feet above mean sea level (Mayer and Laudenslayer 1988). This habitat type is found adjacent to creeks, channels and basins throughout the City.

Ruderal/Disturbed Annual Grassland

A portion of the City includes ruderal/disturbed annual grassland vegetation. Annual grassland is an herbaceous community dominated by non-native naturalized grasses with intermixed perennial and annual forbs. Previous disturbance and associated compaction of soils is greatest along localized anthropogenic activities associated within the immediate vicinity of local homes, roadways and other developments. Ruderal/disturbed annual grassland in the City includes but is not limited to, undeveloped slopes, fallow lots and narrow strips along existing roadways.

Mixed Oak Woodland

Mixed oak woodland typically is characterized by mixed hardwoods, conifers, and shrubs. Tree species associated with the habitat include blue oaks (*Quercus douglasii*), valley oaks (*Quercus lobata*), California buckeye (*Aesculus californica*), and interior live oaks (*Quercus wislizeni*), while the understory usually is comprised of patches of shrubs and annual grasses (Mayer and Laudenslayer 1988). Dominant plant species specific to mixed oak woodland within the City include blue oak, valley oak, interior live oak, California buckeye, and gray pine (*Pinus sabiniana*).

2.3 Project Description

The City of Citrus Heights proposes to enter into a 12-year (17-years with optional 5-year extension) Streambed Alteration Agreement with the California Department of Fish and Wildlife (CDFW) for the ongoing implementation of routine maintenance activities, capital improvement projects, erosion control projects and vegetation restoration activities along the 20 miles of creek channels, drainage facilities, and associated CDFW jurisdictional areas within the City. For the purposes of this RMA, the limits of CDFW jurisdiction was developed based on aerial photography and City Light Detection and Ranging (LiDAR) data and generally extends from the center of channel to the outer edge of riparian zones, wetland vegetation or low floodplains (whichever is larger). Jurisdictional areas included in the routine maintenance area are generally mapped with green, blue or purple shading in Figure 3 Project Area. In specific circumstances, the boundary of CDFW jurisdiction may differ from mapped limits. Exact limits of CDFW jurisdiction will be determined on a case by case basis in consultation with CDFW.

Routine Maintenance Tasks

Routine maintenance would primarily involve the use of various types of small equipment including pickup trucks, hand tools (e.g. chainsaws, string trimmers, loppers, shovels, rakes) and may occasionally require standard construction equipment, including, but not limited to: water trucks, concrete saws, backhoes, skip loaders, graders, and compactors. The City anticipates completing approximately 5 to 10 maintenance projects per year and 3 to 5 revegetation/restoration projects total over the 12-year life of the RMA. Depending on extent and location, any given maintenance project may take between 1 day and 3 months to complete. Exact methods, locations, and extent of maintenance activities would be submitted to CDFW for final approval through the Verification Request Form (VRF) process. Maintenance activities would include the following:

Channel Alignment Maintenance

At locations where City property and facilities are at risk, the City would maintain existing channel alignments to prevent creeks and drainages from altering course and threatening damage to public property or City facilities during large storm events. Activities may include the strategic addition of grouted or un-grouted rock slope protection along the outside edge of stream meanders and in other locations where hydraulic forces are concentrated. In non-urgent locations, the channel may be densely planted with native plants (i.e. willow sprigs) in order to stabilize banks and maintain the current creek alignment. Work may also entail removal of deposited sediment to prevent the bed of the channel from elevating or braiding. Maintaining existing channel alignments may be necessary to prevent channels from undermining and destabilizing bridges, public utilities, roadways, or paved trails.

Debris or Obstruction Removal

The City would remove debris, trash, transient camps, rubbish, beaver dams, flood-deposited woody and herbaceous vegetation, downed trees, dead trees which are in clear danger of falling in or across a channel, branches, and associated debris for the purpose of maintaining channel capacity, preventing pump damage, preventing erosion, or preventing damage to culverts or bridge structures. In particular, beaver dam removal is a frequent and important obstruction removal project for the City. Debris or obstruction removal will be necessary to maintain flood capacity and protect City properties adjacent to stream channels from flood damage. Debris or obstruction removal may be followed by re-vegetation efforts.

Removal or Replacement of Facilities

The City would remove or replace culverts, inlets, manholes, above ground utilities, or other facilities within areas of CDFW jurisdiction to maintain functionality of these utilities. Removal or replacement of facilities may require the trimming or removal of vegetation, displacement of sediments and/or placement of materials within creeks, channels and basins, man hole lining, flushing, vactoring (pneumatic cleaning with a vacuum truck), Closed Circuit Television inspections, horizontal directional drilling, jack & bore, electric pole removal/replacement, and open trenching.

Silt, Sand or Sediment Removal

The City would displace or remove (under dry conditions) silt, sand, gravel, or sediment in the immediate vicinity (i.e., within 100 feet) of natural or man-made structures and facilities, both lined and unlined, that could substantially obstruct water flow, reduce channel capacity, accelerate erosion, damage concrete box culverts, metal culverts, bridge structures or other facilities. Such structures or facilities could include outfalls, bridges, culverts, beaver dams, basins, and the invert of creeks and channels. Removal of silt, sand, or other sediments will be necessary to maintain channel or basin capacity and may be followed by re-vegetation efforts.

Vegetation Control in Channels

The City would cut, mow, disc, or bulldoze grasses, shrubs, and woody growth to maintain the designed capacity of floodways. However, the City anticipates vegetation control equipment to largely be comprised of chainsaws, other hand tools and herbicides, with the occasional use of a backhoe. The City would cut, or mow weeds, grasses, shrubs, and woody growth to the extent necessary to conduct safety inspections. The City would cut, trim, or remove the lower branches of large trees to facilitate site inspections and maintain channel capacity. The City would remove dead or dying trees at risk of falling across a channel and impairing channel capacity. New trees less than 4-inches DBH (diameter measured 4.5 feet above ground level) may be removed as necessary to maintain channel capacity.

When necessary, the City would remove non-native vegetation [e.g., arundo (*Arundo donax*) (a.k.a. "giant reed" or "false bamboo"), periwinkle (*Vinca major*), English ivy (*Hedera helix*), Algerian ivy (*Hedera caneriensis*), Himalayan blackberry (*Rubus discolor*), Chinese tallow (*Triadica sebifera*), red sesbania (*Sesbania punicea*), Spanish broom (*Spartium junceum*), scotch broom (*Cytisus scoparius*), tree-of-heaven (*Ailanthus altissima*), black locust (*Robinia pseudoacacia*), tree tobacco (*Nicotiana glauca*), castor bean (*Ricinus communis*), pampas grass (*Cortaderia selloana*), green fountain grass (*Pennisetum setaceum*), eucalyptus (Eucalyptus spp.), saltcedar (*Tamarix* spp.), Russian olive (*Elaeagnus angustifolia*), water hyacinth (*Eichhornia crassipes*), edible fig (*Ficus carica*)] to maintain channel capacity and improve native habitat. The City would not remove sensitive plant populations without CDFW approval and will not remove elderberry shrubs without consultation with USFWS.

Tree and Vegetation Control for Overhead Electric Infrastructure

The City would cut, trim and potentially remove trees and vegetation as necessary to maintain the safety clearance setbacks from overhead electric lines and related infrastructure. This work is typically conducted by tree trimming crews using bucket lift trucks, chain saws other hand tools and chippers.

Repair of Previous Erosion Control Work

The City would repair previous erosion control work, including, but not limited to, failed rock slope protection, sacked concrete, or gabion sections. Such work would not extend beyond 250 linear feet of the existing revetted area. In some areas these activities and other routine maintenance activities may require fill near outfalls, bridges, culverts, basins, and the invert of creeks and channels. Types of fill materials could include riprap, soil, gravel material, or aggregate base and would come from commercial sources in the local area. The City may also employ bioengineering methods where feasible to repair or enhance previously installed erosion control work. Materials would be placed with equipment such as an excavator, backhoe, dump truck, bobcat, skip loader, front loader or other small construction equipment. Exact methods, locations and volumes of erosion repair activities would be submitted to CDFW for final approval through the VRFs.

Water Diversions

To minimize sedimentary effects to the channels and waterways during other maintenance activities, temporary water diversions would be utilized as necessary to prevent surface water from entering maintenance work areas. Dewatering is anticipated to be necessary for work within the wetted channel of perennial stream channels during the summer low flow period. Diversion and dewatering plans specific to the individual routine maintenance activity would be submitted to CDFW for final approval through the VRFs.

Minor Erosion Control Work

The City would slope, place earthen fill, install grouted or un-grouted rock slope protection, install gabions, apply gunite, or take other necessary measures to control erosion on previously unrevetted areas. The City may use bioengineering methods where feasible to reduce creek bank erosion. Such work would not exceed 250 linear feet in length of the unrevetted area. Containment measures would be used to prevent deleterious material from entering state waters and avoid adverse impacts to fish and wildlife resources.

Bridge Washing, Graffiti Removal and Painting

Bridge washing, graffiti removal, and painting may be necessary to maintain the aesthetic quality of the City. Bridge washing will involve power washing the bridge to remove non-original materials such as dirt, spider webs and stains. Graffiti removal may involve power washing, applying chemical solvents, or rolling on paint over the graffiti. Bridge painting will involve power washing following by applying paint with either a roller or pneumatic spray gun. Containment measures, including drop cloths and spill response kits, would be used to prevent deleterious material from contaminating soil or surface waters and avoid adverse impacts to fish and wildlife resources.

Geotechnical Sampling and Subsurface Cultural Resource Sensitivity Testing

The City would obtain core samples and conduct other minor geotechnical and/or cultural resources investigations. Geotechnical investigations would involve a truck or track mounted drill rig and a crew of two or three drill operators and one geologist. The drill rig would be used to obtain 3 or 4 inch diameter core samples in order to determine the nature of underlying sediments and bedrock to a depth determined by the onsite geologist during drilling (typically 20-80 feet). After drilling is complete, the hole will be filled with either bentonite clay (weathered volcanic ash) or mortar (low aggregate concrete) to prevent groundwater contamination.

Positioning of the drill rig may require vegetation trimming to access the site. Impacts associated with site access and vegetation trimming will be quantified and included in the VRF submitted for the work. Drill rigs would be positioned over secondary containment to prevent fuel or hydraulic leaks from contaminating soils. Secondary containment will consist of visqueen or similar plastic sheeting. The edges of secondary containment will be elevated to prevent leaks from running off the plastic sheeting.

Cultural resource subsurface sensitivity investigations, commonly known as an “Extended Phase 1” (XPI), may be required to better determine a site’s cultural resource sensitivity. XPIs typically involve shovel probe excavation of approximately 0.50 by 0.50 meters to a depth of 10cm and/or use of hand held augers to access deeper (up to 9 meters) older soil horizons. After excavated materials are screened for potential artifacts, temporary test pits or auger holes are back filled and the surface restored.

Anticipated Fill Quantities Per Project

In some areas the maintenance activities listed above would require fill near outfalls, bridges, culverts, basins, and the invert of creeks and channels. Types of fill material are anticipated to include riprap, soil, gravel, or aggregate base all from commercial sources in the local area. Fill material would be placed by excavator, backhoe, dump truck, bobcat, skip loader, front loader or other small construction equipment. The following calculations are estimates intended to provide quantities of area and volume that would be placed over a 12-year period (17-years if extended) as shown in Table 1. Anticipated total area of fill is estimated to be approximately 142,500 Square Feet (3.27 acres) over the 12-year life of the RMA (201,800 square feet [4.63 acres] over 17 years if the RMA is extended). Anticipated total volume of fill is estimated to be approximately 17,200 Cubic Yards over the 12-year span of the RMA (24,400 cubic yards over 17 years if the RMA is extended) based on the number of projects specified per year.

Table 1: Summary of Fills		
Location of Fills	**Anticipated Fill over 12 years**	**Anticipated Fill If Extended to 17 years**
Outfall Fills	Area: 60,384 ft^2 Volume: 8,920.8 yd^3	Area: 85,544 ft^2 Volume: 12,638 yd^3
Bridge/Culvert Fills	Area: 61,200 ft^2 Volume: 6,768.8 yd^3	Area: 86,700 ft^2 Volume: 9,589.1 yd^3
Channel/Basin Fills	Area: 20,960 ft^2 Volume: 1,516 yd^3	Area: 29,693 ft^2 Volume: 2,147.7 yd^3
Approximate Total	Area: 142,500 ft^2 Volume: 17,200 yd^3	Area: 201,800 ft^2 Volume: 24,400 yd^3

Table 1.1 below provides an estimate of the number of fill projects that will be completed in an average year and provides an estimate of typical dimensions for fill projects. The number of projects anticipated to be completed annually was generated based on previous years of maintenance within the City. If extreme weather events occur, the anticipated number of projects per year may be exceeded but will not exceed triple the number of projects listed below. Final quantities for routine maintenance activities would be submitted to CDFW through the VRFs:

Table 2.1: Estimated Fill Project Dimensions				
	Projects to be Completed	**Individual Project Dimensions**		
		Surface Area	**Fill Depth**	**Fill Volume**
Outfall Fills				
Typical Small Project	2 per Year	16 ft^2	2 ft	1.2 yd^3
Typical Large Project	1 per Year	5,000 ft^2	4 ft	741 yd^3
Bridge/Culvert Fills				
Typical Small Project	1 per Year	100 ft^2	2 ft	7.4 yd^3
Typical Large Project	1 per 3-Years	15,000 ft^2	3 ft	1,670 yd^3
Channel/Basin Fills				
Typical Small Project	2 per Year	40 ft^2	2 ft	3.0 yd^3
Typical Large Project	1 per 3-Years	5,000 ft^2	2 ft	370 yd^3

Anticipated Sediment Removal Quantities Per Project

Routine maintenance activities would also require displacement (under dry conditions) and removal of silt and/or organic matter near outfalls, bridges, culverts, beaver dams, basins, and the invert of creeks and channels. Excavation would generally be by small excavator, back hoe or hand tools. The following quantities are estimates of sediment removal over a 12-year period (17 years if extended) and include approximate quantities of area and volume for typical small and large occurrences. Anticipated total area of sediment removal is estimated to be approximately 348,100 square feet (8 acres) over the 12-year life of the RMA (493,100 square feet [11.32 acres] over 17 years if the RMA is extended) as shown in Table 2. Anticipated total volume of sediment removal is estimated to be approximately 49,400 cubic yards over the 12-year span of the RMA (70,000 cubic yards over 17 years if the RMA is extended). The number of projects anticipated to be completed annually was generated based on previous years of maintenance within the City. If extreme weather events occur, the anticipated number of projects per year may be exceeded but will not exceed triple the number of projects listed below. Final quantities for routine maintenance activities would be submitted to CDFW through the VRFs:

Table 3: Summary of Sediment Removal		
Location of Sediment Removal	**Anticipated Sediment Removal over 12 years**	**Anticipated Sediment Removal If Extended to 17 years**
Outfall Sediment Removal	Area: 32,880 ft^2 Volume: 4,551 yd^3	Area: 46,578 ft^2 Volume: 6,447.2 yd^3
Bridge/Culvert Sediment Removal	Area: 102,000 ft^2 Volume: 13,777.4 yd^3	Area: 144,500 ft^2 Volume: 19,518 yd^3
Beaver Dam Sediment Removal	Area: 12,288 ft^2 Volume: 1,358.6 yd^3	Area: 17,408 ft^2 Volume: 1,924.7 yd^3
Channel/Basin Sediment Removal	Area: 200,960 ft^2 Volume: 29,629.8 ft^2	Area: 284,693 ft^2 Volume: 42,050.35 yd^3
Approximate Total	Area: 348,100 ft^2 Volume: 49,400 yd^3	Area: 493,100 ft^2 Volume: 70,000 yd^3

Table 2.1 below provides an estimate of the number of sediment removal projects that will be completed in an average year and provides an estimate of typical dimensions for sediment removal projects. The number of projects anticipated to be completed annually was generated based on previous years of maintenance within the City. If extreme weather events occur, the anticipated number of projects per year may be exceeded but will not exceed triple the number of projects listed below. Final quantities for routine maintenance activities would be submitted to CDFW through the VRFs:

Table 4.1: Estimated Sediment Removal Project Dimensions				
	Projects to be Completed	**Individual Project Dimensions**		
		Surface Area	**Excavation Depth**	**Excavation Volume**
Outfall Sediment Removal				
Typical Small Project	15 per Year	16 ft^2	1 ft	0.6 yd^3
Typical Large Project	1 per 5-Years	12,500 ft^2	4 ft	1,852 yd^3
Bridge/Culvert Sediment Removal				
Typical Small Project	10 per Year	100 ft^2	1 ft	3.7 yd^3
Typical Large Project	1 per 5-Years	37,500 ft^2	4 ft	5,555.6 yd^3
Beaver Dam Sediment Removal				
Dam Removal Only	1 per Year	16 ft^2	3 ft	1.8 yd^3
Dam Removal + Small Excavation	1 per 5-Years	40 ft^2	1 ft	1.5 yd^3
Dam Removal + Large Excavation	1 per 5-Years	5,000 ft^2	3 ft	555.6 yd^3
Channel/Basin Sediment Removal				
Typical Small Channel Project	1 per Year	40 ft^2	1 ft	1.5 yd^3
Typical Large Channel Project	1 per 6-Years	37,500 ft^2	4 ft	5,555.6 yd^3
Typical Small Basin Project	1 per Year	40 ft^2	2 ft	2.9 yd^3
Typical Large Basin Project	1 per 6-Years	62,500 ft^2	4 ft	9,259.3 yd^3

Potential Mitigation Alternatives for Permanent Impacts

The following tasks may be implemented as compensatory mitigation for temporary or permanent impacts associated with routine maintenance tasks.

Adopt-a-Creek Program

The City would partner with nonprofits, businesses and residents to perform creek/drainage trash and invasive species removals and restoration activities through the City's Adopt-a-Creek program. Creek restoration activities may consist of trash abatement, invasive plant removal, and plantings of local native species to improve fish and wildlife habitat, protect water quality and stabilize bank erosion. Program activities may include group "volunteer cleanup/work days" or small scale individual restoration or enhancement projects (for example, "Eagle Scout" projects).

Creek Week Volunteer Creek Cleanup and Restoration

The City would coordinate and work with volunteers and non-profit groups annually during Creek Week to perform cleanup and restoration projects. Cleanup projects may include debris and garbage removal or invasive species removal. Restoration projects may include installing native plants, minor erosion repair, or maintenance of previous restoration areas (i.e. adding bark, repairing irrigation, repairing wildlife fencing).

Creek Restoration and Erosion Repair Projects

The City would restore locations with existing bank erosion or scour problems to improve riparian habitat value and water quality. Restoration activities would likely involve the following steps: removal of non-native vegetation; re-grading eroded, scoured, or undercut portions of the creek to more stable and natural topography; and bio-stabilization of the restoration area to prevent future erosion.

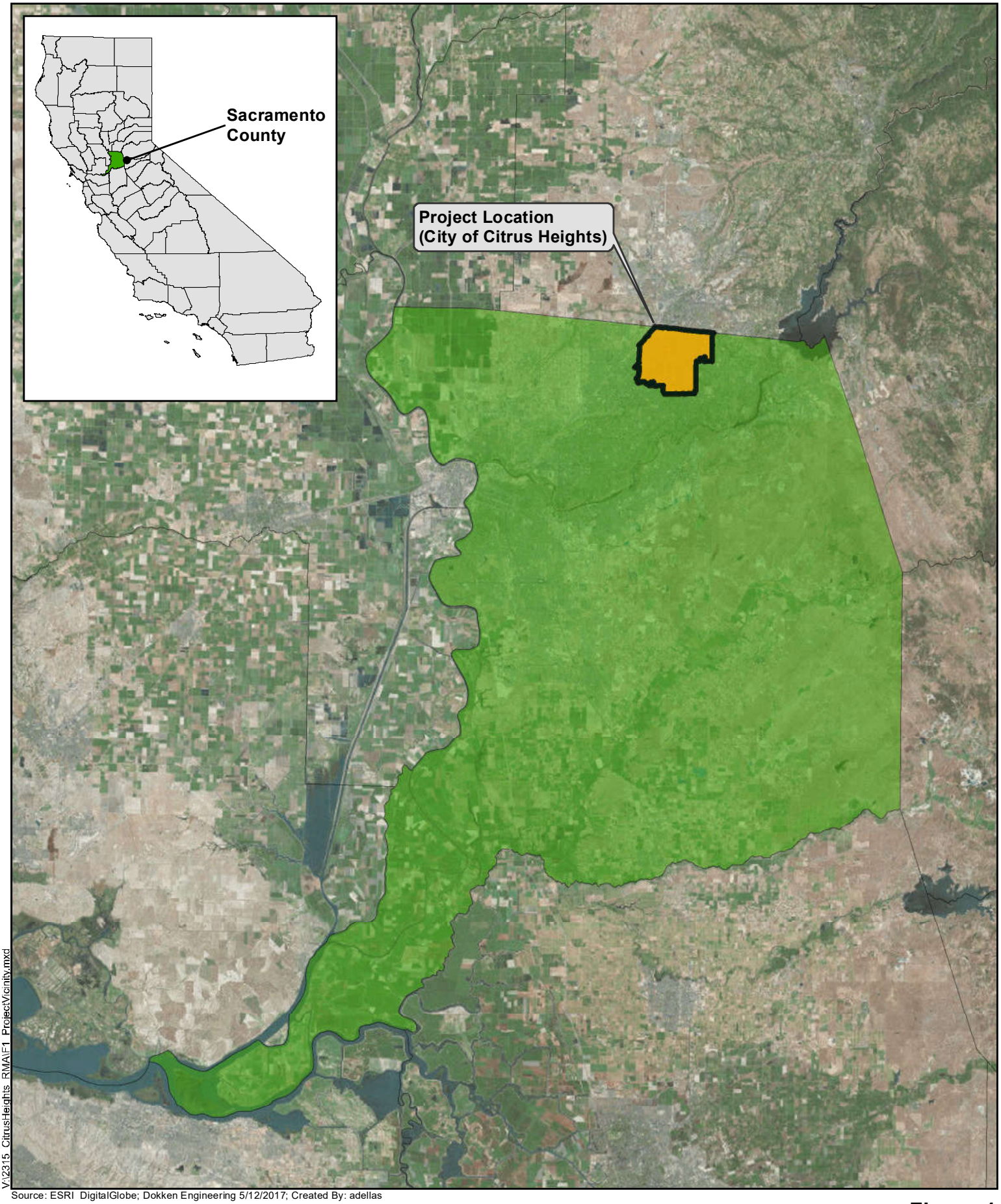
Bio-stabilization would involve installing biodegradable geotextile fabric (e.g. coconut coir erosion control blankets, fibers rolls) and native riparian vegetation to stabilize the restoration area and provide long term riparian habitat. Areas at or below the Ordinary High Water Mark (OHWM) may be stabilized with a combination of biodegradable geotextile fabric and fast growing native species which may include common buttonbush (*Cephalanthus occidentalis*), sandbar willow (*Salix exigua*), or native sedge (*Carex* sp.) and rush (*Juncus* sp.). Banks and floodplains would be planted with riparian trees and shrubs typical to the region and may include Fremont's cottonwood (*Populous fremontii),* California sycamore (*Platanus racemose*), white alder (*Alnus rhombifolia*), Goodding's black willow (*Salix gooddingii*), California buckeye (*Aesculus californica*), blue elderberry (*Sambucus mexicana*) or common buttonbush. Herbaceous understory species including California mugwort (*Artemisia douglasiana*), California blackberry, sedge, rush, or poison oak may be added to the restoration site above the OHWM either by installing plugs or broadcasting a seed mix.

Invasive Species Removal

The City would remove non-native vegetation (e.g., arundo, periwinkle, English ivy, Algerian ivy, Chinese tallow, red sesbania, Spanish broom, scotch broom, tree-of-heaven, black locust, tree tobacco, castor bean, pampas grass, green fountain grass, eucalyptus, saltcedar, Russian olive, water hyacinth, edible fig) and install native vegetation either by applying a native seed mix or installing container plants.

Conversion of Concrete-Lined Channels

Removal of concrete lining from channels will entail removing concrete lining, restoring the channel to natural, self-sustaining topography, and revegetating the banks with site appropriate native riparian vegetation. The City may undertake projects to convert existing concrete-lined channels to a more natural state to improve water quality, improve aesthetic values, or provide compensatory mitigation for permanent impacts associated with routine maintenance activities.

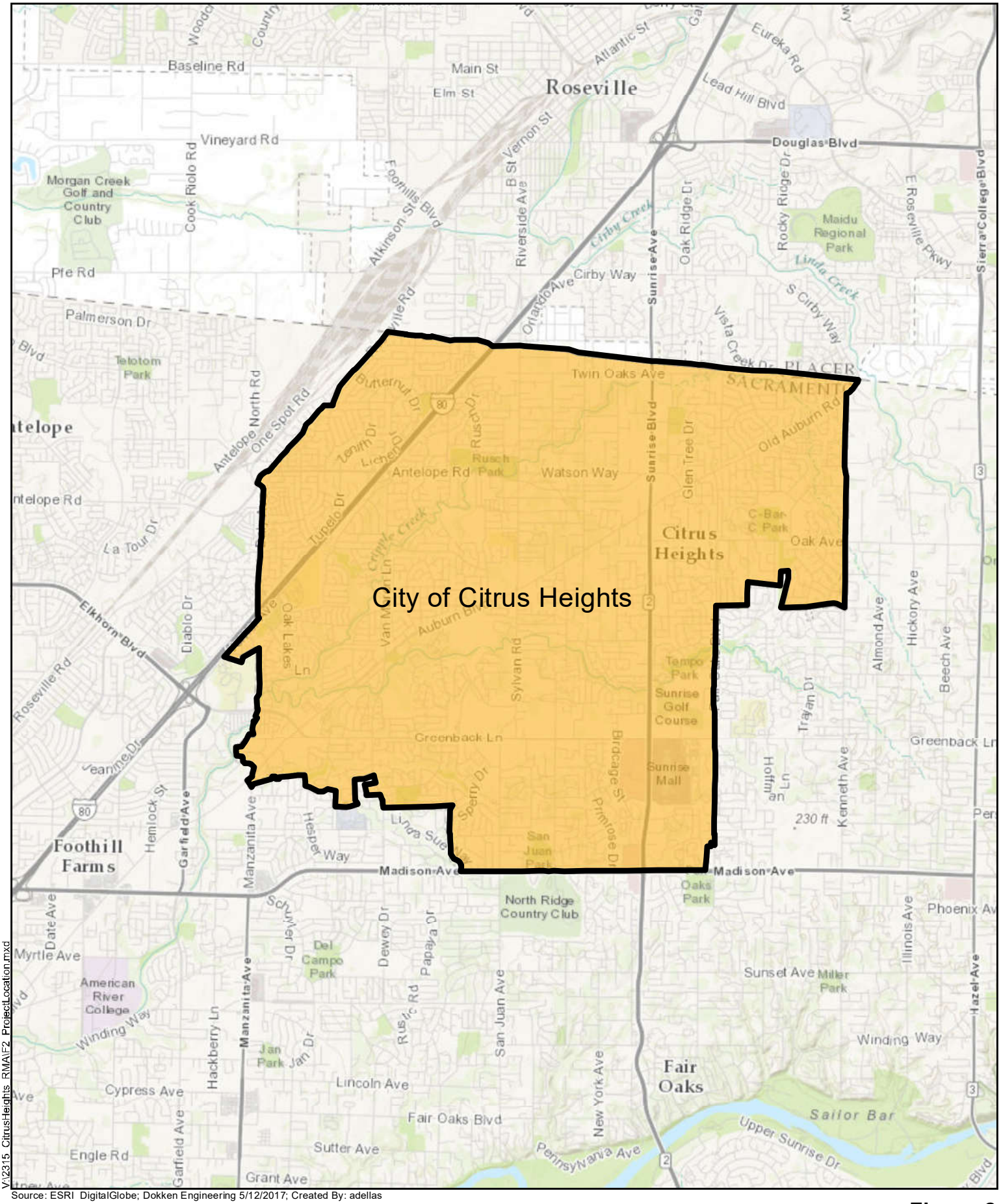


V:\2315 CitrusHeights RMA\F1 ProjectVicinity.mxd

Source: ESRI DigitalGlobe; Dokken Engineering 5/12/2017; Created By: adellas

0 10 20 Miles

Figure 1
Project Vicinity
Routine Maintenance of Stream Channels and Drainage Facilities
City of Roseville, Placer County

