Sacramento Metropolitan Fire District Community Wildfire Protection Plan

Initial Study/Mitigated Negative Declaration

June 2014

PREPARED FOR:
Sacramento Metropolitan Fire District

PREPARED BY:
Ascent Environmental, Inc.

Sacramento Metropolitan Fire District
Community Wildfire Protection Plan

Initial Study/Mitigated Negative Declaration

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June 2014

MITIGATED NEGATIVE DECLARATION

Project: Community Wildfire Protection Plan

Lead Agency: Sacramento Metropolitan Fire District

PROJECT DESCRIPTION

This Mitigated Negative Declaration (MND), supported by the attached Initial Study (IS), evaluates the environmental effects of the proposed Sacramento Metropolitan Fire District (Metro Fire) Community Wildfire Protection Plan (CWPP) which would occur in Sacramento County, California. The applicant, Metro Fire, is proposing to implement wildfire preparedness, prevention, and response activities at selected sites throughout the county.

Metro Fire is the lead agency for this project and has prepared this MND.

FINDINGS

An IS has been prepared to assess the project's potential effects on the environment and the significance of those effects. Based on the Initial Study, it has been determined that the proposed project would not have any significant effects on the environment once mitigation measures are implemented. This conclusion is supported by the following findings:

1. The proposed project would have no impact related to mineral resources, population and housing, and public services.

2. The proposed project would have a less-than-significant impact on aesthetics, agriculture and forestry resources, air quality, land use and planning, noise, recreation, transportation and traffic, and utilities and service systems.

3. Mitigation is required to reduce potentially significant impacts related to biological resources, cultural resources, geology and soils, and hydrology and water quality. Mitigation measures would reduce all significant impacts to a less-than-significant level. Metro Fire has agreed to implement all required mitigation.

Following are the mitigation measures that will be implemented by the applicant to avoid or minimize environmental impacts.

Mitigation Measure BIO-1: Special-status plant species.

Metro Fire will implement the following measures to reduce potential impacts on special-status plants:

1. Prior to treatment initiation and during the blooming period for the special-status plant species with potential to occur in the treatment site, a qualified botanist will conduct pre-construction surveys for special-status plants in areas where potentially suitable habitat would be removed or disturbed by treatment activities. Table BIO-2 summarizes the normal blooming periods for special-status plant species with potential to occur on or near the treatment sites, which generally indicates the optimal survey periods when the species are most identifiable.

2. If no special-status plants are found, the botanist will document the findings in a letter report to USFWS, CDFW, and Metro Fire and no further mitigation will be required.

3. If special-status plant species are found within treatment sites, the treatment activities will be redesigned to avoid impacts to the population. Redesign alternatives include changing the method of fuel removal or adjusting the location of the fuel break.

Mitigation Measure BIO-2: Valley elderberry longhorn beetle.

Metro Fire will implement the following measures to reduce potential impacts on valley elderberry longhorn beetle:

1. All treatment areas within barren, agriculture (pasture), oak woodland, valley grassland or riparian habitat will be surveyed prior to treatment for elderberry bushes. Any elderberry bushes found with stems measuring one-inch diameter at ground level will be flagged and the following mitigation measures will be required.

    a. No prescribed burning or grazing will occur within treatment areas with known elderberry bushes.

    b. No use of herbicide or heavy equipment will occur within 100 feet of the outside edge of the driplines of elderberry plants.

    c. A qualified biologist will conduct an Environmental Awareness Training for work crews. The training will include the status of the beetle, the need to avoid damaging the elderberry plants, and the possible penalties for non-compliance with these requirements. All members of the fuels treatment crews will attend training on identification of elderberry bushes prior to treatment in known riparian, oak woodland and areas with known elderberry bushes.

    d. Any treatment area within 100 feet of an elderberry plant with at least one stem of a one inch diameter will adhere to the following measures, consistent with USFWS Service guidelines (1999):

        i. No treatment will occur within five-feet of the dripline of the elderberry plant.

        ii. Flagging will be required at a setback of five feet from the outside edge of the dripline to ensure compliance by crews.

        iii. Only mowing, pruning by hand, or weed-whipping will occur between 5 and 100 feet of the elderberry plant dripline from July through April to reduce fire hazards. Hand labor must be done in a manner that avoids damaging the elderberry plants, such as stripping away bark through careless use of the mowing/trimming equipment.

    e. No fuel treatments will occur within existing valley elderberry mitigation sites within the ARP. For proposed sprinkler upgrades occurring within existing valley elderberry mitigation sites in the Effie Yeaw, above measures (Mitigation Measure BIO-2 will be adhered to) to avoid disturbance of valley elderberry will be implemented and sprinkler upgrade installation will occur within a linear and narrow corridor.

Mitigation Measure BIO-3: Vernal pool brachiopods.

In order to reduce impacts to listed vernal pool branchiopods, Metro Fire shall comply with one of the following:

- All valley grassland cover types will be surveyed by a qualified biologist for vernal pools and seasonal wetlands within 250 feet of treatment sites. All vernal pools and seasonal wetlands within treatment sites will be assumed to contain listed vernal pool branchiopods.

- Treatments will avoid impacts to listed vernal pool branchiopods. A buffer of 250-feet will be established with flagging or fencing around the perimeter of any vernal pool habitat within treatment sites. No fuels reduction activity will occur within flagged/fenced area(s).

Mitigation Measure BIO-4: Giant garter snake, California tiger salamander and western spadefoot toad.

Giant Garter Snake

Metro Fire will implement the following measures to avoid or minimize loss of adults or young of giant garter snake:

- Prior to the implementation of individual CWPP activities, Metro Fire will retain a qualified biologist to conduct surveys to document potential giant garter snake aquatic habitat within 200 feet of fuels reduction sites. Suitable habitat is described above and in Table BIO-3. Only the Subdivisions 2, 3, 10, 11, 12, and 14subdivisions will be surveyed for potential habitat.

- All ground-disturbing activities within 200 feet of aquatic habitat suitable for giant garter snakes will be conducted during the snake's active season of May 1 to October 1 so that snakes can move and avoid danger.

- If treatment occurs outside of the giant garter snake active season, ground disturbing activities that might crush estivation sites such as discing or grading will not occur. Hand labor, mowing, grazing and other non-ground disturbing activities could occur within this area.

California Tiger Salamander

Metro Fire will implement the following measures to avoid or minimize impacts on California tiger salamanders around Subdivisions 14 and 15:

- Ground disturbing activities such as discing or dozer lines will be prohibited within Subdivisions 14 and 15 treatments. Hand labor, mowing, grazing and other non-ground disturbing activities can occur within this area.

- Prior to treatment implementation, the treatment sites around Subdivisions 14 and 15 will be surveyed for potential breeding areas. If potential breeding areas occur within treatment sites, a buffer of 50 feet from the edge of the breeding pond should be established.

- Metro Fire will implement BMPs to prevent sediment from entering suitable California tiger salamander habitat near treatment sites, through the use of silt fencing and sterile hay bales, and through other measures (no plastic netting).

Western Spadefoot Toad

To minimize impacts to western spadefoot toad estivation or hibernation sites, Metro Fire will implement Mitigation Measure BIO-3. This measure requires a 250-feet treatment buffer to be established with flagging or fencing around the perimeter of any vernal pool habitat within treatment sites. No fuels reduction activity would occur within flagged/fenced area(s).

Mitigation Measure BIO-5: Special-status birds and nesting sites.

Metro Fire will implement the following measures to avoid or minimize loss of adults or young of tricolored blackbird, yellow-breasted chat, loggerhead shrike, bank swallow, and yellow-headed blackbird and other special-status nests:

- To minimize the potential for loss of active special status species nests, CWPP activities will commence during the nonbreeding season (September 1-February 15), including removal of grassland, shrub, and woodland vegetation. If all suitable nesting habitat is removed during the nonbreeding season, no further mitigation will be required.

- If activities occur during the breeding season (February 1-August 31), prior to commencing any CWPP activities, Metro Fire will retain a qualified biologist to conduct preconstruction surveys for special-status species birds on and within 50 feet of any treatment site. The surveys will be conducted no more than seven days before activity commences.

- If active special-status nests are found, a 50-foot no-disturbance buffer will be established around the nest site until the breeding season has ended or a qualified biologist determines the young have fledged

Mitigation Measure BIO-6: Swainson's hawks and other nesting raptors.

Swainson's Hawk and Other Nesting Raptors.

The following measures will be implemented and will avoid, minimize, and fully mitigate impacts on Swainson's hawk, as well as to other raptors (such as red-tailed hawk, red-shouldered hawk, white-tailed kite, and great horned owl):

- Necessary removal of any large trees associated with the new access road and removal of large snags within the Rossmoor burn areas will be completed outside of the breeding season (between September 1 and January 31).

- For treatment activities occurring between February 1-August 31 within grassland habitat, Metro Fire will retain a qualified biologist to conduct preconstruction surveys for ground nesting northern harriers within treatment sites.

- For treatment activities occurring between February 1-August 31, that would involve chainsaws, chippers, or mechanized equipment for the removal of brush or trees, Metro Fire will retain a qualified biologist to conduct preconstruction surveys for Swainson's hawk and other nesting raptors and to identify active nests on and within 500 feet of the treatment sites. The surveys will be conducted no more than 30 days before the beginning of treatment activities that could disturb nesting raptors. To the extent feasible, guidelines provided in Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in the Central Valley (Swainson's Hawk Technical Advisory Committee 2000) will be followed.

- If active nests are found, impacts on nesting Swainson's hawks and other raptors will be avoided by establishing appropriate buffers around the nests. A 500-foot buffer will be required for Swainson's hawks and other raptors. No treatment activity will commence within the buffer area until a qualified biologist confirms that any young have fledged and the nest is no longer active. For Swainson's hawk nests, DFG guidelines (1994) recommend maintenance of 0.25 mile buffers around Swainson's hawk nests in developed areas, but the size of the buffer may be adjusted if a qualified biologist, in consultation with CDFW, determines that such an adjustment would not be likely to adversely affect the nest. Since only a few Swainson's hawk nests occur along the ARP because their foraging habitat is limited, nests are likely to be few near the highly urban and suburban areas of proposed treatments. Therefore, while Swainson's hawk nests may be in the Parkway, their disturbed would be limited. Thus, the disturbance buffer has been decreased for this plan. Monitoring of the nest by a qualified biologist will be required if the activity has potential to adversely affect the nest.

Burrowing Owl

Metro Fire will implement the following measures to reduce impacts on burrowing owl:

- Metro Fire will retain a qualified biologist to conduct focused breeding and nonbreeding season surveys in barren, grassland and oak woodland land cover types for burrowing owls in areas of suitable habitat on and within 1,500 feet of the treatment sites. Surveys will be conducted prior to the start of treatment activities and in accordance with Appendix D of CDFW's Staff Report on Burrowing Owl Mitigation (2012) (2012 Staff Report).

- If no occupied burrows are found, a letter report documenting the survey methods and results will be submitted to CDFW and no further mitigation will be required.

- If an active burrow is found during the nonbreeding season (September 1 through January 31), Metro Fire will consult with CDFW regarding protection buffers to be established around the occupied burrow and maintained throughout CWPP activities

- If an active burrow is found during the breeding season (February 1 through August 31), occupied burrows will not be disturbed and will be provided with a 1,500-foot protective buffer unless a qualified biologist verifies through noninvasive means that either: 1) the birds have not begun egg laying, or 2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. The 1,500-foot buffer may be reduced if a broad-scale, long-term, monitoring program acceptable to CDFW is implemented to ensure burrowing owls are not detrimentally affected. Once the fledglings are capable of independent survival, the owls can be evicted and the burrow can be destroyed per the terms of a CDFW-approved burrowing owl exclusion plan developed in accordance with Appendix E of CDFW's 2012 Staff Report.

- If active burrowing owl nesting, occupied, or satellite burrows are found on the treatment sites the district will create a 50 foot buffer around the site and no ground disturbing activities such as disking or grading will occur within that buffer.

Mitigation Measure BIO-7: Special-status bat species.

- Avoid removal of trees greater than sixteen inches dbh during access road construction.

- If trees cannot be avoided, retain a qualified biologist to conduct surveys for roosting bats in areas of large tree removal (e.g. the construction of the access road). Surveys will consist of daytime pedestrian surveys to look for visual signs of bats (e.g., guano) and/or evening emergence surveys to note the presence or absence of bats, if determined necessary. If evidence of bat use is observed, the number and species of bats using the roost will be determined. Bat detectors may be used to supplement survey efforts. If no evidence of bat roosts are found, then no further study shall be required.

- When roosting sites are located in trees to be removed, removal shall occur outside of the nursery seasons April through August.

- If roosts of pallid or western red bats are determined to be present and must be removed, the bats will be excluded from the roosting site before the tree is removed. Exclusion methods may include use of one-way doors at roost entrances (bats may leave but not re-enter), or sealing roost entrances when the site can be confirmed by a bat expert to contain no bats.

- Exclusion efforts would be restricted to outside the nursery season (September through March).

- Prior to the nursery season nursery sites can be sealed.

Mitigation Measure BIO-8: Riparian woodland.

If riparian habitat is removed from the new unpaved fire access road and fuels reduction activities, then the following measures will be implemented to minimize, avoid, and compensate for impacts to riparian habitat and avoid potential conflicts with CDFG code 1602 and the local policies that protect them.

- To the extent practicable, and in consideration of other design requirements and constraints (such as meeting primary treatment objectives and needs, avoidance of other sensitive resources, etc.), Metro Fire will attempt to design the fire access road and fuels reduction activities to minimize the removal of riparian vegetation, particularly trees that contribute to the overstory canopy of these communities.

- Metro Fire will notify DFG before commencing any activity within the bed, bank, or riparian corridor of any waterway. If necessary, Metro Fire will obtain a Lake and Streambed Alteration Agreement from DFG and conduct CWPP fuels reduction activities and paving of the new fire access road in accordance with the agreement, including implementing reasonable measures in the agreement necessary to protect the fish and wildlife resources, when working within the bed or bank of waterways that function as a fish or wildlife resource or in riparian habitats associated with those waterways.

- Metro Fire will prepare and implement a riparian woodland restoration or enhancement plan for these elements of the plan. The primary goals of the plan will be to compensate for the treatment-related loss or degradation of riparian woodland habitats, and achieve a no-net-loss of habitat acreage and functions over the long term through vegetation planting or other habitat enhancement actions. The plan will consider and incorporate the applicable policies and implementation measures related to riparian conservation and mitigation in the Sacramento County 2030 General Plan (Sacramento County 2011), including Policies CO-58, CO-59, CO-60, CO-61, CO-62, and their associated implementation measures. Implementation of this plan may be achieved in suitable locations on the CWPP area.

Mitigation Measure BIO-9: Wetlands and waters of the United States.

Metro Fire will implement the following measures to reduce potential impacts on waters of the United States:

- A person qualified to perform wetland delineations (in accordance with the most recent USACE delineation manual) shall inspect treatments areas, determine if wetlands are present, and provide written documentation of the findings. This need not include a formal wetland delineation if the site investigator determines a finding of negative presence can be made without the delineation. If wetlands are not present, no further action is required. If wetlands are present, the following measure shall apply.

Mitigation Measure BIO-10: Wildlife nursery sites.

Metro Fire will implement the following measures to avoid or minimize loss of eggs or young to great egret and great blue heron rookeries:

- To the extent feasible, all treatments in the ARP will be completed before the breeding season (February 1-August 31st).

- If treatments occur within the ARP during the breeding season, a survey for rookeries within 300 feet of the treatment area will be conducted by a qualified biologist during the breeding season (February 1-August 31st).

- If treatments occur within the ARP during the breeding season, no treatments will occur within 300 feet of a rookery and shall not resume until the breeding season has ended or a qualified biologist determines the young have fledged

Mitigation Measure BIO-11: Tree preservation ordinance.

Metro Fire will avoid, to the extent feasible, removal or damage to all native oaks and non-oak trees (greater than six inches dbh or ten inches aggregate dbh), landmark trees, or heritage trees. If avoidance is not feasible, Metro Fire will be required to mitigate damage to these trees. In accordance with the Sacramento County Tree Preservation Ordinance (12.19), and Sacramento County General Plan Policies, the following mitigations measures will be required to mitigate damage to these trees to prevent mortality during fuels reduction activities or sprinkler system upgrades.

- If trees with dbh of six inches or greater need to be removed, a survey to determine if the tree qualifies as a landmark or heritage tree will be conducted by a qualified arborist.
- A circle with a radius measurement from the trunk of the protected tree to the tip of its longest limb shall constitute the dripline of the tree.
- All landmark and heritage trees will be given suitable guards around the bases of their trees to protect them during fuels reduction operations that involve heavy mechanized equipment.
- No vehicles, heavy equipment or materials will be driven, parked, or stockpiled within the dripline of a protected tree.
- For sprinkler system upgrades, all irrigation lines will be routed outside the driplines of protected trees. If lines must encroach upon the dripline they will be tunneled or bored under the trees.
- Grading or dozer line similar to grading beneath trees to be saved will be given special attention. Every reasonable effort will be made to avoid creating conditions adverse to the tree's health. The natural ground within the driplines of protected trees will remain as undisturbed as possible. No grade cuts greater than one foot will occur within the driplines of oak trees, and no grade cuts whatsoever will occur within five feet of their trunks
- To the extent practicable, and in consideration of other design requirements and constraints (such as meeting primary treatment objectives and needs, avoidance of other sensitive resources, etc.), Metro Fire will attempt to design the dozer lines to minimize the impact to protected trees vegetation, particularly trees that contribute to the overstory canopy of these communities.
- Before grading or excavation within 5 feet outside the driplines of protected trees, root pruning shall be required at the limits of grading or excavation to cut roots cleanly to a depth of the excavation or 36 inches (whichever is less). Roots will be cut by manually digging a trench and cutting exposed roots.
- Major roots two inches or greater in diameter encountered within the tree's dripline in the course of excavation from beneath trees which are not to be removed will not be cut and will be kept moist and covered with earth as soon as possible. Roots 1 inch to 2 inches in diameter which are severed will be trimmed and treated with pruning compound and covered with earth as soon as possible.
- Support roots that are inside the dripline of the tree will be protected. Metro Fire is required to hand-dig in the vicinity of major trees to prevent root cutting and mangling which may be caused by heavy equipment.

In accordance with Sacramento County Public Tree Ordinance (19.04), any public trees damaged by fuels reduction activities, the following mitigation measures apply:

- Metro Fire will place suitable guards around the bases of all nearby public trees to protect them during fuels reduction operations that involve heavy mechanized equipment.

- Metro Fire will not secure, fasten or run any rope, wire, sign, unprotected electrical installation or other device or material to, around, or through a public tree;
- Metro Fire will not break, injure, deface, kill or destroy a public tree or permit any fire to burn where it will injure any public tree;
- Metro Fire will not permit any chemical, gas, smoke, salt brine, oil or other injurious substance to seep, drain or be emptied upon, above or below any public tree;
- Metro Fire will not excavate any ditch, tunnel, or trench or lay any drive within a radius of ten feet from any public tree;
- If Metro Fire is expecting to do any of the above (a-e) to public trees at a treatment site, then a tree permit would be required.