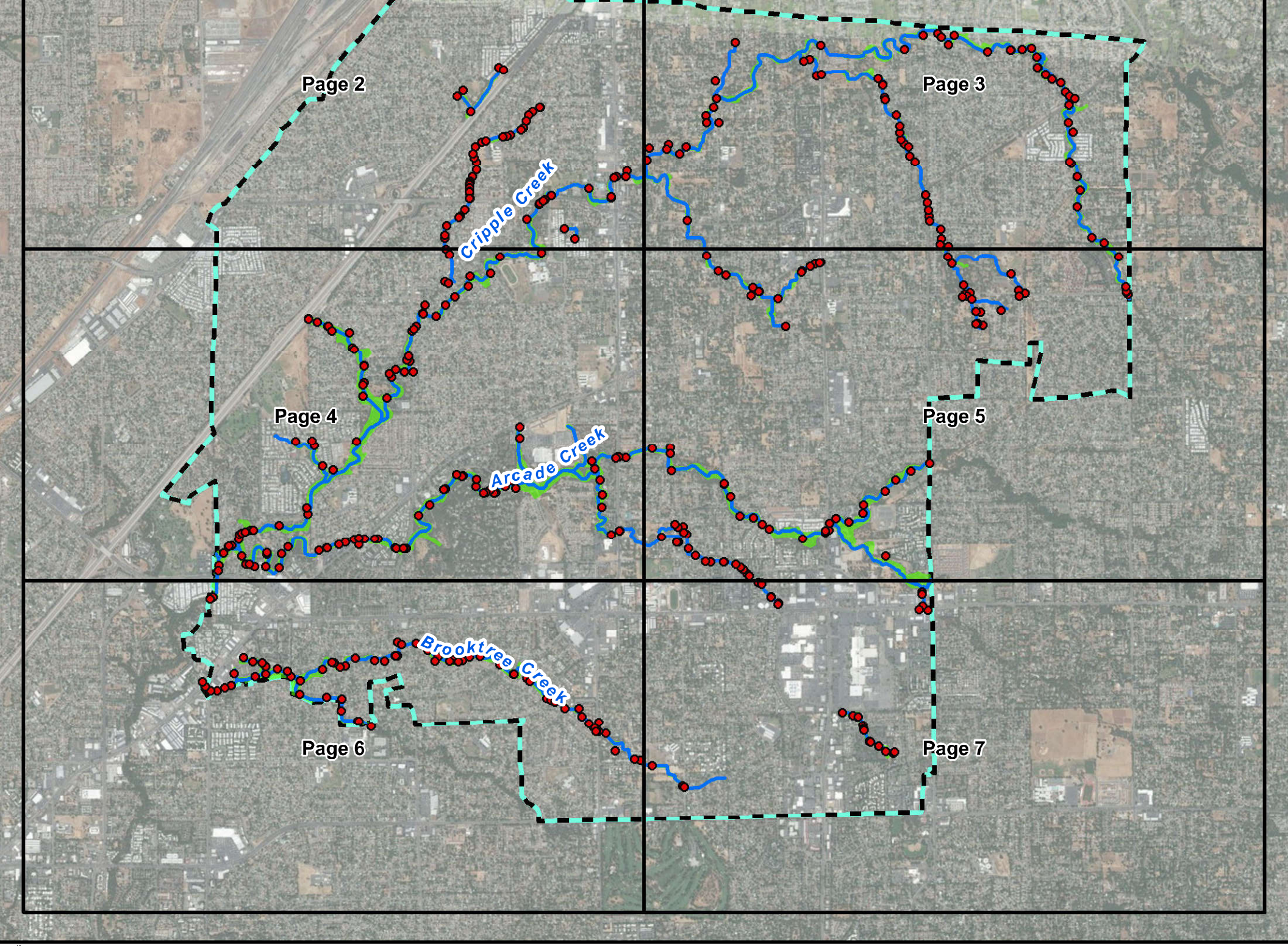


V:\2315 CitrusHeights RMA\F2 ProjectLocation.mxd

Source: ESRI DigitalGlobe; Dokken Engineering 5/12/2017; Created By: adellas

0 0.5 1 2 Miles

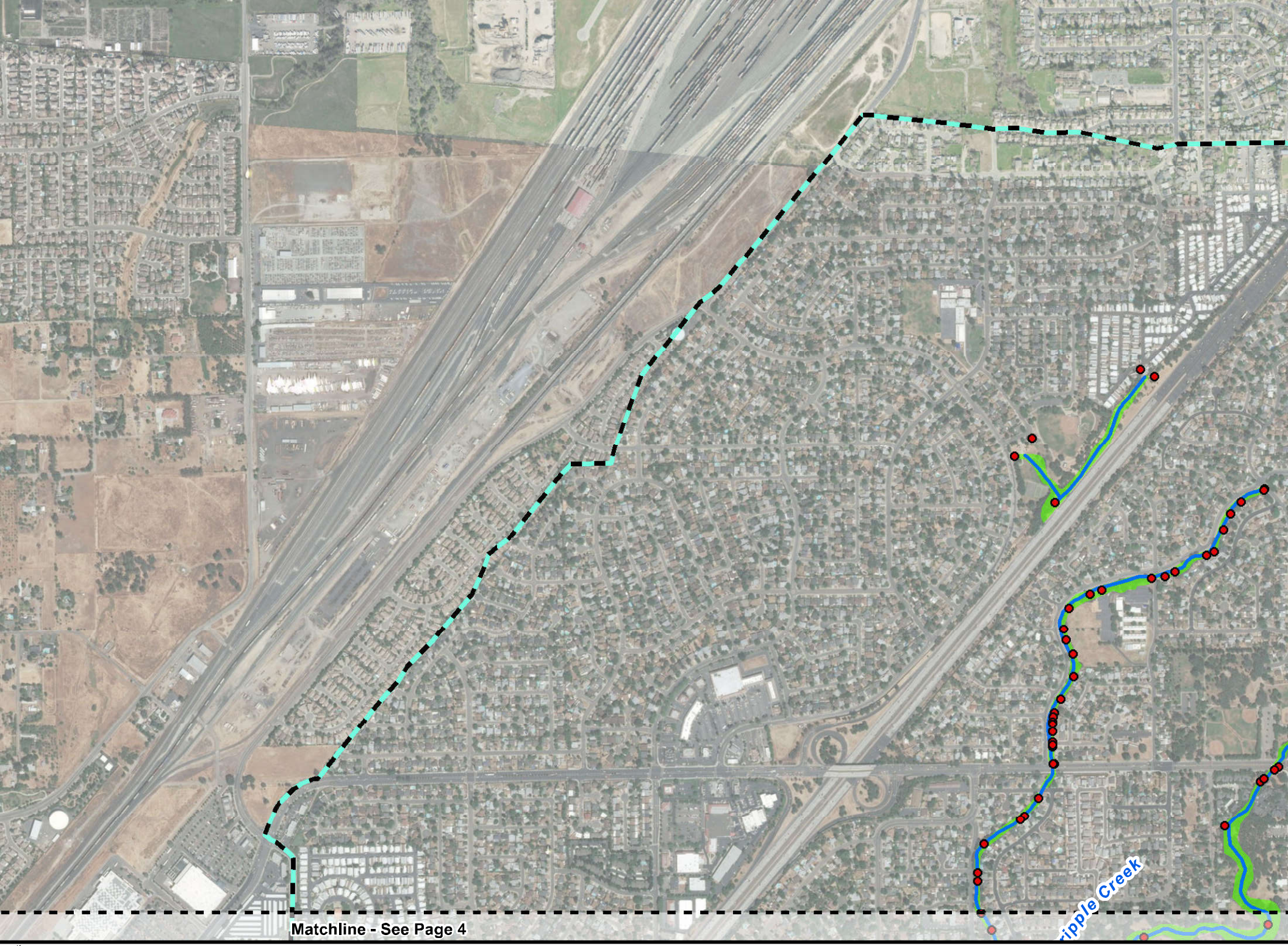
Figure 2
Project Location
Routine Maintenance of Stream Channels and Drainage Facilities
City of Roseville, Placer County



scotts

City Boundary

CDFW Jurisdiction



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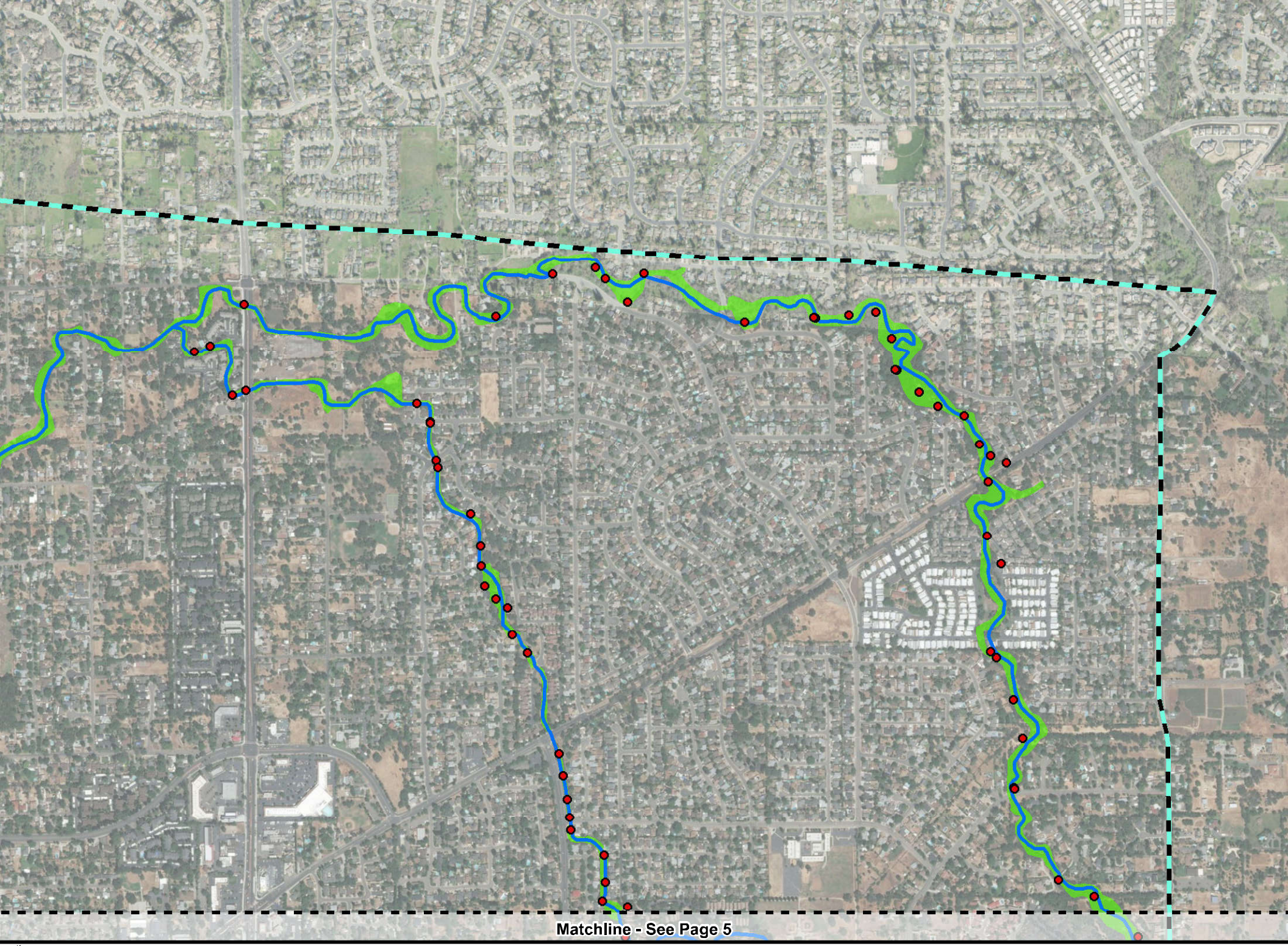
City Boundary

CDFW Jurisdiction



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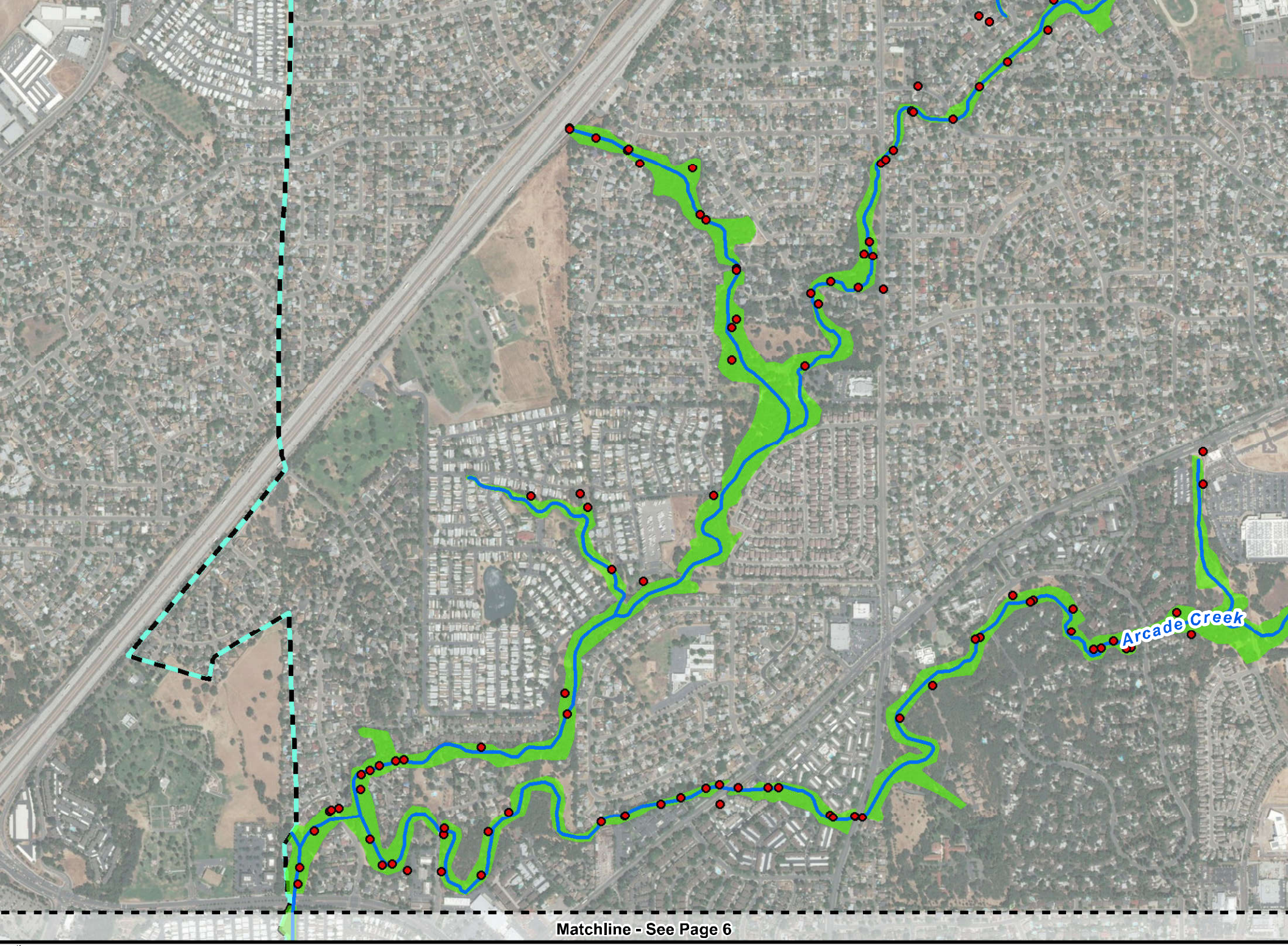
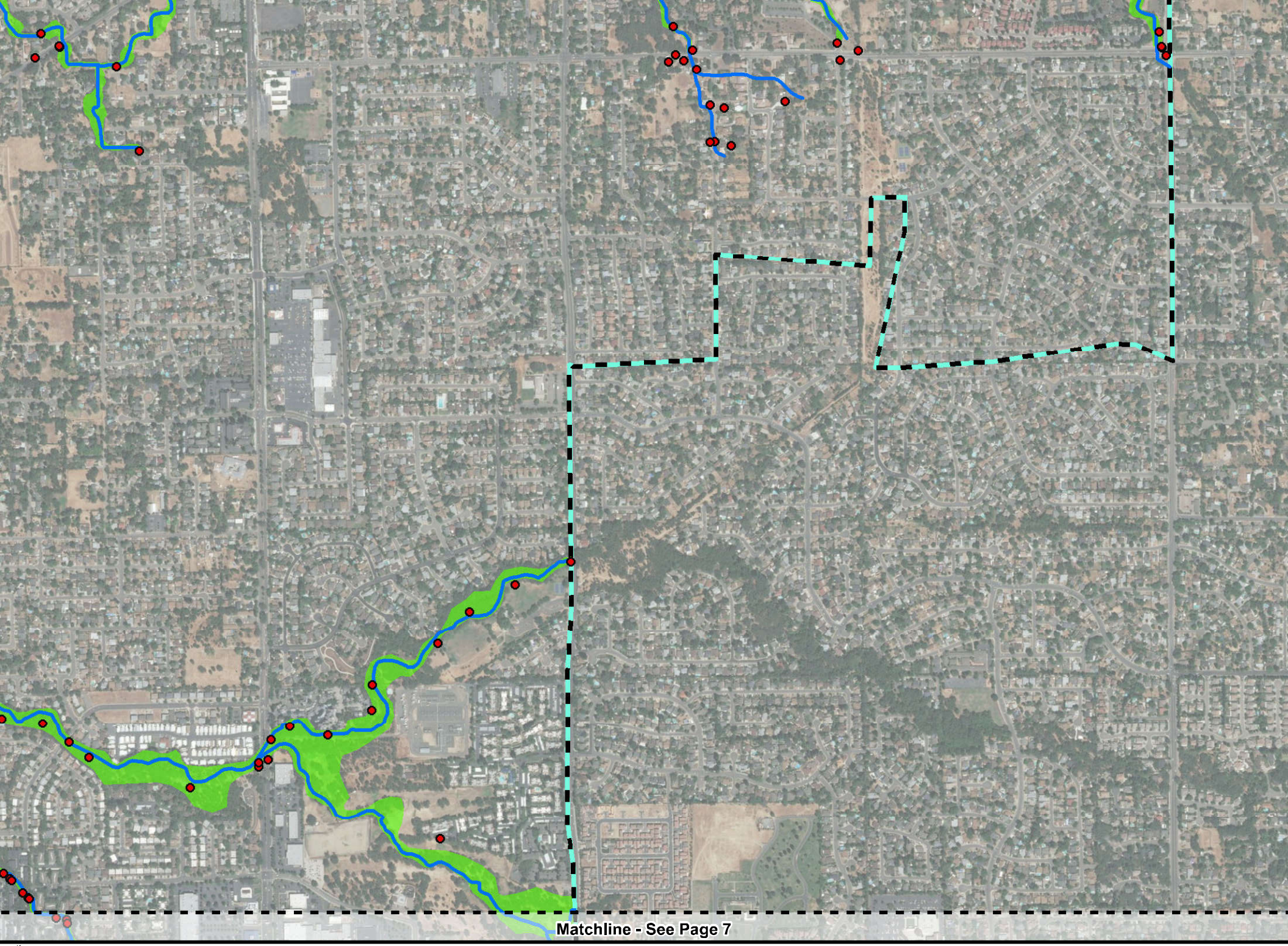


scotts

City Boundary

CDFW Jurisdiction



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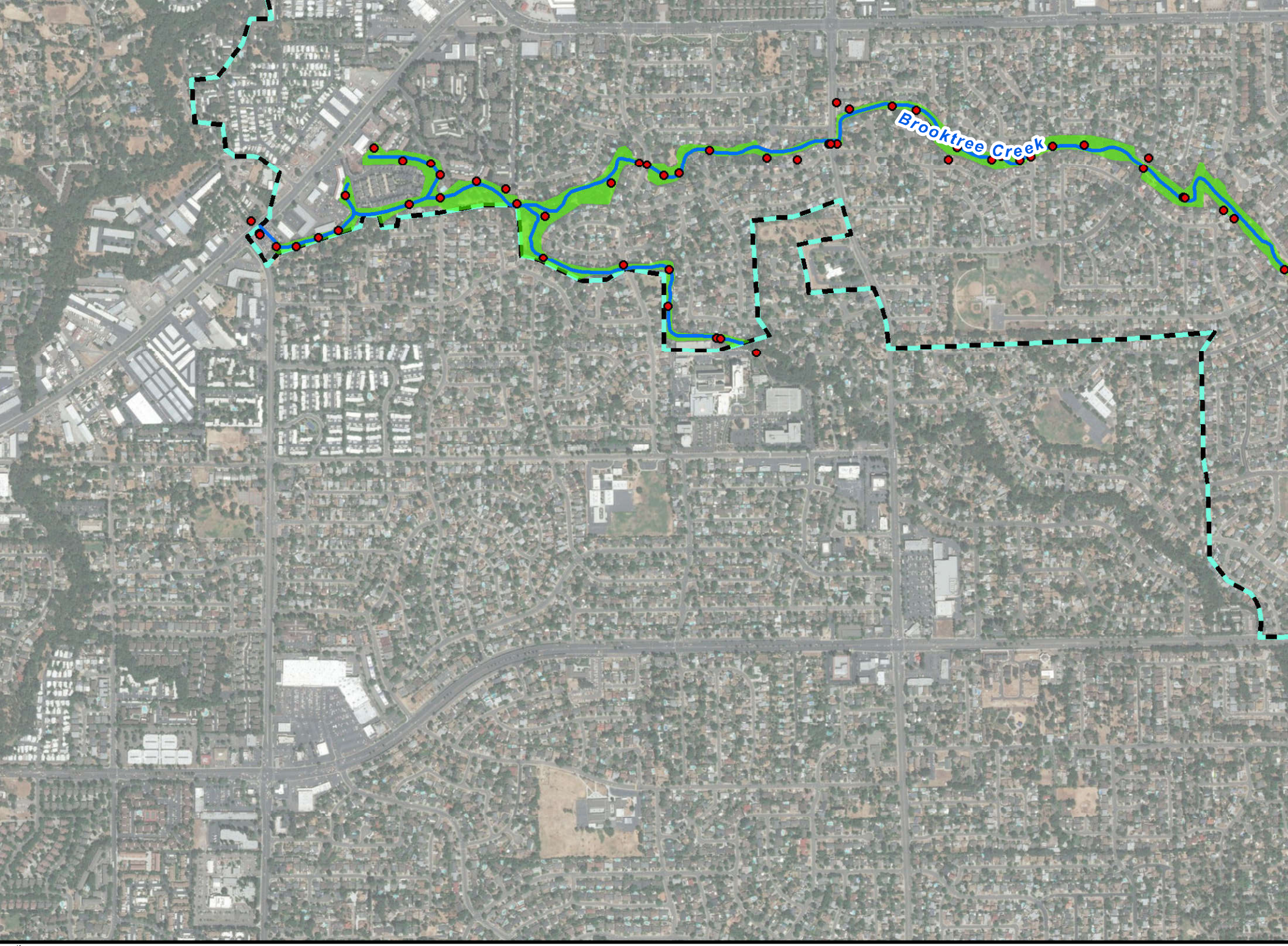

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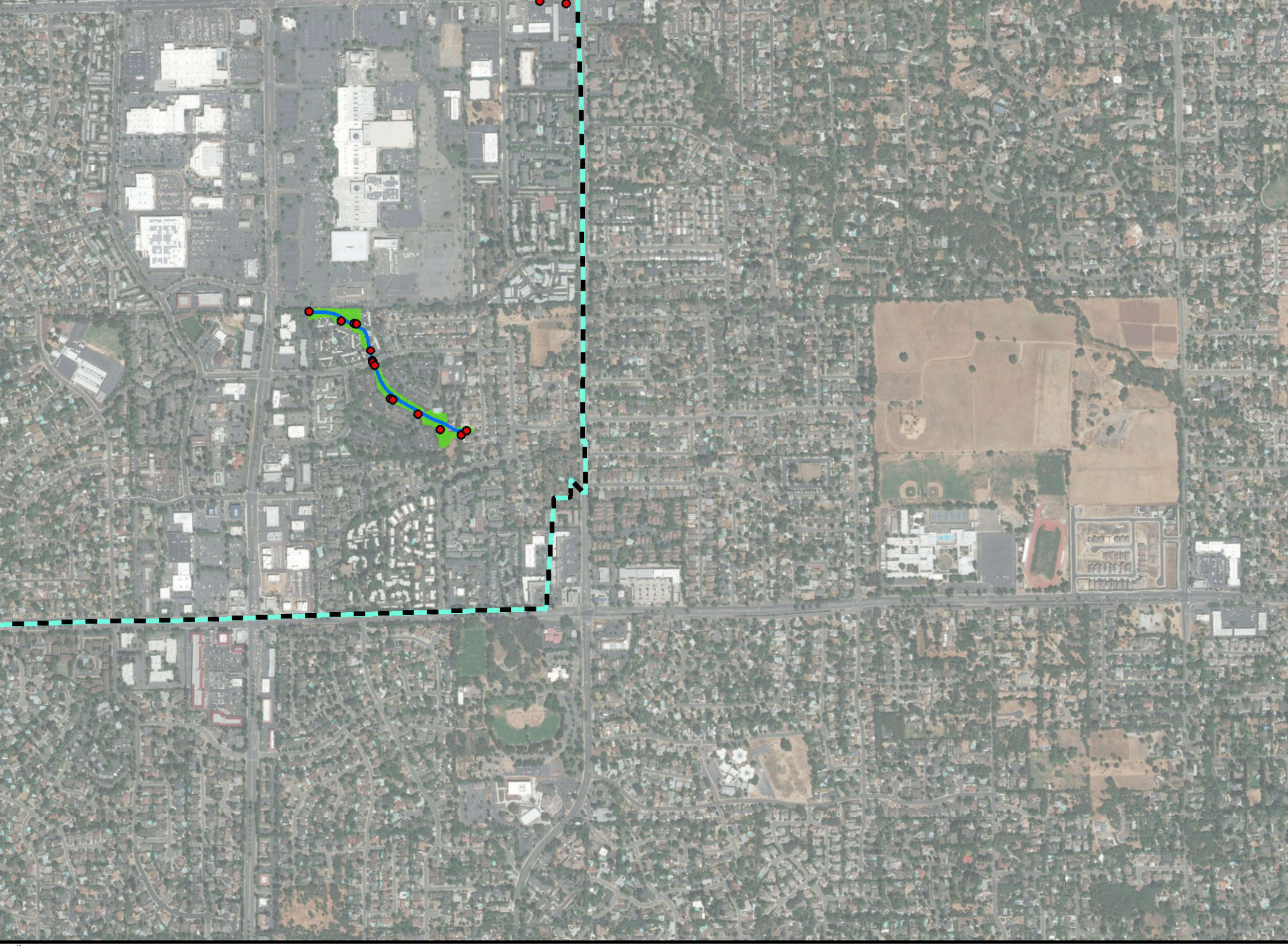
City Boundary

CDFW Jurisdiction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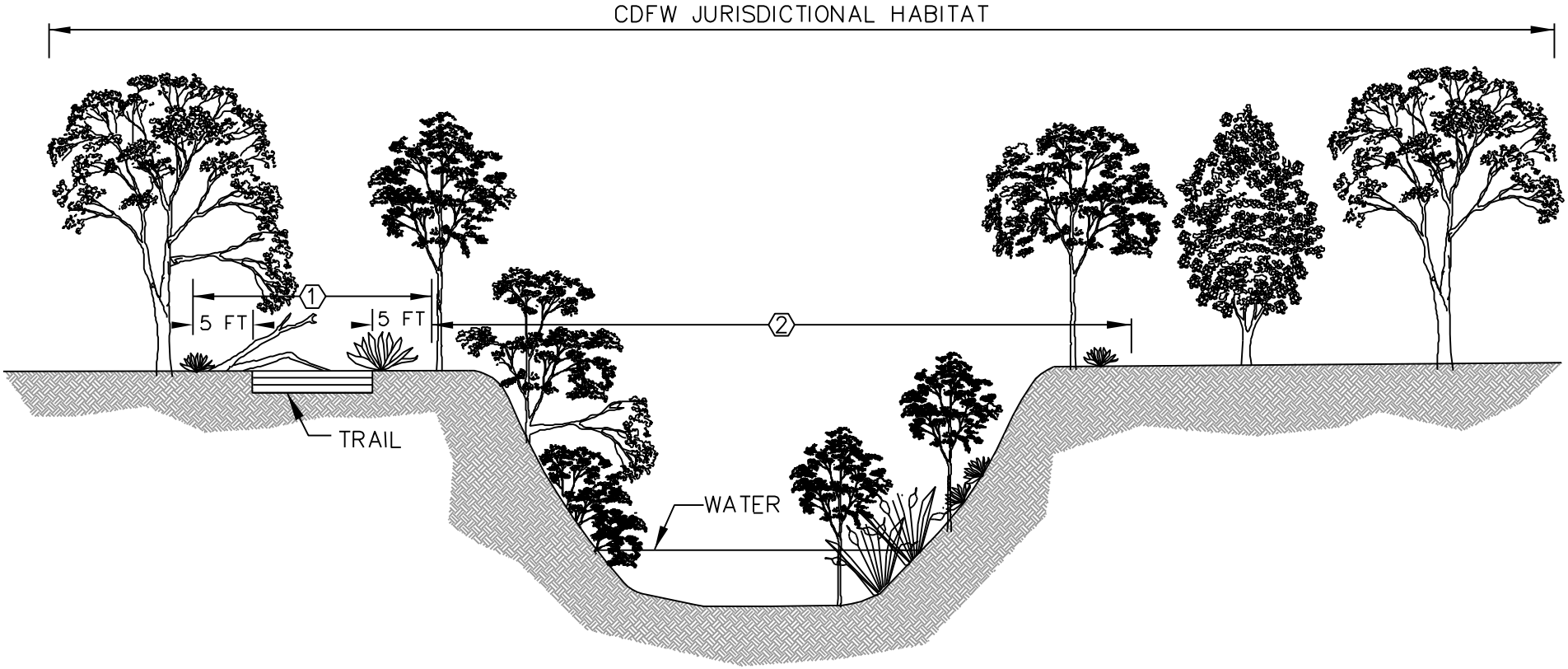
City Boundary
CDFW Jurisdiction



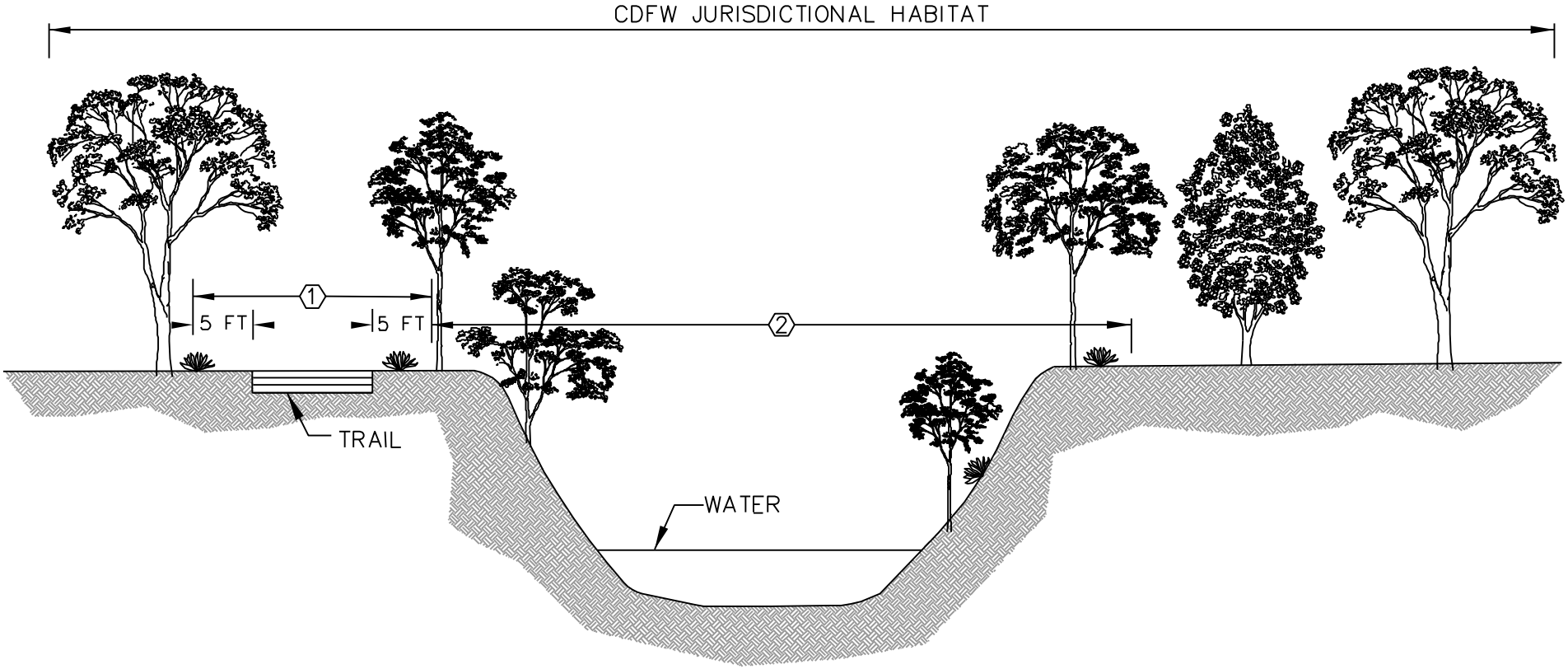
TYPICAL CHANNEL AND WATERWAY SECTION
NO SCALE

AREAS IMPACTED BY ACTIVITY:

⟨1⟩ TRAIL MAINTENANCE

⟨2⟩ VEGETATION CONTROL IN CHANNELS

FIGURE 4 - 1A
Typical Cross Sections
Pre-Trail Maintenance and Vegetation Control in Channels
Routine Maintenance of Stream Channels and Drainage Facilities
City of Citrus Heights, Sacramento County, California



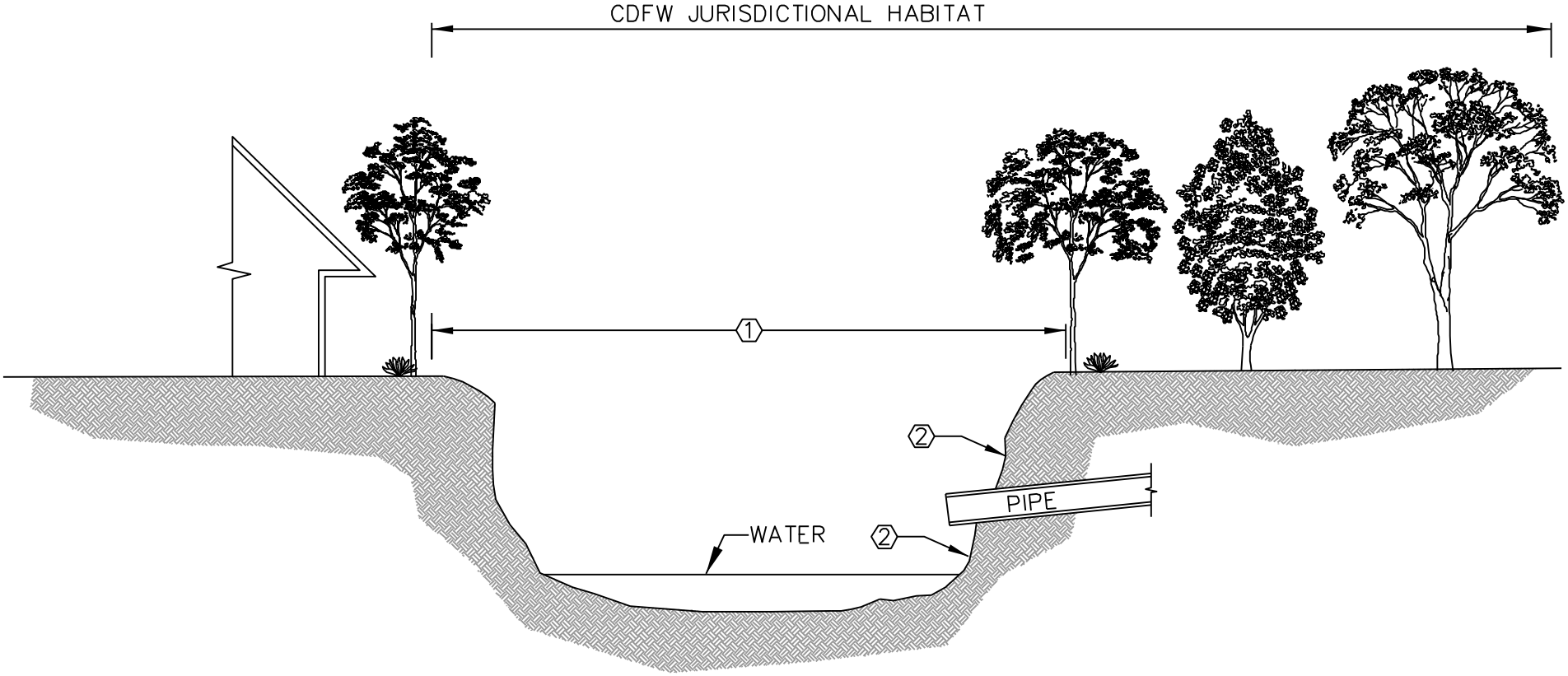
TYPICAL CHANNEL AND WATERWAY SECTION
NO SCALE

AREAS IMPACTED BY ACTIVITY:

1 TRAIL MAINTENANCE

2 VEGETATION CONTROL IN CHANNELS

FIGURE 4 - 1B
Typical Cross Sections
Post-Trail Maintenance and Vegetation Control in Channels
Routine Maintenance of Stream Channels and Drainage Facilities
City of Citrus Heights, Sacramento County, California



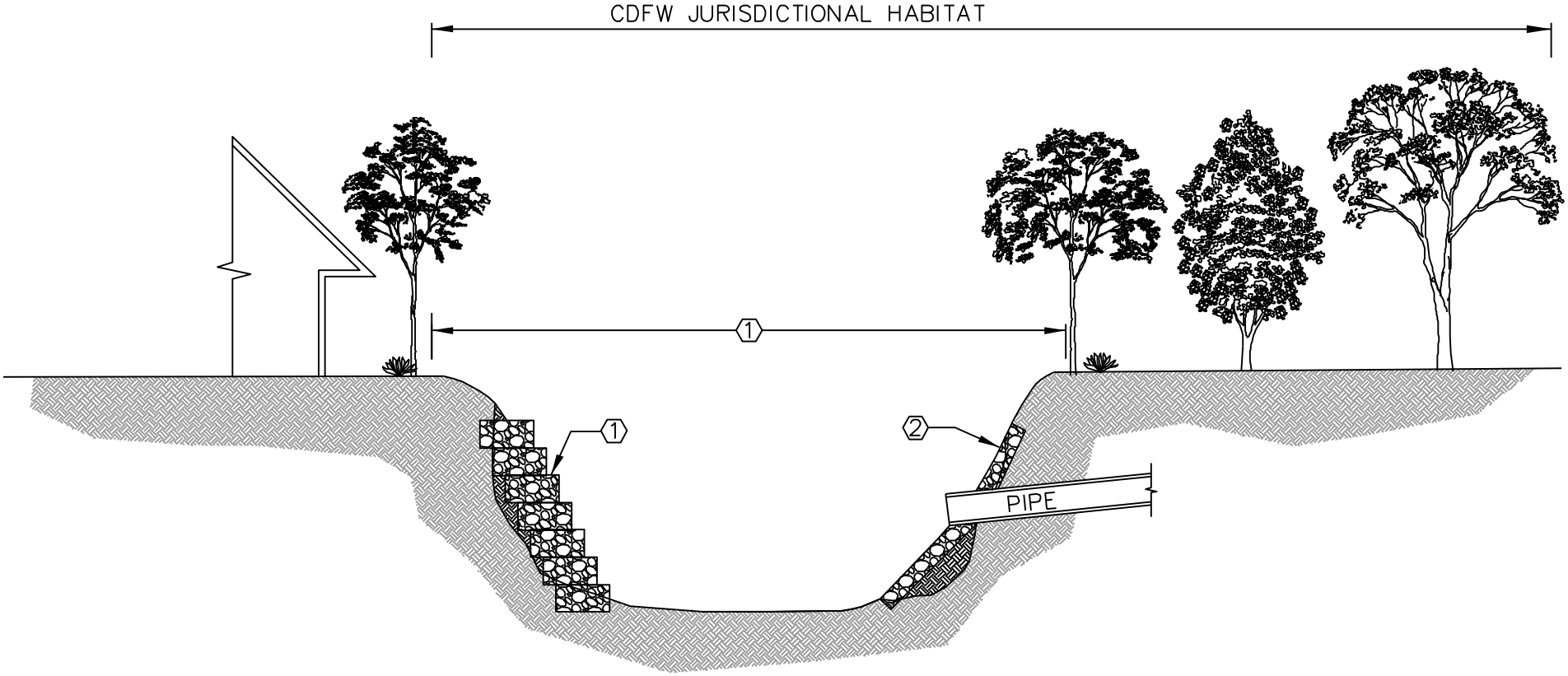
TYPICAL CHANNEL AND WATERWAY SECTION
NO SCALE

AREAS IMPACTED BY ACTIVITY:

1 CHANNEL ALIGNMENT MAINTENANCE

2 MINOR EROSION CONTROL WORK

FIGURE 4 - 2A
Typical Cross Sections
Pre-Channel Alignment Maintenance and Erosion Control
Routine Maintenance of Stream Channels and Drainage Facilities
City of Citrus Heights, Sacramento County, California



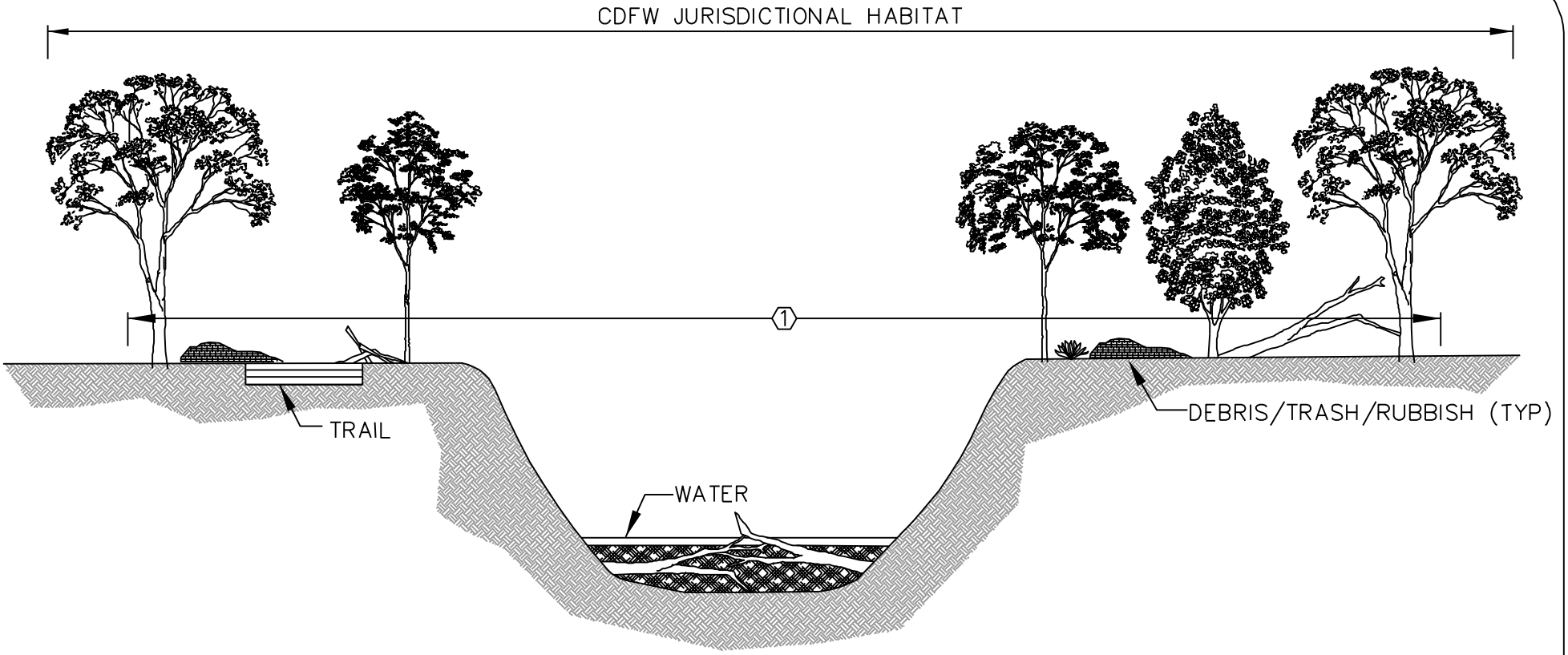
TYPICAL CHANNEL AND WATERWAY SECTION
NO SCALE

AREAS IMPACTED BY ACTIVITY:

1 CHANNEL ALIGNMENT MAINTENANCE

2 MINOR EROSION CONTROL WORK

FIGURE 4 - 2B
Typical Cross Sections
Post-Channel Alignment Maintenance and Erosion Control
Routine Maintenance of Stream Channels and Drainage Facilities
City of Citrus Heights, Sacramento County, California

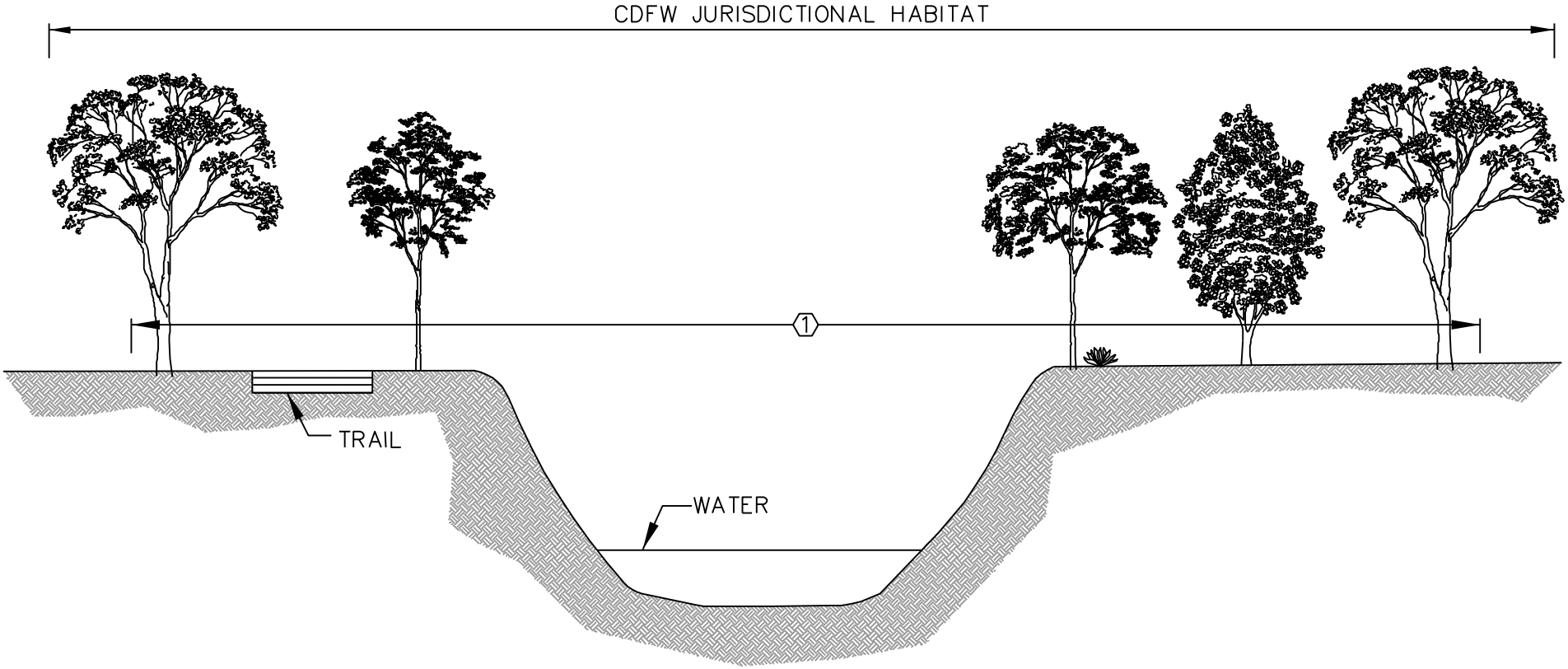


TYPICAL CHANNEL AND WATERWAY SECTION
NO SCALE

AREAS IMPACTED BY ACTIVITY:

1 DEBRIS OR OBSTRUCTION REMOVAL

FIGURE 4 - 3A
Typical Cross Sections
Pre-Debris and Obstruction Removal
Routine Maintenance of Stream Channels and Drainage Facilities
City of Citrus Heights, Sacramento County, California

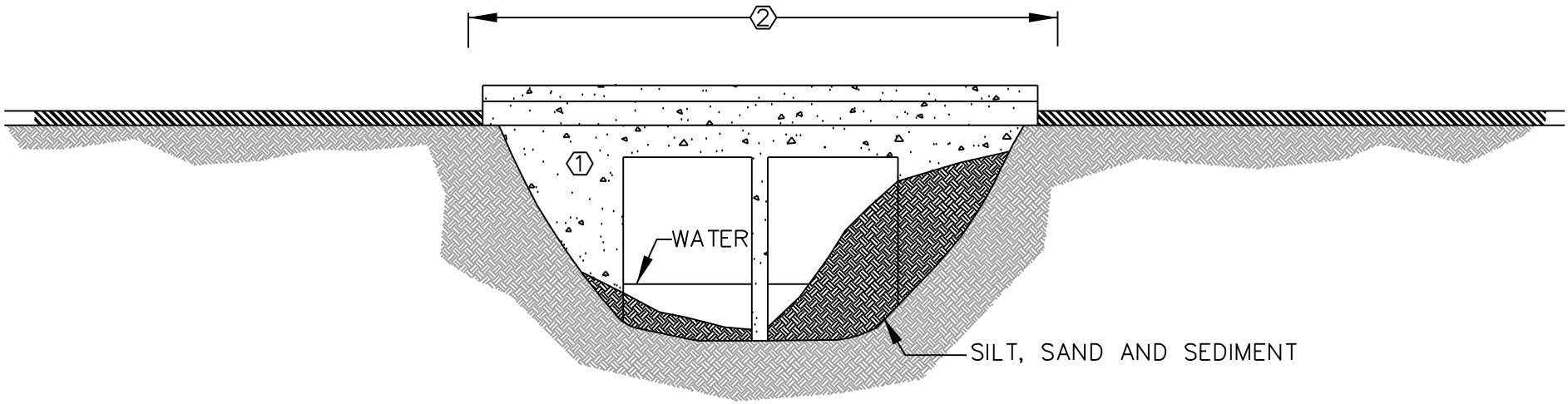


TYPICAL CHANNEL AND WATERWAY SECTION
NO SCALE

AREAS IMPACTED BY ACTIVITY:

1 DEBRIS OR OBSTRUCTION REMOVAL

FIGURE 4 - 3B
Typical Cross Sections
Post-Debris and Obstruction Removal
Routine Maintenance of Stream Channels and Drainage Facilities
City of Citrus Heights, Sacramento County, California



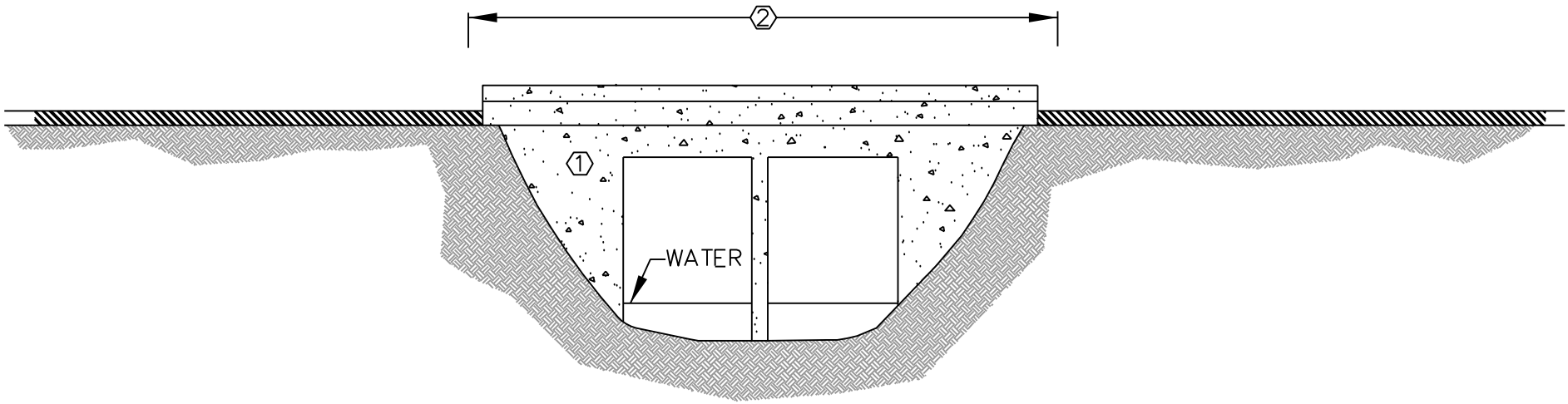
TYPICAL CHANNEL AND WATERWAY SECTION
NO SCALE

AREAS IMPACTED BY ACTIVITY:

1 BRIDGE WASHING AND PAINTING

2 SILT, SAND, OR SEDIMENT REMOVAL

FIGURE 4 - 4A
Typical Cross Sections
Pre-Bridge Washing & Painting, Silt, Sand or Sediment Removal
Routine Maintenance of Stream Channels and Drainage Facilities
City of Citrus Heights, Sacramento County, California



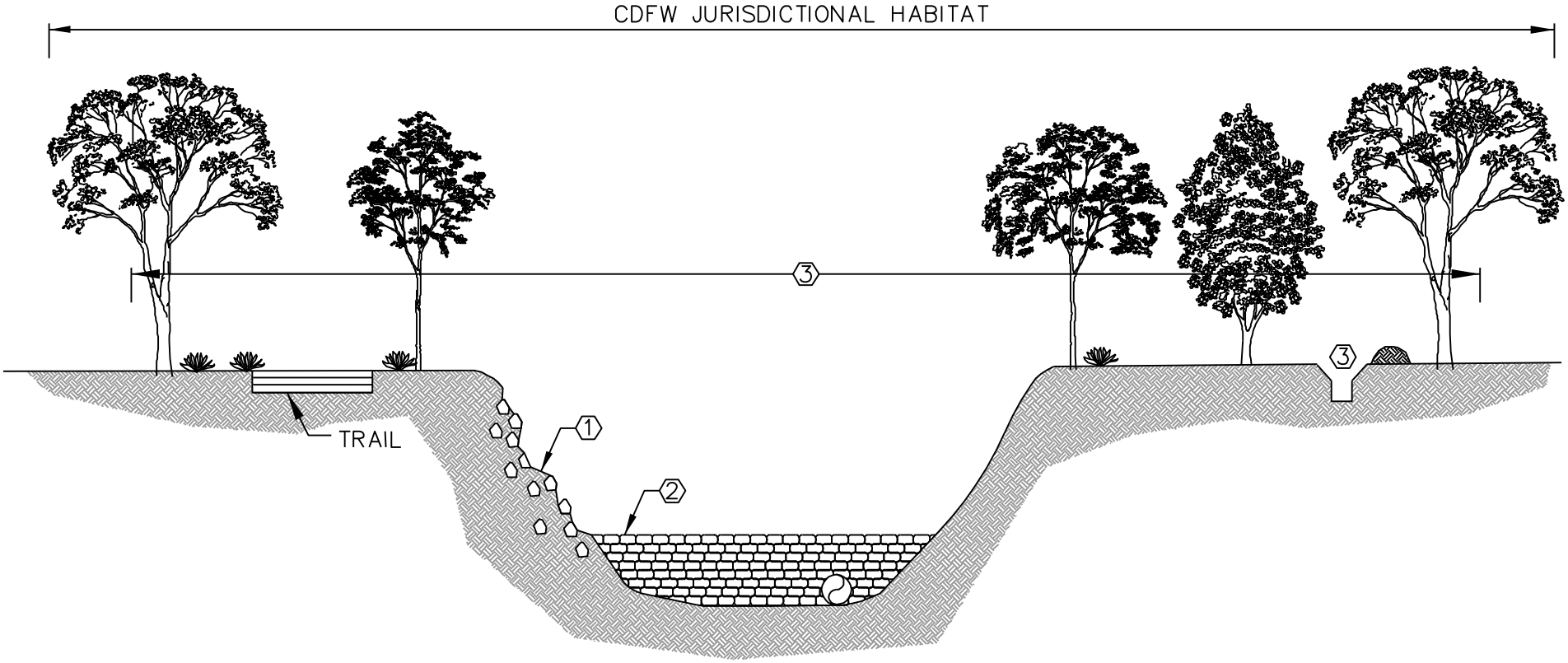
TYPICAL CHANNEL AND WATERWAY SECTION
NO SCALE

AREAS IMPACTED BY ACTIVITY:

1 BRIDGE WASHING AND PAINTING

2 SILT, SAND, OR SEDIMENT REMOVAL

FIGURE 4 - 4B
Typical Cross Sections
Post-Bridge Washing & Painting, Silt, Sand or Sediment Removal
Routine Maintenance of Stream Channels and Drainage Facilities
City of Citrus Heights, Sacramento County, California

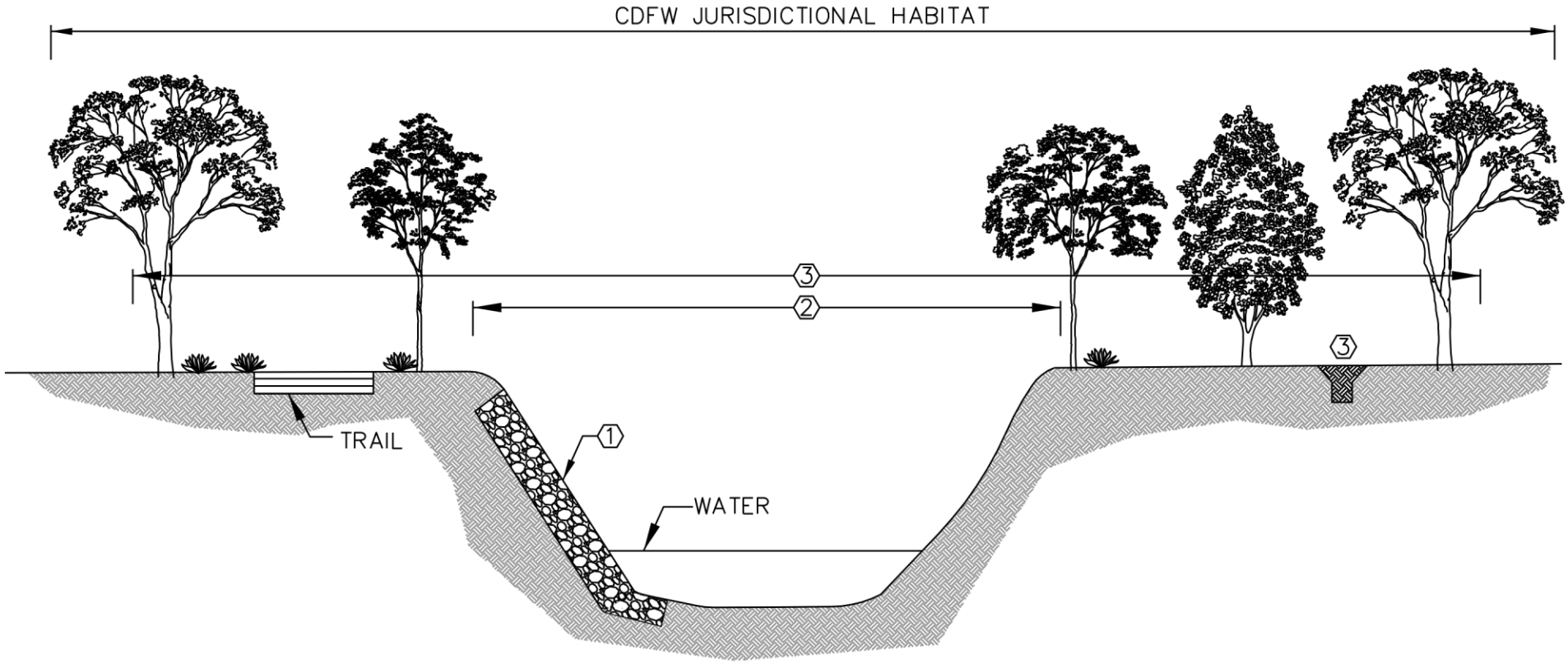


TYPICAL CHANNEL AND WATERWAY SECTION
NO SCALE

AREAS IMPACTED BY ACTIVITY:

1. REPAIR OF PREVIOUS EROSION CONTROL WORK
2. WATER DIVERSION
3. GEOTECHNICAL SAMPLING

FIGURE 4 - 5A
Typical Cross Sections
Pre-Repair of Previous Erosion Control Work, Water Diversion & Geotechnical Sampling
Routine Maintenance of Stream Channels and Drainage Facilities
City of Citrus Heights, Sacramento County, California