If landmark trees, heritage trees, native oak or non-oak trees (greater than 6 inches or 10 inches aggregate) are removed through construction of the new access road or are accidentally or indirectly killed through fuels reduction activities or sprinkler system upgrades, the following measures would be required.

- Metro Fire will obtain a tree removal permit from the County for native oak trees greater than 6-inch dbh or greater than 10-inch aggregate dbh, landmark trees or heritage trees. (Sacramento County Tree Preservation Ordinance [12.19 and 12.04]).
- The removal of native and non-native trees greater than 6 inches dbh will be compensated for by planting native oak and non-oak trees equivalent to the dbh inches lost. Oak trees can also be compensated for through payment into the County Tree Preservation Fund. (CO-139 and 140)

Mitigation Measure CUL-1: Sensitive cultural resources training.

Prior to implementation of ground-disturbing activities under the CWPP, District staff (or appointed workers) involved in these activities shall receive training in the recognition of sensitive cultural resources. In the event of a find, a qualified archaeologist shall evaluate the significance of any discovered cultural resources prior to commencement or recommencement of work.

Mitigation Measure CUL-2: Disturbance of human remains.

If human remains are encountered, all work within 100 feet of the remains shall cease immediately and the contractor shall contact Metro Fire. Metro Fire will contact the appropriate coroner (Sacramento County or City of Rancho Cordova) to evaluate the remains, and follow the procedures and protocols set forth in §15064.5(e) of the CEQA Guidelines. No further disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County or City Coroner has made a determination of origin and disposition, which shall be made within two working days from the time the Coroner is notified of the discovery, pursuant to State Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98. If the remains are determined to be Native American, the Coroner will notify the Native American Heritage Commission (NAHC) within 24 hours, which will determine and notify the Most Likely Descendant (MLD). The MLD may recommend within 48 hours of their notification by the NAHC the means of treating or disposing of, with appropriate dignity, the human remains and grave goods. In the event of difficulty locating a MLD or failure of the MLD to make a timely recommendation, the human remains and grave goods shall be reburied with appropriate dignity on the property in a location not subject to further subsurface disturbance.

Mitigation Measure GEO-1: BMPs for prescribed burns.

Metro Fire shall implement the following BMPs recommended by the State Water Resourced Control Board (2014) for proposed prescribed burns to reduce adverse impacts of fire on water quality:

- **Fire intensity:** High-intensity fires will be avoided, especially severe burns on highly erodible soils. Low-intensity prescribed fires will be used to reduce the fuel loads. Low-intensity fires usually have little effect on water quality because burned areas with an intact organic layer yield little sediment and revegetate more quickly.

- **Timing of prescribed burns:** Burning will be planned to take into account weather, time of year, and fuel conditions so that these factors help achieve the desired results and minimize effects on water quality.

- **Logistics of prescribed burns:** The prescribed burn should be executed with an District-qualified crew and burn boss. Burning permits must be obtained before burning.

- **SMAs and wetlands:** When applying prescribed fire in wetlands, burns should be conducted in a manner that does not completely remove the organic layer. The fire should be conducted to minimize the potential to increase surface runoff and soil erosion. Fire lines should not be placed in sensitive areas such as wetlands, marshes, prairies, and savannas unless absolutely necessary.

- **Fire lines:** Fire line construction involves removing all organic material to expose mineral soil, and this can result in excessive erosion and water quality degradation. Natural or in-place barriers (e.g., roads, streams, and lakes) should be used to minimize the need for fire line construction in situations where construction of artificial fire lines could result in excessive erosion and sedimentation. Conditions that require extensive blading of fire lines with heavy equipment should be avoided when planning burns. Hand lines, firebreaks, and hose lays should be used to minimize blading of fire lines. Fire lines need to be constructed in a manner that minimizes erosion and sedimentation and prevents runoff from directly entering watercourses. The location of fire lines should be balanced with the potential for a larger fire that would consume greater amounts of material. Where possible, alternatives to plowed lines such as harrowing, foam lines, wet lines, or permanent grass should be considered.

- **Revegetation:** Once the fire is put out, vegetative cover on fire lines and disturbed areas should be reestablished as soon as possible using native species, as feasible, to control soil erosion.

- **Runoff controls:** Grades, ditches, and water bars to fire lines should be installed as soon as it is safe to begin rehabilitation work. Water bars should be installed on any fire line running up and down the slope, and runoff should be directed onto a filter strip or sideslope, not into a drainage area.

- **Fire retardants:** Chemical fire retardants will not be applied within 300 feet of the river or other water body. If it becomes absolutely necessary to apply retardant within the 300-foot zone (i.e., due to safety hazard), the application method that most accurately keeps the retardant from entering the water will be used. Fire retardant chemicals that contain sodium ferrocyanide will not be used.

- **Fire detection/prevention:** A diligent aerial or ground inspection should be conducted within the first 2 hours after cessation of burning each day during the dry period when fire is likely to spread. The person conducting the inspection should have adequate communication available for prompt reporting of any fire that may be detected.

- **Public safety:** Management practices for fire lines, road construction, and stream crossings should be suspended during wildfire emergencies to benefit public safety and should be restored as soon as possible. Remediation should begin after the emergency is controlled.

Mitigation Measure HYDRO-1: ARP EIR water quality mitigation for new roadway.

Metro Fire will implement the following water quality mitigation measures required for new construction projects by the ARP Plan EIR (2006:7-30):

- **Implement ARP Plan EIR Mitigation Measure HY-1.** All new construction projects within the Parkway all incorporate the design components within the latest version of the *Sacramento County Guidance Manual for Development of Erosion and Sediment Control Plans*. No grading shall be permitted from October 1 – April 30, unless the grading is associated with an emergency project or it can be demonstrated to the Department of Environmental Review and Assessment that there is an environmental benefit to wet-season construction.

- **Implement ARP Plan EIR Mitigation Measure HY-2.** All new construction or redevelopment of facilities within the Parkway shall incorporate the design components within the latest version of the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*, unless the Department of Environmental Review and Assessment determines that the project does not have the potential to release post-construction pollutants (e.g. signage). This shall include all new roads and trails, which shall be designed to minimize transport of sediment from the road or trail surface into nearby water bodies.

Questions or comments regarding this Mitigated Negative Declaration and Initial Study may be addressed to:

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Mather, CA 95655
Ph: (916) 859-4334
Email comments may be addressed to: vestal.christopher@metrofire.ca.gov

If you wish to send written comments (including via email), they must be postmarked/received by July 10, 2014. Oral comments will be taken at a public hearing on Thursday, July 24, 2014, 6:00 p.m., at Metro Fire Headquarters Office located at 10545 Armstrong Avenue, Suite 200, Mather, CA 95655.

After comments are received from the public and reviewing agencies, Metro Fire may (1) adopt the MND and approve the proposed project; (2) undertake additional environmental studies; or (3) disapprove the project. If the project is approved, Metro Fire may proceed with implementation of the project.

Christopher Vestal
Captain Paramedic

June 10, 2014
[Date]

Pursuant to Section 21082.1 of the California Environmental Quality Act, the Sacramento Metropolitan Fire District has independently reviewed and analyzed the Initial Study and Mitigated Negative Declaration for the proposed project and finds that the Initial Study and Mitigated Negative Declaration reflect the independent judgment of the Sacramento Metropolitan Fire District. The Lead Agency further finds that the project mitigation measures shall be implemented as stated in the Mitigated Negative Declaration.

I hereby approve this project:

_____
Name/ Title
Sacramento Metropolitan Fire District
(to be signed upon approval of the project after the public review period is complete)

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ACRONYMS AND ABBREVIATIONS

AAQS	ambient air quality standards
ARB	California Air Resources Board
ARP	American River Parkway
BAAQMD	Bay Area Air Quality Management District
BMP	best management practice
CalEEMod	California Emissions Estimator Model
CAP	Climate Action Plan
CDCR	California Department of Correction and Rehabilitation
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDB	California Department of Fish and Game's Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
County	Sacramento County
CWA	Clean Water Act
CWHR	California Wildlife Habitat Relationships
CWPP	community wildfire protection plans
dBA	A-weighted decibels
dbh	diameter breast height
DTSC	Department of Toxic Substances Control
EPA	U.S. Environmental Protection Agency
FMMP	Farmland Mapping and Monitoring Program
GHG	greenhouse gas
HFRA	Healthy Forests Restoration Act
lb/day	pounds/day
MBTA	Migratory Bird Treaty Act of 1918
Metro Fire	Sacramento Metropolitan Fire District
MLD	Most Likely Descendant
MT CO_2e/yr	metric tons carbon dioxide equivalent per year
MT/yr	metric tons per year
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NWP	nationwide permit
OEHHA	California Office of Environmental Health Hazard Assessment

PM_{10}	respirable particulate matter
$PM_{2.5}$	fine particulate matter
RAW	remote automatic weather station
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SMAQMD	Sacramento Metropolitan Air Quality Management District
SSHCP	South Sacramento Habitat Conservation Plan
SWPPP	Storm Water Pollution Prevention Plan
TAC	toxic air contaminant
USACE	U.S. Army Corps of Engineers
VMT	vehicle miles traveled
WUI	wildland-urban interface

1 INTRODUCTION

1.1 INTRODUCTION AND REGULATORY GUIDANCE

This Initial Study (IS) has been prepared by the Sacramento Metropolitan Fire District (Metro Fire) to evaluate the potential environmental effects of implementing the Community Wildfire Protection Plan (CWPP) within its jurisdictional boundaries.

This document has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (Title 14 of the California Code of Regulations section 15000 et seq.). An IS is prepared by a lead agency to determine if a project may have a significant effect on the environment (CEQA Guidelines Section 15063[a]), and thus to determine the appropriate environmental document. In accordance with CEQA Guidelines Section 15070, a "public agency shall prepare…a proposed negative declaration or mitigated negative declaration…when: (a) the IS shows that there is no substantial evidence that the project may have a significant impact on the environment, or (b) the IS identifies potentially significant effects but revisions to the project plans or proposal are agreed to by the applicant and such revisions would reduce potentially significant effects to a less-than-significant level." In this circumstance, the lead agency prepares a written statement describing its reasons for concluding that the proposed project would not have a significant effect on the environment and, therefore, does not require the preparation of an Environmental Impact Report (EIR). By contrast, an EIR is required when the project may have a significant environmental impact that cannot clearly be reduced to a less-than-significant effect by adoption of mitigation or by revisions in the project design.

1.2 PURPOSE OF THE INITIAL STUDY

As described in the environmental checklist (Chapter 3), the proposed project would not result in significant environmental impacts, after imposition of certain mitigation measures. This IS concludes that a Mitigated Negative Declaration (MND) is the appropriate document for compliance with the requirements of CEQA.

Under CEQA, the lead agency is the public agency with primary responsibility over approval of the proposed project. Metro Fire is the lead agency for the proposed project and has directed the preparation of an analysis that complies with CEQA.

The purpose of this document is to present to decision-makers and the public the environmental consequences of implementing the proposed project. An IS is required in support of an MND and is attached to the MND. This disclosure document is being made available to the public for review and comment. The MND (with the attached IS) is available for a 30-day public review.

Comments should be addressed to:

Christopher Vestal
Project Manager/Captain
Sacramento Metropolitan Fire District
10545 Armstrong Avenue, Suite 200
Mather, CA 95655
Ph: (916) 859-4334
vestal.christopher@metrofire.ca.gov

After comments are received from the public and reviewing agencies, Metro Fire may (1) adopt the MND and approve the proposed project; (2) undertake additional environmental studies; or (3) disapprove the project. If the project is approved, Metro Fire may proceed with implementation of the project.

1.3 SUMMARY OF FINDINGS

Chapter 3 of this document contains the analysis and discussion of potential environmental impacts of the proposed project. Based on the issues evaluated in that chapter, it was determined that the proposed project would have no impact related to the following issue areas:

- Mineral Resources
- Population and Housing
- Public Services

Impacts of the proposed project for the following issue areas would be less than significant:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Greenhouse Gases
- Land Use and Planning
- Noise
- Recreation
- Transportation and Traffic
- Utilities and Service Systems

Impacts of the proposed project for the following issue areas would be less than significant with the incorporation of the mitigation measures described in Chapter 3:

- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality

Mitigation measures would reduce all significant impacts to a less-than-significant level. Metro Fire has agreed to implement all required mitigation.

1.4 ENVIRONMENTAL PERMITS

The project would require approval from Metro Fire. For the proposed prescribed burns, an agricultural burn permit must be obtained from the Sacramento County Agricultural Commissioner's office. An open burn permit is required from Sacramento Metropolitan Air Quality Management District. No other permits or approvals for this project would be required.

1.5 DOCUMENT ORGANIZATION

This IS/ MND is organized as follows:

Chapter 1: Introduction. This chapter provides an introduction to the environmental review process. It describes the purpose and organization of this document as well as presents a summary of findings.

Chapter 2: Project Description and Background. This chapter describes the purpose of and need for the proposed project, identifies project objectives, and provides a detailed description of the proposed project.

Chapter 3: Environmental Checklist. This chapter presents an analysis of a range of environmental issues identified in the CEQA Environmental Checklist and determines if each issue would result in no impact, a less-than-significant impact, a less-than-significant impact with mitigation incorporated, or a potentially significant impact. If any impacts were determined to be potentially significant, an EIR would be required. For this project, however, none of the impacts were determined to be significant after implementation of recommended mitigation measures.

Chapter 4: References. This chapter lists the references used in preparation of this IS/MND.

Chapter 5: List of Preparers. This chapter identifies report preparers.

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2 PROJECT DESCRIPTION

2.1 BACKGROUND

The Healthy Forest Restoration Act was implemented in 2003 and encourages communities within the wildland urban interface to create community wildfire protection plans (CWPP). Preparation of a CWPP allows communities to clarify, refine, and establish priorities for protection of life, property, critical infrastructure, and natural resources within its jurisdiction. A CWPP contains an assessment of the hazards and risks facing the community and identifies treatments to protect the community.

In 2008, a wildfire that injured Sacramento Metropolitan Fire District (Metro Fire) firefighters in a burnover, a fire in which personnel were overrun by a wildland fire, highlighted the need for Metro Fire to implement additional strategies to prevent and combat wildfire within Metro Fire's jurisdictional boundaries (District). In response to this fire, Metro Fire applied for and successfully obtained a grant from the Assistance to Firefighters Grants Program (Fire Prevention and Safety) of the Federal Emergency Management Agency to develop a CWPP and to launch an integrated wildfire prevention program that would reduce wildfire risk and increase community resiliency within the District. The CWPP and the strategies identified therein is the subject of this Initial Study.

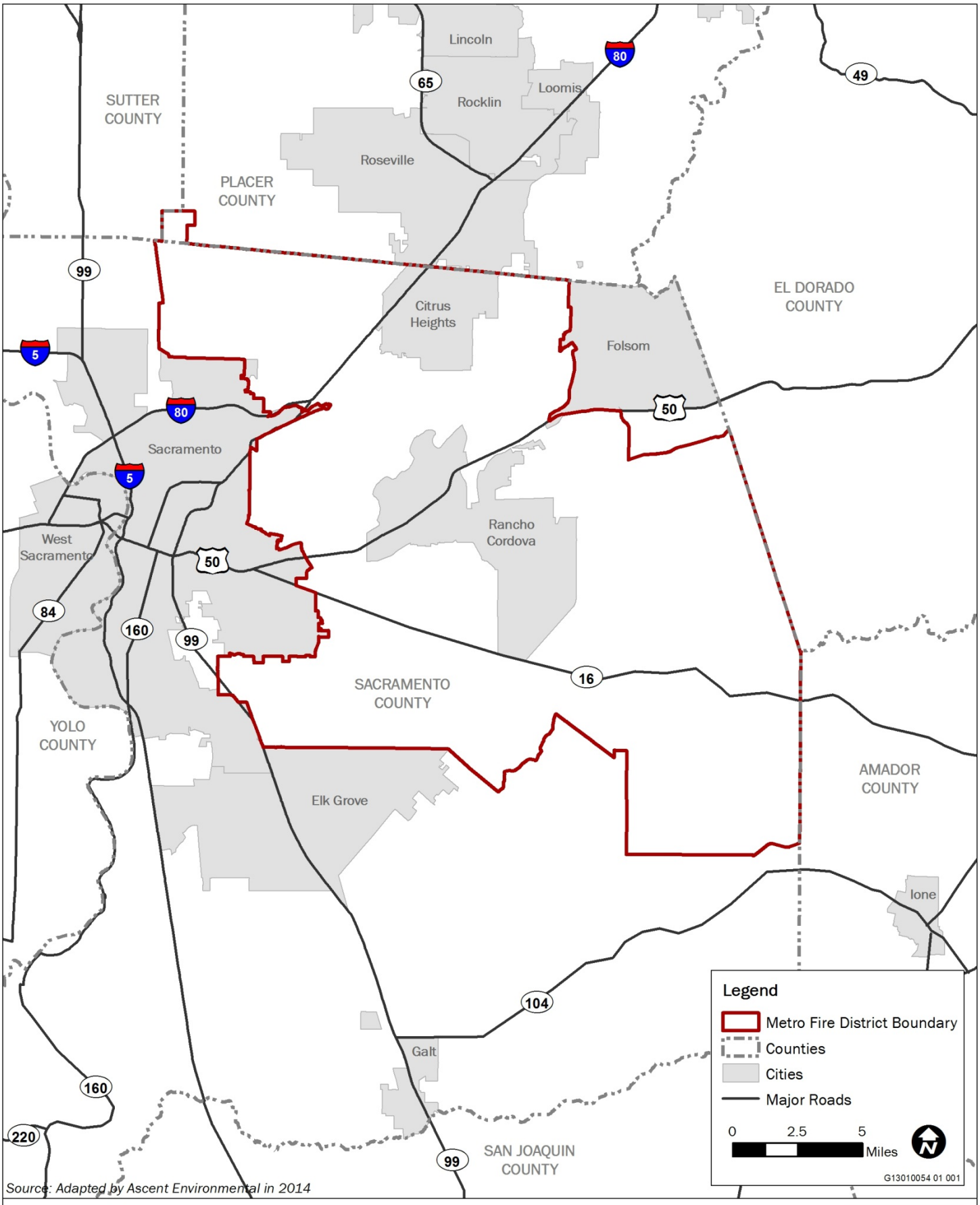
2.2 PROJECT LOCATION

The CWPP plan area includes all of Metro Fire's area of responsibility (i.e., the land contained within its District boundaries), which consists of the northern, unincorporated portion of Sacramento County (County), but also includes a small part of Placer County(Exhibit 2-1). The plan area is located in the middle of the Central Valley and is bordered by Amador County and El Dorado County on the east, Placer County and Sutter County on the north, and other parts of Sacramento County to the south and west. The plan area is bordered by—but does not include—the City of Sacramento to the west; the City of Folsom to the northeast; and the City of Elk Grove to the southwest. The Cities of Citrus Heights and Rancho Cordova are located in the northern portion of the plan area. The other towns and communities within the plan area are unincorporated, and the County has land use jurisdiction over these communities.

2.3 PLAN AREA DESCRIPTION

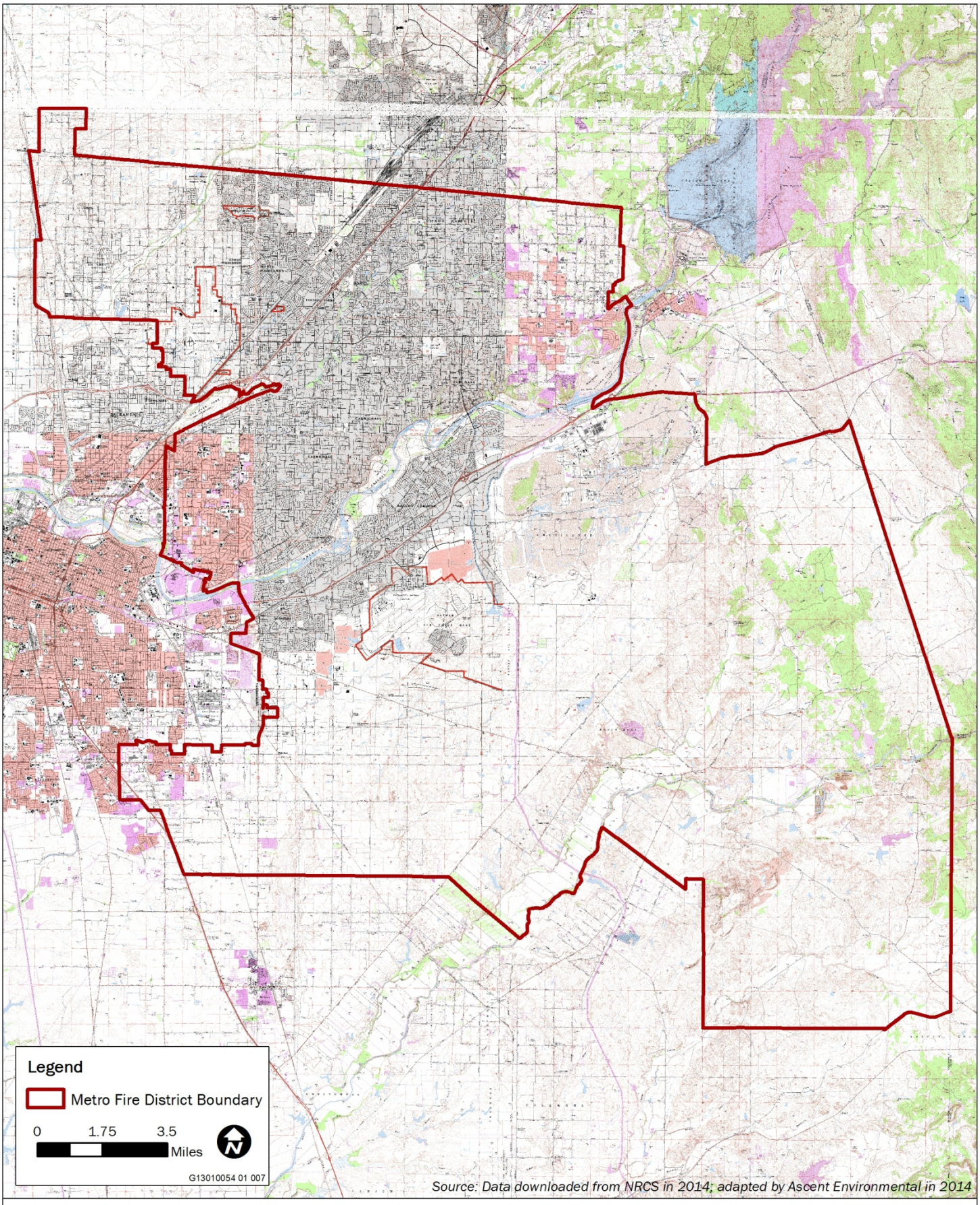
Land uses within the District include urban, suburban, and undeveloped (natural or agricultural). The terrain throughout is primarily flat or composed of gently rolling hills, with the steepest terrain being located in the eastern portion of the District, where the Central Valley begins to transition into the Sierra Foothills, and along the American River (Exhibit 2-2).

The northern portion of the District is the most developed, and includes the urban and suburban development within the cities of Citrus Heights and Rancho Cordova, and surrounding unincorporated communities, including Antelope, Arden-Arcade, Carmichael, and Old Foothill Farms, Fair Oaks, North Highlands – Foothill Farms, Orangevale, Rio Linda, and Elverta. Citrus Heights is located north of the American River, where it covers approximately 14 square miles immediately adjacent to Interstate 80. Rancho Cordova occupies nearly 34 square miles on the south side of the American River. A much larger area of urban and suburban development surrounds these communities and is loosely circumscribed by Interstate 80 to the north and Highway 50 to the south.



Source: Adapted by Ascent Environmental in 2014

Exhibit 2-1 **Regional Location**



Source: Data downloaded from NRCS in 2014; adapted by Ascent Environmental in 2014

Exhibit 2-2 **Topographic Base**

The southern portion of the District is occupied by scattered unincorporated communities, including Cosumnes, Rancho Murieta, and Vineyard, as well as extensive areas of grassland, pasture, and cropland. Other natural habitats include oak woodland, vernal pools, riparian habitat, and wetlands. There are numerous seasonal and perennial waterways within the District. The largest river within the District is the American River, which traverses the northern portion of the plan area, and is flanked by riparian forest. Within the District, the American River is the centerpiece of a regional greenbelt called the American River Parkway (ARP) that provides regional recreation opportunities, including hiking, bicycling, and equestrian trails. The American River flows out of the man-made reservoir Folsom Lake, which is located just to the east of the District. The other primary river in the plan area is the Cosumnes River, which flows across the southern portion, roughly between the communities of Wilton and Rancho Murieta. Most rivers and streams are ephemeral, and dewater during the dry season.

The community base map is an important feature of the CWPP that serves to create a shared vision of the existing environments within the District and is required by the Healthy Forest Restoration Act (HFRA) in order to obtain approval by cooperating federal and state agencies. The Community Base Map is depicted in Exhibit 2-3. The map provides a visual information baseline from which the community can assess and make recommendations regarding protection and risk-reduction priorities and depicts features that orient the user to valuable resources at risk from wildfire, emergency response facilities, important infrastructure, and possible sources of wildfire hazard. Features depicted on the map include:

1. City and county boundaries
2. Land ownership
3. Fire station locations
4. Network of streets
5. Open spaces and parks
6. State-determined high hazard areas

A draft of the community base map was presented at stakeholder meetings in fall 2013 and was refined, as shown in Exhibit 2-3, based on comments received during those meetings.

2.4 PROJECT OBJECTIVES

The overarching goal of the proposed CWPP is to implement a comprehensive plan that results in the protection of human life and reduction of the loss of property, critical infrastructure, and natural resources due to wildfire. The CWPP is also intended to achieve the following primary objectives:

- assist agencies, communities, and local homeowners define, plan, and prioritize types of actions that would limit the damage associated with wildfire.
- reduce the risk of destructive fires through implementation of the following:
  - increased collaborative planning and cooperative actions that would build useful relationships between communities and agencies;
  - reduction of hazardous fuels in the wildland-urban interface (WUI);
  - creation and maintenance for defensible space (defined in Section 2.8.3, Vegetation Treatments, below) for structures and properties;
  - reduction of structural ignitability hazards;

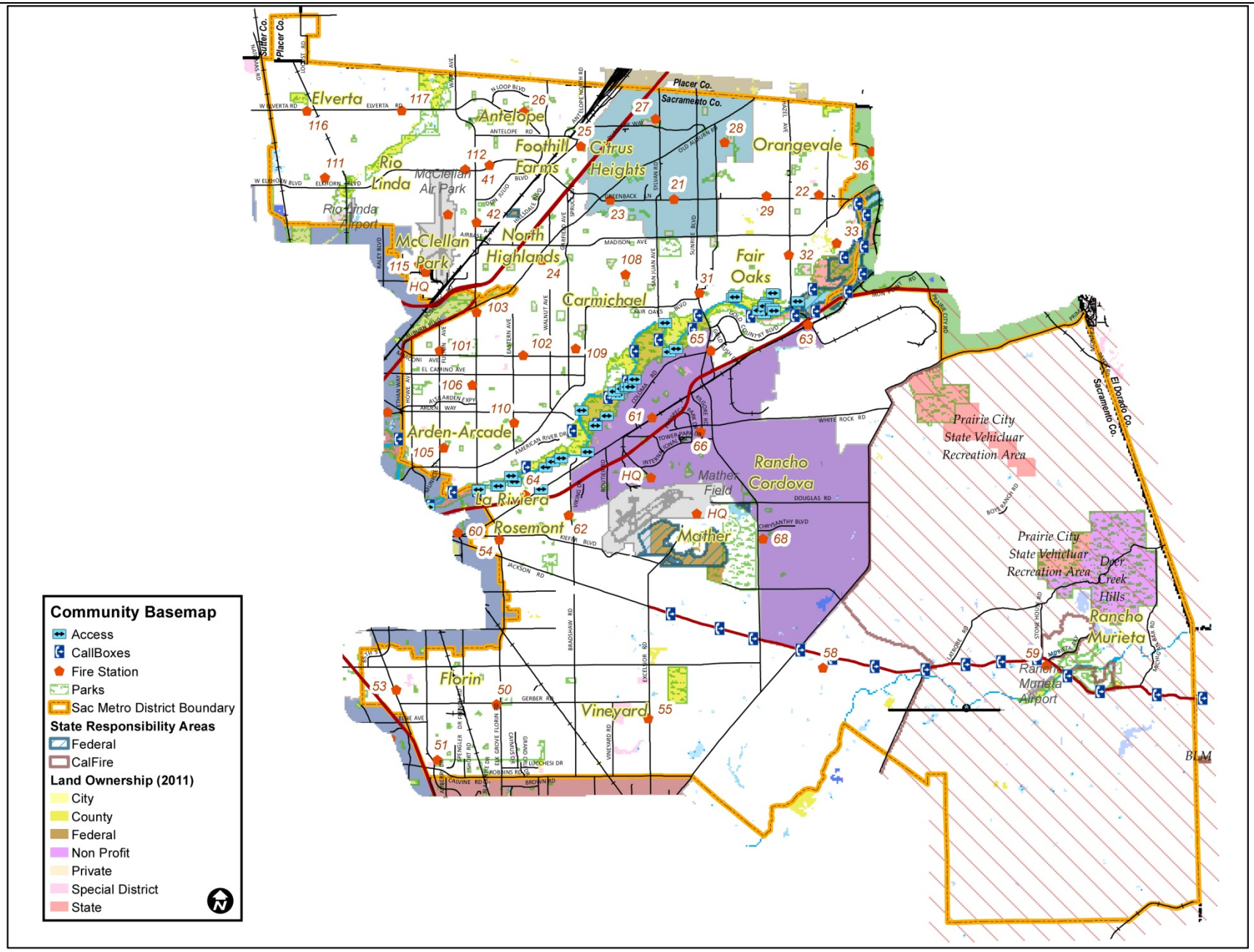


Exhibit 2-3 **Community Base Map**

- implementation of evacuation protocols and drills; and
- improvement of response capabilities through enhanced training and pre-fire planning;

- increase community resiliency;
- foster a community-wide understanding of the risk of wildfire and the benefits of combined individual and community-level mitigation actions;
- establish a process to quantify improvements in community resiliency over time that include tracking, planned, and completed mitigation projects and the success of community outreach;
- form a stakeholder group that would serve as an advisory body to Metro Fire regarding the risks of fire in the WUI;
- increase awareness of the need to protect natural resources, as well as the methods for protecting these resources, both during vegetative treatments and fire response;
- bring the community together to collaborate with local, state, and federal partners to formally assess the risk;
- integrate pre-emergency mitigation planning and incident response in the event of a wildfire;
- coordinate wildfire planning and mitigation with community development and ongoing maintenance activities;
- provide a useful tool for decision support and situational awareness that will allow Metro Fire to assess the risk of wildfire at the community level, develop and monitor mitigation alternatives, and share data directly with homeowners and community managers; and
- fulfill a necessary prerequisite for future funding from federal agencies.

2.5 DESCRIPTION OF PROPOSED CWPP

CWPP's are authorized and defined in Title I of the Healthy Forests Restoration Act (HFRA) passed by Congress on November 21, 2003 and signed into law by President Bush on December 3, 2003.

The HFRA places renewed emphasis on community planning by extending a variety of benefits to communities with a wildfire protection plan in place. Critical among these benefits are 1) the option to establish localized definitions and boundaries for areas having high risk potential, hazards (fuels), and values; and 2) the opportunity to help shape management priorities within the planning area.

The CWPP, as described in the HFRA, brings together diverse local interests to discuss their mutual concerns for public safety, community sustainability, and natural resources. It offers a positive, solution-oriented environment in which to address challenges such as local firefighting capacity, the need for defensible space around homes (and areas of value), and where and how to prioritize land management.

The purpose of the proposed CWPP is to provide stakeholders and those living in the Metro Fire boundaries with an overview of the wildland fire risks, hazards, and values within the planning area; recommend possible courses of action to reduce the impacts of wildfire in the planned area; and to share an action plan.

The three main components of a CWPP are 1) collaboration with all stakeholders throughout the CWPP process, 2) identification and prioritization of hazardous fuel reduction areas, and 3) addressing the treatment of structural ignitability within the CWPP area.

The draft CWPP (see Appendix A):

1. describes the four environments within the District: natural, built, response, and social environments;
2. delineates the WUI within the District;
3. assesses the risk posed by wildfire in the WUI;
4. provides a community base map that provides a visual information baseline from which the community can assess and make recommendations regarding protection and risk-reduction priorities and depicts features that orient the user to valuable resources at risk from wildfire, emergency response facilities, important infrastructure, and possible sources of wildfire hazard.
5. provides maps that show high fire hazard areas, as defined by federal, state, and local authorities;
6. describes a suite of desired projects that span site-specific fuel treatments, recommendations for public education, changes to codes and ordinances, changes to development patterns for planning, and a framework for as yet-undefined projects;
7. establishes prioritization of fuel management projects and treatment methods, as well as principles for selection of projects when funding is available;
8. describes the measures communities and homeowners can take to reduce the ignitability of structures;
9. establishes ways to evaluate progress through measurement and feedback; and
10. identifies federal, state, and local resources, such as fire response agencies, wildlife and watershed regulatory agencies, open space management agencies, private landowners and homeowners, private vegetation management contractors, and hand crew suppliers.

It is Metro Fire's intent that the CWPP be a living document in that it provides a vision for fuel management over the next 10-15 years. However, it would be actively managed and monitored so that as conditions change it would be updated to reflect progress made towards implementing projects and to respond to the changing environments (e.g., new developments, changed fuels, recovery actions). The CWPP WUI and projects identified below describe those actions that are reasonably foreseeable based on the current environmental conditions within the District and available data and information. If conditions substantially change or new projects are proposed that are not included below and are substantially different from those activities described herein, supplemental environmental review may be required and would be implemented by Metro Fire at that time.

2.6 CHARACTERISTICS OF THE WILDLAND-URBAN INTERFACE

The WUI is the meeting point between wildland vegetation (i.e., fuels) and structures. (See Exhibit 2-4.) At this interface, the structure and vegetation are sufficiently close that a wildfire could spread to a structure or a structure fire could ignite vegetation. The proximity of vegetation and structures needed to spread fire varies with the vegetation (fuel) type, the siting of the structure, and the exterior characteristics (building material and design) of the structure itself. The importance of spatial distribution of vegetation and structures in the WUI is discussed in Section 4 of the CWPP (see Appendix A).

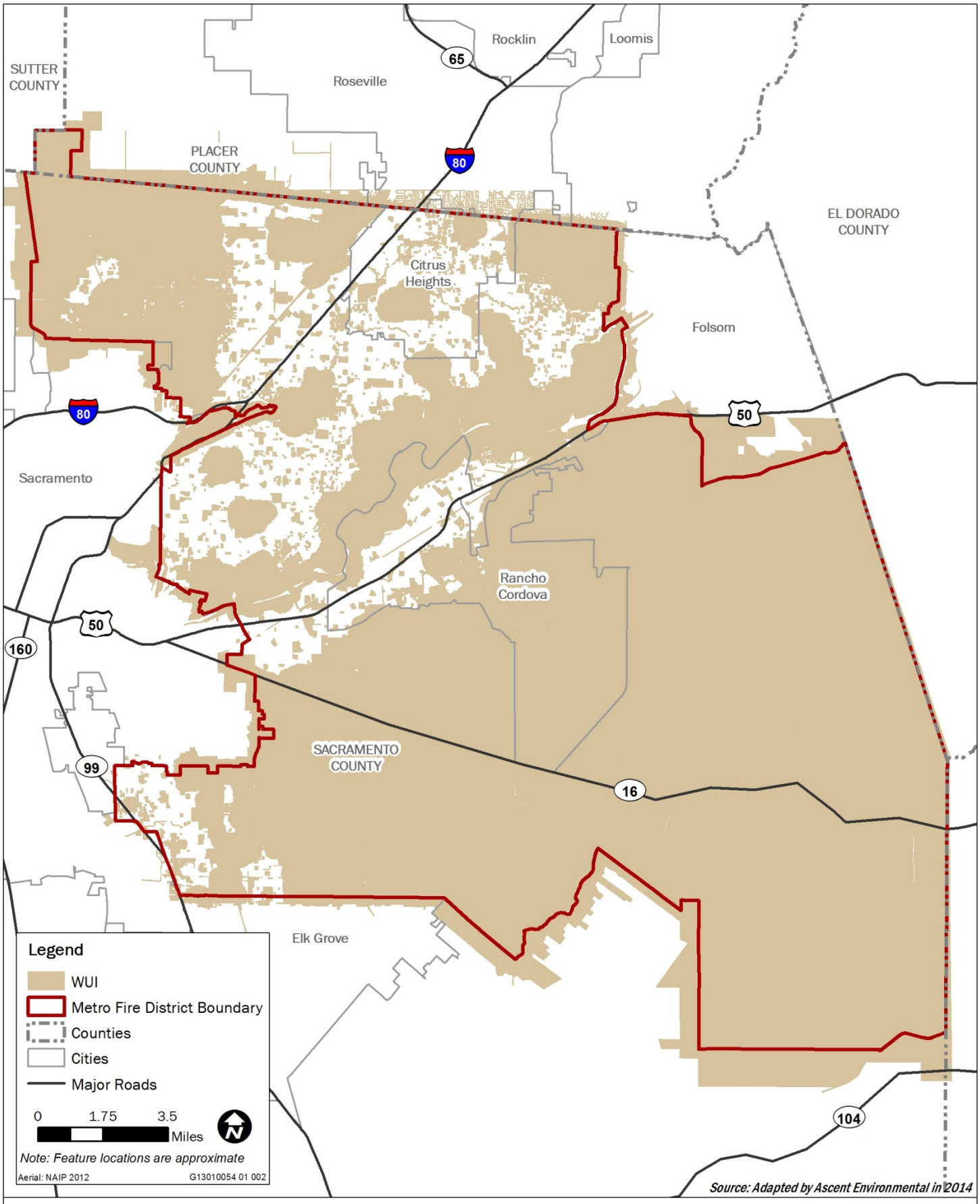


Exhibit 2-4 **Wildland Urban Interface (WUI)**

In the past, the vast majority of wildfires occurred in remote locations and caused little damage to property or loss of human life. During the last 50 years, however, there are many examples of destructive fires in the WUI throughout California. Because of the increased values that accompany structures and other improvements, most losses from wildfire occur in the WUI.