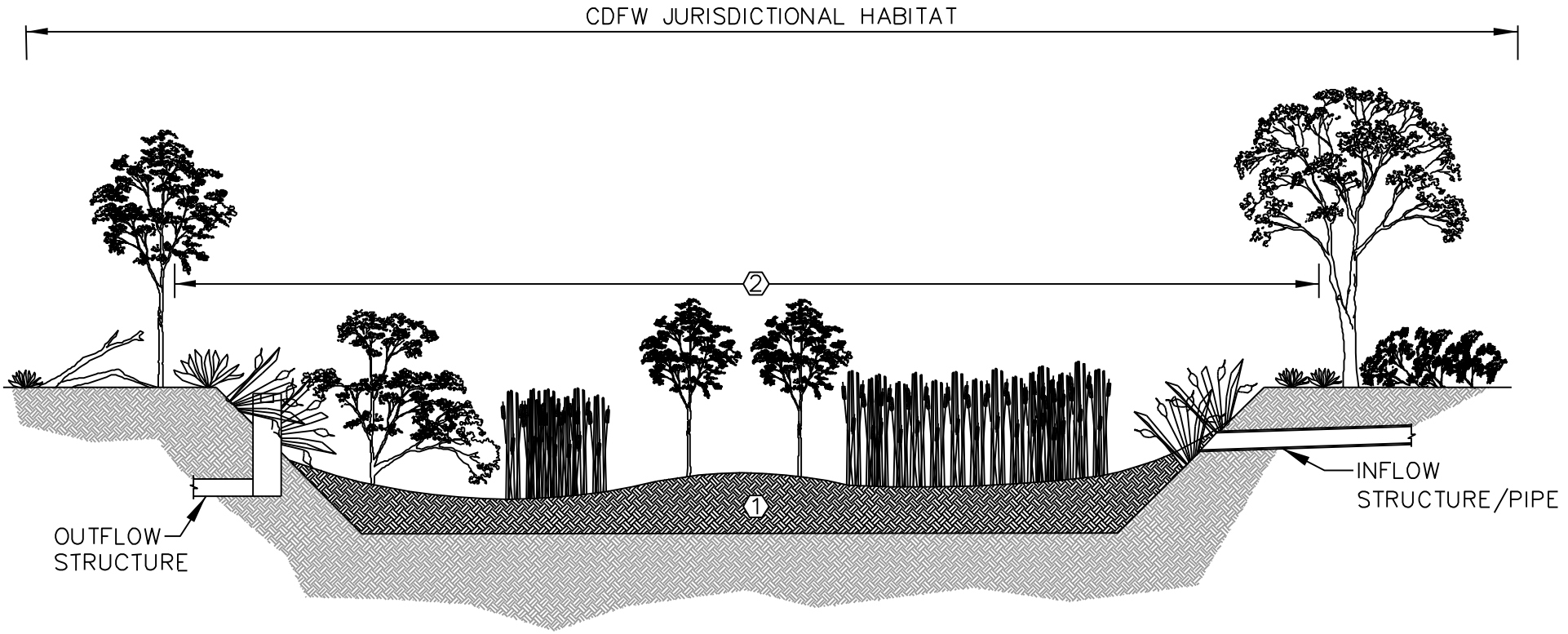


TYPICAL CHANNEL AND WATERWAY SECTION
NO SCALE

AREAS IMPACTED BY ACTIVITY:

1. REPAIR OF PREVIOUS EROSION CONTROL WORK
2. WATER DIVERSION
3. GEOTECHNICAL SAMPLING

FIGURE 4 - 5B
Typical Cross Sections
Post-Repair of Previous Erosion Control Work, Water Diversion & Geotechnical Sampling
Routine Maintenance of Stream Channels and Drainage Facilities
City of Citrus Heights, Sacramento County, California



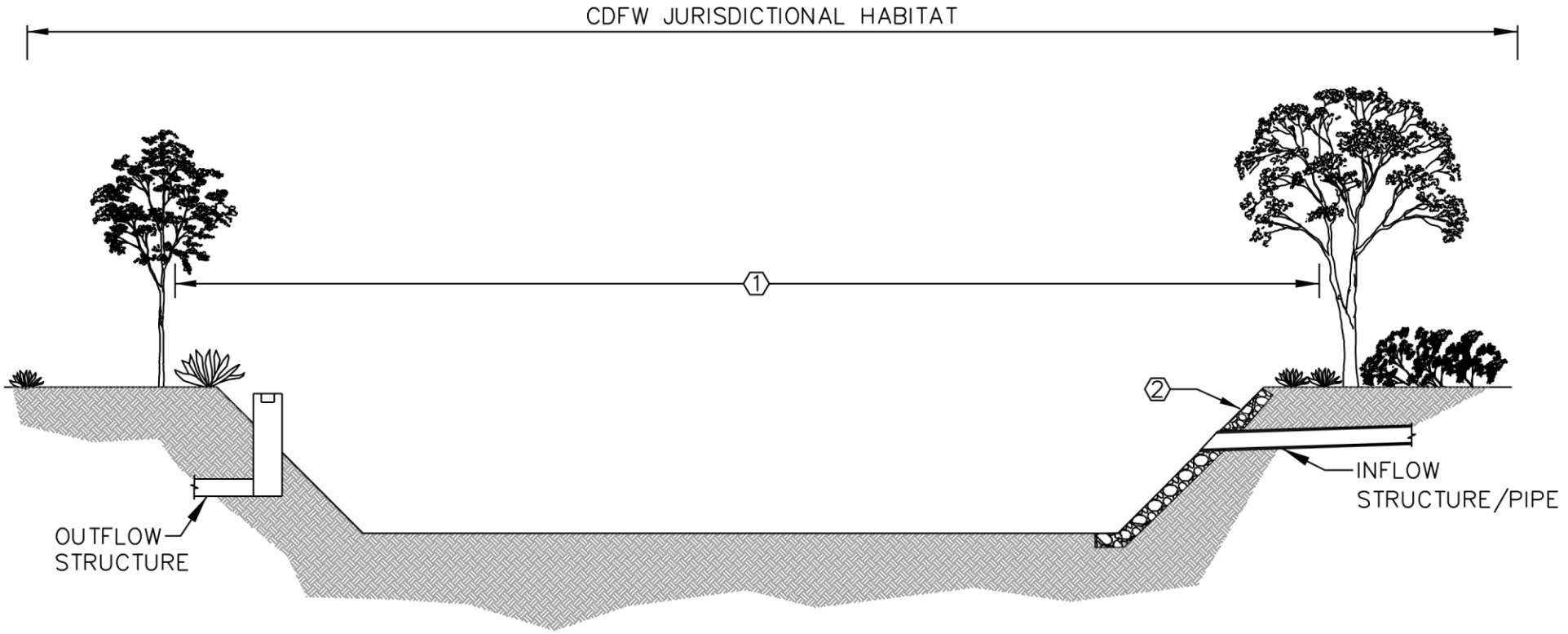
TYPICAL BASIN SECTION
NO SCALE

AREAS IMPACTED BY ACTIVITY:

1 SEDIMENT ACCUMULATION

2 VEGETATION CONTROL IN BASINS

FIGURE 4 - 6A
Typical Cross Sections
Pre-Basin Maintenance and Restoration
Routine Maintenance of Stream Channels and Drainage Facilities
City of Citrus Heights, Sacramento County, California



TYPICAL BASIN SECTION
NO SCALE

AREAS IMPACTED BY ACTIVITY:

1. SEDIMENT ACCUMULATION AND VEGETATION CONTROL IN BASINS
2. MINOR EROSION CONTROL WORK

FIGURE 4 - 6B
Typical Cross Sections
Post-Basin Maintenance and Restoration
Routine Maintenance of Stream Channels and Drainage Facilities
City of Citrus Heights, Sacramento County, California

2.4 Project Background

The City's stormwater drainage and water quality programs are administered by the City's Public Works and Engineering Division, Stormwater Program. The City is approximately 14.2 square miles, and the City's Stormwater Program oversees the operation and maintenance of the City's storm drain system consisting of 26 miles of creeks, 54 miles of open ditches, 5.5 miles of concrete-lined channels, 62 bridges, hundreds of miles of pipes. In addition to the Stormwater Program, the City works with other regional municipalities in order to coordinate regional drainage strategies under the Sacramento Stormwater Quality Partnership.

In order for the Stormwater Program to provide the necessary services for the operation and maintenance of this large water conveyance system, the City proposes to enter into a 12-year (17 years with optional 5 year extension) routine maintenance agreement (RMA) under Section 1602 Streambed Alteration Agreement with the CDFW. Work within waters of the U.S. would be authorized under U.S. Army Corps of Engineers Nationwide Permit 3 for maintenance activities. Water quality measures prescribed by the City's Municipal Separate Storm Sewer System (MS4) NPDES Permit would also apply to proposed maintenance activities as would other applicable NPDES permits such as the Construction General Permit. The City is the project proponent for the project and is the lead agency under the CEQA. The project is locally funded.

Project Purpose and Need

The primary project purpose is to maintain constructed drainage and flood protection infrastructure and the design capacity of creeks, drainage channels and other physical structures within the City limits in order to provide ongoing implementation of routine maintenance activities, capital improvement projects, erosion control projects, and vegetation restoration activities. To accomplish this, the City proposes to acquire an RMA with CDFW to authorize the City to perform routine maintenance activities within areas of CDFW jurisdiction.

2.5 Required Permits and Approvals

The following permits and/or approvals may apply to the Proposed Project depending on the details of the individual VRF:

- For routine maintenance activities within the United States Army Corps of Engineers (USACE) jurisdiction, a Section 404, Nationwide Permit 3 is authorized (contingent on meeting permit conditions). If a project exceeds Nationwide Permit 3 PCN Thresholds, the City would need to prepare a preconstruction notification;

- 1602 SAA: Routine Maintenance Agreement — CDFW;

- The City's Phase II MS4 NPDES permit — Central Valley Regional Water Quality Control Board. If a project is required to notify USACE, a Section 401 Clean Water Certification may be required;

- Adoption of the Mitigated Negative Declaration for the Proposed Project and approval of the Mitigation Monitoring and Reporting Plan (**Appendix A)** Citrus Heights City Council; and

- Project Approval – Citrus Heights City Council.

It should be noted that depending on project design and location, it is possible that the following maintenance tasks could require a Section 404 Permit other than a NWP 3 and potentially a corresponding Section 401 Water Quality Certification:

- Channel Alignment Maintenance
- Removal or Replacement of Facilities
- Water Diversions
- Minor erosion control work

3.0 INITIAL STUDY CHECKLIST

CEQA Guidelines recommend that lead agencies use an Initial Study checklist to determine the potential impacts of the Proposed Project on the physical environment. The checklist provides a list of questions concerning a comprehensive array of environmental issue areas potentially affected by the Proposed Project. This section of the Initial Study incorporates a portion of the Appendix "G" environmental checklist form, contained in CEQA Guidelines (revised 2014). The City has modified the Appendix "G" environmental checklist form to include a reference to CEQA Section 21083 and CEQA Guidelines Section 15183 in order to identify impact areas that do not require further analysis than that which was provided in the applicable Specific Plan and/or General Plan EIR. Impact questions and responses are included in both tabular and narrative formats for each of the 17 environmental topic areas. There are four possible answers to the environmental impacts checklist questions on the following pages. Each possible answer is explained herein:

1) A "**Potentially Significant Impact**" is appropriate if there is enough relevant information and reasonable inferences from that information that a fair argument can be made to support a conclusion that a substantial or potentially substantial adverse change may occur to any of the physical conditions within the area affected by the Proposed Project. When one or more "Potentially Significant Impact" entries are made, an EIR is required.

2) A "**Less Than Significant With Mitigation Incorporated**" answer is appropriate when the Applicant has agreed to incorporate a mitigation measure to reduce an impact from "Potentially Significant" to "Less Than Significant." For example, impacts to flood waters could be reduced from a "Potentially Significant Impact" to a "Less Than Significant Impact" by relocating a building to an area outside the floodway. The lead agency must describe the mitigation measures, and briefly explain how the measures would reduce the impact to a "Less Than Significant Level."

3) A "**Less Than Significant Impact**" is appropriate if there is evidence that one or more environmental impacts may occur, but the impacts are determined to be less than significant or the application of development policies and standards to the project will reduce the impact(s) to a "Less Than Significant Level." For example, the application of the City's Improvement Standards reduces potential erosion impacts to a "Less Than Significant Impact."

4) A "**No Impact**" answer is appropriate where it can be clearly seen that the impact at hand does not have the potential to adversely affect the environment. For example, a project in the center of an urbanized area will clearly not have an adverse effect on agricultural resources or operations.

All answers must take into account the whole action involved, including off-site as well as on-site, cumulative, as well as project-level, indirect as well as direct, and construction as well as operational impacts, except as provided for under CEQA Guidelines Section 15183 and CEQA Section 21083.3.

A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources cited in the parentheses following each response. A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards.

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is "less than significant with mitigation incorporated" as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture and Forestry	☐	Air Quality
☒	Biological Resources	☒	Cultural Resources	☒	Geology/ Soils
☐	Greenhouse Gas Emissions	☐	Hazards and Hazardous Materials	☒	Hydrology/ Water Quality
☐	Land Use/ Planning	☐	Mineral Resources	☐	Noise
☐	Population/ Housing	☐	Public Services	☐	Recreation
☐	Transportation/ Traffic	☒	Tribal Cultural Resources	☐	Utilities/ Service Systems
☒	Mandatory Findings of Significance				

On the basis of this initial evaluation:

☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

■ I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Proposed Project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the Proposed Project MAY have a "Potentially Significant Impact" or "Potentially Significant Unless Mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the Proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR OR NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Proposed Project, nothing further is required.

Stuart Hodgkins, Interim City Engineer

3/16/2018
Date

City of Citrus Heights
Organization

3.1 Aesthetics

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?	☐	☐	☐	☒
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d. Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	☐	☐	☐	☒

Discussion of Checklist Answers:

a, b. **No Impact**. The City has not designated any specific scenic vistas to be protected in the City of Citrus Heights, and there is not a state-designated scenic highway in the Proposed Project vicinity (Caltrans 2011). There would be ***No Impact***. No mitigation is required.

c. **Less Than Significant Impact**. Implementation of routine channel maintenance activities may result in the removal of trees and aquatic vegetation. However, vegetation removal would be limited to only what is necessary to perform the City's routine maintenance activities and would only occur within the creeks, drainage channels, detention basins or other waters. In addition, the City would maintain stream channels in such a manner that it avoids removal of trees greater than 4 inches DBH to the greatest extent feasible. Removal of mature trees will be infrequent and only when needed to ensure safe conveyance of flood waters. Vegetation control will be targeted at understory and non-native species. In most situations, vegetation control will maintain existing baseline conditions. Native oak trees equal or greater than 6 inches DBH in the City that require removal or encroachment of the protected zone, defined as the tree's dripline plus one foot, are protected by City's Tree Preservation Ordinance (Citrus Heights Municipal Code Chapter 106.39). Any impacts to protected native oaks would require a tree permit and impacts would be mitigated consistent with the City of Citrus Heights Tree Ordinance by planting new trees or by payment of an in-lieu fee pursuant to Sec. 106.39.060 (City of Citrus Heights 2017a). However, as a practice, the City will preferentially trim rather than remove live trees greater than 4 inches DBH. Therefore, the open and natural resource conditions of these creek and drainage areas are expected to remain intact. In the context of the existing tree canopy, the proposed removals would not substantially degrade the existing visual quality of the site and related impacts would therefore be considered ***Less Than Significant***. No mitigation is required.

d. **No Impact**. Routine maintenance activities would occur during daylight hours. No night work is anticipated to take place during construction of routine maintenance activities. Further, the Proposed Project would not include any project components that could increase glare in the Proposed Project area. The Proposed Project would not create a new significant source of light or glare that would adversely affect nighttime views in the area. There would be ***No Impact***. No mitigation is required.

3.2 Agriculture and Forest Resources

	Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b.	Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?	☐	☐	☐	☒
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d.	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e.	Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	☐	☐	☐	☒

Discussion of Checklist Answers:

a - e **No Impact.** According to the General Plan Community Development chapter, there are no agricultural areas within City limits. Additionally, as disclosed by the State Farmland Mapping and Monitoring Program, the City is predominantly mapped as "Urban and Built-up Land" (CDC 2014). No Williamson Act Land, forest lands, or timberlands occur within the City. Further, no Farmland occurs at stream channels or drainage facilities being maintained as part of this Proposed Project. The routine maintenance activities would not convert or conflict with Prime Farmland, Unique Farmland, Farmland of Statewide Importance, Williamson Act Land, forest lands, or timberlands, and routine maintenance activities would not involve other changes in existing environment that could result in the conversion of these land types to non-agricultural use. Therefore, there would be **No Impact** related to agricultural or forest resources. No mitigation is required.

3.3 Air Quality

	Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a non-attainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d.	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e.	Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Setting

Discussion of Checklist Answers:

a. No Impact. Climate in the Citrus Heights area is characterized by hot, dry summers and cold, rainy winters. During summer's longer daylight hours, plentiful sunshine provides the energy needed to fuel photochemical reactions between Nitrogen Oxides (NO_x) and Reactive Organic Gasses (ROG), which result in Ozone (O_3) formation. High concentrations of O_3 are reached in the Citrus Heights area due to intense heat, strong and low morning inversions, greatly restricted vertical mixing during the day, and daytime subsidence that strengthens the inversion layer.

The City lies within the southeastern edge of the Sacramento Valley Air Basin (SVAB) (CARB 2014). The Sacramento Metropolitan Air Quality Management District (SacMetro AQMD) is responsible for implementing emissions standards and other requirements of federal and state laws in the Proposed Project area. As required by the California Clean Air Act (CCAA), SacMetro AQMD has published various air quality planning documents as discussed below to address requirements to bring the SacMetro AQMD into compliance with the state ambient air quality standards (SAAQS). The Air Quality Attainment Plans are incorporated into the State Implementation Plan (SIP), which is subsequently submitted to the U.S. Environmental Protection Agency (EPA), the federal agency that administrates the Federal Clean Air Act of 1970, as amended in 1990.

Ambient air quality is described in terms of compliance with state and national standards, and the levels of air pollutant concentrations considered safe to protect the public health and welfare. These standards are designed to protect people most sensitive to respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons

engaged in strenuous work or exercise. The EPA has established national ambient air quality standards for seven air pollution constituents. As permitted by the Clean Air Act, California has adopted more stringent air emissions standards through the SAAQS, and expanded the number of air constituents regulated.

In order to work towards attainment for ozone and PM_{10}, the EPA Office of Air Quality Planning and Standards requires that each state containing nonattainment areas develop a SIP for cleaning the air in those areas. Through these plans, the states outline efforts they will make to correct the levels of air pollution and bring their areas back into attainment.

A conflict with, or obstruction of, implementation of an air quality plan could occur if a project generates greater emissions than what has been projected for the site in the emission inventories of the air quality plan. Emission inventories are developed based on projected increases in population, employment, regional vehicle miles traveled (VMT), and associated area sources within the region, which are based on regional projections that are, in turn, based on the General Plan Land Use and Zoning Designations for the region. As emissions related to the City's creek maintenance program are existing, continued implementation of routine maintenance activities would not increase related baseline emissions, populations, employment, regional VMT or change land use or zoning. Routine maintenance will not conflict with or obstruct the implementation of the current planning efforts and activities would follow applicable SacMetro AQMD rules (SacMetro AQMD 2017a). Therefore, there would be ***No Impact*** related to implementation of the applicable air quality plan. No mitigation is required.

b. Less Than Significant Impact. The California Air Resources Board (CARB) is required to designate areas of the state as attainment, nonattainment, or unclassified for any state standard. An "attainment" designation for an area signifies that pollutant concentrations do not violate the standard for that pollutant in that area. A "nonattainment" designation indicates that a pollutant concentration violated the standard at least once. The area air quality attainment status of the SVAB and the City is shown on Table 3.

Table 5: SVAB/Sacramento County Attainment Status

Pollutant	State of California Attainment Status
Ozone (O_3)	Nonattainment
Respirable Particulate Matter (PM_{10})	Nonattainment
Fine Particulate Matter ($PM_{2.5}$)	Attainment
Carbon Monoxide (CO)	Attainment
Nitrogen Dioxide NO_2)	Attainment
Lead (Pb)	Attainment
Sulfur Dioxide (SO_2)	Attainment
Sulfates (So_x)	Attainment
Hydrogen Sulfide (H_2S)	Unclassified
Visibility Reducing Particles	Unclassified

Source: (CARB 2017a)

The SVAB portion of Sacramento County is currently in nonattainment for state ozone and PM_{10} standards. Concentrations of all other pollutants meet state standards.

Ozone is not emitted directly into the environment, but is generated from complex chemical reactions between ROG, or non-methane hydrocarbons, and NO_x that occur in the presence of sunlight. ROG and NO_x generators in Sacramento County include motor vehicles, other transportation sources, and stationary/area sources (industrial, manufacturing and commercial facilities).

PM_{10}, or particulate matter, is a complex mixture of primary or directly emitted particles, and secondary particles or aerosol droplets formed in the atmosphere by precursor chemicals. The main sources of fugitive dust are construction dust, unpaved road dust, and paved road dust.

Routine maintenance activities may result in some temporary incremental increases in air pollutants, such as ozone precursors and particulate matter due to operation of gas powered equipment and minor land disturbance. However, the proposed maintenance activities represent ongoing operations and would be periodic in nature and are not anticipated to generate large amounts of dust or particulates. All routine maintenance activities would follow the SacMetro AQMD rules and would implement all appropriate air quality best BMPs, including minimizing equipment idling time and use of water or similar chemical palliative to control fugitive dust.

The Proposed Project would not exceed the applicable thresholds of significance for air pollutant emissions during construction or operation. The Proposed Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Therefore, implementation of the Proposed Project would result in a ***Less Than Significant*** impact related to air quality. No mitigation is required.

c/d. **Less Than Significant Impact**. Emissions derived from routine maintenance activities are anticipated to be minor and are not anticipated to exceed the SacMetro AQMD's emission thresholds for criteria pollutants. Further, maintenance activities would be conducted over a 12 year period at various creeks and drainages within the City and are therefore not anticipated to be concentrated at any particular location or point in time. Considering all maintenance activities are temporary, are anticipated to be short in duration, and the implementation of the proposed air quality BMPs, maintenance activities would have less than a cumulatively significant net increase in criteria pollutants and would also have less than a significant impact on exposing sensitive receptors to substantial pollutant concentrations. Therefore, the Proposed Project would result in a ***Less Than Significant Impact***. No mitigation is required.

e. **Less Than Significant Impact**. Routine maintenance activities will be temporary, minor projects located along creeks and drainage facilities using standard construction equipment. Any odors or toxic air contaminants generated by the Proposed Project would be limited to construction equipment and would occur at such low concentrations and/or for such a short duration as to be negligible. Project activities will not include industrial or intensive agriculture uses. In addition, routine maintenance activities would be short-term and are not anticipated to result in nuisance odors that would violate SacMetro AQMD odor regulations. Therefore, the impact is considered to be ***Less Than Significant Impact***. No mitigation is required.

3.4 Biological Resources

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling hydrological interruption, or other means?	☐	☒	☐	☐
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

Discussion of Checklist Answers:

a. **Less Than Significant Impact With Mitigation Incorporated**. Biological resource analysis assumes implementation of applicable biological resource avoidance and minimization measures discussed in Section 2.5. Where necessary, additional CEQA mitigation measures are included to ensure potential impacts are reduced to a less than signification level.

Based on a records search of the California Natural Diversity Database (CNDDB), the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS) and California Native Plant Society (CNPS) lists, 17 special-status species were found to have the potential to occur in the vicinity of the City (Appendix B: Biological Database Search Results). The following set of criteria has been used to determine each species potential for occurrence on the site:

High: Species known to occur within or near the City (based on numerous recent CNDDB, CNPS, or ebird.org records within city boundaries) and there is suitable habitat for the species within the City.

Moderate: Species known to occur within or near the City (based on few recent CNDDB occurrences within the City or within 5 miles of City boundaries) and there is suitable habitat for the species within the City.

Low: Species known to occur in the vicinity of the City (based on no CNDDB occurrences of the species within the City and very few occurrences of the species within 10 miles of the City –or– limited occurrences of the species within 10 miles of the City appears to be on the periphery of the known distribution of the species) and there is suitable habitat for the species

Absent: Species is not known or expected to occur within the City. This may be based on a lack of recent occurrences within 10 miles of the City, lack of suitable habitat, the City being located outside of ecological subsections associated with the species, or the City being located outside of the known geographic range of the species.

A complete list of species found to have the potential to occur in the vicinity of the City, as well as rational for each species occurrence potential, can be found in Appendix C: Special Status Species Potential Table. Only those special-status plants and wildlife species that have a high, moderate, or low potential of occurring within the City will be discussed in further detail below.

Special-Status Plants

Based on literature review it has been determined that one plant species, Sanford's arrowhead (*Sagittaria sanfordii*), has a moderate potential of occurring within the City.

Sanford's Arrowhead

Sanford's arrowhead is a perennial rhizomatous herb found in freshwater marshes, swamps, ponds, and ditches from 0 to 2,150 feet above sea level. The species generally blooms May through October (CNPS 2017). The species is not listed as threatened or endangered under either the Federal or California Endangered Species Act, but it has been designated as a rank 1B.2 rare plant by the California Native Plant Society.

Sandford's arrowhead is considered to have a moderate potential of occurring within the City due to the presence of potentially suitable stream channel habitat within the City. Additionally, there are 3 CNDDB occurrences of the species within the City boundaries.

Routine maintenance work discussed in Chapter 2 may occur in habitats known to be suitable for Sanford's arrowhead. To avoid and minimize potential maintenance related impacts to the species, Mitigation Measures **BIO-1** and **BIO-2** will be implemented.

Special-Status Wildlife

Based on literature review it has been determined that one wildlife species, White-tailed kite (*Elanus leucurus*), has a moderate potential of occurring within the City; and two wildlife species including, purple martin (*Progne subis*), and valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) have a low potential of occurring within the City.

White-tailed Kite

White-tailed kite is a fully protected species under Fish and Game Code Section 3511. This level of protection dictates that no individuals of this species may be impacted in any way. The species has a restricted distribution in the United States, occurring only in California and western Oregon and along the Texas coast (American Ornithologists' Union 1983). The species is fairly common in California's Central Valley margins within scattered oaks and river bottomlands. White-tailed kites nest in riparian and oak woodlands and forage in nearby grasslands, pastures, agricultural fields, and wetlands. They use nearby treetops for perching and nesting sites. Voles and mice are common prey species.

Potentially suitable riparian forest roosting and nesting habitat is present along various waterways discussed in Chapter 2. In addition, potentially suitable open areas for foraging are present, including parklands and low-density residential areas within the City. There is one CNDDB occurrence of the species within City boundaries as well as scattered occurrences of the species within 5 miles of the City. The species is considered to have a moderate potential of occurring within the City based on presence of potentially suitable nesting and foraging habitat and recent CNDDB occurrences of the species.

Routine maintenance work discussed in Chapter 2 may occur in habitats known to be suitable for white-tailed kite. To avoid and minimize potential maintenance related impacts to the species, Mitigation Measures **BIO-1** and **BIO-3** will be implemented.

Purple Martin

The purple martin is listed by CDFW as a Special Species of Concern and is protected under the MBTA. This species is distributed throughout much of eastern North America and locally in the Pacific Coast at low to intermediate elevations (Shuford and Gardali 2008). The species is a summer migrant in California, arriving in March and departing late September, with the breeding season occurring from May to mid-August. Purple martins inhabit riparian habitats with tall, old, isolated trees for nesting, in proximity to a body of water with abundance of dragon flies, and other aerial insects (Zeiner 1988-1990). They also inhabit manmade structures like hollow box bridges in Sacramento, which house some of the species largest colonies in the western U.S. (Shuford and Gardali 2008).

Potentially suitable riparian habitat for the species is present within the City. The nearest CNDDB occurrence of the species is approximately 3.5 miles from the City's northern boundary recorded in 2007. The species is considered to have a low potential of occurring within the City based on presence of riparian habitat and a single local occurrence of the species.

Routine maintenance work discussed in Chapter 2 may occur in riparian corridors with potentially suitable tall old tree habitat for purple martin. To avoid and minimize potential maintenance related impacts to the species, Mitigation Measures **BIO-1** and **BIO-3** will be implemented.

Valley Elderberry Longhorn Beetle

VELB is listed as threatened under FESA. Critical Habitat was designated by the USFWS on August 8, 1980 (USFWS 1980). Elderberry shrubs are obligate hosts for VELB larvae. Elderberry shrubs are often associated with cottonwood (Populus sp.), willow (Salix sp.), ash (Fraxinus sp.), oak (Quercus

sp.), and walnut (Juglans sp.) – species common to the riparian forests and adjacent uplands in the Central Valley and foothills (USFWS 1980, USFWS 1999, Barr 1991). The VELB's range has been reduced and greatly fragmented due to a reduction of elderberry inhabited communities, most especially riparian habitat loss. Habitat loss is derived from agricultural development, urbanization, levee maintenance and pesticide drift where aerial application or fogging of crops occurs near riparian habitats (Barr 1991). Adult VELB emerge from March through early June to feed on elderberry foliage and mate within the canopy. Females have a fairly limited dispersal capability and lay their eggs either singularly or in small clusters in living elderberry bark crevices or at the junction of stem/trunk or leaf petiole/stem usually within 164 feet of their emergence hole (USFWS 2014, Barr 1991). After eggs hatch, the first instar larvae burrow into the host elderberry stems to feed on pith for one to two years. As a larvae becomes ready to pupate, it chews outward from the center of the stem through the bark. After the larvae plugs the newly constructed emergent hole with shavings, it returns to the pupal chamber to metamorphose, and will emerge in mid-March through June as an adult (USFWS 2006). Elderberry stems with emergence holes indicates current and/or previous VELB presence. VELB utilize stems greater than 1 inch diameter and produce circular to oval emergent holes 7 to 10 millimeters in diameter with the majority occurring 4 feet or less above the ground (Barr 1991).

Elderberries, the host plant for the beetle, are present in riparian corridors throughout the City. There are no CNDDB documented occurrences of the species within the City, but there are multiple scattered occurrences within the larger Sacramento area.

Routine maintenance work discussed in Chapter 2 may occur in riparian corridors and adjacent floodplains with elderberry shrubs, habitat for VELB. To avoid and minimize potential maintenance related impacts to the species, Mitigation Measures **BIO-1** and **BIO-4** will be implemented.

Migratory Birds and Other Birds of Prey

Migratory birds and other birds of prey, protected under 50 CFR 10 of the MBTA and/or Section 3503 of the California Fish and Game Code, have the potential to nest in the trees within the riparian woodland and within the annual grassland. Migratory birds and other birds of prey have a high potential to nest within the City during the nesting season (February 1st – September 1st). Routine maintenance work discussed in Chapter 2 may affect suitable migratory bird or raptor habitat. To avoid and minimize potential maintenance related impacts to migratory birds and raptors, Mitigation Measures **BIO-1**, **BIO-3**, and **BIO-5** will be implemented.

Bats

Bats have a high potential to roost in bridges and other structures within the City. Routine maintenance work discussed in Chapter 2 may affect structures occupied by bats. To avoid and minimize potential maintenance related impacts to bats, Mitigation Measures **BIO-1** and **BIO-7** will be implemented.