Areas identified within a WUI are targeted for increased levels of fire prevention, preparedness, response, and recovery plans. Parcels in this designation are typically subject to more stringent regulations regarding ignition-resistant construction, defensible space creation and maintenance, and heightened levels of education regarding fire prevention.

The federal HFRA enables communities to define their own WUI boundary. The WUI is defined within Metro Fire as parcels that have abundant wildlands fuel. More specifically, these are parcels with at least one half acre of wildland vegetation, as mapped by CAL FIRE, and parcels within 1,000 feet of large areas of wildland vegetation. In some cases, this WUI boundary can be difficult to discern due to a gradient of development that gradually transitions from small lots to larger parcels with plentiful vegetation. In other cases, the WUI includes an island of wildland inside a developed area or a small cluster of structures in a large open space area. Exhibit 2-4 presents the WUI delineated by Metro Fire within its District.

2.7 CWPP PROJECTS

The following section summarizes the projects that Metro Fire proposes to implement in its CWPP (Appendix A). This list of projects included in the CWPP was developed by soliciting input from stakeholders at public meetings and through individual contacts with stakeholders. Some projects were suggested by the consultant team and affirmed by the stakeholder group.

The projects are listed using the three headings required for CWPPs in the FHFRA: community collaboration, fuels reduction projects, and treatment of structural ignitability. Another way to classify these actions is whether the actions are related to fire prevention, preparedness for fire, fire response, or recovery from a fire. Accordingly, the actions are classified whether they address Prevention, Preparedness, Response, or Recovery. Currently, no projects have been identified that might assist in post-fire recovery; however, such projects are being solicited through the stakeholder outreach process and would continue to be solicited as the CWPP is implemented over time.

2.7.1 Community Collaboration

Implementing projects to reduce wildfire risk can occur only if the community at risk and the agencies responsible for land use planning and fire response are fully involved in the planning and implementation process. Together, the people and entities at risk and those responsible for managing and responding to that risk are called the stakeholders in the plan. It is the goal of Metro Fire to collaborate with as many stakeholders in the delineated WUI as possible to reduce the fire risk. Stakeholders that participated in the process include:

Matt Ocho, ARP Foundation

Dianna Poggetto, ARP Foundation

James Morgan, Butterfield-Riviera East Community Association (BRECA) and Save the American River Association (SARA)

Edith Hannigan, California Board of Forestry and Fire Protection

Scott Williams, City of Sacramento Fire Department

Diana Yates, City of Sacramento Fire Department

Mary Maret, County of Sacramento Dept. of Regional Parks

Michael Winter, County of Sacramento Community Development

Mike Okivarria, California Department of Forestry and Fire Protection (CAL FIRE)	Sheryl Lenzie, County of Sacramento Planning & Environmental Review Division
Thomas Tinsley, CAL FIRE	Donald Burns, Riverwood Home Owners Association (HOA)
Mike Webb, CAL FIRE	Vince Jacobs, Riverwood HOA
George Avila, California Department of Transportation (Caltrans)	Candace Krumpe, Riverwood HOA
Steve Cantelme, California State Office of Emergency Services	Dave Reed, Riverwood HOA
Daman Christensen, City of Citrus Heights Police Department	David Cheek, Sacramento Regional Conservation Corps
Michelle Basurto, City of Sacramento Fire Department	Baldeo Singh, Sacramento Regional Conservation Corps
Lon Gay, City of Sacramento Fire Department	Dwight Washabaugh, Sacramento Regional Conservation Corps
Dan Haverty, City of Sacramento Fire Department	Nate Gogna, U.S. Bureau of Land Management

Metro Fire proposes to work collaboratively with stakeholders to develop and implement practices and actions to mitigate the risk factors occurring in the WUI. The following actions are recommended in the CWPP:

1. Establish a framework for Metro Fire staff and staff of other stakeholder agencies to collaborate on implementing the plan. (Preparedness)

2. Add the CWPP to the Amador/Eldorado Cal Fire Unit Fire Plan. (Preparedness)

3. Conduct joint training with cooperating agencies.

    a. Foster the relationship between the Sheriff's Department, cities of Rancho Cordova and Citrus Heights Police Departments, and Metro Fire to jointly address evacuation routes and procedures. (Response)

    b. Collaborate and participate with California State Parks and Sacramento County Regional Parks in their existing and planned prescribed burn activities with the intention of increasing Metro Fire's familiarity with prescribed burn techniques and overall increased collaboration between these entities. (Prevention and Response)

    c. Include Minimum Impact Suppression Techniques in the training curriculum. (Preparedness)

4. Work with citizen-based response organizations (i.e., Neighborhood Watch, Community Emergency Response Team (CERT)) to supplement law enforcement and fire department efforts. Encourage the linkage between crime prevention and fuel reduction near homes. (Preparedness and Response)

5. Encourage the formation of a countywide Fire Safe Council. This entity could serve as an "umbrella" organization under which smaller, community-based fire safe councils could be formed when and where there is interest. The countywide fire safe council would assist in organizing and finding funding for the community-based fire safe councils. (Preparedness)

6. Facilitate the formation of an agency-to-agency organization to foster resource sharing, establish common best practices, and consistent media messages. (Preparedness)

7. Continue to hold community meetings to educate residents about their fire environment and measures they can take to minimize their risk and prepare for a wildfire (Preparedness). These meetings could include:

    a. A description of practices to reduce structural ignitability and to limit ignitions;
    b. An explanation of how common architectural features respond when ignited;
    c. A description of evacuation protocols and drills; and
    d. Information about defensible space and fire-resistant landscaping.

8. Seek grant funding to fund projects, and involve stakeholders to maximize community support for projects when prioritizing projects. (Preparedness)

9. Inform citizens of details of the CWPP through a Community Education Program. Topics would include provisions for evacuation; shelter in place; safety zones; fuels reduction; and the neighborhood provisions for fire safety, prevention, and public safety. The education program would include a Metro Fire library of information on fire safety, fire-wise landscaping, defensible space, first-aid, and other literature for distribution to citizens upon request. (Preparedness)

10. Recommend the amendment of general plans, building codes, and zoning ordinances to strengthen and to provide additional protections for wildfire while still allowing property owners to develop their land. Goals, policies and implementing actions are listed in Appendix K of the CWPP (the CWPP is in Appendix A of this IS/MND). (Prevention, Preparedness, Response, Recovery).

The actions described above primarily involved community collaboration and coordination and would not involve any actions that would result in new physical environmental changes.

2.7.2 Fuel Reduction Projects

Fuel management is the practice of removing or modifying vegetation in order to reduce wildfire ignitions, rate of fire spread, and fire intensity. Changing the continuity of the vegetation, and reducing its volume are the two primary actions in fuel management. Typically grass is mowed, shrubs are reduced in height and/or removed (especially when under trees), and the lower branches of trees are cut and removed.

Methods to modify vegetative fuels encompass the use of hand labor to cut, pull, and or move vegetation; mechanical mowing, cutting or masticating; prescribed grazing; targeted herbicide application; and prescribed burning. Given the variability of conditions, a single type of treatment is typically not effective. Exhibit 2-5 and 2-6 of this document provide location of proposed CWPP fuel reduction treatment areas. In general, fuel management practices vary with the vegetation type, location of treatment, terrain, condition of the vegetation, and its configuration. Typically, fuel reduction treatment priorities are established based on the site conditions (such as fire hazard, access, and development pattern) and can generally be organized based on the location of treatment from structures and infrastructure as follows:

1. 0-100 feet from a structure,

2. 10-300 feet from critical infrastructure (e.g., fire hydrants, other water supplies, etc.),

3. 0-30 feet from emergency access roads, and

4. 100-300 feet within community protection zones (a community protection zone overlaps with home ignition zones [i.e., the home itself and everything around it up to 100-200 feet] and can provide

opportunities for firefighters to protect other flammable features of a community) [NFPA 2014]. This zone is further defined below under Section 2.8.3, Vegetation Treatments.

The location of fuel management projects recommended in the CWPP are shown in Exhibit 2-5 and 2-6 and would include the following:

1. Gather more information about existing fire conditions and hazards in the WUI in order to better direct and prioritize fuel reduction projects. This would include the following actions:

    a. Install remote automatic weather stations (RAWs) to determine fire conditions and conditions requiring red flag warnings. The automatic weather stations would be installed on existing poles or structures, or within existing developed areas, and would not be placed in areas that are highly visible. (Preparedness and Response)

    b. Train Metro Fire staff how to use and interpret RAWs data. (Preparedness and Response)

    c. Establish and adopt a mechanism to notify stakeholders when a red flag warning is issued. (Response)

    d. Evaluate and, as warranted, revise dispatch protocol for red flag warnings. (Response)

    e. Hire an intern to map the WUI fire history to portray the locations, times, and causes of wildfire ignitions. (Preparedness)

    f. Develop a fire prevention plan for areas of frequent ignitions. The plan would include fire prevention goals and strategies based on the area's fire history (i.e., children playing with matches, unattended barbecues, or warming fires), community education needs, enforcement of regulations, and/or modification of fuels to ensure they are less ignition-prone. (Prevention)

2. Work with partner agencies to conduct fuel management and augment response and/or reestablish Metro Fire work crews to treat vegetation in projects identified in this CWPP. (Prevention and Response);

3. Use established governmental work programs such as the Sacramento Regional Conservation Corps to conduct fuel reduction projects (as detailed in the following pages) and to bolster response capabilities. (Preparation and Response);

4. Use community groups, such as Neighborhood Watch and CERT volunteers, to help with advisory inspections and to educate homeowners about defensible space and how it reduces their exposure to wildfire damage. (Prevention);

5. Where feasible, use California Department of Correction and Rehabilitation (CDCR) work crews to treat vegetative fuels at CWPP project sites (as detailed in the following pages). (Prevention);

6. Develop pre-fire plans for communities within the WUI to speed emergency response and make it more effective. These plans will identify available water supply, alternative access points, structure footprints, location of locked gates, contingency zone locations, areas sensitive to dozer operations, and communication protocols. (Prevention, Preparedness, and Response);

7. Support targeted compatible vegetation management in the ARP that reduces fire hazard through funding and cooperative operations. Work to minimize impacts to sensitive habitats through establishment of best management practices and be consistent with the 2008 ARP Master Plan. (Prevention);

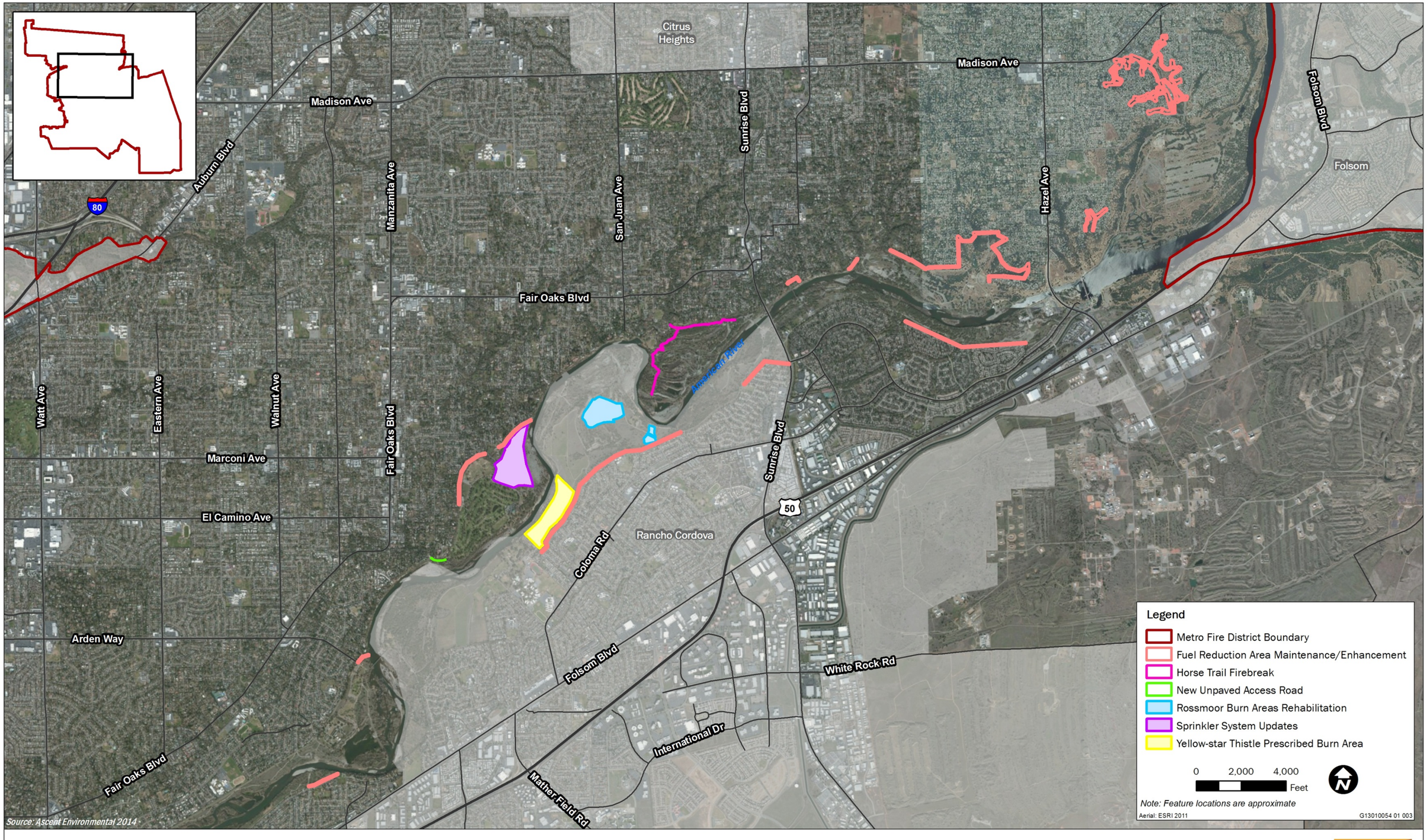


Exhibit 2-5

Fuel Reduction in the American River Parkway

ASCENT ENVIRONMENTAL

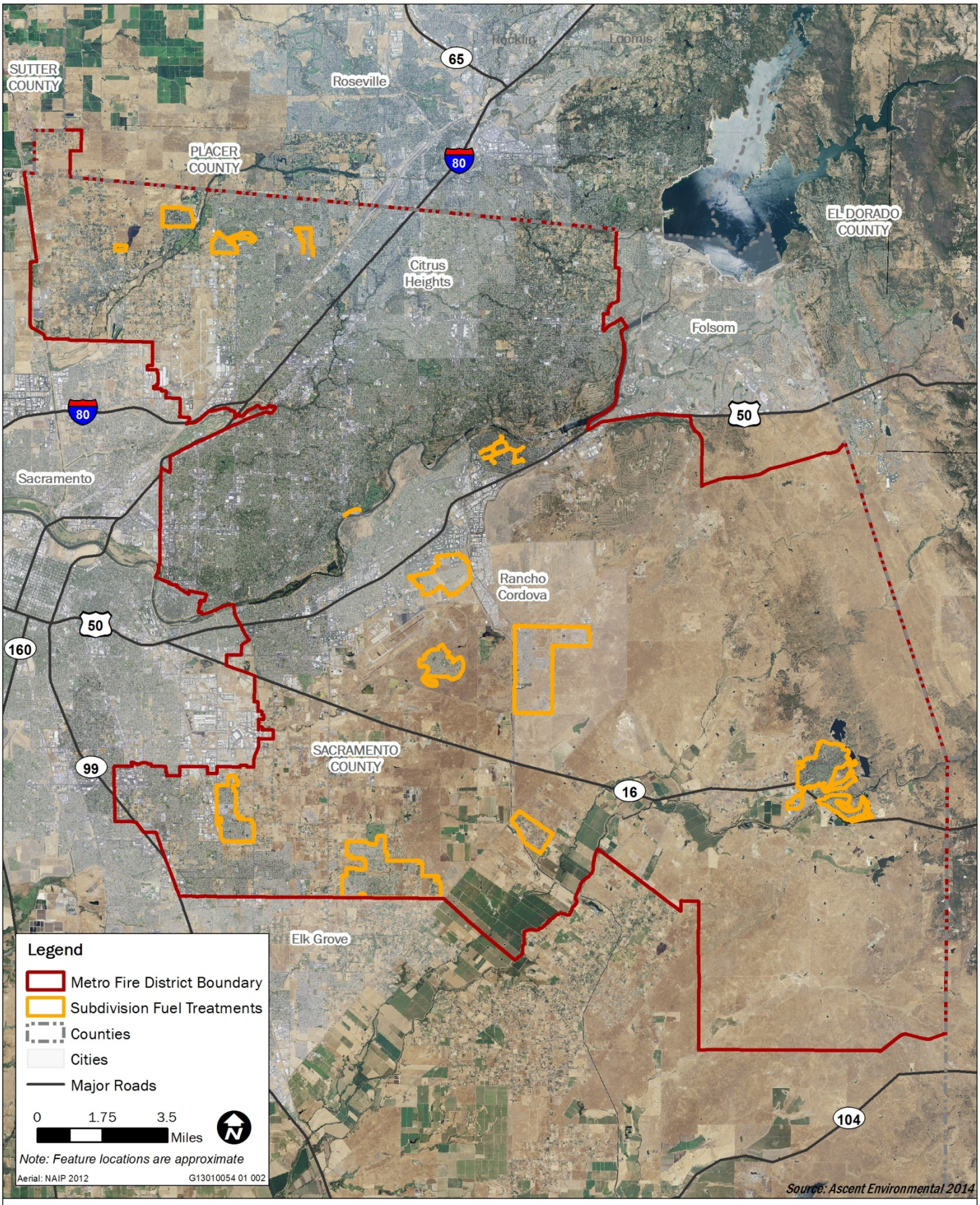


Exhibit 2-6 **Fuel Reduction around Subdivisions Adjacent to Wildlands**

a. Manage vegetative fuels for fire hazard reduction through maintenance of existing fuel reduction areas (i.e., 100-feet of mowed area within Defensible Space Zone) located around structures adjacent to WUI areas within the ARP (see areas identified in Exhibit 2-5 as 'fuel reduction area maintenance/enhancement). CDCR crews or SCC crews may be utilized to reduce fuel loading in heavy vegetation. Seek grant funding for this work. (Prevention);

8. Expand area of fuel treatment adjacent to equestrian trails by 10 feet in selected locations and rehabilitate burn areas in Rossmoor Bar (see areas identified in Exhibit 2-5 as 'Fuel Reduction Area Maintenance/Enhancement, 'Horse Trail Fire Break', and ' 'Rossmoor Burn Areas Rehabilitation') to protect sensitive resources from the spread of fire. CDCR crews or SCC crews may be utilized to reduce fuel loading in heavy vegetation. Metro Fire would seek grant funding for this work. Activities under this fuel reduction project would include:

    a. Expand the area of fuel treatment along horse trails near Bannister Park. Treatments would include mowing or discing a strip to prevent fire spread and pruning of lower branches of trees to prevent torching and remove understory shrubs to minimize fire intensity.

    b. Use SCC crews to rehabilitate the fire area in Rossmoor Bar. This would include pruning lower dead branches of oak trees, removal and piling of dead material away from trees, and weed-whip/mow the grass under the trees so fire cannot carry and create further damage.

    c. Increase the firebreak width (mow or blade an area up to 30-feet wide, including the disced width) outside areas where mitigation trees were planted. (Prevention).

9. Encourage the American River Coalition to establish a volunteer program to focus on activities that remove or prune vegetation in the area behind residences within the ARP, especially those residences south of the river. (Prevention and Preparedness);

10. Renew and update the fuel reduction work done in 2010 and 2012 in Ed Levy area and elsewhere in the ARP (Exhibit 2-5);'

11. Coordinate with Caltrans and County Public Works on implementing currently authorized roadside fuel reduction treatment projects that would include mowing grass, shrub removal, and tree pruning within road right-of-ways. (Preparedness); and

12. Treat high fire hazard areas (determined by estimated flame length) near structures with establishment of a community protection zone with associated firebreaks. Exhibit 2-6 identifies approximate location of proposed subdivision fuel treatment areas. (Preparedness). Give the highest priority to projects that:

    a. Reduce hazardous fuels, which if left untreated, would generate high intensity fire adjacent to structures or communities at risk, or produce large quantities of burning embers that would threaten communities;

    b. Reduce hazards along strategic emergency access and evacuation routes, or other critical infrastructure; and

    c. Reduce impacts of wildfire to sensitive high value ecosystems and high use recreational areas by reducing fire intensity and or increasing chances of fire containment before reaching the area.

2.7.3 Treatment of Structural Ignitability

The presence of structures within the WUI exposes both the natural and the developed environment to increased risk of destruction by wildfire. Where flammable vegetation occurs near homes, an ignition can

result in a damaging fire. Reducing the ignitability of structures can reduce loss to the treated structure and reduce fire spread in the area.

Structure ignitability can be reduced by using fire-resistant roofing, installing or retrofitting ignition resistant decks, installing double-paned windows (and otherwise building and remodeling in a manner consistent with Chapter 7a of the California Building Code), reducing the amount of flammable vegetation near the structure, and enhancing firefighter's access to the structure and a water supply.

The decision where to build and the materials used has a direct relationship to the ability of the structure to survive a wildfire. Adoption and enforcement of fire and building codes is an essential part of managing risk within the WUI. The following are CWPP-recommended projects that would improve the ability of structures in the WUI to survive a wildfire.

1. Develop a means to enforce defensible space on private property in the WUI, as required by Public Resources Code Section 4291. (Preparedness)

    a. Revise the fire codes for the area within the WUI throughout the District. The code would identify defensible space and construction requirements for different site conditions, formalize inspection schedules, and identify the responsibility for fulfilling the defensible space requirements. Revisions to the code could be implemented over several years, beginning with the areas of highest risk. (Prevention)

2. Gather more information about existing structural conditions and risks in the WUI in order to better direct and prioritize projects addressing structural ignitability. (Preparedness)

    a. Seek funding to support staff collection of structural data to support parcel-based risk assessment[1] (Preparedness)

3. Hire additional staff to conduct defensible space inspections and inventory of wildfire risk. Inspectors would determine whether the vegetation on the parcel is in compliance with the adopted weed abatement ordinance and the presence of risk factors such as vegetation condition, structure characteristics, and parcel attributes (See Section 7 of Appendix A for a detailed discussion of risk factors). (Prevention)

4. As grant funding becomes available, administer a program that funds replacement of wood shake roofs with non-combustible roofing in the areas most at risk. (Prevention)

5. As grant funding becomes available, retrofit the structural components, building materials, and landscaping of older Metro Fire stations. (Prevention)

2.8 POTENTIAL GROUND-DISTURBING ACTIVITIES

Of the projects listed above, most involve non-physical effects such as identifying funding sources, working with collaborative partners, identifying volunteer programs, promoting training, etc. A few of the projects would result in physical effects, such as vegetation management and installation of weather stations. For the most part, the proposed CWPP involves education and promotion of fuels reduction programs that are currently allowed, frequently implemented, and, in some cases (such as defensible space maintenance) required by law. Even though these activities would involve some ground disturbance, most of these activities are already part of the existing condition. CEQA (Section 15125) requires lead agencies to consider the potential adverse change to the existing physical environment. For this IS/MND, the existing

[1] Parcel-based risk assessment is a rating for each parcel of the conditions that influence the potential damage from wildfire.

environmental setting is the condition of the environment at the time the environmental analysis is initiated, which is the baseline condition for this analysis (CEQA Guidelines Section 15125). Therefore, this IS/MND will focus primarily on the following project components, which could increase the amount of ground disturbance currently allowed or currently implemented, potentially resulting in impacts to the environment:

- Manage vegetative fuels for fire hazard reduction and create up to 100 feet of additional defensible space around structures adjacent to WUI areas within the ARP. (See Exhibit 2-5)
- Manage vegetative fuels for fire hazard reduction and create up to 100 feet of additional defensible space around subdivisions throughout the District that are adjacent to wildlands. (See Exhibit 2-6)
- Implement fuel management actions along specified existing horse trails within the ARP such that the trails would function as fire breaks (see description of fire breaks below). The trails would be widened by up to 10 feet in strategic locations, which would be determined by Metro Fire in close coordination with Sacramento County Regional Parks.
- Install weather stations atop existing structures or within developed areas.
- Prescribed broadcast burning for yellow star thistle reduction within the ARP (see Exhibit 2-5).
- Construct an unpaved access road within the ARP up to approximately 700 feet in length (see Exhibit 2-5).

2.8.1 Fuel Treatment Mechanisms

Fuels within the District would be treated through a variety of mechanisms. Treatment mechanisms include hand labor, mechanical treatment, targeted grazing, herbicide, and broadcast prescribed burning. Assumptions being analyzed for the fuel treatment types are listed in the CWPP (see Appendix A) and are summarized as follows:

HAND LABOR

Hand labor involves pruning, cutting, or removal of weeds or shrubs either by hand or with hand-held equipment. Hand labor includes pruning, weed-whipping (weed-eating), and mowing. Hand labor encompasses the operations of pruning and use of a string cutter, tree removal, bark pulling, removal of dead wood within the tree/shrub canopy, litter removal and mulching, and establishing new plant material. All herbaceous material would remain on the site after treatment. Soil disturbance should be minimal. Density of shrubs and small trees would decrease, but total removal of vegetation from a site would not occur.

MECHANICAL TREATMENTS

Mechanical treatments include discing, mechanical pruning, mowing, and brushing. Discing would remove vegetation and disturb the top soil layer with a tractor blade and leave bare mineral soil in an 8-12 foot swath. Other heavy machinery (like a mower or brusher) could disturb the top soil layer due to the weight the machinery, the grade of the slope and the type of soil. Machinery may contain mechanical arms to reach out and prune or cut vegetation. While this type of machinery can be maneuvered to certain areas, it has little control over which plants it cuts within the area it is cutting. Mowers would be attached to tractors and would produce mulch that remains on the ground after treatment. The percentage of vegetation removal would vary by treatment type and vegetation community. Grassland areas could have almost total removal of vegetation while woodland areas would have understory vegetation removed.

Mowing would cut vegetation down to one-inch height (Fire Breaks) or less than four inches in Defensible Space Zones so that vegetation roots will remain intact and hold soil.

Mowing of plants would leave herbaceous debris on the ground that will likely decay within a year or two.

TARGETED GRAZING

Grazing with 200-300 sheep and goats on an acre can be used to target for specific areas. However, goats and sheep would remove any vegetation that is edible. Sheep tend to prefer herbaceous material such as forbs, while goats typically eat anything including forbs, grasses, and browse (shrubs). The hoof action of the animals would compact or disturb the soil within the areas grazed. Most likely treatments would likely occur in August through April timeframe due to the high demand during the late spring and summer months. The percent vegetation removal by targeted grazing would depend on vegetation type, timing, and intensity of grazing. Grassland or weedy areas could be reduced completely, while shrublands or tree stands would have understory removal to remove ladder fuel.

HERBICIDE

Herbicide treatments would remove targeted species. These are generally used for weedy species such as star thistle or mustard. Vegetation, if dense, would be completely removed. Vegetation not sprayed would remain and continue to hold soil onsite.

PRESCRIBED BURNS

Prescribed burning would include broadcast burning in specified areas for yellow star thistle reduction (see Exhibit 2-5). They usually include some dozer work or hand work to line the burn unit with a small fire break. This line would remove all vegetation and leave bare mineral soil; as well as disturbing the top layer of soil. Pile burning consists of piling vegetation debris and burning the pile. If piles are not lined and attended to, they can escape and be used as a broadcast burn Prescribed burning can remove most of the vegetation if the burn is very intense and hot, or leave a mosaic of burn and unburned vegetation if the burn is less intense.

Fuel burns more intensively during the fall season and fires are hotter. This heat intensity causes more vegetation to burn that in the springtime. Springtime burns are cooler due to the moisture in the fuels and tend to leave more vegetation remaining on a treatment site.

Environmental Commitments

The following Environmental Commitments have been identified by Metro Fire and would be implemented with implementation of fuel treatment activities. Metro Fire has committed to the implementation of these measures; therefore, they are included as an element of the Project Description:

- Any Construction or Other Activities Using Motorized or Noisy Equipment
  - All activity would take place between 6:00 a.m. and 8:00 p.m. within the County and between 7:00 a.m. and 6:00 p.m. within Rancho Cordova consistent with their Noise Ordinances.

- Hand labor and Mechanical Treatments
  - Treatments actions would be avoided during conditions that may affect water or run-off including during storms or severe weather or immediately following severe weather.

  - Metro Fire would avoid herbicide treatment in areas adjacent to water bodies, riparian areas, and primary drainage access per requirements set forth by the California Department of Pesticide Regulation. Metro Fire would follow all herbicide labels and directions in determining applications

near water resources or riparian habitats and would limit aerial application to greater than 100 feet from water resources and ground and hand application to greater than 50 feet.

- Metro Fire would not use mechanized equipment within 50 feet of waterbodies or designated riparian areas.
- Design criteria for fuel treatments would include prevention of soil erosion and canopy cover changes within riparian or oak woodland stream bank habitat.
- All pruning would take place between November and April due to insect infestation dangers from pruning.
- No heavy mechanical fuels treatments (i.e., discing, dozer use) would occur in drainage channels, run-off areas, or dry streambeds.
- Metro Fire would install and manage runoff barriers for rainwater in all treatment and operating areas.
- Metro Fire would restrict mechanical removal of trees to more than 50 feet from drainage channels.
- Metro Fire would limit heavy equipment on slopes greater than 30 percent.
- Metro Fire would ensure that all equipment is cleaned prior to movement into sensitive habitat areas to prevent the spread of invasive or non-native plants.

- Herbicides

  Metro Fire would require the implementation of the following Best Management Practices (BMPs) for application of herbicides:

  - Applicators would follow all herbicide label requirements and refer to all other local, state, and federal regulations (including OSHA requirements) to protect sensitive resources and employee and public health during herbicide application.
  - Herbicide applicators would have or work under the direction of a person with a Qualified Applicator License or Qualified Applicator Certificate.
  - All storage, loading and mixing of herbicides would be set back at least 300 feet from any aquatic feature or special-status species or their habitat or sensitive natural communities. All mixing and transferring would occur within a contained area. Any transfer or mixing on the ground would be within containment pans or over protective tarps.
  - Appropriate non-toxic colorants or dyes would be added to the herbicide mixture where needed to determine treated areas and prevent over-spraying.
  - Application would cease when weather parameters exceed label specifications, when wind at site of application exceeds 7 miles per hour, or when precipitation (rain) occurs or is forecasted with greater than a 70 percent probability in the next 24-hour period to prevent sediment and herbicides from entering the water via surface runoff.
  - Spray nozzles would be configured to produce a relatively large droplet size.
  - Low nozzle pressures (30-70 pounds per square inch) would be observed.
  - Spray nozzles would be kept within 24 inches of vegetation during spraying.

- Drift avoidance measures would be used to prevent drift in locations where target weeds and pests are in proximity to special-status species or their habitat. Such measures can consist of, but would not be limited to the use of plastic shields around target plants and adjusting the spray nozzles of application equipment to limit the spray area.

- Signs would be posted at each end of herbicide treatment areas and any intersecting trails notifying the public, employees, and contractors of the use of herbicides. The signs would consist of the following information: signal word, product name, and manufacturer; active ingredient; EPA registration number; target pest; preserve name; treatment location in preserve; date and time of application; date which notification sign may be removed; and contact person with telephone number. Signs would be posted at the start of treatment and notification will remain in place for 72 hours after treatment ceases.

- All herbicide and adjuvant containers would be triple rinsed with clean water at an approved site, and the rinsate shall be disposed of by placing it in the batch tank for application. Used containers shall be punctured on the top and bottom to render them unusable, unless said containers are part of a manufacturer's container recycling program, in which case the manufacturer's instructions shall be followed. Disposal of non-recyclable containers will be at legal dumpsites. Equipment would not be cleaned and personnel would not bathe in a manner that allows contaminated water to directly enter any body of water within the treatment areas or adjacent watersheds.

- All appropriate laws and regulations pertaining to the use of herbicides and safety standards for employees and the public, as governed by EPA, the California Department of Pesticide Regulation, and local jurisdictions would be followed. All applications would adhere to label directions for application rates and methods, storage, transportation, mixing, and container disposal. All contracted applicators would be appropriately licensed by the state. The licensed applicator will coordinate with the County Agricultural Commissioner, and all required licenses and permits would be obtained prior to herbicide application.

- Grazing
  - Prior to introduction into sensitive habitat areas, all animals would be quarantined and fed weed-free forage to prevent the spread of invasive weeds.

- Prescribed Burning
  - Metro fire would maintain a buffer between the burn area and water bodies or drainage into riparian zones. Buffers will be a minimum of 25 feet for 5 percent slopes, 75 feet for 5-10 percent slopes, and 250 feet for 10 percent slopes.

  - Metro Fire would minimize post fire erosion into waterbodies and drainage channels through natural barriers, and proper erosion control barrier deployment.

  - Burns would take place during the spring season when the ground is wet or the fall season when plant moisture content is low.

2.8.2 Vegetation Treatments

The CWPP is aimed at reducing damage from wildfire to structures, critical infrastructure, and natural resources. Vegetation treatment is a proven tool to minimize damage from wildfire. One of the goals of vegetation management to reduce wildland fire hazard is maintenance of defensible space required to calm fire behavior before it nears a structure. A description of the three wildland fire hazard vegetation treatment zones and associated maintenance guidelines were developed for this CWPP and are described below.

Defensible Space Zone. This zone is located within 100 feet of any structure. The zone encompasses the space nearest the structures and is designed to reduce ignitions near structures, support structural survival during a wildfire, and reduce the chance that an ignition would spread to adjacent properties. The Defensible Space Zone is the responsibility of property owners and will continue to be promoted strongly by Metro Fire under the CWPP; however, because creating defensible space is currently promoted and remains the responsibility of the property owner, this activity is not evaluated further in this IS/MND.

Roadside Vegetation Management Zone. This zone is located within 10 feet from pavement edge on all streets, courts, driveways, and emergency vehicle access routes. The Roadside Vegetation Management Zone is designed to assist evacuation and emergency vehicle access, to limit roadside ignitions and to provide a location where firefighter resources can be effective. The actions to comply with both the Defensible Space Zone and the Roadside Vegetation Management Zone are the same, with one exception. In the Roadside Vegetation Management Zone there must also be a 15-foot vertical clearance created by tree-trimming over the entire length of the roadway. Maintenance of this management zone is already the responsibility of local agencies and is not a discretionary action. Therefore, this activity is not evaluated further in this IS/MND.

Community Protection Zone. This zone is located in the 100-foot band beyond the parcels with structures. This would create a 100-200-foot radius from structures of managed vegetation. The purpose of this zone is to calm fire behavior before reaching the Defensible Space Zone. Metro Fire would coordinate with applicable land owners for permission to conduct any fuels treatment on their property. Any actively irrigated crop land would not require treatment unless a fire risk is determined by Metro Fire.

Maintenance Guidelines for Defensible Space Zone. These guidelines apply to defensible space zone maintenance activities in areas around water tanks and other water storage equipment, pump houses, and its supply pumps as well as around outdoor barbeques and outdoor fireplaces. These vegetation management actions comply with the California State PRC 4291, as well as the Uniform Fire Code.

1. Remove all dead plants and dry vegetation to establish and maintain a defensible space.

    a. Within 30 feet from any structure, and under trees cut grass and weeds yearly to less than 4 inches in height no later than June 15 or as directed by Metro Fire. Cut grass may be left on site. Re-mow if late-season rains promote grass growth after the first cutting. Keep the ground, roofs, decking, and balconies free of dead leaves or other plant debris.

    b. Clear leaves, bark, and humus under trees and shrubs (including vines and semi-woody species) every year. At no time should a buildup of leaves and humus exceed an average of 2 inches in depth. However, do not expose bare earth in over 50% of the site, and in any one area larger than 10 feet by 10 feet.

    c. Remove dead material that drapes over ground cover (including leaves, bark, and branches) annually, before June 15 or as directed by Metro Fire.

    d. From mature trees, remove all vines, loose papery bark, and dead branches to a height of 8 feet above the ground.

    e. Remove all dead branches from within live ground covers, vines, shrubs (including semi-woody species), and immature and landscape trees.