Conclusion

Implementation of Mitigation Measures **BIO-1** through **BIO-9** would reduce impacts to special-status species to less than significant level. Therefore, impacts to special-status species are considered to be ***Less Than Significant Impact With Mitigation Incorporated***.

b. **Less Than Significant Impact With Mitigation Incorporated**. Riparian and freshwater emergent wetland habitat occurs along the creeks, drainages and basins within the project limits. The City would preferentially trim trees greater than 4 DBH and avoid removal of trees greater than 4 inches DBH to the greatest extent feasible. The City anticipates the removal of trees greater than 4 inches DBH to be rare and only when necessary to protect public safety. Maintenance work will be focused on maintaining channel flood capacity and would be limited to actions necessary to maintain baseline conditions, with a focus on removal of non-natives.

The project may require temporary and/or permanent impact to wetlands, riparian vegetation, or stream channels. When considering impacts to these biological resources in terms of temporary or permanent impacts it is necessary to determine the baseline conditions from which to base impacts. For the means of this document, "baseline conditions" means the ecological condition of a site at the time the document is approved. This means that any routine maintenance work conducted once every year or two that maintains current ecological conditions (i.e., annual vegetation trimming and thinning) is not considered a temporary or permanent impact because vegetation typically returns within one year and therefore does not alter the habitat function from baseline conditions. Following this definition of baseline conditions, impacts defined as temporary or permanent are discussed below.

A temporary impact is defined as an action that significantly modifies an area from baseline conditions and allows it to return to baseline after maintenance is complete. Depending on the size of the temporary impact, active site restoration in the form of seeding or planting may be required. Examples of temporary impacts include the routine maintenance tasks of Vegetation Control in Channels, Debris or Obstruction Removal, and Silt, Sand and Sediment Removal as described in the project description. These tasks entail vegetation thinning, tree liming, trash and obstruction removals (including beaver dams and flood deposited woody and herbaceous vegetation) consistent with the City's flood model. Removal of a single tree for flood control or public health and safety reasons from an otherwise healthy riparian area would not constitute a significant permanent impact subject to mitigation. Compensatory mitigation for temporary impacts is not expected to be required and will be determined on a case by case basis through coordination with CDFW.

A permanent impact is defined as an action that significantly modifies an area from baseline conditions but does not allow it to return to baseline. Examples of a permanent impact include routine maintenance tasks such as Channel Alignment Maintenance, Removal or Replacement of Facilities, Repair of Previous Erosion Control Work, Minor Erosion Control Work, and maintenance of the City's Flood Alert System as described in the Project Description when maintenance results in permanent removal of existing vegetation and habitat. Such permanent impacts require compensatory mitigation to result in less than significant impacts.

Incorporation of biological resource avoidance and minimization measures **BIO-10** through **BIO-13** would lessen potential impacts to riparian vegetation or other sensitive natural communities such as emergent wetlands located within the City to a less than significant level. Exact compensatory mitigation for routine maintenance impacts to riparian and emergent wetland vegetation will be determined during the preparation of a Habitat Mitigation and Monitoring Plan (HMMP) as described in **BIO-7**. As discussed in Section 2.5, compensatory mitigation for removal of protected oaks will be consistent with the City of Citrus Heights Tree Preservation and Protection Ordinance by planting new trees or by payment of an in-lieu fee pursuant to Sec. 106.39.060 of the Tree Ordinance (City of Citrus Heights 2017a). Impacts to riparian habitat and other sensitive natural communities within the City would be ***Less Than Significant With Mitigation Incorporated***.

c. **Less Than Significant Impact With Mitigation Incorporated**. Federal and state jurisdictional wetlands within the City include in-channel freshwater emergent wetlands, and swales. Although removal of sediment from waters of the U.S. and state, including freshwater emergent wetlands, is a proposed activity, removal of sediment would be limited to what would improve the habitat quality and function of the features by returning flows to a more natural state. Implementation of biological resource avoidance and minimization measures discussed in Section 2.5 and mitigation measures **BIO-7** would lessen potential impacts to wetland habitat located within the project area to a less than significant level. For routine maintenance activities within the United States Army Corps of Engineers (USACE) jurisdiction, impacts will be limited to the requirements of a Section 404, Nationwide Permit 3 for maintenance (or alternative Nationwide Permit as determined by USACE), including no impacts to a Section 106 cultural resource, and no impacts to any endangered species. Impacts to federally protected wetlands are considered ***Less Than Significant With Mitigation Incorporated***, and no further mitigation is required.

d. **Less Than Significant Impact With Mitigation Incorporated.** The project will not permanently interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors. Any interference with migratory wildlife corridors due to maintenance activities within stream channels would be temporary, and full functionality of all potential migratory corridors will be restored. Seasonal in-channel work restrictions a described in **HYD-1** will be implemented to fully avoid impacts to migrating fish. Migratory birds would be protected by the implementation of **BIO-3** and **BIO-5**. Maintenance activities would be temporary and typically would occur during daylight hours. Terrestrial wildlife in urban environments typically migrates at night and therefore would have opportunity to pass through areas temporarily subject to maintenance during nighttime hours without being significantly constrained by maintenance. Impacts are therefore considered ***Less Than Significant With Mitigation Incorporated.***

e. **No Impact**. The proposed project is subject to the City's Tree Preservation and Protection Ordinance (Citrus Heights Municipal Code, Chapter 106.39). Any removal of mature trees is anticipated to be rare. Native oak trees equal or greater than 6 inches DBH in the City that are subject to removal or encroachment greater than 20% of the protected zone, defined as the tree's dripline plus one foot, are included in the protections provided by the City's Tree Preservation and Protection Ordinance (it should be noted that the City does not issue Tree Permits to itself, but otherwise complies with ordinance requirements). The City will offset the loss of any regulated oak tree through on-site planting or the use of the City's in-lieu fee program pursuant to Sec. 106.39.060 of the Tree Ordinance (City of Citrus Heights 2017a); however, as a practice the City will preferentially trim rather than remove live trees greater than 4 inches DBH. Routine maintenance activities will be conducted in full compliance with the City of Citrus Heights's Tree Preservation and Protection Ordinance; ***no impact*** to the ordinance is anticipated. No further mitigation is required.

f. **Less Than Significant Impact With Mitigation Incorporated.** There are no Habitat Conservation Plans or Natural Community Conservation Plans within the City of Citrus Heights. Maintenance Activities would be implemented consistent with the City's General Plan, Resource Conservation Element (City of Citrus Heights, 2011). The RMA will be consistent with the goals and policies of the General Plan Resource Conservation Element; therefore, the project would not conflict with any existing Habitat Conservation Plan or Natural Community's Conservation Plan.

The City is within the California Red-legged Frog Recovery Plan Area (USFWS 2002). While flood control maintenance is described as potentially degrading to California red-legged frog (CRLF) habitat in the 2002 recovery plan, maintenance efforts covered under the RMA will be focused on maintaining existing conditions. In situations where permanent impacts to stream channels are necessary, impacts will be mitigated by restoring or enhancing riparian habitat elsewhere in the City as specified in mitigation measure **BIO-8**. With the inclusion of mitigation for permanent impacts within the CRLF Recovery Plan Area, project impacts to the CRLF Recovery Plan Area will be ***Less Than Significant Impact With Mitigation Incorporated*.**

Mitigation Measures:

The following mitigation measures would be incorporated to reduce impacts to a less than significant level:

BIO-1: Prior to beginning any maintenance work under the RMA, the City maintenance supervisors and crews who would be completing the work must be trained by qualified personnel to identify and avoid harm to sensitive resources, special status species and their habitats.

The City shall conduct an education program for all persons employed or otherwise working on the project site prior to performing any work on-site. The program shall consist of a presentation from the Designated Biologist that includes a discussion of the biology of the habitats and species that may occur during routine maintenance. The Designated Biologist shall also include as part of the education program information about the distribution and habitat needs of any special-status species that may be present, legal protections for those species, penalties for violations and project-specific protective measures. Interpretation shall be provided for non-English speaking workers, and the

same instruction shall be provided for any new workers prior to their performing work on-site. Upon completion of the education program, employees shall sign a form stating they attended the program and understand all protection measures.

BIO-2: Prior to vegetation removal or ground disturbance within Sanford's arrowhead habitat (e.g. shallow waters within creeks, canals, basins, and ponds), a 1-day presence/absence survey will be conducted by a City appointed biologist during the bloom season for Sanford's arrowhead (May – October). Presence/Absence surveys must cover all Sanford's arrowhead habitat that will be affected by the proposed maintenance activities and must positively identify all aquatic and wetland herbs within the survey area. The results of the survey will be documented in a brief survey memorandum that will be submitted to CDFW prior to maintenance activities.

Rare plant populations discovered onsite will be protected in place with orange ESA fencing. If rare plant populations cannot be protected in place, the City will coordinate with CDFW to develop a rare plant relocation plan or determine appropriate compensatory mitigation.

BIO-3: If possible, vegetation removal and ground disturbance should occur during the non-breeding season for all bird species (September 1st – January 31st).

If vegetation removal or ground disturbance is to take place during the nesting season (February 1st – August 31st) a pre-construction nesting bird survey must be conducted within 3 days prior to vegetation removal or ground disturbance. The nesting survey area will include the anticipated work area plus an approximate 500 foot buffer. All areas within 100 feet will be surveyed for nesting birds. All tall trees and structures potentially providing nesting habitat for raptors will be surveyed with high powered binoculars or a spotting scope. If a pre-construction survey is not feasible, then a full time biological monitor may substitute for the preconstruction survey. The biological monitor will work slightly in advance of maintenance crews searching for nests and monitoring bird activity for stressful behaviors that could indicate a nearby nest. The biological monitor must remain onsite for the duration of work and have the power to halt maintenance work if evidence of nesting birds is discovered.

A 100-foot no disturbance buffer will be established around active bird nests protected by the Migratory Bird Treaty Act (MBTA) and Fish and Game Code 3503 and 3503.5. A reduced song bird buffer may be appropriate if agreed upon on a case by case basis by CDFW. Should an active raptor nest be found, an increased buffer distance may be appropriate. Raptor buffer distances will be approximately 300 feet but final buffer distances will be determined through consultation with CDFW. Should maintenance activities cause the nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then the no disturbance buffer will be increased such that activities are far enough from the nest to stop this agitated behavior. The no disturbance buffer will remain in place until the chicks have fledged or as otherwise determined by a qualified biologist.

If there is a break in construction activity of more than 2 weeks, subsequent surveys should be conducted.

BIO-4: The City will avoid impacts to elderberry shrubs in a manner consistent with the *City of Citrus Heights General Plan EIR: Mitigation Measure 4.6-2a.* If maintenance activities cannot avoid impacts to elderberry shrubs, the City must initiate Consultation with the USFWS. The City will mitigate for impacts to the species consistent with the existing USFWS BO, or as may be determined via a Section 10 consultation which could include relocating elderberry shrub(s) to a USFWS approved mitigation bank and purchasing mitigation credits according to Table 1 in the Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS 1999).

BIO-5: Swallow nest removal should occur during the non-nesting season (September 1st – January 31st) after the young of the year have fledged and no nesting activity is observed. Swallow nests will not be removed until they have been inspected by a qualified biologist and determined to be inactive. During the nesting season, the City may discourage swallow nest construction by removing partially completed nests that are less than 1/3rd complete. After a nest is more than 1/3rd complete, it cannot be disturbed until a qualified biologist has determined that all nestlings have fledged and are foraging independently.

BIO-6: Structures will be assessed for bat occupation prior to initiation of work. The City must coordinate with CDFW prior to conducting maintenance work on bridges or structures occupied by bats. If a structure occupied by bats must be maintained, bats will be excluded prior to the pupping season (April 15th – August 31st). Bat exclusion must be conducted under the supervision of a qualified bat biologist experienced in bat exclusion. If no alternative roosting habitat (e.g. other bridges or structures) is available within 1000 feet of the maintenance area, temporary bat accommodations may be required.

BIO-7: The City will create or purchase compensatory mitigation for permanent impacts to jurisdictional features. Mitigation will be created by the City within City owned open space or purchased from a CDFW approved mitigation bank at a minimum 3:1 ratio (or a combination of restoration and mitigation credits). Permanent impacts are defined as actions that result in a permanent modification to wetlands, stream channels, or riparian habitats (e.g. new impervious cover, rock slope protection, placement of fill). Mitigation will be calculated based on the area of impact.

Mitigation sites will be monitored for a period of 5 years. A mitigation site will be deemed successful if it meets success standards for plant survivability and non-native cover. If success criteria are not met, corrective actions including supplemental planting, watering, or weeding may be required. Success criteria will be determined in consultation with CDFW during the preparation of a Habitat Mitigation and Monitoring Plan (HMMP) that will be prepared and submitted to CDFW for review within 180 days following the adoption of the RMA. If maintenance activities result in a permanent impact requiring mitigation before the HMMP is approved by CDFW, the City will purchase compensatory mitigation from a CDFW approved mitigation bank at a 3:1 ratio.

BIO-8: If wildlife is encountered during maintenance activities, work will stop within the area until the animal leaves of its own accord or the animal is relocated by a qualified biologist or animal control professional. If special status wildlife is encountered during maintenance activities, work will stop within the area and CDFW will be contacted to determine appropriate avoidance measures.

BIO-9: Plastic mono-filament netting (erosion control matting) or similar material that could trap wildlife will not be used. Acceptable substitutes include jute, coconut coir matting or tackified hydroseeding compounds.

BIO-10: Soil disturbance and vegetation trimming/removal within the bed, bank and channel of creeks will be limited to the minimum area necessary to complete maintenance activities. Existing vegetation will be protected where feasible and disturbed/exposed soils will be stabilized to prevent erosion and sedimentation

BIO-11: Prior to arrival at the project site, the City must clean all equipment that may contain invasive plants and/or seeds to reduce the spreading of noxious weeds.

BIO-12: When feasible, stumps of removed trees will be left intact to allow the tree to stump sprout and quickly regenerate the habitat.

BIO-13: Where ground disturbance occurs, the surface of temporarily impacted riparian and wetland habitat will be regraded and restored to pre-maintenance contours (if applicable). Site restoration with container plants or a native seed mix may be required if vegetation removal included soil grubbing to quickly regenerate mature vegetation.

3.5 Cultural Resources

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☒	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐
e. Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resource Code 21074 (i.e. AB 52)?	☐	☒	☐	☐

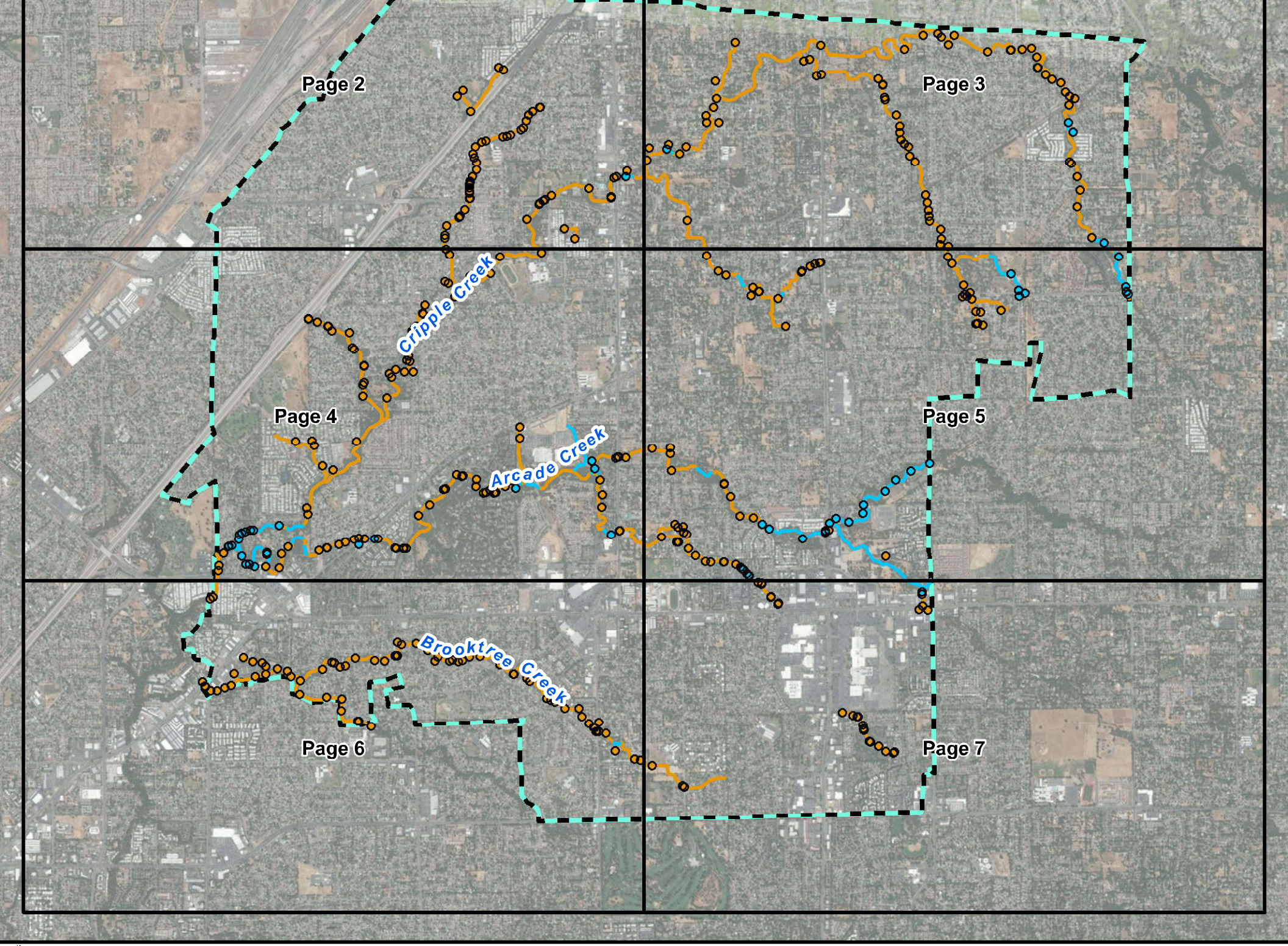
Discussion of Checklist Answers:

a, b. **Less Than Significant With Mitigation Incorporated**. Some routine maintenance activities have the potential to harm archaeological or historic period resources, assuming such resources are present, if the appropriate mitigation measures are not followed. Activities that take place above or on the ground surface do not have the potential to harm these resources; however, activities that require below ground (any type of excavation or earth movement) do have the ability to harm historical or archaeological resources.

Above Ground (no excavation) Maintenance Activities consist of the following: removing debris, modern trash, downed trees (grinding of tree stumps is permitted; root ball removal is prohibited), beaver dams, woody and herbaceous vegetation and branches obstructing channels or streams; mowing or cutting weeds, grasses, shrubs and woody undergrowth; removing or replacing manhole covers, and above ground utilities; dewatering waterways; and washing, painting, and cleaning bridges, culverts, and miscellaneous structures.

Below Ground Maintenance Activities consist of the following: mechanically (including the use of backhoes, excavators, dump trucks, skip loaders, front loaders, bulldozers, etc.) altering vegetation, the ground surface, or dirt such as removing deposited sediment, repairing and/or maintaining erosion control, or channel alignment maintenance, etc.; removing standing dead or living trees in danger of falling in or across streams (including root ball removal); removal or replacement of culverts, inlets, and other miscellaneous structures; collecting core samples; and installation of rock slope protection, rock gabions, and/or sacked concrete/rocks.

As shown in Table 4, Cultural Resource Sensitivity Designation, based on the data collected at the North-Central Information Center and the types of routine maintenance activities, those portions of the routine maintenance area which have not been previously surveyed and/or which are situated near recorded archaeological resources have been classified as Category A. These areas are depicted on Figure 5, Cultural Sensitivity Areas. For all routine maintenance areas not classified as Category A, both Above Ground and Below Ground Maintenance Activities are allowed.



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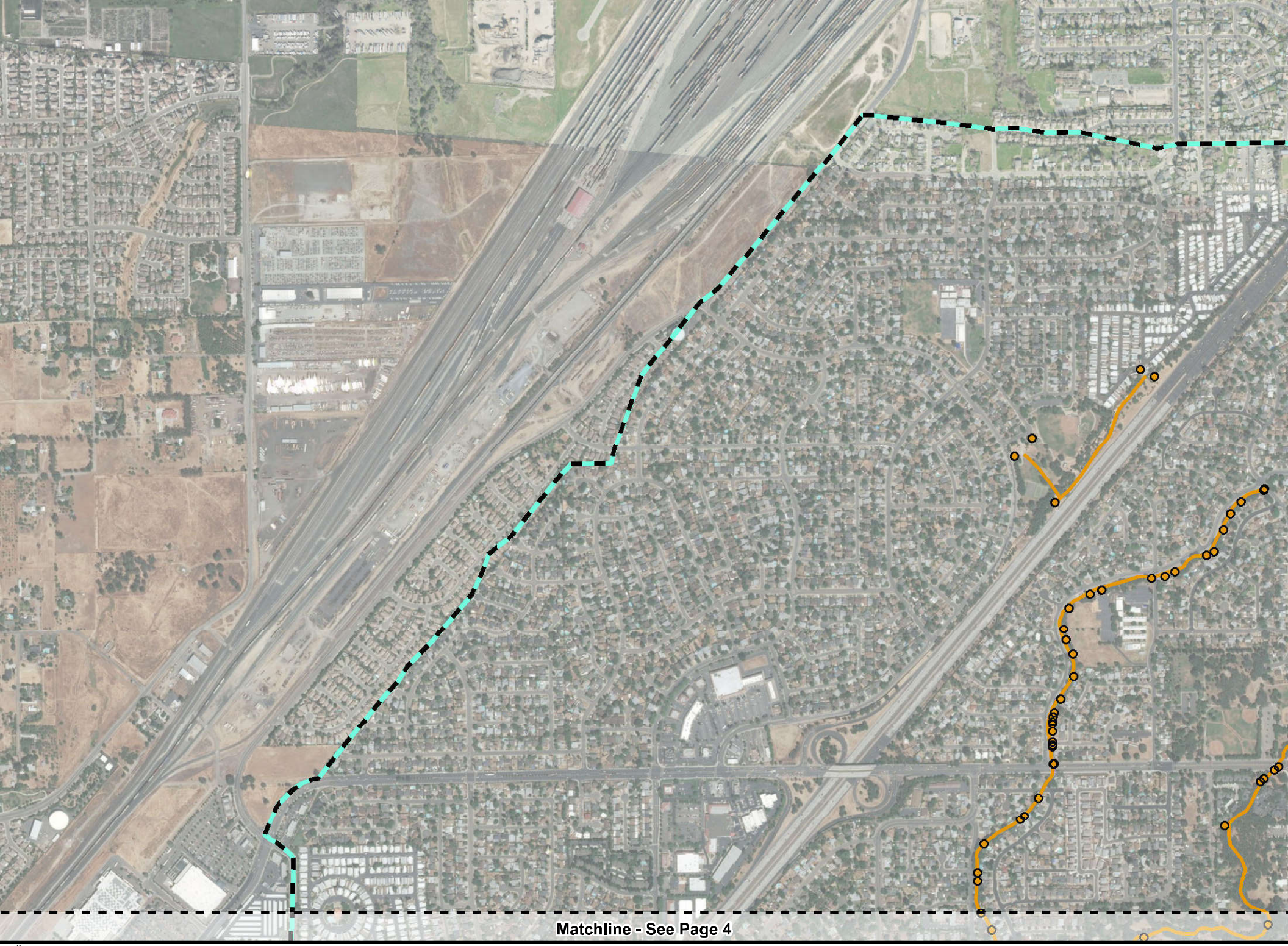
City Boundary



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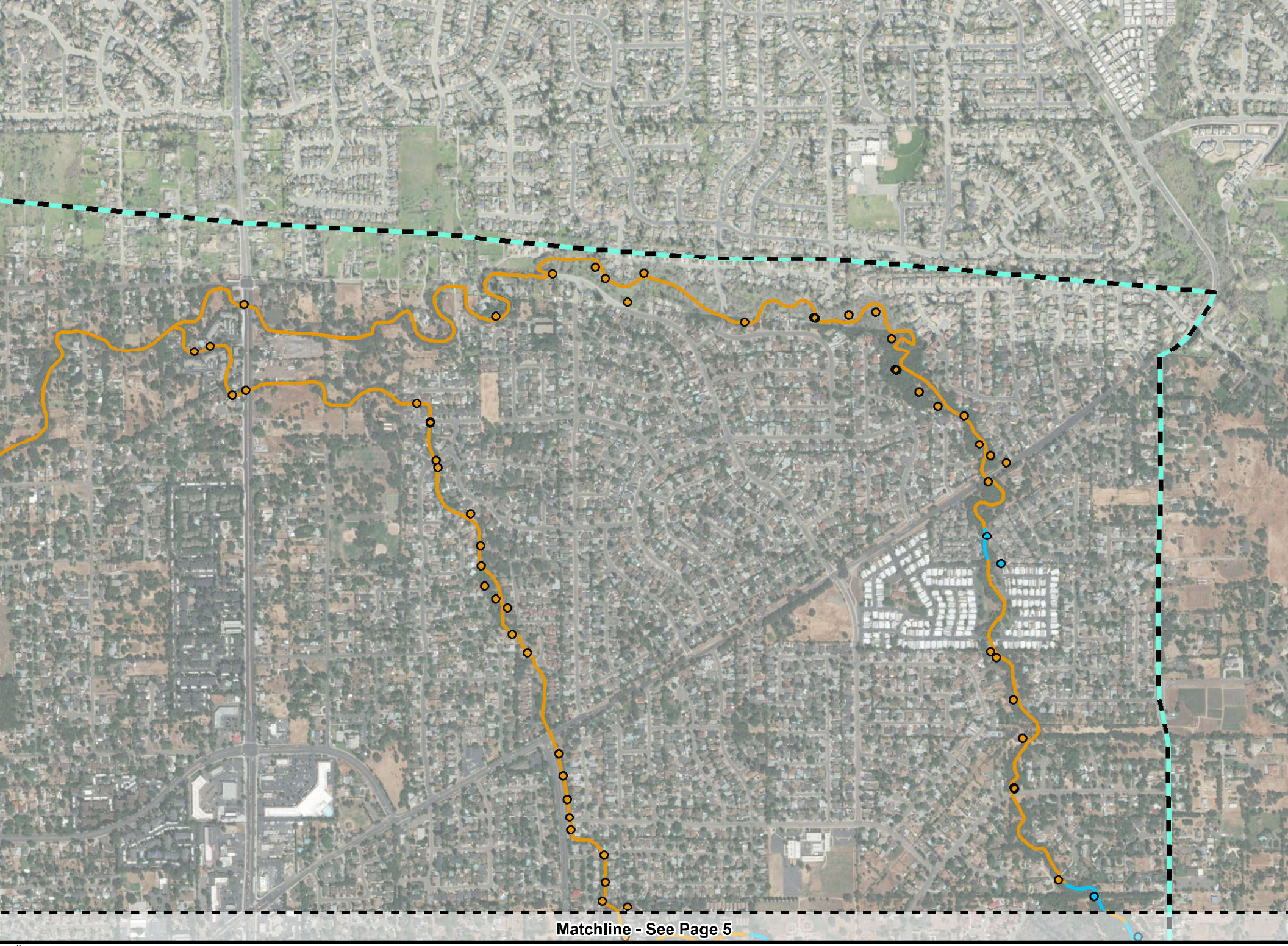

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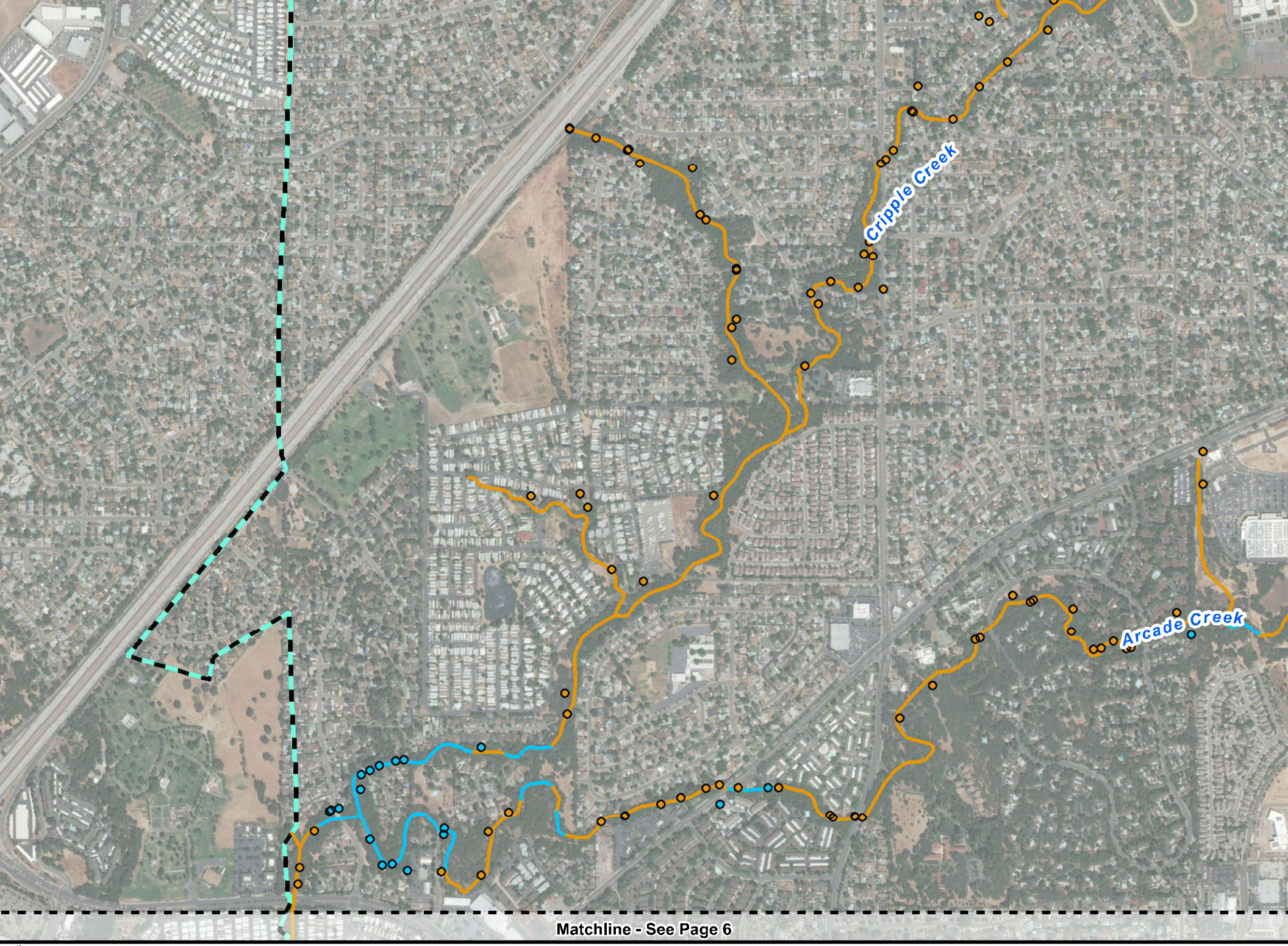

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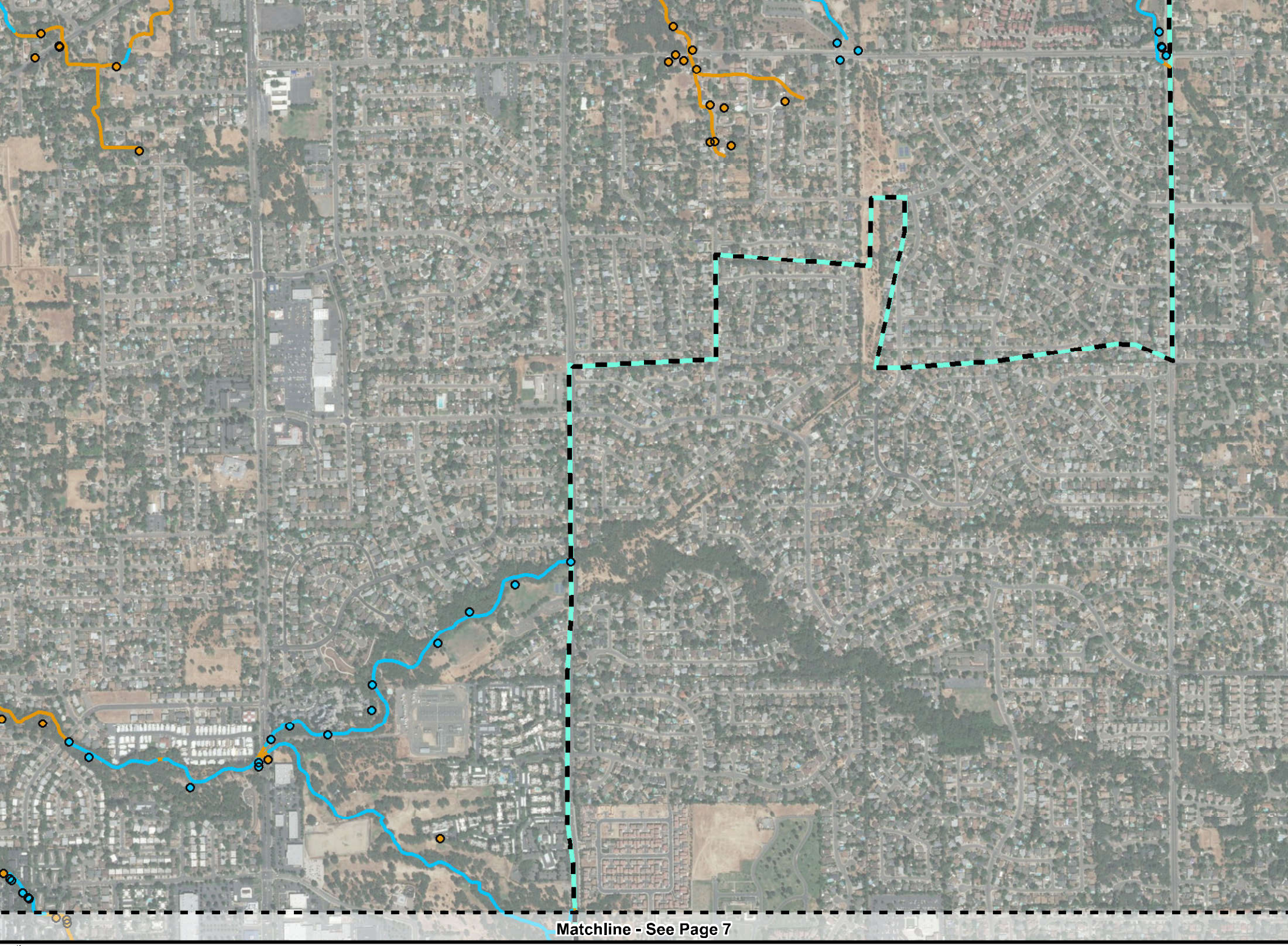

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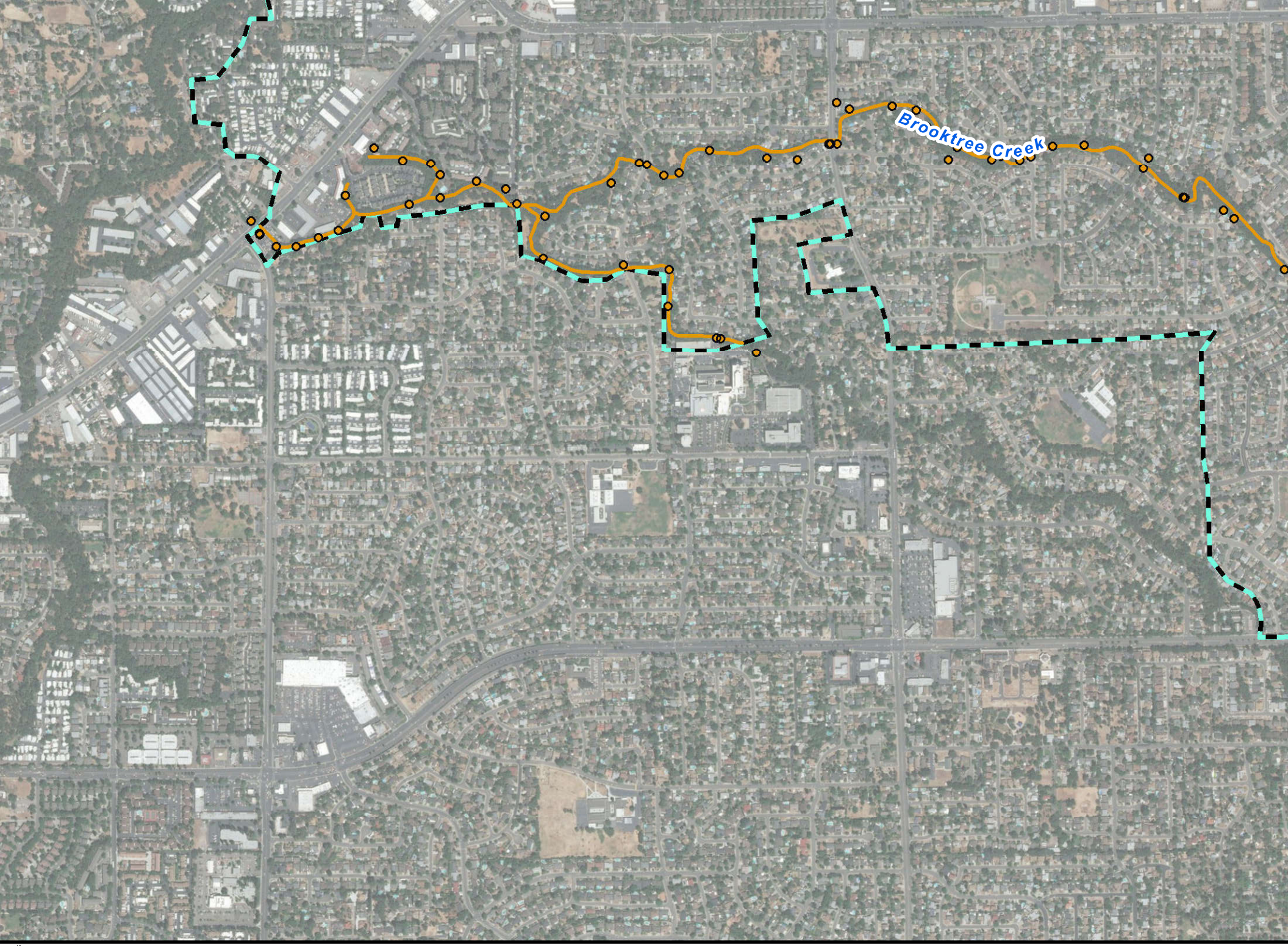

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City Boundary

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Table 6: Cultural Resource Mitigation Measures	
Category	Mitigation Measure
A	-Above Ground (no excavation) Maintenance Activities may proceed as needed without an archaeological survey. -Areas which require Below Ground Maintenance Activities must first be surveyed by an archaeologist who meets the Secretary of the Interiors Professional Qualification Standards in Archaeology. -If the area is deemed sensitive for cultural resources, only Above Ground Maintenance Activities are allowed. If no cultural resources are identified, Below Ground Maintenance Activities may proceed as needed.
B	Area previously surveyed. No archaeological resources identified. Both above ground and below ground maintenance activities may proceed without an archaeological survey.

Adherence to mitigation measures **CR-1, CR-2, CR-3**, and **CR-4** will ensure the project shall not impact the significance of an historical or archaeological resource. Implementation of **Mitigation Measure CR — 1** would reduce potential impacts to historical and archaeological resources to ***Less Than Significant With Mitigation Incorporated***.

c. **No Impact**. Based on the geologic map of the Sacramento Quadrangle, the City is predominantly underlain by the Quaternary formations (Turlock Lake Formation, Riverbank Formation, Basin deposits, Alluvium, and Modesto-Riverbank Formations) with only a very small portion underlain by a Tertiary formation (Mehrten Formation) (Wagner et. al. 1981). Turlock Lake Formation, Riverbank Formation, Modesto-Riverbank Formations and have high paleontological sensitivity, while Basin deposits and Alluvium have low paleontological sensitivity (Garcia and Associates 2007). However, the possibility of a paleontological discovery is unlikely because project maintenance activities are limited to above ground maintenance or stream sediment removal from very recent deposits. However, there is a possibility of unanticipated and accidental paleontological discoveries during ground-disturbing project-related activities. Unanticipated and accidental paleontological discoveries during project implementation could have the potential to affect paleontological resources. If paleontological resources are found, all work in the area would stop until a qualified paleontologist completes a determination of their significance as detailed in **Minimization Measure CR-3**. Impacts to unique paleontological or geological features will be ***Less Than Significant With Mitigation Incorporated.***

d. **Less Than Significant With Mitigation Incorporated**. No known burial sites or cemeteries exist within the streams and channels where routine maintenance activities would occur. If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission who will then notify the Most Likely Descendent. Further provisions of PRC 5097.98 are to be followed as applicable. Implementation of **Mitigation Measure CR — 4** would reduce this potential impact to ***Less Than Significant With Mitigation Incorporated***.

e. **Less Than Significant With Mitigation Incorporated**. The City sent AB52 consultation request letters certified mail on July 7, 2017 to Native American tribes who requested to be notified of projects within Citrus Heights. One response letter was received from the United Auburn Indian Community (UAIC) requesting consultation. The City met with UAIC cultural staff to discuss the project in greater detail. Based on tribal input during this meeting, the City developed a list of mitigation measures and provided them to the UAIC for review and comment. No comments were provided and consultation was determined to be complete on December 13th, 2017. No tribal cultural resources were identified by the UAIC. Implementation of **CR-2**, **CR-4**, and **TCR 1** – **TCR5** would reduce potential impacts to previously unknown tribal cultural resources to ***Less Than Significant With Mitigation Incorporated***.

Mitigation Measures:

CR-1: In routine maintenance areas classified as Category A, Below Ground Maintenance Activities are permissible only if first surveyed and determined to be "clear" by an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards in Archaeology. Above Ground Maintenance activities are allowed.

CR-2: If previously unidentified archaeological, historic, and/or tribal cultural resources are unearthed during construction, all ground disturbing activities shall be immediately suspended in that area and within 100 feet of the discovery. A qualified archaeologist meeting the Secretary of the Interior's Professional Qualification Standards in Archaeology, the City of Citrus Heights, and, if the discovery involves Native American cultural resources, the Native American Heritage Commission (NAHC), shall assess the significance of the find and determine appropriate mitigation, if necessary. Additional archaeological survey will be needed if project limits are extended beyond the present routine maintenance area limits. If adverse impacts to tribal cultural resources, unique Native American archaeological resources, or other Native American cultural resources occur during the project, the City of Citrus Heights shall notify the NAHC who will contact the UAIC for consultation regarding mitigation, pursuant to Public Resources Code section 21084.3(a) and (b) and CEQA Guidelines 15370.

In addition, **Mitigation Measure CR — 3 and CR — 4** are proposed to ensure potential impacts to tribal cultural resources, paleontological, and cultural resources remain less than significant.

CR-3: Previously Unidentified Paleontological Resources
The City shall ensure crews are informed of the following information during maintenance worker environmental training:

- If substantial fossil remains (particularly vertebrate remains) are discovered during earth-disturbing activities on the project site, activities will stop immediately until a state-registered Professional Geologist or Qualified Professional Paleontologist can assess the nature and importance of the find and a Qualified Professional Paleontologist can recommend appropriate treatment. Treatment may include preparation and recovery of fossil materials so that they can be housed in an appropriate museum or university collection and may also include preparation of a report for publication describing the finds. The City will be responsible for ensuring that recommendations regarding treatment and reporting are implemented.

CR-4: Inadvertent Discovery of Human Remains
The City shall ensure construction specifications include the following in the grading notes:

- If human remains are discovered during any phase of construction, including disarticulated or cremated remains, the construction contractor or City crew lead shall immediately cease all ground-disturbing activities within 100 feet of the remains and notify the City Project Manager and City Planning Manager.

- In accordance with California State Health and Safety Code Section 7050.5, no further disturbance shall occur until the following steps have been completed:

    - The County Coroner has made the necessary findings as to origin and disposition pursuant to PRC § 5097.98.

- If the remains are determined by the County Coroner to be Native American, the NAHC shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. It is further recommended that a professional archaeologist with Native American burial experience conduct a field investigation of the specific site and consult with the Most Likely Descendant (MLD), if any, identified by the NAHC. As necessary and appropriate, a professional archaeologist may provide technical assistance to the MLD, including but not limited to, the excavation and removal of the human remains.

3.6 Geology and Soils

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii. Strong seismic groundshaking?	☐	☐	☐	☒
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d. Be located on expansive soil, as defined in Section 1803.5.3 of the 2010 CBC, creating substantial risks to life or property?	☐	☐	☐	☒
e. 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?	☐	☐	☐	☒

Discussion of Checklist Answers:

a. No Impact. The project would not expose people or structures to potential substantial or adverse effects.

i. According to the City General Plan (2011), no active faults occur within or near the City. The closest fault mapped by the California Division of Mines and Geology is the Foothills Fault Zone about 15 miles to the northeast, and no significant seismic event has been recorded in the area since 1908 (CDC 2015). Routine maintenance activities would not expose people or structures to rupture of a known earthquake fault.

ii. The Proposed Project would not expose people or structures to seismic ground shaking due to the lack of active faults within the City and the nature of the Proposed Project activities (CDC 2010, CDC 2015). Specifically, the Proposed Project will be performing routine maintenance on existing habitats and structures and would not involve the construction of new structures which would regularly be occupied by people.

iii. Given the Proposed Project will be performing routine maintenance on existing habitats and structures, the Proposed Project would not create ground failure or liquefaction.

iv. Pursuant to the Community Health Element of the City General Plan (2011) and the CDC Landslide Inventory, the City and the surrounding Sacramento region is not an area at risk for Landslides (City of Citrus Heights 2011, CDC 2015, CDC 2015b). In addition, the Proposed Project will be performing routine maintenance on existing habitats and structures within the City's creeks and drainages and therefore would not create a substantial risk of landslides.

Therefore, there would be **No Impact** related to faults, seismic shaking, ground failure or liquefaction, or landslides. No mitigation is required.

b. Less Than Significant Impact With Mitigation Incorporated. Routine channel maintenance activities would result in some soil and sediment removal, cut and fill, debris and obstruction removal and other ground disturbing activities. However, as described in the project description, among the main objectives of the Proposed Project is to perform tasks such as bank stabilization, and repair of previous erosion control work which would be performed to improve water flow and minimize erosion concerns under the existing conditions. In addition, work included in routine channel maintenance activities will minimize soil and habitat disturbances through use of small construction equipment or hand tools used in the channel or on the channel banks. The Proposed Project will limit to the minimum necessary the amount of fill or sediment removal that can occur below the ordinary high water mark at any single location. In addition, should gunite be used, it will only be used at locations where it will not enter or be washed into a stream.

Storm water discharges within portions of Sacramento County, including the City, are permitted under Phase II of the National Pollutant Discharge Elimination System (NPDES) small municipal stormwater program MS4 (Order No. R5-2016-0040-004). The program is part of the Federal Clean Water Act, administered in California by the Regional Water Quality Control Boards. The NPDES regulations require permitted areas to implement specific activities and actions to protect water quality by eliminating non-stormwater discharges and controlling stormwater pollution (SWRCB 2016). With the implementation of **Mitigation Measure GEO-1 potential** impacts would be ***Less Than Significant with Mitigation Incorporated.***

c. No Impact. Refer to section a. i-iv. In addition, pursuant to the Community Health Element of the City General Plan, the City's geographic location, soil conditions, and surface terrain combine to minimize risk of major damage from landslides, subsidence (gradual shrinking of the earth's surface due to underground resource extraction), or other geologic hazards resulting from seismic activity and related natural forces (City of Citrus Heights 2011). Therefore, there is no potential for on- or off-

site landslide, lateral spreading, subsidence, liquefaction or collapse. ***No Impact*** would result from routine maintenance. No mitigation is required.

d. **No Impact**. The Proposed Project site is not located in an area of expansive soils and would not expose people to risk related to potential geologic impacts. Expansive soils include fine clays that retain moisture when wet. Soils within the City primarily consist of Xerarents and which are primarily composed of fine sands and loam. These soils are not considered expansive soils and the construction of buildings or structures is not included as a part of routine channel maintenance activities. ***No Impact*** would result from the Proposed Project. No mitigation is required.

e. **No Impact.** The Proposed Project would not use a septic tank system. Sewage collection and disposal is not required for routine channel maintenance activities. Therefore, ***No Impact*** on soils related to the use of septic tanks would occur. No mitigation is required.

Mitigation Measures:

GEO-1: The Proposed Project must comply with the City's MS4 permit for discharges of urban runoff, including the implementation of Low Impact Development (LID) practices and comply with the City's Design and Construction Standards (which provides standard erosion control BMPs) and will comply with the City's Stormwater Discharge Control Measures, listed in the City's Municipal Code (Chapter 98. Article V), which will adequately control erosion and effectively prohibit non-stormwater discharges (City of Citrus Heights 2017b).

3.7 Greenhouse Gas Emissions

	Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b.	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Discussion of Checklist Answers:

a, b. **Less Than Significant Impact**. Climate change is a public health and environmental concern around the world. As global concentrations of atmospheric greenhouse gas (GHG) increase, global temperatures increase, weather extremes increase, and air pollution concentrations increase. Global warming has been observed to contribute to poor air quality, rising sea levels, melting glaciers, stronger storms, more intense and longer droughts, more frequent heat waves, wildfires, and other threats to human health. Since the late 19th century, each of the past three decades has been successively warmer at the Earth's surface than any the previous decades in the instrumental record, and the decade of the 2000's has been the warmest (IPCC 2013).

Because reducing GHG emissions is very important to reduce the potential impacts of climate change, California has adopted AB 32, the Global Warming Solutions Act of 2006. The CARB is in the process of implementing a comprehensive, multi-year strategy to reduce GHG emissions. The state Attorney General's Office has identified various measures for all development types that may reduce the global warming impacts at the individual project level. The various measures include the following list categories:

- Energy Efficiency
- Renewable Energy and Energy Storage
- Water Conservation and Efficiency
- Solid Waste Measures
- Land Use Measures
- Transportation and Motor Vehicles
- Agriculture and Forestry

The Attorney General's Office also suggests that if, after analyzing and requiring all reasonable and feasible on-site mitigation measures for avoiding or reducing GHG-related impacts, the lead agency determines that additional mitigation is required, the agency may consider additional off- site mitigation (California Attorney General's Office 2010).

Table 3 lists 2014 California GHG emissions estimated by CARB based on carbon dioxide (CO_2) equivalent emission rates. CO_2 is the primary GHG emitted in California, accounting for 84% of total GHG emissions in 2014. California CO_2 gross emissions were approximately 441.5 million tons in

2014. As shown in Table 5, approximately 37 percent of GHG emissions from within California occur from transportation, 24 percent occur from industrial and 20 percent occur from electricity generation (CARB 2017b).

Table 7: California 2014 Greenhouse Gas Emissions Inventory - Gross Emissions and Sinks		
Category	**CO2 Equivalent (million tons)**	**Percent Total (of gross)**
Electricity Generation (In State & Imports)	88.37	20
Transportation	163.02	37
Agriculture & Forestry	36.11	8
Commercial and Residential	49.03	11
Industrial	104.22	24
Not Specified	0.79	< 1
Total (gross)	***441.54***	*100.00*

Source: (CARB 2017b)

Regulatory Framework Relating to Greenhouse Gas Emissions

CARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California, and for implementing the CCAA. Various statewide and local initiatives to reduce the state's contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is under way, and there is a real potential for severe adverse environmental, social, and economic effects in the long-term. Because every nation emits GHGs, and therefore makes an incremental cumulative contribution to global climate change, cooperation on a global scale will be required to reduce the rate of GHG emissions to a level that can help to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

There are numerous laws that have been signed into effect in California in efforts to reduce GHG emissions. Assembly Bill (AB) 1493 (signed in 2002) requires that CARB develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the state." To meet the requirements of AB 1493, in 2004 CARB approved amendments to the CCR adding GHG emissions standards to California's existing standards for motor vehicle emissions.

Executive Order S-3-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total GHG emission targets. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

In September 2006, Governor Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 established regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. As stated in its September 2010 progress report, 40 percent of reductions identified in the Scoping Plan have been secured through CARB actions.

SB 97, signed August 2007, acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. This bill directed the State Office of Planning and Research (OPR) to prepare, develop, and transmit to the Resources Agency guidelines for the feasible

mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA by July 1, 2009. The Resources Agency certified and adopted those guidelines on December 30, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the CCR. The Amendments were made effective March 18, 2010. The amendments contain changes to fourteen sections of the existing guidelines, including: the determination of significance as well as thresholds; statements of overriding consideration; mitigation; cumulative impacts; and specific streamlining approaches. The amendments also include an explicit requirement that EIRs analyze GHG emissions resulting from a project when the incremental contribution of those emissions may be cumulatively considerable.

In recognition of the statewide efforts to reduce GHG emissions, the City of Citrus Heights adopted a Greenhouse Gas Reduction Plan concurrent with the City's 2011 General Plan update process. According to the General Plan EIR, the single largest source of greenhouse gas emissions within the City of Citrus Heights is from on-road mobile sources (automobiles, trucks, etc.) and for government sources, the largest source was related to employee commutes (City of Citrus Heights General Plan EIR, 2011). The Greenhouse Gas Reduction Plan was adopted pursuant to a detailed analysis of potential project impacts under CEQA. The City of Citrus Heights has determined that projects that are consistent with the adopted Greenhouse Gas Reduction Plan would have a less than significant impact with regard to the project's GHG emissions and contributions to climate change.

Although the Proposed Project would contribute to GHG levels during implementation, routine maintenance activities would only have short-term, negligible GHG emissions as a result of the construction equipment and worker vehicles. Furthermore, related emissions should not be new, but rather a continuation of the City's ongoing creek maintenance program, and therefore part of existing baseline inventories. Therefore, the Proposed Project's contribution to global climate change through GHG emissions would be considered a ***Less Than Significant Impact***. No mitigation is required.

3.8 Hazards and Hazardous Materials

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b. 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?	☐	☐	☐	☒
c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project vicinity?	☐	☐	☐	☒
f. Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project vicinity?	☐	☐	☐	☒
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Discussion of Checklist Answers:

a, b. **No Impact**. Routine maintenance activities will not require any routine transport, use, or disposal of hazardous materials. The Proposed Project is not anticipated to create a significant hazard to the public or the environment through a reasonably foreseeable accident involving the release of hazardous materials into the environment. Gasoline will be required for power tools but will be transported in less than reportable quantities (55 gallons). Herbicides will be applied in a manner consistent with the recommendations of the California Department of Pesticide Regulation and the City will not utilize rodenticides. The City will prevent chemicals, paint, oil, gas, other petroleum products, and other substances that could be deleterious to aquatic life from contaminating the soil and/or entering waters of the state by immediately removing the hazardous material from any place where it could enter waters, containing any releases or spills of such materials, maintaining vehicles reasonably free of external petroleum residue, and locating staging and storage areas away from the stream and wetland zones. Those activities involving hazardous materials would be required to comply with all local, state, and federal standards associated with the handling of hazardous materials including, but not limited to, the City's Phase II MS4 NPDES permit, the USACE Section 404 Nationwide 3 Maintenance permit, the City's Design and Construction Standards, avoidance and minimization measures discussed in Section 2.5, and the City's Stormwater Discharge Control Ordinance. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

c. **No Impact**. Routine maintenance activities may occur within ¼ mile of local schools. However, the proposed routine maintenance activities would not involve the use or handling of any hazardous or acutely hazardous materials, substances, or waste. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

d. **No Impact**. The State of California Hazardous Waste and Substances Site List (also known as the "Cortese List") is a planning document used by state, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials sites. Government Code Section 65962.5 requires the California Environmental Protection Agency to annually update the Cortese List. The California Department of Toxic Substances Control (CDTSC) is responsible for preparing a portion of the information that comprises the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information that is part of the complete list. EnviroStor Database is compiled by the CDTSC to identify and track potential hazardous waste sites. Searches of the above resources identified no sites (CDTSC 2016) within the City limits known to handle and store hazardous materials and are associated with a hazardous material related release or occurrence; therefore, no impact to a known hazardous location would occur (CDTSC 2016). ***No Impact*** would result from the Proposed Project. No mitigation is required.

e, f. **No Impact**. The routine maintenance projects are not located near an airport or airstrip. Since the Proposed Project sites are not located within two miles of an airport or an area for which an Airport Land Use Plan has been prepared, and no public or private airfields are within two miles of the Proposed Project area, users of the Proposed Project would not be exposed to hazards due to over flight aircraft (FAA 2016). Thus, no significant impact would occur, and no mitigation would be necessary. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

g. **No Impact**. The Proposed Project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, the ***No Impact*** would result from development of the Proposed Project. No mitigation is required.

h. **No Impact**. The City is not located in an area identified by the California Department of Forestry and Fire Protection as a fire hazard region (CAL FIRE 2008). The proposed routine maintenance activities do not present conditions that are subject to wildland fires. There is no potential to expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. Therefore, ***No Impact*** would result from proposed maintenance activities. No mitigation is required.

3.9 Hydrology and Water Quality

	Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite or offsite?	☐	☐	☒	☐
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite?	☐	☒	☐	☐
e.	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f.	Otherwise substantially degrade water quality?	☐	☐	☒	☐
g.	Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h.	Place structures within a 100-year flood hazard area that would impede or redirect flood flows?	☐	☐	☐	☒

i.	Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j.	Contribute to inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Discussion of Checklist Answers:

a. **Less Than Significant Impact With Mitigation Incorporated**. Storm water discharges within portions of Sacramento County, including the City, are permitted under Phase II of the National Pollutant Discharge Elimination System (NPDES) small municipal stormwater program MS4 (Order No. R5-2016-0040-004). The program is part of the Federal Clean Water Act, administered in California by the Regional Water Quality Control Boards. The NPDES regulations require permitted areas to implement specific activities and actions to protect water quality by eliminating non-stormwater discharges and controlling stormwater pollution (SWRCB 2016). With the implementation of mitigation measure **GEO-1** and **HYD-1**, the Proposed Project would be required to comply with the City's MS4 permit for discharges of urban runoff from, including the implementation of Low Impact Development (LID) practices, where applicable. Further, the Proposed Project would comply with the City's Design and Construction Standards (which provides standard erosion control BMPs) and will comply with the City's Stormwater Discharge Control Measures, listed in the City's Municipal Code (Chapter 98. Article V), which will adequately control erosion and effectively prohibit non-stormwater discharges (City of Citrus Heights 2017b). The Proposed Project would be required to comply with the City's Phase II MS4 NPDES permit, the USACE Section 404 Nationwide 3 Maintenance permit, the City's Design and Construction Standards, avoidance and minimization measures discussed in Section 2.5, and the City's Stormwater Discharge Control Ordinance.