2. Prune trees and large tree-form shrubs (e.g., oaks, toyons) to provide clearance of three times the height of the understory plant material, or 8 feet, whichever is higher. Prune limbs that are smaller than 3 inches in diameter up to 8 feet above the ground; in young trees, prune these branches in the lower one-third of the height of the tree. Thus, if a tree is 10 feet tall, prune the lower 3–4 feet and keep the understory plant material to less than 1 foot in height. As it grows to 24 feet in height, it can achieve the

8-foot distance from the ground, and the understory plant material can reach 2.5 feet in height.) Mature trees do not need to be removed in order to achieve defensible space.

a. Do not disturb or thin the tree canopy because these actions promote growth of more flammable vegetation.

b. Remove all branches within 10 feet of any chimney, flue, or stovepipe. Maintain 5 feet of vertical clearance between roof surfaces and overhanging portions of trees.

c. Branches over structures but further away than 10 feet from chimneys, and 5 feet from vertical surfaces can remain.

3. Do not locate plants under trees that are replacing ones that die, or native species planted as a mitigation measure. To avoid creating "ladder fuel situations" (in which a fire can climb from one vegetation layer to the next higher one), do not plant shrubs (including vines, semi-woody species, and all chaparral species) under trees. Instead, plant groundcover plant materials. Groundcover includes plants up to 18 inches in height and may be planted under tree canopies. If tree branches start no lower than 8 feet off the ground this understory plant material may be as tall as 2.5 feet.

4. Make sure that all landscaping and replacement plants are fire-resistant in nature. Plants that are highly ignitable and burn with intensity are prohibited. A list of fire resistant and fire-prone plants can be found at http://www.diablofiresafe.org/tolerance.html.

5. Manage individual plants or shrub masses to maintain adequate horizontal spacing. Design distinct groupings of shrubs (including vines, semi-woody species such as poison oak, all types of brush, including coyote brush, and all chaparral species) to dampen the spread of fire. Make sure that the plant groupings are small enough to provide adequate horizontal separation between groupings and to allow proper maintenance; groupings should measure no wider than two times the grouping height, or 120 sq ft. (Exception: one row of shrubs in a linear band with a maximum width of 7 ft, located at least 10 ft from the structure, need not comply with the 120 sq ft area limit.) The space between islands should be greater than three times the height of the shrubs, or 12 ft at a minimum. On emerging trees, clear a spacing of 12 ft from the edge of the canopy.

6. Hardscaping (patios, walkways, driveways, and bare dirt) and irrigated lawn should comprise at least 25% of the area immediately surrounding the structure (within first 30 feet).

7. Remove and safely dispose of all cut vegetation and hazardous refuse.

8. Chipped material can remain on the site, provided the mulch layer is no greater than an average of 2 in. in depth. Otherwise the chipped material can be spread within the Fuel Modification Zone or Roadside Vegetation Management Zone.

Maintenance Guidelines for Roadside Vegetation Management Zone. Direct maintenance activities in the Roadside Vegetation Management Zone apply to the strip of land within 10 feet of the pavement edge from both sides of the roadway. The actions to comply with both the Defensible Space Zone and the Roadside Vegetation Management Zone are the same, with one exception. In the Roadside Vegetation Management Zone, an unobstructed vertical clearance of 15 feet over the entire length of any roadway used for fire access shall be established and maintained through tree-trimming.

Maintenance Guideline for Community Protection Zone. The goal of the Community Protection Zone is to calm fire behavior before reaching the Defensible Space Zone so that it bolsters structure survival in a wildfire. This zone is a transition area in which a potentially hot fire is cooled and slowed. The vegetation removal treatments would prevent an intruding fire from reaching into the crowns of the overstory. Treatment methods within the Community Protection Zone would include alteration of vegetation through

mechanical mowing and masticating, prescribed grazing, hand labor, and/or specific herbicide application. There may still be fire in this via ember-casting, but the alteration of the vegetation would have a concomitant change in fire behavior. By removing fuel volume and creating discontinuity in the distribution of fuels through alteration of the vegetation in this zone, wildfires are slowed and flame length (and associated fire intensity) is reduced.

Vegetation removal treatments would limit torching capability by minimizing the understory and mid-story fuels (shrubs and small trees). Fire intensity as measured by flame length could drop to less than four feet at the boundary between the Defensible Space Zone and the Community Protection Zone. This would facilitate direct fire attack and containment at this peripheral location.

Shrubs and young trees under oaks would be treated the same as described under the Defensible Space Zone guidelines. As in the Defensible Space Zone, spacing of shrubs from continuous stands shall be 6 feet between crowns of shrubs, and from the dripline of adjacent trees.

Standing dead trees that are isolated from other vegetation and which will not fall on buildings or structures or on roadways/driveways may be retained when pruned of branches smaller than 3 inches up to a height of 15 feet.

2.8.3 Timing of Implementation

The proposed CWPP is intended to be a living document with a 20-year planning horizon. Proposed activities and fuel treatments under the CWPP would be implemented as funding becomes available. The analysis in this IS/MND conservatively assumes that fuel treatment would be maintained annually; however, maintenance would also occur as funding is available and, therefore, may occur less frequently.

3 ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION	
1. **Project Title:**	Community Wildfire Protection Plan
2. **Lead Agency Name and Address:**	Sacramento Metropolitan Fire District
3. **Contact Person and Phone Number:**	Christopher Vestal, Project Manager/Captain 916/859-4334
4. **Project Location:**	Unincorporated Sacramento County, Small portion of S. Placer County, City of Rancho Cordova, and City of Citrus Heights, CA
5. **Project Sponsor's Name and Address:**	Sacramento Metropolitan Fire District 10545 Armstrong Avenue, Suite 200, Mather, California 95655
6. **General Plan Designation:**	N/A
7. **Zoning:**	N/A
8. **Description of Project:** (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)	
See attached	
9. **Surrounding Land Uses and Setting:** (Briefly describe the project's surroundings)	See attached
10: **Other public agencies whose approval is required:** (e.g., permits, financing approval, or participation agreement)	California Department of Fish and Wildlife; Sacramento County Agricultural Commissioner (Agricultural Burn Permit); Sacramento Metropolitan Air Quality Management District (Open Burn Permit)

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture and Forest Resources	☐	Air Quality
☐	Biological Resources	☐	Cultural Resources	☐	Geology / Soils
☐	Greenhouse Gas Emissions	☐	Hazards & Hazardous Materials	☐	Hydrology / Water Quality
☐	Land Use / Planning	☐	Mineral Resources	☐	Noise
☐	Population / Housing	☐	Public Services	☐	Recreation
☐	Transportation / Traffic	☐	Utilities / Service Systems	☐	Mandatory Findings of Significance
				☒	None With Mitigation

DETERMINATION (To be completed by the Lead Agency)

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 project have been made by or agreed to by the project proponent. 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.

Signature

JUNE 10, 2014
Date

CHRISTOPHER VESTAL
Printed Name

CAPTAIN / CWPP PROJECT MANAGER
Title

Sacramento Metropolitan Fire District
Agency

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of 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.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance.

3.1 AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics. Would the project:				
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 within a state 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 day or nighttime views in the area?	☐	☐	☐	☒

3.1.1 Environmental Setting

The visual character within Sacramento Metropolitan Fire District's (Metro Fire) jurisdictional boundaries (District) includes urban, suburban, and undeveloped (natural or agricultural) elements. The treatment sites are primarily located around selected subdivisions adjacent to wildlands within the District and around selected trails, high-quality habitat, and structures adjacent to wildland-urban interface (WUI) areas within the American River Parkway (ARP) (See Exhibit 2-5 and 2-6). While only a small portion of land within the District would be physically altered by the project as described above in the Project Description, the overall visual characteristics of these sites are summarized below.

The CWPP includes the District's area of responsibility, which consists of the northern, unincorporated portion of Sacramento County and a small portion of Placer County (refer to Exhibit 2-1). The City of Citrus Heights is located in the northern portion of the District and the City of Rancho Cordova is located in the central portion of the District.

The CWPP includes the Metro Fire's area of responsibility, which consists of the northern, unincorporated portion of Sacramento County and a small portion of Placer County (refer to Exhibit 2-1). The City of Rancho Cordova and City of Citrus Heights are located in the northern portion of the District.

Typical views within the District include urban, suburban, and undeveloped (natural or agricultural) elements. The terrain throughout is primarily flat with some gently rolling hills, with the steepest terrain being located in the eastern portion of the District where the Central Valley begins to transition into the Sierra Foothills, and along the American River. The City of Folsom borders a portion of the District's eastern boundary and City of Sacramento borders most of the District's western boundary.

The northern portion of the District is the most developed, and includes the urban and suburban development within the Cities of Citrus Heights and Rancho Cordova, and surrounding unincorporated communities, including Antelope, Arden-Arcade, Carmichael and Old Foothill Farms, Fair Oaks, North Highlands – Foothill Farms, Orangevale, and Rio Linda and Elverta. Citrus Heights is located north of the American River and is immediately adjacent to Interstate 80. Rancho Cordova occupies the south side of the American River. A much larger area of urban and suburban development surrounds these communities and is loosely circumscribed by Interstate 80 to the north and Highway 50 to the south (See Exhibit 2-1).

The southern portion of the District, partially bordered by the City of Elk Grove, is occupied by scattered unincorporated communities, including Cosumnes, Rancho Murieta, and Vineyard, as well as extensive areas of grassland, pasture, and cropland. Other natural habitats include oak woodland, vernal pools, riparian habitat, and wetlands.

There are numerous seasonal and perennial waterways within the District. The largest of the rivers is the American River, which traverses the northern portion of the District, and is flanked by riparian forest. The ARP is widely recognized as a scenic river corridor and is host to a variety of habitats and visual landscapes, including the river, bluffs, oak woodlands, grasslands, wetlands, riparian woodlands, and riparian scrub. There are few human-made structures and other encroachments within the ARP, providing an island of natural landscape in an urbanized area. The other primary river in the District is Cosumnes River, which flows across the southern portion of the District, roughly between the communities of Wilton and Rancho Murieta. Cosumnes River is host to a number of habitats and visual landscapes, including riparian forest and seasonal wetlands.

3.1.2 Discussion

a) Have a substantial adverse effect on a scenic vista?

Less-than-significant impact. Some of the CWPP fuel reduction activities may be located in areas that are part of a scenic vista. Activities proposed within the ARP would include fuel reduction activities (i.e., pruning, mowing, and discing) in selected areas (see Exhibit 2-5), vegetation clearance of 10-foot linear path along an existing horse trail segment, construction of an unpaved access road (roughly 700-feet long), and prescribed burning in an area of yellow-star thistle. Sprinkler upgrades are proposed at the Effie Yeaw Nature Center and weather stations would be installed atop existing structures or developed areas in different parts of the District.

Vegetation management activities would also occur around selected subdivisions adjacent to wildlands located within developed and or rural settings that are common throughout the District. All activities would be located near developed, residential, or recreational facilities (i.e., trails).

These projects would not substantially change the visual character of these areas and are typical features as urban development transitions to rural and open space areas. The ARP supports a variety of scenic features. Although proposed CWPP projects within the ARP (described above) would result in removal of vegetation (i.e., trees, shrubs, and grassland) in selected areas (See Exhibit 2-5), surrounding vegetation would remain undisturbed. Selected horse trails would be widened by 10 feet and would be maintained (e.g., disced, cleared) on an annual basis (depending on funding availability). Implementation of fuel treatments and annual maintenance activities would not substantially change the visual character of the area as fire breaks currently exist and they would continue to be maintained similar to existing conditions. Firebreaks surrounding selected subdivisions would occur within developed areas.

Prescribed burning would occur in one area located within the ARP (see Exhibit 2-5), creating an area cleared by controlled fire along a segment of the American River. This would not substantially change the visual setting because prescribed burns have already occurred intermittently in different parts of the ARP as part of existing fire management activities. Also, the visual change to the burn area may be temporary as passive restoration (i.e. allowing existing seed bank species to grow while eliminating the less-desirable star-thistle component) of the site may occur after prescribed burning.

Overall, the visual impacts from implementation of the proposed CWPP projects would not substantially degrade existing views, including scenic vistas, because they would occur in developed areas, are common features in areas that are transitioning from urban to rural settings, and/or would be similar to existing fuel management features already in place within the District (e.g., fuel breaks, unpaved fire access roads, and prescribed burn areas in the ARP). Therefore, this impact is considered **less than significant**.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No impact. The nearest state scenic highway is a 35-mile segment of Route 160 located over five miles west of District boundaries. No CWPP activities within the District would be visible from this road segment. Therefore, implementation of the CWPP would have **no impact** scenic resources within a state scenic highway.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less-than-significant impact. Impacts to visual character or quality would be similar to the discussion under "a" for impacts to a scenic vista. The affected area with the highest quality visual character is the ARP, which is a valuable open space and recreation area in the Sacramento region. (Other treatment areas are mostly vacant land and grazing land.) Proposed fuels treatment would be consistent with the types of fire protection features existing within the ARP currently, such as firebreaks, maintenance/emergency access roads, etc. Furthermore, much of the fuel treatment does not involve total removal of vegetation, but management of the density of vegetation. Areas proposed for prescribed burning would only be temporarily scorched. These areas would be re-vegetated. Overall, the impact to visual character would be consistent with existing conditions, and in many cases, temporary. This impact is **less than significant**. It is also important to consider that these fuel treatment and other construction projects are intended to protect these natural features from wildfire risk, which have already devastated many acres within the ARP. In this sense, the proposed CWPP provides a beneficial impact to the existing visual character in that it reduces the risk of major degradation as a result of a wildfire.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No impact. The proposed project would not result in the construction or installation of new buildings, lighting facilities, or other potential sources of light and glare. No work would take place at night time requiring lighting. **No impacts** related to light and glare would occur with implementation of the project.

3.2 AGRICULTURE AND FOREST RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. Agriculture and Forest Resources.				
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:				
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 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, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.2.1 Environmental Setting

Farmland is classified by the California Department of Conservation according to its ability to support crops or livestock. The most commonly used system for classifying agriculture in California is the Farmland Mapping and Monitoring Program (FMMP). The FMMP categorizes farmland into five types. These are described in order of productivity, from the most productive to the least productive farmland.

- *Prime Farmlands* are lands with an ability to produce agricultural crops over a long period of time. Not only must the site have a dependable water supply of adequate quality during the growing season, it must have fertile, well-drained soils. Furthermore, the site must have been used for the production of irrigated crops within four years of FMMP mapping.

- *Farmlands of Statewide Importance* are similar to Prime Farmlands, but with minor deficiencies (i.e., steeper slopes, slightly poorer soils, etc.).

- *Unique Farmlands* are lands that are used to produce California cash crops, but which have poorer soils than both Prime Farmlands and Farmlands of Statewide Importance. These lands may consist of non-irrigated orchards or vineyards.

- *Farmlands of Local Importance* have importance to local agricultural economies, but generally have poorer soils and a less reliable water supply.

- *Grazing Land* is land with natural vegetation that is well-suited for grazing.

As shown in Exhibit 3-1a and Exhibit 3-1b, the California Division of Land Resource Protection's Map of Important Farmland shows only a very small amount of Important Farmland and Unique Farmland within District borders. As shown in Exhibit 3-1b, Prime Farmland, Unique Farmland, and Farmland of Statewide Importance are concentrated primarily in the northwestern portion of the District (near Sacramento International Airport) and in the southern portion of the District south of Grant Line Road (County of Sacramento 2010:3-10). One of the proposed CWPP treatment sites, the yellow star-thistle prescribed burn area, is located on land classified as Farmland of Local Importance. All other CWPP treatment sites are located on land designated as urban and built-up land, other land, and grazing land (CDC 2012).

The *California Land Conservation Act of 1965* (California Government Code 51200–51295), commonly known as the *Williamson Act*, provides incentives to property owners (property tax reductions) to keep their lands in active agricultural production. Property owners sign contracts, agreeing not to develop their properties for a period of at least ten years. The contract renews automatically unless the property owners file notices of nonrenewal or a petition for cancellation. As shown in Exhibit 3-1b, a number of properties in southeast Sacramento County are under Williamson Act contract.

There are no commercial timber harvesting activities within proposed CWPP activity areas. Portions of the southern portion of the District are occupied by oak woodland. The American River traverses the northern portion of the District and is flanked by riparian woodland. These woodlands are generally not harvested for timber, and forest resources are not common within the District boundary.

3.2.2 Discussion

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?

Less-than-significant impact. The proposed project involves primarily public outreach and education, increased agency coordination, and several specific wildfire protection projects, including enhancement of existing defensible space near structures associated with the ARP and providing increased defensible space around planned communities within the WUI. Ground-disturbing activities within the ARP would include fuel reduction activities (i.e., pruning, mowing, and discing) in selected areas (see Exhibit 2-5), vegetation clearance of 10-foot linear pat along an existing horse trail segment, construction of a segment of unpaved access road (roughly 700-feet long), and prescribed burning in an area of yellow-star thistle. While the prescribed burn of star-thistle would occur on land designated as Farmland of Statewide Importance, this activity would not remove or alter the soil properties or otherwise change farmland designations for these

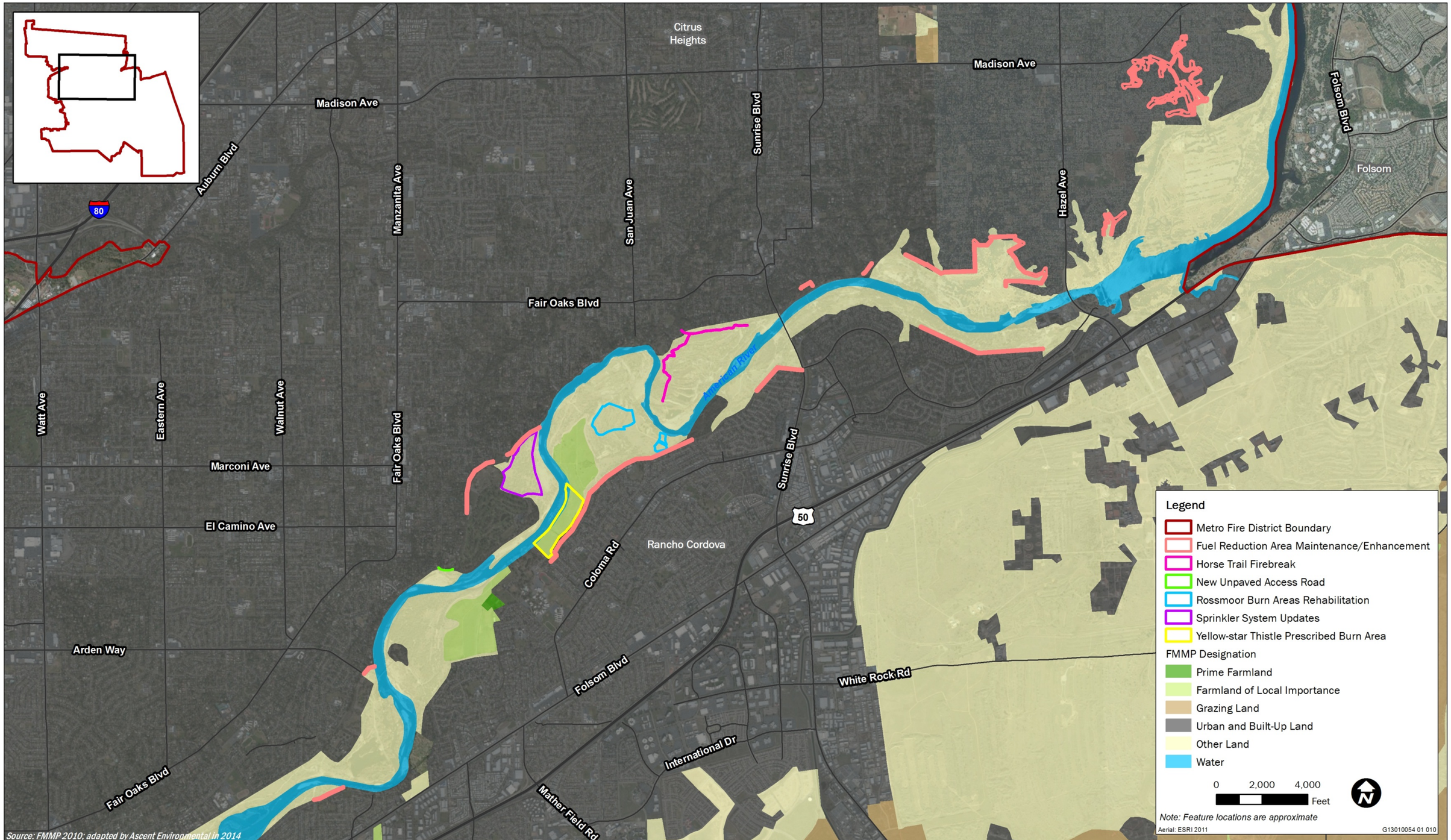


Exhibit 3-1a

FMMP - American River Parkway Treatments

ASCENT ENVIRONMENTAL

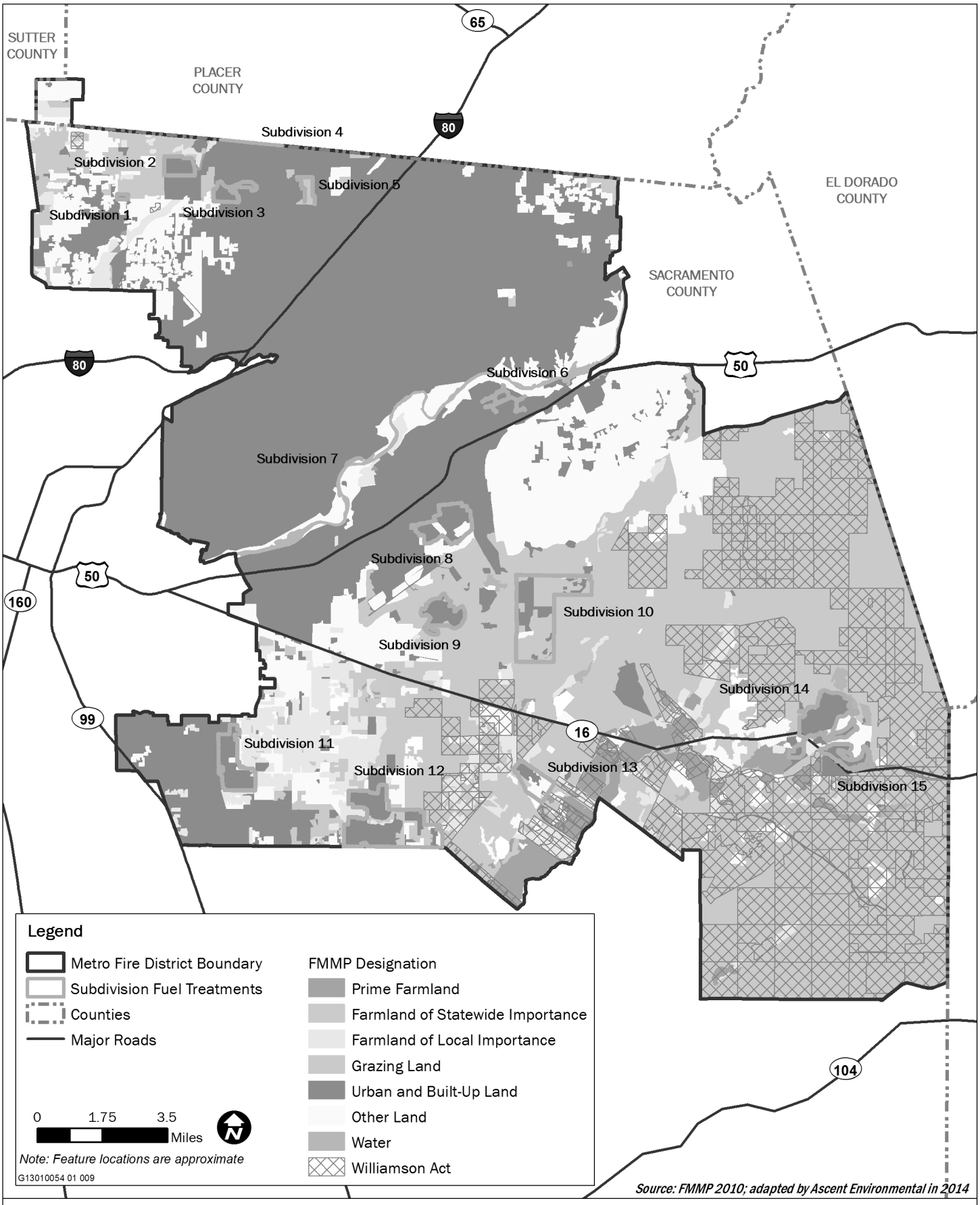


Exhibit 3-1b **FMMP - Subdivision Fuel Treatments**

properties as no development would occur. These activities would be similar to agricultural burns and would be consistent with historic maintenance of similar parcels. Therefore, implementation of the CWPP would result in a **less-than-significant** impact to farmland resources.

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

Less-than-significant impact. None of the proposed CWPP activities are located on lands under Williamson Act Contract. Although three of the subdivisions selected for fuel management activities under the CWPP (i.e. Subdivision 13, 14, and 15) are located adjacent to such properties, no conflict would occur. As described under "a" above, the proposed CWPP, including the wildfire protection projects, would not adversely affect farmland within the District. Similarly, these projects would not conflict with agricultural zoning or Williamson Act contracts. This impact is **less than significant**.

c and d) 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))? Result in the loss of forest land or conversion of forest land to non-forest use?

No impact. Forest resources are not prevalent in the District; the Sacramento County zoning map does not identify a specific zone for forest resources. The CWPP would include some tree removal but would avoid removal of medium or large trees that could be used as timber. Projects recommended in the CWPP would maintain and/or reduce fuel loads within the District to minimize fire ignitions or the spread of fire. The CWPP would not conflict with existing zoning associated with forest land or result in conversion of forest land. **No impact** would result from the proposed CWPP.

e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No impact. As described under "a" through "d," the proposed CWPP includes primarily public outreach and education, increased agency coordination, and several wildfire prevention projects. None of these components of the CWPP would involve changes to the environment that could result in conversion of farmland or forest land to a different use. **No impact** to agricultural or forest resources would result from the proposed CWPP.

3.3 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. Air Quality.				
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make the following determinations.				
Would the project:				
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 non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

3.3.1 Environmental Setting

The District is located in Sacramento County, which lies in the Sacramento Valley Air Basin under the jurisdiction of the Sacramento Metropolitan Air Quality Management District (SMAQMD), one of 35 local air districts in the State.

Air quality within Sacramento County is regulated by such agencies as the U.S. Environmental Protection Agency (EPA), and California Air Resources Board (ARB) at the federal and State levels, respectively, and locally by SMAQMD. SMAQMD seeks to improve air quality conditions through comprehensive planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean air strategy of SMAQMD includes the development of programs for the attainment of ambient air quality standards (AAQSs), adoption and enforcement of rules and regulations, and issuance of permits for stationary sources. SMAQMD also inspects stationary sources, responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements other programs and regulations required by the federal Clean Air Act and the California Clean Air Act. Air Quality plans include the Sacramento Regional 8-hour Ozone Attainment Plan and Reasonable Further Progress Plan (2013 Revisions) and the 2012 Annual Progress Report; the 2010 PM_{10} Implementation/Maintenance Plan and Redesignation Request for Sacramento County; the 2013 $PM_{2.5}$ Implementation/Maintenance Plan and Redesignation Request; and the 2013 Final Staff Report – SB 656 Assessment and Control Measure Evaluation.

Sacramento County is designated as a nonattainment area for National and California AAQSs for ozone, respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$) (ARB 2013).

The proposed project involves discing and vegetation clearing, prescribed burning, trenching for irrigation upgrades, and construction of the proposed fire access road. The vegetation clearing would occur during the dry season only in order to protect water quality, and include hand crews and intermittent use of motorized equipment (e.g., mowing and discing), which would be limited by terrain and density of vegetation, especially in the ARP. The proposed roadway construction would also require motorized equipment (e.g., grading, truck hauling). Dozers may also be used periodically during the restoration of the Rossmoor burn areas for removal of stumps and large snags. Each component is described separately below:

- This analysis assumes that two tractors fitted with discs would be operating simultaneously (i.e.,one discing vegetation within the ARP and the other discing land associated with the selected subdivisions outside of the ARP).
- Dozers may be used when terrain and vegetation density/size preclude use of hand crews and smaller tractors. It is anticipated that dozers would be used infrequently (once per week) and for short durations (fewer than 6 hours).
- One grader, one dozer, one roller, and two off-road trucks (one water truck and one haul truck) would be required for the construction of the approximate 700-foot fire access road. Construction of the road would take between one and two weeks.

The proposed CWPP also includes prescribed burns. SMAQMD regulates open burning for wildland vegetation management under Rule 501 Agricultural Burning. Rule 501 requires issuance of a permit from SMAQMD prior to any open burning activity.

SMAQMD has established air quality thresholds of significance to assist lead agencies in evaluating projects for air quality impacts. The construction-phase threshold is provided below (SMAQMD 2009). Note that "operational-phase" thresholds are not provided because the proposed CWPP would not result in additional full-time staff or any associated operational emissions from transportation or other emissions sources.

- Construction Phase*:* 85 pounds/day (lb/day) for oxides of nitrogen (NO_X).

3.3.2 Discussion

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

Less-Than-Significant. The emission inventories used to develop a region's air quality attainment plans are based primarily on projected population growth and vehicle miles traveled (VMT) for the region, which are based, in part, on the planned growth identified in regional and local plans. Therefore, projects that would result in increases in population or employment growth beyond that projected in regional or local plans could result in increases in VMT above that planned in the attainment plan, further resulting in increases in mobile source emissions that could conflict with a region's air quality planning efforts. Increases in VMT beyond that projected in area plans generally would be considered to have a significant adverse incremental effect on the region's ability to attain or maintain state and federal ambient air quality standards.

The proposed project does not include development of new land uses that would generate long-term VMT. Fuel treatment and construction activities (construction of the fire access road and irrigation system upgrade) would require a maximum of 50 workers (i.e., volunteers, Metro Fire staff, or staff of cooperating agencies) per day spread throughout the District during the dry season (May to September). It should be noted that this analysis assumes that multiple fuel treatment and other projects would occur simultaneously throughout the District. This is a conservative assumption because fuel treatment and other construction projects would be implemented as funding becomes available, and it is more likely that projects would not occur simultaneously.

This is not the type of project that would lead to regional population growth beyond what is planned. Consequently, project implementation would not conflict with or obstruct implementation of SMAQMD's Air Quality Attainment Plan. Thus, implementation of the proposed project would not conflict with or obstruct implementation of any air quality planning efforts. As a result, this impact would be **less than significant**

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less-Than-Significant. The proposed project would result in emissions of criteria air pollutants and precursors, including reactive organic gases (ROG), NO_X, PM_{10}, and $PM_{2.5}$ associated with construction (short-term) and operation (long-term). Emissions of criteria air pollutants and precursors associated with the project were calculated using applicable portions of the California Emissions Estimator Model (CalEEMod), as recommended by SMAQMD. CalEEMod allows for the input of project-specific information to estimate emissions generated by the use of on-site heavy equipment (e.g., tractors, graders) from fugitive dust and exhaust emissions, worker commute trips, and haul truck trips. Input parameters were based on project-specific information, default model settings, and reasonably conservative assumptions. Emissions from construction are described below. No operational emissions are included because the proposed project does not include development of any emissions-generating land uses and; therefore, would not generate operational emissions.

Prescribed Burning

As mentioned above, the proposed prescribed burning of yellow star thistle is regulated by SMAQMD and requires issuance of a permit under Rule 501. Section 305 of Rule 501 indicates that an acreage allotment exists for all agricultural burning in the SMAQMD, and the acreage allotment can be restricted further by the APCO to preclude a nuisance or violation of an air quality standard. Because SMAQMD already assumes an allotted number of acres burned as part of the permit program, and because the permit includes specific requirement including contacting the APCO for permission to burn and burning restrictions based on wind direction (e.g., burning would cause a nuisance to nearby receptors), the acquisition of the permit would ensure that impacts associated with the prescribed burning would not exceed SMAQMD thresholds.

Short-Term Construction-Generated Emissions of ROG, NO_X, PM_{10} and $PM_{2.5}$

"Construction emissions" is the term used in this analysis and includes both construction activities associated with construction of the new fire access road and irrigation system upgrades as well fuels treatment activities, including vegetation clearing and other proposed fuel treatments. Construction emissions are "short-term" or temporary in duration and may represent a significant impact on air quality, especially in the case of PM_{10}. Construction-related activities would result in project-generated emissions of ROG, NO_X, PM_{10} and $PM_{2.5}$ (a subset of PM_{10}) from site preparation (e.g., clearing, soil discing, soil ripping), use of off-road equipment, material delivery, worker commute exhaust emissions, and vehicle travel. Fugitive dust emissions are associated primarily with site preparation and vary as a function of soil silt content, soil moisture, wind speed, acreage of disturbance, and VMT on- and off-site. Ozone precursor emissions of ROG and NO_X are associated primarily with construction equipment exhaust.

The proposed CWPP would involve the construction of an approximate 700-foot unpaved fire access road, upgrades to irrigation system (which is assumed to involve trenching), as well as clearance of brush and vegetation within specified areas of the ARP and around subdivisions in the District that are within the WUI and are at highest risk of wildfire hazard. It is assumed that vegetation clearing in the ARP would largely be conducted by hand crews, as well as a tractor with a disc attachment for discing grassy/weedy areas where topography and vegetation permits. This analysis also assumes that a second tractor with a disc attachment would also be used simultaneously for fuel treatment associated with subdivisions. The analysis also assumes that the construction of the unpaved fire access road would occur simultaneously (for a two-week duration). Again, these are conservative assumptions and their occurrence would be dependent on the concurrent timing of funding. Please see Appendix B for model input and output parameters, detailed assumptions, and daily construction emissions estimates. Construction emissions are summarized in Table 3-1, below.

Table 3-1 Summary of Project-Generated Construction-Related Criteria Air Pollutant Emissions

	ROG[1] (lb/day)	NO_x[1] (lb/day)	PM_{10}[1] (lb/day)			$PM_{2.5}$[1] (lb/day)		
			Fugitive	Exhaust	Total	Fugitive	Exhaust	Total
2015								
Vegetation Clearing and Construction	3.2	28.3	0.2	1.9	2.1	<0.1	1.8	1.8

Notes:

ROG=reactive organic gases; NO_X=oxides of nitrogen; PM_{10}=respirable particulate matter with an aerodynamic resistance diameter of 10 microns or less; $PM_{2.5}$=fine particulate matter with an aerodynamic resistance diameter of 2.5 microns or less; lb/day=pounds per day;.

Refer to discussion below and attachment for all detailed modeling input and output.

The sum of the values presented may not match totals exactly due to rounding.

[1] Exhaust emissions of ROG, NO_x, PM_{10} and PM $_{2.5}$ represent mitigated values from the use of Tier 2 and Tier 4 diesel engines.

[2] Values in this row represent worst-case daily emissions for ROG, NO_x, PM_{10}, and $PM_{2.5}$.

Source: Modeling conducted by Ascent Environmental, Inc., 2014

Based on the modeling conducted, construction of the proposed project would result in maximum daily emissions of approximately 3 lb/day of ROG, 28 lb/day of NO_X, 2 lb/day of PM_{10} and 2 lb/day of $PM_{2.5}$ in 2015. Note that once the roadway construction is complete, if funding is available to maintain fuel treatment areas in subsequent years, the emissions would be lower in those years than identified above because the emissions associated with the roadway construction activities would not be included.

SMAQMD has not established a threshold of significance for construction-generated ROG emissions because those attributable to construction equipment exhaust are generally low and those from the application of architectural coatings are regulated by Rule 442. The proposed project would not include any structures and therefore no ROG emissions from the application of architectural coatings would occur. Daily unmitigated emissions of NO_X would not exceed SMAQMD's significance threshold of 85 lb/day. As shown in Table AIR-1 above, exhaust emissions of PM_{10} and $PM_{2.5}$ would be minimal (i.e., less than 5 lb/day). Therefore, this impact is considered **less than significant**.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less-Than-Significant. A project's individual emissions, when combined with past, present, and future projects, contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's cumulative impact on air quality would be considered significant (SMAQMD 2009:8-1).

In developing thresholds of significance for air pollutants, SMAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. In other words, SMAQMD's thresholds identified above in item "b" are cumulative impact thresholds.

As presented in "b," unmitigated project-generated construction emissions of NO_X, PM_{10} and $PM_{2.5}$ associated with fugitive dust would be less than significant; therefore, consistent with SMAQMD's guidance, the project's contribution to this cumulative impact would be **less than significant**.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less-Than-Significant. Exposure of sensitive receptors to substantial pollutant concentrations of criteria air pollutants were addressed above in items "a," "b," and "c." The discussion below is focused on exposure of sensitive receptors to emissions of toxic air contaminants (TACs) (i.e., diesel particulate matter; asbestos).

Regarding asbestos, the proposed project would not include any demolition activities or the removal of any materials that could potentially contain asbestos, and is not located in an area of the state likely to contain naturally occurring asbestos in soil (Churchill and Hill 2000). Therefore, it is not anticipated that emissions of asbestos would occur associated with project construction.

The project would result in short-term diesel exhaust emissions from on-site construction equipment. Particulate exhaust emissions from diesel-fueled engines (diesel PM) were identified as a TAC by the ARB in 1998. The potential cancer risk from the inhalation of diesel PM, as discussed below, outweighs the potential for all other health impacts (ARB 2003: Appendix K-1); cancer risk is, therefore, the focus of this discussion. The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the maximally exposed individual. Thus, the risks estimated for a maximally exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the California Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the proposed project (OEHHA 2001: p.7).