The City will perform the maintenance work at a time and in a manner that minimizes adverse impacts to fish and wildlife resources and provides for the protection and continuance of those resources. Specifically, the City would time the maintenance work with an awareness of precipitation and other events that could increase stream flows and an understanding of the amount of time and materials necessary to implement erosion control measures. In addition, the City would cease the maintenance work and implement all reasonable erosion control measures before all storm events. Routine channel maintenance activities would not violate any water quality standards or waste discharge requirements. Therefore, the Proposed Project would result in ***Less Than Significant Impact with Mitigation Incorporated***.

b. **No Impact.** No groundwater wells would be drilled as part of the Proposed Project. The Proposed Project would not deplete groundwater supplies or interfere substantially with groundwater recharge that would result in a net deficit in aquifer volume or lowering of the local groundwater table level. Therefore, the Proposed Project would result in a ***No Impact***. No mitigation is required.

c. **Less Than Significant Impact**. Channel maintenance involves the removal/displacement of silt, sand or sediment in the vicinity of man-made facilities or structures which cause an obstruction to the channel's flow. As a part of this Proposed Project, temporary stream diversions may be required, which may result in increased erosion and a corresponding increase in siltation within the water. However, any increase in flow velocities due to stream diversions would be temporary. The Proposed Project would result in a ***Less Than Significant Impact***. No mitigation is required.

d. **Less Than Significant Impact With Mitigation Incorporated.** Routine channel maintenance activities would improve drainage and reduce potential flooding impacts by removing obstacles and debris from the channels, including creeks, streams, and natural and man-made drainages within the

City. With implementation of Mitigation Measure **GEO-1** and **BIO-3** impacts to flooding would be considered to a ***Less Than Significant Impact with Mitigation Incorporated***.

e. **No Impact**. The Proposed Project activities will not create or contribute runoff water, rather through routine channel maintenance activities the existing and planned storm water drainage systems will be able to maintain design flow capacities. The Proposed Project will not result in additional polluted runoff. Therefore, the Proposed Project would result in a ***No Impact***. No mitigation is required.

f. **Less Than Significant Impact**. The routine channel maintenance activities would be required to comply with the City's Phase II MS4 NPDES permit, the USACE Section 404 Nationwide 3 Maintenance permit, the City's Design and Construction Standards, the City's Stormwater Discharge Control Ordinance, and the conditions of CDFW RMA. By complying with the conditions specified in these documents, routine maintenance impacts to water quality are considered a ***Less Than Significant Impact***. No mitigation is required.

g. **No Impact.** The Proposed Project is located within a FEMA-designated 100-year Flood Zones along Arcade and Cripple Creeks and their tributaries. However, as a routine maintenance Proposed Project to existing creeks, channels and basins, the Proposed Project does not involve housing or exposure of habitable structures to the 100-year flood event. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

h. **No Impact**. Routine maintenance activities do not involve the construction of new structures. Maintenance of existing erosion control and new minor erosion control may temporarily impede or redirect water flow during the maintenance activity. However, any materials used to temporarily divert flows would be removed upon completion of the maintenance activity. The Proposed Project would be required to comply with CDFW RMA conditions, the City NPDES permit, the USACE Section 404 Nationwide 3 Maintenance permit, the City's Design and Construction Standards, the City's Stormwater Discharge Control Ordinance, and the conditions of CDFW RMA. Therefore, the Proposed Project would result in ***No Impact***. No mitigation is required.

i. **No Impact**. Pursuant to the City's Community Health Element of the General Plan, the City does not have any dams or levees in the project area. The Proposed Project would not result in an increased concentration of large numbers of persons in any at-risk location, and the Proposed Project would not have a significant impact on any emergency plans. No work on dams or levees will occur. Therefore, the Proposed Project would result in ***No Impact***. No mitigation is required.

j. **No Impact**. The Proposed Project site is not located near an ocean coast or enclosed body of water that could produce a seiche or tsunami, nor is the site located near areas having steep slopes that would create mudflows. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

Mitigation measures

In addition to the implantation of Mitigation Measure **GEO-1,** and the following measures, no potentially significant impacts related to hydrology and water quality would occur.

HYD-1: The time period for completing the work within the wetted channel of Arcade Creek, Cripple Creek, their tributaries, and all other stream systems shall be restricted to periods of low stream flow and dry weather and shall be confined to the period of May 1st to October 15th. Construction activities shall be timed with awareness of precipitation forecasts and likely increases in stream flow. Construction activities within the stream zone shall cease until all reasonable erosion control measures, inside and outside of the stream zone, have been implemented prior to all storm events. Revegetation, restoration and erosion control work is not confined to this time period.

In addition, work within the bed, bank or channel of any stream shall be restricted to days with less than a 30% chance of rain as reported by the National Weather Service within 72 hours of the scheduled start of maintenance. All erosion control measures shall be initiated prior to all storm events. Revegetation, restoration and erosion control work is not confined to this work period.

If emergency maintenance is required, seasonal limitations do not apply. Emergency maintenance is defined as immediate emergency work necessary to protect life or property, or to restore public service facilities necessary to maintain service. The City will notify CDFW within 14 days of beginning maintenance work.

HYD-2: The City must prevent chemicals, paint, oil, gas, petroleum products, and other hazardous substances from contaminating the soil and/or entering waters of the U.S. and State. Any equipment operated adjacent to a stream must be checked and maintained daily to prevent leaks of the listed materials. Refueling, lubricating and washing of vehicles and equipment must occur outside of the bed, bank, or channel of any stream and must not be placed in areas where harmful materials, if spilled, can enter waters. Stationary equipment such as motors, pumps, generators, compressors, and welders located within or adjacent to the stream must be positioned over drip pans or secondary containment.

3.10 Land Use and Planning

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	☐	☒
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
d. Result in land use/operational conflicts between existing and proposed on-site or off-site land uses?	☐	☐	☐	☒

Discussion of Checklist Answers:

a. **No Impact**. All activities would occur within existing drainage ways and facilities. Routine channel maintenance would not physically disrupt or divide an established community. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

b. **No Impact**. As a routine maintenance project, the Proposed Project would not conflict with any applicable land use plan, policy, or regulation, including the City General Plan. be ***No Impact*** due to a conflict with a land use policy is anticipated. No mitigation is required.

c. **No Impact**. There are no habitat conservation plans or natural community conservation plans within the City of Citrus Heights; therefore, the project would not conflict with any existing habitat conservation plan or natural community's conservation plan. ***No Impact*** would result from the Proposed Project. No mitigation is required.

d. **No Impact**. As a routine maintenance project, the Proposed Project would remain consistent with existing uses and surrounding land uses and would not have the potential to result in land use or operational conflicts on- or off-site. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

3.11 Mineral Resources

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

Discussion of Checklist Answers:

a, b. **No Impact**. According to the City General Plan EIR, the majority of the City is designated as MRZ-1, which is defined as "areas where adequate information indicates that no significant mineral deposits are present", with a small portion of the southwestern corner of the City is designated as MRZ-3, suggesting a potential for aggregate deposits. As a routine maintenance project, the Proposed Project would not change existing land use or result in loss of available known mineral resources or resources zones. Therefore, the Proposed Project would have ***No Impact*** on mineral resources. No mitigation is required.

3.12 Noise

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b. Expose persons to or generate excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e. Be located within an airport land use plan area, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project vicinity to excessive noise levels?	☐	☐	☐	☒
f. Be located in the vicinity of a private airstrip and expose people residing or working in the project vicinity to excessive noise levels?	☐	☐	☐	☒

Discussion of Checklist Answers:

a. **Less Than Significant Impact**. Noise may be generated during routine maintenance activities by traffic associated with transport of heavy materials and equipment to and from maintenance sites and the use of motorized equipment during routine maintenance activities. Noise sources such as lawn mowers, grass trimmers, chainsaws, bobcats and backhoes could be used as maintenance tools. This noise increase would be of short duration, and would likely occur primarily during daytime hours. Examples of noise generating actions involved in maintenance activities would generate maximum noise levels, as indicated in **Table 5** below, ranging from 74 to 90 dB at a distance of 50 feet.

Table 8: Typical Maximum Construction Equipment Noise Levels		
ID	Type of Equipment	Range of Maximum Sound Level Measured at 50 feet (dBA)
1	Pneumatic Tools	78 to 88
2	Pumps	74 to 84
3	Dozers	77 to 90
4	Tractors	77 to 82
5	Front-End Loaders	77 to 90
6	Hydraulic Backhoes	81 to 90
7	Hydraulic Excavators	81 to 90
8	Graders	79 to 89
9	Air Compressors	76 to 89

Source: (Bolt, Beranek, and Newman 1987).

Pursuant to the City's Noise Ordinance, exterior noise standards shall apply to all properties within the City and should not exceed 55 dBA $_{Leq}$ during daytime hours (7:00 A.M. to 10:00 P.M.) and 50 dBA $_{Leq}$ during nighttime hours (10:00 P.M. to 7:00 A.M.). However, noise sources associated with construction are exempt from these noise standards provided the activity takes place between the hours of 6:00 A.M to 8:00 P.M. Monday through Friday, and 7:00 A.M. to 6:00 P.M. on Saturday and Sunday (City of Citrus Heights 2017c). All routine maintenance activities would be temporary in nature and are anticipated to occur during normal daytime working hours. Construction-related noise would result in a ***Less Than Significant Impact.*** No mitigation is required.

b. **Less Than Significant Impact.** The proposed maintenance activities would require use of small construction equipment (such as, excavators, backhoes, dump trucks, and bobcats) that would not generate excessive ground borne vibration or noise levels. All potential noise effects to the environment would be temporary. Construction-related noise would therefore result in a ***Less Than Significant Impact.*** No mitigation is required

c. **No Impact**. The Proposed Project would likely result in temporary increases in noise from use of small construction equipment for the duration of the maintenance activity. However, the Proposed Project does not propose to introduce any permanent noise sources at any of the maintenance sites. Routine maintenance activities would not result in permanent increases in noise levels. Therefore, the Proposed Project would have ***No Impact*** on the noise environment. No mitigation is required.

d. **Less Than Significant Impact.** During routine maintenance activities, there would be a temporary noise increase from use of power tools, equipment, and other non-powered hand-tools. The City would comply with all applicable noise and occupational safety standards, and to protect workers and other persons from health effects of increased noise levels from the use of construction equipment. Routine maintenance activities would be temporary in nature and are anticipated to occur during normal daytime working hours. Avoidance and minimization measures discussed in Section 2.5 would reduce the noise impacts to less-than-significant. Temporary or periodic increases in ambient noise levels would be a ***Less Than Significant Impact.*** No mitigation is required.

e, f. **No Impact**. The Proposed Project site is not located near an existing airport and is not within an area covered by an existing airport land use plan. Therefore, there would be ***No Impact***. No mitigation is required

3.13 Population and Housing

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c. Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion of Checklist Answers:

a-c. **No Impact**. The Proposed Project will not affect population and housing. Routine maintenance activities would not directly or indirectly induce population growth, displace housing or necessitate construction of replacement housing. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

3.14 Public Services

Would the project:		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a 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 following public services:					
a.	Fire protection?	☐	☐	☐	☒
b.	Police protection?	☐	☐	☐	☒
c.	Schools?	☐	☐	☐	☒
d.	Parks?	☐	☐	☐	☒
e.	Other public facilities?	☐	☐	☐	☒

Discussion of Checklist Answers:

a-e. **No Impact**. The Proposed Project involves maintenance of existing drainage features and some new construction of erosion control features. The Proposed Project does not include construction of any habitable structures or other structures that would require public services or impact the service ratios, response times, or other performance objectives of any service providers. Routine channel maintenance activities would not result in a need for additional public services or substantial adverse physical impacts to construction of new public facilities with respect to fire protection, police protection, schools, parks, or other public facilities. Therefore, ***No Impact*** would result from development of the Proposed Project. No mitigation is required.

3.15 Recreation

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion of Checklist Answers:

a, b. **No Impact**. The Proposed Project will not affect recreation or recreation facilities in the area because the Proposed Project involves routine maintenance activities of existing drainage channels and other storm water facilities and would not increase the use of existing neighborhood and regional parks or other recreational facilities. No impacts to recreational resources are expected. ***No Impact*** would result from the Proposed Project. No mitigation is required.

3.16 Transportation/Traffic

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d. Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e. Result in inadequate emergency access?	☐	☐	☐	☒
f. Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Discussion of Checklist Answers:

a, b. **No Impact**. Routine maintenance activities would not affect the City's plans, ordinances, policies or measures for the performance of the circulation system, nor would it conflict with the City's management of congestion. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

c. **No Impact**. The Proposed Project does not require any changes to existing regional air traffic activity, and the project site is not located near an airport. Therefore, there would be ***No Impact***. No mitigation is required.

d. **No Impact**. The design features associated with the Proposed Project would not increase hazards, considering the routine maintenance activities will not result in the development of new roadways. Therefore, there would be ***No Impact***. No mitigation is required.

e. **No Impact**. Routine maintenance activities would not affect emergency vehicle access. There would be ***No Impact***. No mitigation is required.

f. **No Impact**. Routine channel maintenance activities would not affect the City's overall transportation service goals and there would be no conflicts with adopted policies, plans, or programs supporting alternative transportation. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

3.17 Tribal Cultural Resources

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. 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:				
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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Discussion of Checklist Answers:

i. **Less than Significant with Mitigation.** The project is not anticipated to cause a substantial adverse change in the significance of a Tribal Cultural Resource (TCR) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historic resources as defined in Public Resources Code section 5020.1(k). No TCRs have been identified within the City and no impacts to TCRs are anticipated; however, with any Project requiring ground disturbance, there is always the possibility that previously unknown cultural resources may be unearthed during construction. This impact would be considered potentially significant. Implementation of Mitigation Measure **CR-1** and **CR-2** (included in Section 3.5) would reduce the potential impact to ***less-than significant with mitigation.***

ii. **Less than Significant with Mitigation.** The project is not anticipated to cause a substantial adverse change to a TRC pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. No TCRs have been identified within the City; however, with any Project requiring ground disturbance, there is the possibility that previously unknown cultural resources may be unearthed during construction.

The City has coordinated with local Native American tribes to identify and avoid TCRs. On July 7th, 2017, the City sent formal notification letters and an invitation to initiate consultation to all Native American tribes that had previously requested to be consulted under Assembly Bill 52 (AB52). The United Auburn Indian Community (UAIC) responded to the request for consultation on July 31st, 2017. The City met with the UAIC on October 5th, 2017, to discuss the project and hear the Tribes concerns regarding potential project impacts to TCRs. At this meeting, conceptual protective measures were developed. The City provided a formal list of these measures to the UAIC on November 2nd, 2017, for review and comment. No response was received and a follow up email was sent on November 29th, 2017, requesting any comments by December 8th, 2017. On December 11th, no response had been received and the City determined that reasonable effort under AB52 has been made and considered consultation with UAIC complete. Mitigation measures developed in coordination with the UAIC have been included below. Implementation of Mitigation Measures **TCR-1** through **TCR-5** and Mitigation Measures **CR-1** through **CR-2** would reduce potential impacts to ***less-than significant with mitigation.***

Mitigation Measures:

The following mitigation measures would be incorporated to reduce impacts to a less than significant level:

TCR-1: A cultural resources awareness training program will be developed in coordination with the UAIC. The training program will include relevant information regarding sensitive tribal cultural resources, applicable regulation, and avoidance and minimization measures. The program will also underscore the requirement for confidentiality and respectful treatment of inadvertently discovered TCRs. Cultural resource awareness training will be provided to all maintenance personnel and other City staff involved in routine maintenance annually as a component of the environmental awareness training program.

TCR-2: Verification Request Forms (VRFs) submitted to CDFW in advance of maintenance activities will be submitted to UAIC concurrently. The standard review time for VRFs is 10-days; however, if urgent maintenance is required, a 2-day notice would be provided. The VRF will serve to notify the UAIC of upcoming maintenance work and will allow the UAIC to notify the City of any TCRs at the planned maintenance location. If applicable, the City and UAIC will collaborate to develop appropriate project specific avoidance strategies or compensatory mitigation prior to maintenance.

TCR-3: When possible, the City will avoid impacts to identified TCRs. The City will coordinate with the UAIC to develop site appropriate avoidance strategies which may include modifying maintenance plans to avoid impacting TCRs, installing protective Environmentally Sensitive Area (ESA) fencing around TCRs, or inviting a tribal representative to monitoring maintenance activities near TCRs. If ESA fencing is installed, it should be installed under the supervision of a tribal representative or qualified archaeologist or biologist familiar with the TCR being protected and remain in place for the duration of the maintenance activity.

TCR-4: During the development of the Habitat Mitigation and Monitoring Plan (HMMP), the City will coordinate with the UAIC to incorporate native plants of cultural significance into restoration planting plans. Currently identified native plants of cultural significance include blue elderberry (*Sambucus nigra* ssp. *caerulea*), mugwort (*Artemisia douglasiana*), and native oak trees (*Quercus* sp.). Additional species may be identified by the UAIC during the development of the HMMP and will be incorporated into restoration planting plans as long as they are ecologically appropriate.

TCR-5: In publicly owned areas with existing public access, access to restoration sites will be maintained except during the early plant establishment phase when young plants are especially sensitive to disturbance and in areas with public safety concerns.

3.18 Utilities and Service Systems

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?	☐	☐	☐	☒
e. Result in a determination by the wastewater treatment provider that 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?	☐	☐	☐	☒
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Discussion of Checklist Answers:

a. **No Impact.** The Proposed Project is restricted to routine maintenance activities; therefore, the Proposed Project would not involve wastewater treatment requirements. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

b. **No Impact.** The Proposed Project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

c. **Less Than Significant Impact.** Routine maintenance activities would result in the maintenance of drainage channels and ultimately would improve storm water drainage within the City. No new storm water drainage facilities would be required as the Proposed Project is only for routine maintenance of existing drainage facilities. Therefore, a ***Less Than Significant Impact*** would result from the Proposed Project. No mitigation is required.

d. **No Impact**. The Proposed Project would not increase water supply demand. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

e. **No Impact**. The Proposed Project would not affect wastewater treatment. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

f. **Less Than Significant Impact.** Although the Proposed Project would generate some solid waste as a result of silt, gravel and sediment removal, quantities are not anticipated to be significantly burdensome to local disposal facilities. Therefore, ***Less Than Significant Impact*** would result from routine maintenance. No mitigation is required.

g. **No Impact**. The Proposed Project would comply with federal, state, and local statutes and regulations related to solid waste. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

3.19 Mandatory Findings of Significance

	Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b.	Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒	☐
c.	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Discussion of Checklist Answers:

a. **Less Than Significant With Mitigation Incorporated**. As discussed in this study, the Proposed Project could result in impacts to biological and cultural resources but, these impacts would be mitigated to less than significant levels. Mitigation measures included in this document have been identified to reduce these potentially adverse environmental impacts to a less than significant level. Impacts related to routine maintenance of stream channels are considered ***Less Than Significant With Mitigation Incorporated***.

b. **Less Than Significant Impact**. The Proposed Project does not directly or indirectly contribute to cumulative impacts based on analysis provided within this study.

The Proposed Project would not induce population growth or result in the development of new housing or employment-generating uses; therefore, it would not combine with cumulative development to create a cumulative effect related to increased demand for services or utilities, the expansion of which could result in significant environmental effects. Routine maintenance will result in a ***Less Than Significant Impact***.

c. Less Than Significant Impact. As discussed in this study, the Proposed Project could result in impacts on human beings indirectly due to noise impacts. Avoidance and minimization measures included in this study would reduce impacts to less-than-significant levels. Impacts are considered ***Less Than Significant.*** No mitigation is required.

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Appendix A — Mitigation Monitoring and Reporting Program

Mitigation Monitoring and Reporting Program

for the City of Citrus Heights Routine Maintenance of Stream Channels and Drainage Facilities project

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
Biological Resources - Mitigation Measures					
BIO-1: Prior to beginning any maintenance work under the RMA, the City maintenance supervisors and crews who would be completing the work must be trained by qualified personnel to identify and avoid harm to sensitive resources, special status species and their habitats. The City shall conduct an education program for all persons employed or otherwise working on the project site prior to performing any work on-site. The program shall consist of a presentation from the Designated Biologist that includes a discussion of the biology of the habitats and species that may occur during routine maintenance. The Designated Biologist shall also include as part of the education program information about the distribution and habitat needs of any special-status species that may be present, legal protections for those species, penalties for violations and project-specific protective measures. Interpretation shall be provided for non-English speaking workers, and the same instruction shall be provided for any new workers prior to their performing work on-site. Upon completion of the education program, employees shall sign a form stating they attended the program and understand all protection measures.	Prior to Maintenance	City of Citrus Heights			
BIO-2: Prior to vegetation removal or ground disturbance within Sanford's arrowhead habitat (e.g. shallow waters within creeks, canals, basins, and ponds), a 1-day presence/absence survey will be conducted by a City appointed biologist during the bloom season for Sanford's arrowhead (May – October). Presence/Absence surveys must cover all Sanford's arrowhead habitat that will be affected by the proposed maintenance activities and must positively identify all aquatic and wetland herbs within the survey area. The results of the survey will be documented in a brief survey memorandum that will be submitted to CDFW prior to maintenance activities. Rare plant populations discovered onsite will be protected in place with orange ESA fencing. If rare plant populations cannot be protected in place, the City will coordinate with CDFW to develop a rare plant relocation plan or determine appropriate compensatory mitigation.	Prior to Maintenance	City of Citrus Heights			

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for the City of Citrus Heights Routine Maintenance of Stream Channels and Drainage Facilities project

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
BIO-3: If possible, vegetation removal and ground disturbance should occur during the non-breeding season for all bird species (September 1st – January 31st). If vegetation removal or ground disturbance is to take place during the nesting season (February 1st – August 31st) a pre-construction nesting bird survey must be conducted within 3 days prior to vegetation removal or ground disturbance. The nesting survey area will include the anticipated work area plus an approximate 500 foot buffer. All areas within 100 feet will be surveyed for nesting birds. All tall trees and structures potentially providing nesting habitat for raptors will be surveyed with high powered binoculars or a spotting scope. If a pre-construction survey is not feasible, then a full time biological monitor may substitute for the preconstruction survey. The biological monitor will work slightly in advance of maintenance crews searching for nests and monitoring bird activity for stressful behaviors that could indicate a nearby nest. The biological monitor must remain onsite for the duration of work and have the power to halt maintenance work if evidence of nesting birds is discovered. A 100-foot no disturbance buffer will be established around active bird nests protected by the Migratory Bird Treaty Act (MBTA) and Fish and Game Code 3503 and 3503.5. A reduced song bird buffer may be appropriate if agreed upon on a case by case basis by CDFW. Should an active raptor nest be found, an increased buffer distance may be appropriate. Raptor buffer distances will be approximately 300 feet but final buffer distances will be determined through consultation with CDFW. Should maintenance activities cause the nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then the no disturbance buffer will be increased such that activities are far enough from the nest to stop this agitated behavior. The no disturbance buffer will remain in place until the chicks have fledged or as otherwise determined by a qualified biologist. If there is a break in construction activity of more than 2 weeks, subsequent surveys should be conducted.	Prior to/During Maintenance	City of Citrus Heights			
BIO-4: The City will avoid impacts to elderberry shrubs in a manner consistent with the *City of Citrus Heights General Plan EIR: Mitigation Measure 4.6-2a.* If maintenance activities cannot avoid impacts to	Prior to/During Maintenance	City of Citrus Heights			

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for the City of Citrus Heights Routine Maintenance of Stream Channels and Drainage Facilities project

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
elderberry shrubs, the City must initiate Consultation with the USFWS. The City will mitigate for impacts to the species consistent with the existing USFWS BO, or as may be determined via a Section 10 consultation which could include relocating elderberry shrub(s) to a USFWS approved mitigation bank and purchasing mitigation credits according to Table 1 in the Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS 1999).					
BIO-5: Swallow nest removal should occur during the non-nesting season (September 1st – January 31st) after the young of the year have fledged and no nesting activity is observed. Swallow nests will not be removed until they have been inspected by a qualified biologist and determined to be inactive. During the nesting season, the City may discourage swallow nest construction by removing partially completed nests that are less than 1/3rd complete. After a nest is more than 1/3rd complete, it cannot be disturbed until a qualified biologist has determined that all nestlings have fledged and are foraging independently.	During Maintenance	City of Citrus Heights			
BIO-6: Structures will be assessed for bat occupation prior to initiation of work. The City must coordinate with CDFW prior to conducting maintenance work on bridges or structures occupied by bats. If a structure occupied by bats must be maintained, bats will be excluded prior to the pupping season (April 15th – August 31st). Bat exclusion must be conducted under the supervision of a qualified bat biologist experienced in bat exclusion. If no alternative roosting habitat (e.g. other bridges or structures) is available within 1000 feet of the maintenance area, temporary bat accommodations may be required.	Prior to Maintenance	City of Citrus Heights			
BIO-7: The City will create or purchase compensatory mitigation for permanent impacts to jurisdictional features. Mitigation will be created by the City within City owned open space or purchased from a CDFW approved mitigation bank at a minimum 3:1 ratio (or a combination of restoration and mitigation credits). Permanent impacts are defined as actions that result in a permanent modification to wetlands, stream channels, or riparian habitats (e.g. new impervious cover, rock slope protection, placement of fill). Mitigation will be calculated based on the area of impact. Mitigation sites will be monitored for a period of 5 years. A mitigation	Post Maintenance	City of Citrus Heights			

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for the City of Citrus Heights Routine Maintenance of Stream Channels and Drainage Facilities project

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
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site will be deemed successful if it meets success standards for plant survivability and non-native cover. If success criteria are not met, corrective actions including supplemental planting, watering, or weeding may be required. Success criteria will be determined in consultation with CDFW during the preparation of a Habitat Mitigation and Monitoring Plan (HMMP) that will be prepared and submitted to CDFW for review within 180 days following the adoption of the RMA. If maintenance activities result in a permanent impact requiring mitigation before the HMMP is approved by CDFW, the City will purchase compensatory mitigation from a CDFW approved mitigation bank at a 3:1 ratio.					
BIO-8: If wildlife is encountered during maintenance activities, work will stop within the area until the animal leaves of its own accord or the animal is relocated by a qualified biologist or animal control professional. If special status wildlife is encountered during maintenance activities, work will stop within the area and CDFW will be contacted to determine appropriate avoidance measures.	During Maintenance	City of Citrus Heights			
BIO-9: Plastic mono-filament netting (erosion control matting) or similar material that could trap wildlife will not be used. Acceptable substitutes include jute, coconut coir matting or tackified hydroseeding compounds.	During Maintenance	City of Citrus Heights			
BIO-10: Soil disturbance and vegetation trimming/removal within the bed, bank and channel of creeks will be limited to the minimum area necessary to complete maintenance activities. Existing vegetation will be protected where feasible and disturbed/exposed soils will be stabilized to prevent erosion and sedimentation	During Maintenance	City of Citrus Heights			
BIO-11: Prior to arrival at the project site, the City must clean all equipment that may contain invasive plants and/or seeds to reduce the spreading of noxious weeds.	During Maintenance	City of Citrus Heights			
BIO-12: When feasible, stumps of removed trees will be left intact to allow the tree to stump sprout and quickly regenerate the habitat.	During Maintenance	City of Citrus Heights			
BIO-13: Where ground disturbance occurs, the surface of temporarily impacted riparian and wetland habitat will be regraded and restored to pre-maintenance contours (if applicable). Site restoration with container plants or a native seed mix may be required if vegetation removal included soil grubbing to quickly regenerate mature vegetation.	Post Maintenance	City of Citrus Heights			

Mitigation Monitoring and Reporting Program

for the City of Citrus Heights Routine Maintenance of Stream Channels and Drainage Facilities project

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
Cultural Resources – Mitigation Measures					
CR-1: In routine maintenance areas classified as Category A, Below Ground Maintenance Activities are permissible only if first surveyed and determined to be "clear" by an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards in Archaeology. Above Ground Maintenance activities are allowed.	Prior to/During Maintenance	City of Citrus Heights			
CR-2: If previously unidentified archaeological, historic, and/or tribal cultural resources are unearthed during construction, all ground disturbing activities shall be immediately suspended in that area and within 100 feet of the discovery. A qualified archaeologist meeting the Secretary of the Interior's Professional Qualification Standards in Archaeology, the City of Citrus Heights, and, if the discovery involves Native American cultural resources, the Native American Heritage Commission (NAHC), shall assess the significance of the find and determine appropriate mitigation, if necessary. Additional archaeological survey will be needed if project limits are extended beyond the present routine maintenance area limits. If adverse impacts to tribal cultural resources, unique Native American archaeological resources, or other Native American cultural resources occur during the project, the City of Citrus Heights shall notify the NAHC who will contact the UAIC for consultation regarding mitigation, pursuant to Public Resources Code section 21084.3(a) and (b) and CEQA Guidelines 15370.	During Maintenance	City of Citrus Heights			
CR-3: Previously Unidentified Paleontological Resources The City shall ensure crews are informed of the following information during maintenance worker environmental training: • If substantial fossil remains (particularly vertebrate remains) are discovered during earth-disturbing activities on the project site, activities will stop immediately until a state-registered Professional Geologist or Qualified Professional Paleontologist can assess the nature and importance of the find and a Qualified Professional Paleontologist can recommend appropriate treatment. Treatment may include preparation and recovery of fossil materials so that they can be housed in an appropriate museum or university collection and may also include preparation of a report for publication describing the finds. The City will be responsible for	Prior to/During Maintenance	City of Citrus Heights			

Mitigation Monitoring and Reporting Program

for the City of Citrus Heights Routine Maintenance of Stream Channels and Drainage Facilities project

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
ensuring that recommendations regarding treatment and reporting are implemented.					
CR- 4: Inadvertent Discovery of Human Remains The City shall ensure construction specifications include the following in the grading notes: • If human remains are discovered during any phase of construction, including disarticulated or cremated remains, the construction contractor or City crew lead shall immediately cease all ground-disturbing activities within 100 feet of the remains and notify the City Project Manager and City Planning Manager. • In accordance with California State Health and Safety Code Section 7050.5, no further disturbance shall occur until the following steps have been completed: o The County Coroner has made the necessary findings as to origin and disposition pursuant to PRC § 5097.98. If the remains are determined by the County Coroner to be Native American, the NAHC shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. It is further recommended that a professional archaeologist with Native American burial experience conduct a field investigation of the specific site and consult with the Most Likely Descendant (MLD), if any, identified by the NAHC. As necessary and appropriate, a professional archaeologist may provide technical assistance to the MLD, including but not limited to, the excavation and removal of the human remains.	During Maintenance	City of Citrus Heights			
Hydrology and Water Quality – Mitigation Measures					
HYD-1: The time period for completing the work within the wetted channel of Arcade Creek, Cripple Creek, their tributaries, and all other stream systems shall be restricted to periods of low stream flow and dry weather and shall be confined to the period of May 1st to October 15th. Construction activities shall be timed with awareness of precipitation forecasts and likely increases in stream flow. Construction activities within the stream zone shall cease until all reasonable erosion control	During Maintenance	City of Citrus Heights			

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
measures, inside and outside of the stream zone, have been implemented prior to all storm events. Revegetation, restoration and erosion control work is not confined to this time period. In addition, work within the bed, bank or channel of any stream shall be restricted to days with less than a 30% chance of rain as reported by the National Weather Service within 72 hours of the scheduled start of maintenance. All erosion control measures shall be initiated prior to all storm events. Revegetation, restoration and erosion control work is not confined to this work period. If emergency maintenance is required, seasonal limitations do not apply. Emergency maintenance is defined as immediate emergency work necessary to protect life or property, or to restore public service facilities necessary to maintain service. The City will notify CDFW within 14 days of beginning maintenance work.					
HYD-2: The City must prevent chemicals, paint, oil, gas, petroleum products, and other hazardous substances from contaminating the soil and/or entering waters of the U.S. and State. Any equipment operated adjacent to a stream must be checked and maintained daily to prevent leaks of the listed materials. Refueling, lubricating and washing of vehicles and equipment must occur outside of the bed, bank, or channel of any stream and must not be placed in areas where harmful materials, if spilled, can enter waters. Stationary equipment such as motors, pumps, generators, compressors, and welders located within or adjacent to the stream must be positioned over drip pans or secondary containment.	During Maintenance	City of Citrus Heights			
Tribal Cultural Resources – Mitigation Measures					
TCR-1: A cultural resources awareness training program will be developed in coordination with the UAIC. The training program will include relevant information regarding sensitive tribal cultural resources, applicable regulation, and avoidance and minimization measures. The program will also underscore the requirement for confidentiality and respectful treatment of inadvertently discovered TCRs. Cultural resource awareness training will be provided to all maintenance	Prior to Maintenance	City of Citrus Heights			

Mitigation Monitoring and Reporting Program

for the City of Citrus Heights Routine Maintenance of Stream Channels and Drainage Facilities project

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
personnel and other City staff involved in routine maintenance annually as a component of the environmental awareness training program.					
TCR-2: Verification Request Forms (VRFs) submitted to CDFW in advance of maintenance activities will be submitted to UAIC concurrently. The standard review time for VRFs is 10-days; however, if urgent maintenance is required, a 2-day notice would be provided. The VRF will serve to notify the UAIC of upcoming maintenance work and will allow the UAIC to notify the City of any TCRs at the planned maintenance location. If applicable, the City and UAIC will collaborate to develop appropriate project specific avoidance strategies or compensatory mitigation prior to maintenance.	Prior to Maintenance	City of Citrus Heights			
TCR-3: When possible, the City will avoid impacts to identified TCRs. The City will coordinate with the UAIC to develop site appropriate avoidance strategies which may include modifying maintenance plans to avoid impacting TCRs, installing protective Environmentally Sensitive Area (ESA) fencing around TCRs, or inviting a tribal representative to monitoring maintenance activities near TCRs. If ESA fencing is installed, it should be installed under the supervision of a tribal representative or qualified archaeologist or biologist familiar with the TCR being protected and remain in place for the duration of the maintenance activity.	Prior to/ During Maintenance	City of Citrus Heights			
TCR-4: During the development of the Habitat Mitigation and Monitoring Plan (HMMP), the City will coordinate with the UAIC to incorporate native plants of cultural significance into restoration planting plans. Currently identified native plants of cultural significance include blue elderberry (*Sambucus nigra* ssp. *caerulea*), mugwort (*Artemisia douglasiana*), and native oak trees (*Quercus* sp.). Additional species may be identified by the UAIC during the development of the HMMP and will be incorporated into restoration planting plans as long as they are ecologically appropriate.	Prior to Maintenance	City of Citrus Heights			
TCR-5: In publicly owned areas with existing public access, access to restoration sites will be maintained except during the early plant establishment phase when young plants are especially sensitive to disturbance and in areas with public safety concerns.	Post Maintenance	City of Citrus Heights			

Appendix B — Biological Database Search Results

USFWS – IPAC Species List

CNDDB GIS Database Search (Data Updated March 2017)

NMFS - West Coast Region - California - Species List Mapping Tool

CNPS species lists for the USGS 7 ½ minute quadrangles of Citrus Heights, Folsom, Rocklin, and Roseville

United States Department of the Interior

FISH AND WILDLIFE SERVICE
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In Reply Refer To: April 19, 2017
Consultation Code: 08ESMF00-2017-SLI-1835
Event Code: 08ESMF00-2017-E-04649
Project Name: Citrus Heights Routine Maintenance of Stream Channels and Drainage Facilities Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the

Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2017-SLI-1835

Event Code: 08ESMF00-2017-E-04649

Project Name: Citrus Heights Routine Maintenance of Stream Channels and Drainage Facilities Project

Project Type: ** OTHER **

Project Description: Routine maintenance agreement with CDFW for 12-year (17 with optional 5-year extension) 1602 Streambed Alteration Agreement

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/38.69322687309116N121.29243174450143W

Counties: Placer, CA | Sacramento, CA

Endangered Species Act Species

There is a total of 10 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area. Please contact the designated FWS office if you have questions.

Reptiles

NAME	STATUS
Giant Garter Snake *(Thamnophis gigas)*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/4482

Amphibians

NAME	STATUS
California Red-legged Frog *(Rana draytonii)*	Threatened

There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/2891

California Tiger Salamander *(Ambystoma californiense)*	Threatened

Population: U.S.A. (Central CA DPS)
There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/2076

Fishes

NAME	STATUS
Delta Smelt *(Hypomesus transpacificus)*	Threatened

There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/321

Steelhead *(Oncorhynchus (=Salmo) mykiss)*	Threatened

Population: Northern California DPS
There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/1007

Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle *(Desmocerus californicus dimorphus)*	Threatened

There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/7850

Crustaceans

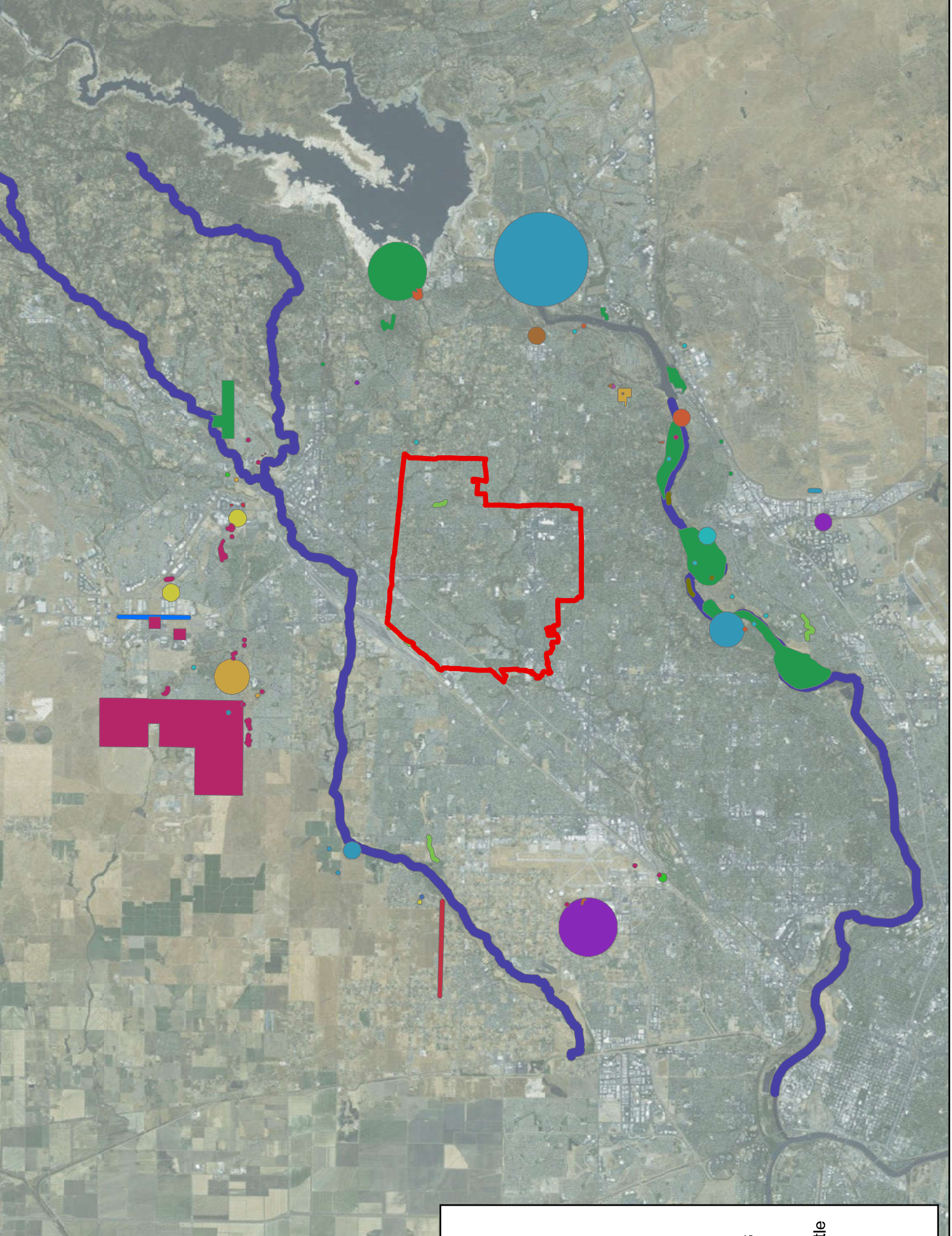
NAME	STATUS
Conservancy Fairy Shrimp *(Branchinecta conservatio)* There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp *(Branchinecta lynchi)* There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp *(Lepidurus packardi)* There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Flowering Plants

NAME	STATUS
Sacramento Orcutt Grass *(Orcuttia viscida)* There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5507	Endangered

Critical habitats

There are no critical habitats within your project area.



Andrew Dellas

From: Andrew Dellas
Sent: Thursday, April 20, 2017 2:43 PM
To: 'nmfsswrca.specieslist@noaa.gov'
Subject: City of Citrus Heights Routine Maintenance Agreement Projc

Quad Name **Citrus Heights**
Quad Number **38121-F3**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) - **X**
SRWR Chinook Salmon ESU (E) - **X**
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) - **X**
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat - **X**
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - **X**
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) - X
SRWR Chinook Salmon ESU (E) - X
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) - X
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat - X
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - **X**
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office
562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Folsom**
Quad Number **38121-F2**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) - **X**

SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) - X
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat - X
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -

Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - **X**
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office
562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Rio Linda**
Quad Number **38121-F4**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) - **X**
SRWR Chinook Salmon ESU (E) - **X**
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) - **X**
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat - X
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - **X**
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds
See list at left and consult the NMFS Long Beach office
562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Roseville**
Quad Number **38121-G3**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) - **X**
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) - **X**
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat - X
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - X
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds
See list at left and consult the NMFS Long Beach office
562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Rocklin**
Quad Number **38121-G2**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) - **X**
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) - **X**
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat - **X**
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - **X**
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Carmichael**
Quad Number **38121-E3**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) - **X**
SRWR Chinook Salmon ESU (E) - **X**
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) - **X**
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat - **X**
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - X
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds
See list at left and consult the NMFS Long Beach office
562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

City of Citrus Height Routine Maintenance of streams channels and drainage features.

No federal agency involved.

City of Citrus Heights, 6360 Fountain Square Drive, Citrus Heights, CA 95621

Dokken Engineering, Andrew Dellas, adellas@dokkenengineering.com; (916) 858-0642

Andrew Dellas, M.S.
Environmental Planner
Dokken Engineering | www.dokkenengineering.com
110 Blue Ravine Rd., #200 Folsom, CA 95630 |(P) 916.858.0642

CNPS California Native Plant Society

Plant List

Inventory of Rare and Endangered Plants

10 matches found. *Click on scientific name for details*

Search Criteria

California Rare Plant Rank is one of [1A, 1B, 2A, 2B, 3], Found in Quads 3812163, 3812162, 3812172, 3812173 3812153 and 3812164;

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
Chloropyron molle ssp. hispidum	hispid bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Sep	1B.1	S2	G2T2
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	Mar-May	2B.2	S2	GU
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	Apr-Aug	1B.2	S2	G2
Juncus leiospermus var. ahartii	Ahart's dwarf rush	Juncaceae	annual herb	Mar-May	1B.2	S1	G2T1
Juncus leiospermus var. leiospermus	Red Bluff dwarf rush	Juncaceae	annual herb	Mar-Jun	1B.1	S2	G2T2
Legenere limosa	legenere	Campanulaceae	annual herb	Apr-Jun	1B.1	S2	G2
Navarretia myersii ssp. myersii	pincushion navarretia	Polemoniaceae	annual herb	Apr-May	1B.1	S2	G2T2
Orcuttia viscida	Sacramento Orcutt grass	Poaceae	annual herb	Apr-Jul(Sep)	1B.1	S1	G1
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	1B.2	S3	G3

Suggested Citation

California Native Plant Society, Rare Plant Program. 2017. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 08 May 2017].

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The Calflora Database
The California Lichen Society

Appendix C — Special Status Species Potential Table

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Amphibian Species						
California red-legged frog	*Rana draytonii*	Fed: CA: CDFW:	T -- SSC	Inhabits 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 estivation habitat; estivation occurs late summer-early winter. Breeds from January-July Occurs from elevations near sea level to 5,200 feet.	A	**Presumed Absent:** Although the City of Citrus Heights does contain permanent sources of water in the form of perennial stream channels, habitat value is degraded by presence of exotic predators including bull frogs, bass, and mosquito fish. The City is located within the Sacramento Valley ecological subsection, an area without documented occurrences of the species. The nearest CNDDB occurrence is approximately 8.5 miles east of the City Boundary within the Sierra Nevada Foothills and the American River Watershed. The species is presumed absent from the BSA based on a lack of documented occurrences within the Creeks that run through the City, presence of invasive predators and competitors, and the City being located within an ecological subsection not known to contain the species.
California tiger Salamander	*Ambystoma Californiense*	Fed: CA: CDFW:	T T --	Inhabits annual grasslands and the grassy understory of Valley-Foothill Hardwood communities. Requires underground refuges, especially ground squirrel burrows and vernal pools or other seasonal water sources for breeding	A	**Presumed Absent:** No undisturbed grasslands or vernal pools exists within the City limits. The nearest CNDDB occurrence of the species is 20 miles southeast of City boundaries. The species is presumed absent from the City based on a lack of documented occurrences or suitable habitat. In addition, the City is located outside of the species range (USFWS 2016).
Western spadefoot	*Spea hammondii*	Fed: CA: CDFW:	-- -- SSC	Inhabits burrows within grassland and valley foothill hardwood woodland communities. Requires vernal, shallow, temporary pools	A	**Presumed Absent:** No undisturbed grasslands and vernal pool complexes exist within the City limits. Two historic occurrences are listed by CNDDB. One

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				formed by heavy winter rains for reproduction. Breeds late winter-March.		approximately 3.5 miles north of City boundaries, and approximately 2.5 miles east of City boundaries. The species is presumed absent due to the lack of suitable foraging and breeding habitat within the City limits.
Bird Species						
Bank swallow	*Riparia riparia*	Fed: CA: CDFW:	-- T --	Migratory colonial nester inhabiting lowland and riparian habitats west of the deserts during spring - fall. Majority of current breeding populations occur along the Sacramento and Feather rivers in the north Central Valley. Requires vertical banks or cliffs with fine textured/sandy soils for nesting (tunnel and burrow excavations). Nests exclusively near streams, rivers, lakes or the ocean. Breeds May-July.	A	**Presumed Absent:** Potential habitat of suitable small cut banks may be present within the City limits; however, the City limits lack undisturbed open grassland or wetlands necessary for foraging. Additionally, the species typically nest in large colonies, whereas the City lacks large vertical banks to support such large nesting colonies. The nearest CNDDB occurrences are within the American River Parkway along the American River riparian corridor approximately 2 miles from the City's southern boundary. The species is presumed absent due to the lack of suitable vertical bank nesting habitat, and lack of suitable undisturbed foraging habitat.
Purple martin	*Progne subis*	Fed: CA: CDFW:	-- -- SSC	Present in California as a summer migrant, arriving in March and departing by late September. Inhabits valley foothill and montane hardwood/hardwood-conifer, coniferous habitats and riparian habitats. Nests in tall, old, isolated trees or snags in open forest or woodland and in proximity to a body of water. Frequently nests within former woodpecker cavities; may nest in human-made structures such as nesting boxes, under bridges and	P	**Low Potential:** Potentially suitable riparian habitat along Arcade and Cripple Creeks for the species is present, and the nearest CNDDB occurrence of the species is approximately 3.5 miles from the City's northern boundary recorded in 2007. The species is considered to have a low potential of occurring within the City based on presence of riparian habitat and a single local occurrence of the species.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				in culverts. Needs abundant aerial insect prey. Breeds April-August.		
Swainson's hawk	*Buteo swainsoni*	Fed: CA: CDFW:	-- T --	Inhabits 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, alfalfa or grain fields that support a stable rodent prey base. Breeds March to late August.	A	**Presumed Absent:** The City does contain potentially suitable riparian nesting habitat along Arcade and Cripple Creek; however, there is no suitable foraging habitat within the City boundaries. There is 1 recent and 1 historic occurrence of the species within 4 miles of the City boundaries. The species is presumed absent due to the lack of suitable foraging habitat and the limited number of local occurrences.
Tricolored blackbird	*Agelaius tricolor*	Fed: CA: CDFW:	-- -- SSC	Inhabits freshwater marsh, swamp and wetland communities, but may utilize agricultural or upland habitats that can support large colonies, often in the Central Valley area. Requires dense nesting habitat that is protected from predators, is within 3-5 miles from a suitable foraging area containing insect prey and is within 0.3 miles of open water. Suitable foraging includes wetland, pastureland, rangeland, at dairy farms, and some irrigated croplands (silage, alfalfa, etc.). Nests mid-march - early August, but may extend until October/November in the Sacramento Valley region.	A	**Presumed Absent:** The City does not have suitable large freshwater wetland habitat capable of supporting a large colony of the species. The nearest CNDDB occurrence is approximately 2 miles northeast of the City boundaries. The species is presumed absent within the City boundary due to the lack of suitable habitat.
White-tailed kite	*Elanus leucurus*	Fed: CA: CDFW:	-- -- FP	Inhabits rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Prefers open grasslands, meadows or marshes for foraging close to isolated, dense-topped trees for nesting and perching. Breeds February- October.	P	**Moderate Potential:** There is potentially suitable riparian nesting habitat along various creeks within the City and potentially suitable open areas for foraging in local parks and low-density residential areas within the City. There is one documented occurrence of the species within the City boundary

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						and scattered occurrences in the surrounding region. The species is considered to have a moderate potential of occurring within the City limits due to the presence of suitable nesting and foraging habitat within the City boundaries.
Fish Species						
Delta smelt	*Hypomesus transpacificus*	Fed: CA: CDFW:	T E --	Occurs within the Sacramento-San Joaquin Delta and seasonally within the Suisun Bay, Carquinez Strait and San Pablo Bay. Most often occurs in partially saline waters.	A	**Presumed Absent:** The City is not located near the Sacramento Delta San Francisco Bay. No brackish water habitat is present for the species and the nearest known occurrence is approximately 31 miles south of the City. The species is presumed absent based on the City being outside of the known distribution of the species, a lack of documented occurrences, and a lack of suitable habitat.
Steelhead - Central Valley DPS	*Oncorhynchus mykiss irideus*	Fed: CA: CDFW:	T -- --	South/central steeelhead utilize rivers and creeks from Pajaro River south to Santa Maria River. Spawning occurs in coastal watersheds while rearing occurs in freshwater or estuary habitats prior to migrating to the ocean in the winter and spring. Preferred spawning sites contain gravel substrate with sufficient water flow and riverine cover. Rearing habitat contains sufficient feeding with associated riparian forest containing willow and cottonwoods. Migration upstream for reproduction occurs from October-May with spawning occurring January - April.	A	**Presumed Absent:** The City does not fall within the Dry Creek watershed and Steelhead – Central Valley DPS have not been documented within Arcade or Cripple Creeks or their tributaries within City boundaries. The species is presumed absent within the City boundary due to the lack of documentation within the City's specific watershed and creek systems.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Invertebrate Species						
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	Fed: CA: CDFW:	T -- --	Species requires elderberry shrubs as host plants. Typically occurs in moist valley oak woodlands associated with riparian corridors in the lower Sacramento River and upper San Joaquin River drainages. (Sea level-3,000 feet).	P	**Low Potential:** Potentially suitable riparian habitat is present in riparian corridors throughout the City. There are no CNDDB documented occurrences of the species within the City, but there are multiple occurrences east of the City Boundary. The species is considered to have a low potential of occurring based on presence of riparian habitat and regional occurrences.
Vernal pool fairy shrimp	*Branchinecta lynchi*	Fed: CA: CDFW:	T -- --	In California, species inhabits portions of Tehama county, south through the Central Valley, and scattered locations in Riverside County and the Coast Ranges. Species is associated with smaller and shallower cool-water vernal pools approximately 6 inches deep and short periods of inundation. In the southernmost extremes of the range, the species occurs in large, deep cool-water pools. Inhabited pools have low to moderate levels of alkalinity and total dissolved solids. The shrimp are temperature sensitive, requiring pools below 50 F to hatch and dying within pools reaching 75 F. Young emerge during cold-weather winter storms.	A	**Presumed Absent:** The City does not contain suitable vernal pool habitat necessary for the species. The nearest CNDDB documented occurrence is 2 miles south of the City along the American River floodplains. The species is presumed absent from within the City boundaries due to the lack of suitable vernal pool habitat.
Mammal Species						
Pallid bat	*Antrozous pallidus*	Fed: CA: CDFW:	-- -- SSC	Inhabits low elevations of deserts, grasslands, shrub lands, woodlands and forests year round. Most common in open, dry habitats with rocky areas for roosting. Forages over open ground within 1-3 miles of day roosts. Prefers caves, crevices,	P	**Presumed Absent:** The City does not contain preferred rock crevice, mine, or cave roosting habitat but may contain marginal bridge, structure, and hollow tree roosting habitat. There are no recent (<20 years) CNDDB documented occurrences of the species within 50

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				and mines for day roosts, but may utilize hollow trees, bridges and buildings. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites. Maternity colonies form early April and young are born April-July (below 10,000 feet).		miles of the City. The species is presumed absent from the City based on a lack of recent regional occurrences.
Reptile Species						
Giant gartersnake	*Thamnophis gigas*	Fed: CA: CDFW:	T T --	Inhabits marsh, swamp, wetland (including agricultural wetlands), sloughs, ponds, rice fields, low gradient streams and irrigation/drainage canals adjacent to uplands. Species requires adequate water during the active season (April-November), emergent, herbaceous wetland vegetation, such as cattails and bulrushes, for escape cover and foraging habitat and mammal burrows estivation. Requires grassy banks and openings in waterside vegetation for basking and higher elevation uplands for cover and refuge from flood waters during winter dormant season.	A	**Presumed Absent:** The City is located east of the known distribution of giant garter snake. All regional CNDDB occurrences of the species are located at least 9 miles west of the City in rice fields and other wet habitats along the Sacramento River. The species is presumed absent from the BSA based on a lack of suitable slough and rice field habitats as well as the City being located outside of the known distribution of the species.
Western pond turtle	*Emys marmorata*	Fed: CA: CDFW:	-- -- SSC	A fully aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. Requires basking sites and suitable upland habitat (sandy banks or grassy open field) for reproduction (sea level to 4,690 feet).	P	**Presumed Absent:** No suitable undisturbed aquatic habitat is within the City limits. Creeks, streams and irrigation canals are seasonal and too shallow to provide cover from predation. There are no documented occurrences within the City. The species is presumed absent due to the lack of suitable aquatic habitat, and lack of local occurrences.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Plant Species						
Big-scale balsamroot	*Balsamorhiza macrolepis*	Fed: CA: CNPS:	-- -- 1B.2	A perennial herb inhabiting open grassy or rocky slopes and valleys within chaparral, cismontane woodland, valley and foothill grassland communities; sometimes occurs in serpentine soils. Flowers March- June (295-5,101 feet).	P	**Presumed Absent:** The city does contain foothill grassland communities but there are no recent (<20 years) occurrences of the species within 50 miles of the City.
Boggs Lake hedge-hyssop	*Gratiola heterosepala*	Fed: CA: CNPS:	-- E 1B.2	An annual herb inhabiting clay soils and shallow waters of marshes and swamps, lake margins, and vernal pools. Flowers April-August (33-7,792 feet).	A	**Presumed Absent:** The City does not have suitable vernal pool habitat for the species. There are no documented occurrences of the species within the City. The nearest CNDDB occurrence is approximately 5 miles west of the City boundaries within vernal pool habitat along the floodplain of Dry Creek. The species is presumed absent from occurring within the City based on the lack of suitable vernal pool habitat necessary for the species.
Dwarf downingia	*Downingia pusilla*	Fed: CA: CNPS:	-- -- 2B.2	An annual herb inhabiting vernal pools and mesic valley and foothill grassland communities. Flowers March-May (3-1,460 feet).	A	**Presumed Absent:** The City does not have suitable vernal pool habitat for the species. There are no documented occurrences of the species within the City. The nearest CNDDB occurrence is approximately 3 miles north of the City. The species is presumed absent from occurring within the City based on the lack of suitable vernal pool habitat necessary for the species, and lack of regional occurrences.
Legenere	*Legenere limosa*	Fed: CA: CNPS:	-- -- 1B.1	An annual herb inhabiting wet areas, vernal pools, and ponds. Flowers May-June (0-2,887 feet).	A	**Presumed Absent:** The City does not have suitable vernal pool habitat for the species. There are no documented occurrences of the species within the City. The nearest CNDDB occurrence is approximately 5 miles west of the City. The species is presumed absent from

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						occurring within the City based on the lack of suitable vernal pool habitat necessary for the species, and lack of regional occurrences.
Pincushion navarretia	*Navarretia myersii ssp. myersii*	Fed: CA: CNPS:	-- -- 1B.1	An annual herb inhabiting vernal pool communities, often in acidic soil conditions. Flowers May (65-1,083 feet feet).	A	**Presumed Absent:** The City does not have suitable vernal pool habitat for the species. There are no documented occurrences of the species within the City. The species is presumed absent from the City based on the lack of suitable vernal pool habitat necessary for the species.
Sacramento Orcutt grass	*Orcuttia viscida*	Fed: CA: CNPS:	E E 1B.1	An annual herb inhabiting vernal pools. Flowers April-July (98-328 feet).	A	**Presumed Absent:** The City does not have suitable vernal pool habitat for the species, and there are no documented occurrences of the species within the City. All recent CNDDB occurrences of the species are approximately 3 miles southeast of the City. The nearest occurrences are located within vernal pool preserves near the American River. The bulk of the occurrences are south of Highway 50 in the grassland vernal pool complexes east of Mather Field. The species is presumed absent due to the lack of suitable vernal pool habitat and lack of local occurrences.
Sanford's arrowhead	*Sagittaria sanfordii*	Fed: CA: CNPS:	-- -- 1B.2	A perennial rhizomatous herb inhabiting freshwater marshes, swamps, ponds and ditches. Flowers May-October (0-2,132 feet).	A	**Moderate Potential:** Potentially suitable stream channel habitat is present within the City, and there are 3 occurrences of the species within the City boundaries. The species is considered to have moderate potential of occurring within the City's boundaries due to the presence of suitable stream habitat and multiple occurrences within the City.

Federal Designations (Fed): (FESA, USFWS) **E:** Federally listed, endangered **T:** Federally listed, threatened **PT:** Federal proposed, threatened **D:** Delisted	**State Designations (CA):** (CESA, CDFW) **E:** State-listed, endangered **T:** State-listed, threatened **CT:** State-candidate, threatened **FP**: Fully Protected

Other Designations:
SSC: DFW Species of Special Concern

California Native Plant Society (CNPS) Designations:
Note: according to CNPS (Skinner and Pavlik 1994), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code. This interpretation is inconsistent with other definitions.
1A: Plants presumed extinct in California.
1B: Plants rare and endangered in California and throughout their range.
2: Plants rare, threatened, or endangered in California but more common elsewhere in their range.
3: Plants about which need more information; a review list.

Plants 1B, 2, and 4 extension meanings:
_.1 Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
_.2 Fairly endangered in California (20-80% occurrences threatened)
_.3 Not very endangered in California (<20% of occurrences threatened or no current threats known)

Habitat Presence:
Absent [A]: No habitat present and no further work needed.
Habitat Present [HP]: Habitat is, or may be present. The species may be present.
Present [P]: Species is present.
Critical Habitat [CH]: Project footprint is located within a designated Critical Habitat unit, but does not necessarily mean that appropriate habitat is present.

Potential for Occurrence Criteria:
Present: Species was observed on site during a site visit or focused survey.
High: Habitat (including soils and elevation factors) for the species occurs on site and a known occurrence has been recorded within 5 mi of the site.
Low/Moderate: Either low quality habitat (including soils and elevation factors) for the species occurs on site and a known occurrence exists within 5 mi of the site; or suitable habitat strongly associated with the species occurs on site, but no records were found within the database search.
Presumed Absent: Focused surveys were conducted and the species was not found, or species was found within the database search but habitat (including soils and elevation factors) do not exist on site, or the known geographic range of the species does not include the survey area.

Source: (Bennett 2005), (CNPS 2017), (CDFW 2017), (California Herps 2017), (Cal-IPC 2017), (Jepson 2013), (Kyle 2011), (Miller and Hornaday 1999), (NMFS 2005), (NMFS 2009), (NMFS 2013), (Placer and Sacramento Counties 2003), (Sibley 2003), (Tesky 1994), (UC Davis 2017), (USFWS 2002), (USFWS 2007), (USFWS 2012), and (Zeiner 1988-1990)

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Appendix D — List of Abbreviated Terms

Abbreviation	Full Meaning
BMPs	Best Management Practices
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
City	City of Citrus Heights
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CO_2	Carbon dioxide
CRLF	California Red-Legged Frog
dbh	Diameter At Breast Height
CDTSC	California Department of Toxic Substances Control
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
GHG	Greenhouse Gas
HMMP	Habitat Mitigation and Monitoring Plan
IS/MND	Initial Study/ Mitigated Negative Declaration
MLD	Most Likely Descendant
MS4	Municipal Separate Storm Sewer Systems
NOx	Nitrogen Oxides
N_2O	Nitrous Oxide
NAHC	Native American Heritage Commission
NPDES	National Pollutant Discharge Elimination System
O_3	Ozone
OHWM	Ordinary High Water Mark
SacMetro AQMD	Sacramento Metropolitan Air Quality Management District
PM_{10}	Respirable Particulate Matter
PRC	Public Resources Code
Project	Routine Maintenance of Stream Channels and Drainage Facilities Project
RMA	Routine Maintenance Agreement
ROG	Reactive Organic Gasses
SAAQS	State Ambient Air Quality Standards
SacMetro AQMD	Sacramento Metropolitan Air Quality Management District
SIP	State Implementation Plan
SVAB	Sacramento Valley Air Basin
SWPPP	Storm Water Pollution Prevention Plan
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
VMT	Vehicle Miles Traveled
VRF	Verification Request Form