The primary source of diesel PM from construction activities would be primarily due to equipment used during construction (e.g., grading, excavation) of the proposed fire access road. (Equipment used for vegetation clearing would not be considered "heavy" construction equipment, such as graders and excavators, but would typically consist of small- to medium-sized tractors fitted with a disc attachment. Also, the vegetation clearing would only involve one piece of equipment in a specific location, whereas the roadway construction would involve several pieces of heavy equipment operating simultaneously.) Sensitive receptors in the vicinity of the proposed fire access road include a residential neighborhood. Based on the emission modeling shown above under section "b," the highest level of diesel PM associated with exhaust that would occur on the worst construction day would be 2 lb/day. In addition, because the proposed project would not result in substantial trip generation, contribution to localized carbon monoxide (CO) hotspots would fall below screening levels. Roadway construction activities are estimated to last approximately two weeks. Due to the short period of construction time and the minimal amount of estimated diesel PM emissions, in combination with the dispersive properties of diesel PM (Zhu et al. 2002: p. 4323-4335), short-term construction activities would not result in the exposure of sensitive receptors to levels that would result in a health hazard or exceed applicable standards. This impact would be **less than significant.**

e) Create objectionable odors affecting a substantial number of people?

No Impact. The proposed project involves vegetation management and minor construction and does not involve any short- or long-term generation of odors. In addition, the project would not include the placement of new sensitive receptors near existing odor sources. The project would result in **no impact.**

3.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. Biological Resources. Would the project:				
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 the 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 the 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, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

3.4.1 Environmental Setting

Metro Fire is located within the Sacramento Valley of California. The topography of Sacramento County is varied as elevations range from 14 feet above sea level in the southwest to approximately 670 feet above sea level in the east. Most of the District is dominated by relatively flat terrain and gentle slopes with natural drainage patterns being poorly defined as a result. The central and western part of the District is mainly at or near sea level and consists of relatively flat terrain. The eastern section of the District begins to rise in elevation as the terrain moves into the foothills of the Sierra Nevada.

There are three basic landforms within the District: river channel, alluvial plain, and upland ridge. River channel areas are found along the Sacramento River, lower American River, and lower Cosumnes River within Sacramento County. Alluvial plains cover the majority of the District and generally run from north to south between the Sacramento River and the Sierra Nevada foothills. Alluvial plains feature slopes that are gentle or nearly flat. The upland ridge area lies at the foot of the Sierra Nevada mountains in the eastern

portion of the county. It rises from the alluvial plains to a maximum height of approximately 670 feet. Slopes in this area range from nearly flat or gently rolling to very steep.

DATA SOURCES

The primary data source for vegetation mapping in this chapter is the land cover mapping from Sacramento County (Sacramento County 2009). Vegetation mapping is based on California Wildlife Habitat Relationships (CWHR) mapping habitat types (CDFG 1988). CWHR classifies existing vegetation types important to wildlife. This system was developed to recognize and logically categorize major vegetative complexes at a scale sufficient to predict wildlife-habitat relationships.

The following sources of information were reviewed to prepare the biological resources chapter:

- California Department of Fish and Game's Natural Diversity Database (CNDDB) record search within a 5-mile radius of the District; (CNDDB 2014);
- California Native Plant Society (CNPS) Online *Inventory of Rare, Threatened, and Endangered Plants of California* (CNPS 2014);
- Sacramento County Geographic Information Systems Existing Vegetation Inventory (2009);
- Sacramento County General Plan and FEIR (2010, 2011), Draft South Sacramento Habitat Conservation Plan (2010), Rancho Cordova General Plan (2006), and the ARP General Plan (2008);
- Species Lists for the Carbondale, Sloughhouse, Elk Grove, Florin, Buffalo, Folsom SE, Citrus Heights, Rio Linda, Sacramento East, and Carmichael, 7.5-minute quadrangle created by the U.S. Fish and Wildlife Service (USFWS 2014); and
- Sacramento County Vegetation Database (2009).

VEGETATION COMMUNITIES

The following represents a brief description of the vegetation communities occurring within the District as defined by the CWHR classification system (CDFG 1988 and 1999). According to the County vegetation database (Sacramento County 2009), there are 18 vegetation communities within Sacramento County. This data was utilized for this analysis because there was no site specific data available. It is a broad scale classification of vegetation based on satellite imagery and does have errors in classification. Therefore, data presented in the database and analysis does not necessarily reflect the type of vegetation that is on the ground. All treatment sites will have to be surveyed prior to treatment to determine the actual vegetation community present. Exhibit 3-2 and 3-3 show District-wide vegetation and ARP vegetation in relation to the proposed treatments.

The vegetation communities in the Sacramento County were further generalized into nine categories (agriculture, barren, lacustrine, oak woodland and savannah, riparian, riverine, urban, valley grassland, wetland) that provide 229,657 acres of habitat for common and special-status plants and animals. There are 1,147 acres of proposed fuel reduction treatment in these vegetation communities. Table 3-2 lists the acres of vegetation communities that are within the boundaries of CWPP proposed treatment areas.

Table 3-2 Vegetation Community Acreage within CWPP Proposed Treatments Boundaries

Land Cover Type	Treatment Categories							Total
	Fuel Reduction Area Maintenance/ Enhancement	Rossmoor Burn Areas Rehabilitation	New Unpaved Access Road	Sprinkler System Upgrades	Yellow-star Thistle Prescribed Burn Areas	Subdivisions	Horse Trails	
Agriculture	0	0	0	0	22	67	0	89
Barren	3	1	0	0	0	7	0	11
Lacustrine*	0	0	0	0	0	11	0	11
Oak Woodland and Savannah	20	0	0	0	0	30	0	50
Riparian	5	24	<1	55	3	8	2	97
Riverine*	0	0	0	1	0	5	0	5
Urban	121	15	<1	7	1	373	1	516
Valley Grassland	4	3	0	0	24	337	0	366
Total	**152**	**42**	**0.2**	**63**	**50**	**837**	**3**	**1,147**

*Note that riverine and lacustrine sites will not be treated and will have best management practices (BMPs) associated with vegetation treated near them. They are included in areas to be treated for simplicity of mapping. These might also be mapping errors.

Agriculture

Agriculture within the District includes cropland, pasture, and orchards and these lands are mainly located in the northwest by Rio Linda and in the southern portion of the District in Rancho Cordova, south of Jackson Road. Agriculture lands have greatly reduced the wildlife richness and diversity within California due to their removal of native habitat and monotypic vegetation. However, some wildlife is attracted to orchards and pasture because they provide forage at certain times of year.

Lacustrine

Lacustrine is defined as inland depressions or dammed riverine channels containing standing water and includes lakes and reservoirs. Lacustrine varies from small ponds (less than an acre) to large areas covering hundreds of acres, and depths can vary from a few inches to hundreds of feet. Typical lacustrine habitats include permanently flooded lakes and reservoirs, intermittent lakes (e.g., playa lakes) and ponds (including vernal pools) so shallow that rooted plants can grow over the bottom. Small ponds and lakes are scattered throughout the District (i.e. Lake Natoma).

Riverine

Riverine is defined as linear water features such as rivers, streams, creeks, and drainages with intermittent or continually running water. The major riverine habitats in the District include the American and Cosumnes Rivers and their tributaries. The American River flows out of the man-made reservoir Folsom Lake, which is located just to the east of the District. The Cosumnes River flows across the southern portion of the District, between the communities of Wilton and Rancho Murieta. Most rivers and streams are ephemeral, and are dry during the summer. Folsom South Canal runs from the American River to the Cosumnes River and is also considered riverine habitat.

Oak Woodland and Savannah

Oak woodlands are found in the eastern portion of the District in moderate to dense stands comprising blue oak, interior live oak, and valley oak. Oak woodland communities are important as nesting, breeding, and migration habitat. Oaks are considered an important food and cover sources for many wildlife species. They provide forage such as acorns and browse for migrating and dispersing wildlife during fall and winter months.

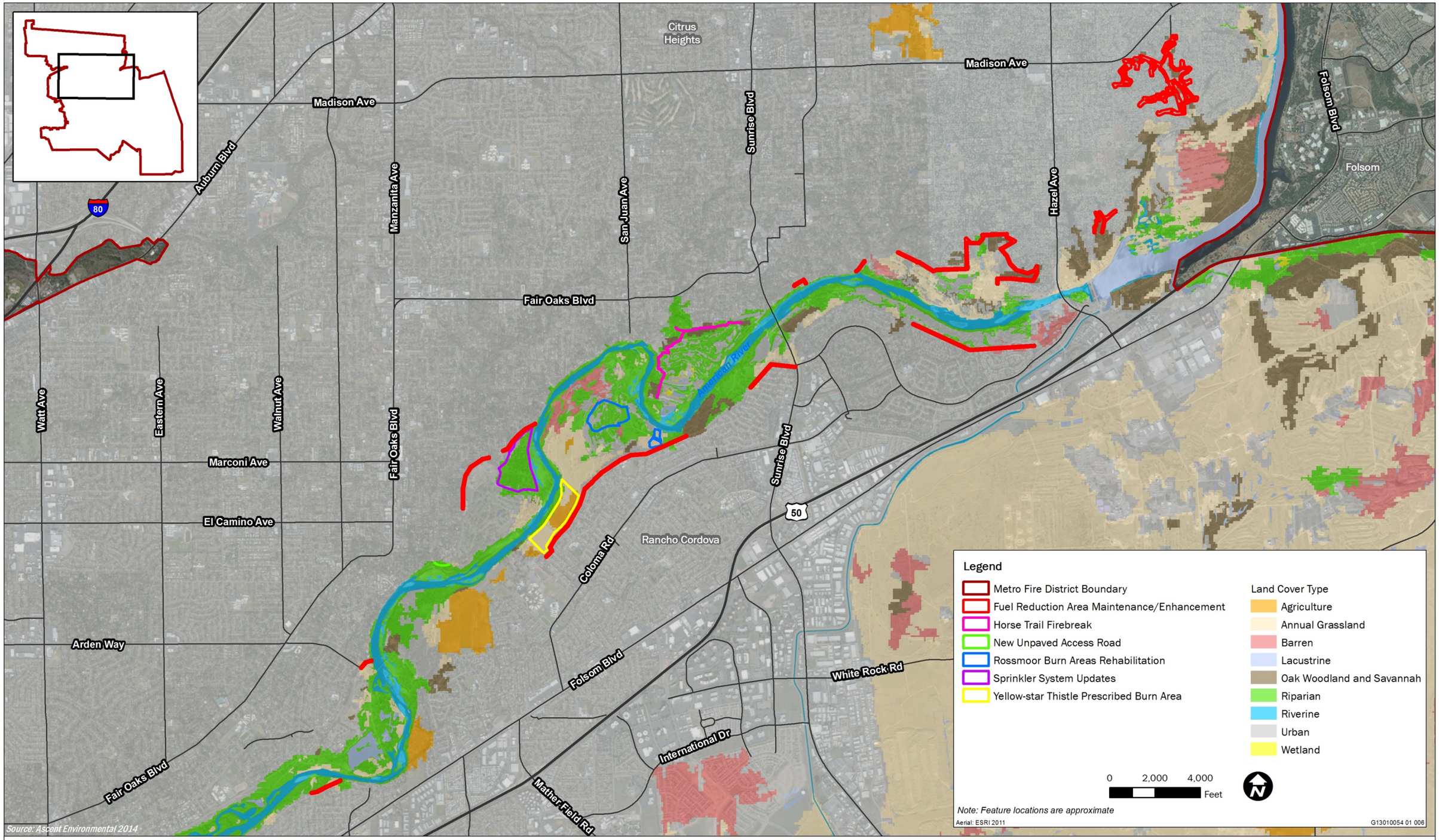
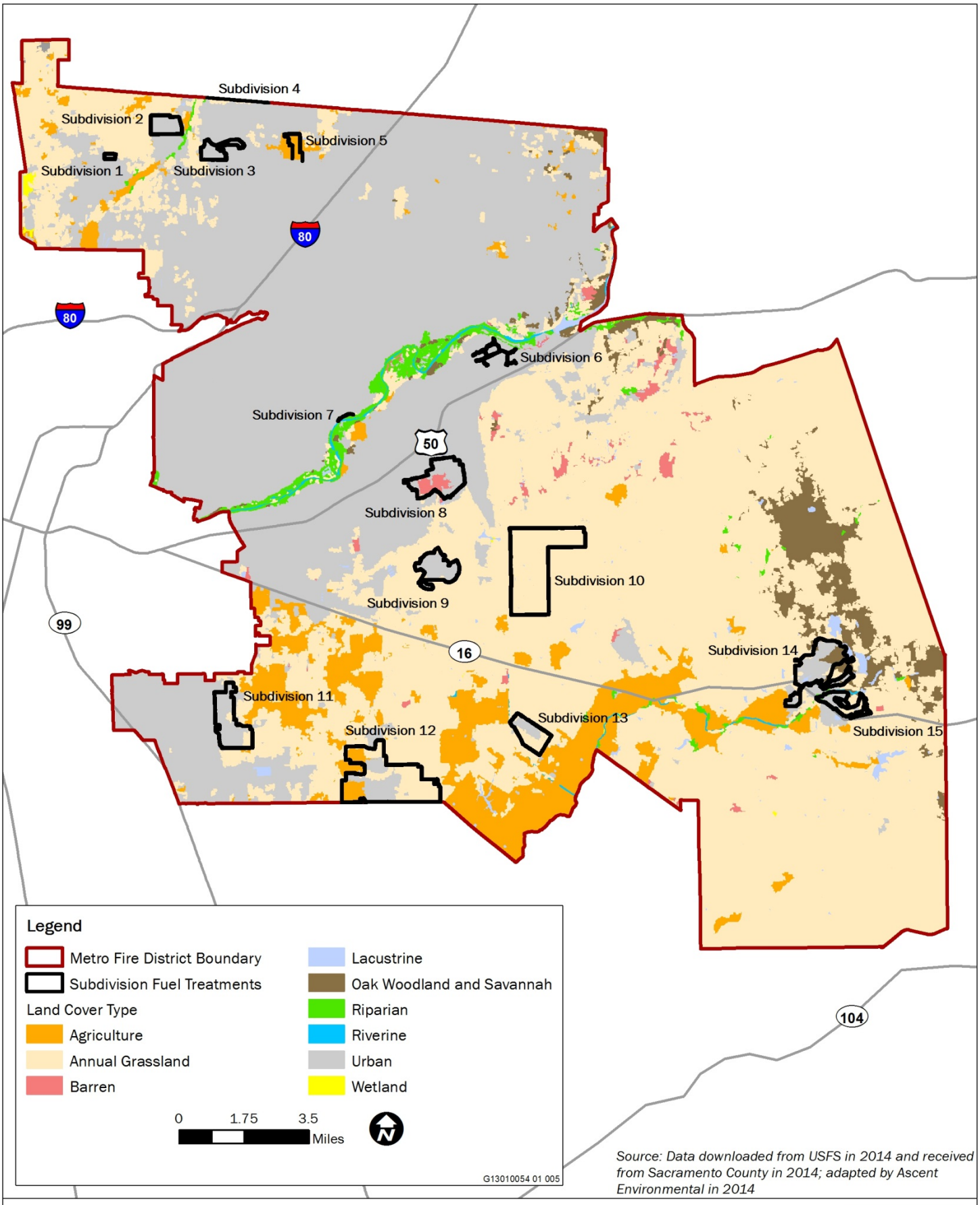


Exhibit 3-2

Land Cover - American River Parkway



Source: Data downloaded from USFS in 2014 and received from Sacramento County in 2014; adapted by Ascent Environmental in 2014

Exhibit 3-3 **Land Cover - Subdivision Fuel Treatments**

Blue Oak-Foothill Pine Woodland

Blue oak-foothill pine woodland is composed of hardwoods, conifers, and shrubs. The shrub component is typically composed of several species that tend to be clumped, with interspersed patches of annual grassland. This community has small accumulations of dead and downed woody material and relatively few snags, compared with other tree habitats in California. Blue oak and foothill pine typically compose the overstory of this habitat, with blue oak usually most abundant. Interior live oak sometimes dominants these stand on north-facing and rocky slopes. Shrub species include ceanothus (*Ceanothus* spp.), manzanita (*Arctostaphylous* spp.), California coffeeberry (*Rhamnus californicus*), poison-oak (*Toxicodendron diversilobum*), silver lupine (*Lupinus albifrons*), blue elderberry (*Sambucus cerulean*), California yerbasanta (*Eriodictyon californicum*), and California redbud (*Cercis occidentalis*). The ground cover is typically composed of annuals, such as brome grass (*Bromus* spp.), wild oat (*Avena* spp.), foxtail (*Alopecurus spp*), needlegrass (*Nassella pulchra*), filaree (*Erodium* spp.), and fiddeneck (*Amsinckia* spp.). Blue oak-foothill pine woodlands are found in the southeastern portion of the District as the valley transitions into the Sierra Nevada foothills.

Blue Oak Woodland

Blue oak woodland is distinguished by a blue oak (*Quercus douglasii*)-dominated overstory and an understory dominated by annual grasses. Blue oak woodland is distinguished from blue oak savanna by the higher density of trees in the overstory canopy. Generally, blue oak woodlands have an overstory composed of scattered broad-leaved trees, although the canopy can be nearly closed on better-quality sites. Associated herbaceous and shrub species are similar to blue oak-foothill pine woodland. Blue oak woodland occurs throughout the District but it is concentrated on the eastern end of the American River portion in the District by Hazel Avenue, and in the south eastern section of the District east of Scott Road.

Valley Oak Woodland

This habitat varies from savanna-like to forest-like stands with partially closed canopies, comprised mostly of winter-deciduous, broad-leaved species. Canopies of these woodlands are dominated almost exclusively by valley oaks (*Quercus lobata*). Tree associates in the Central Valley include California sycamore (*Platanus racemosa*), northern California black walnut (*Juglans hindsii*), interior live oak (*Quercus wislizeni*), boxelder (*Acer negundo*), and blue oak. Valley oak stands with little or no grazing tend to develop a partial shrub layer of species that have their seeds are disseminated by birds, such as poison-oak, toyon (*Heteromeles arbutifolia*), and coffeeberry. Ground cover consists of a well-developed carpet of annual grasses and forbs. Valley oak woodland occurs mainly by the American River portion in the District by Hazel Avenue.

Montane Hardwood

Montane hardwood habitat is typically dominated by a hardwood tree layer with sparse shrub and herbaceous layers underneath. Associated trees at lower elevations are foothill pine (*Pinus sabiniana*), knobcone pine (*Pinus attenuate*), tanoak (*Lithocarpus densiflorus*), Pacific madrone (*Arbutus menziesii*), and scrubby California-laurel (*Umbellularia californica*). Associated understory vegetation includes Oregon-grape (*Mahonia aquifolium*), currant (*Ribes* spp.), wood rose (*Rosa californica*), snowberry (*Symphoricarpos albus*), manzanita, poison-oak, and a few forbs and grasses. Small acreages of montane hardwood occur in the District east of Scott's Road where the valley transitions into the Sierra Nevada foothills.

Riparian

Valley and foothill riparian systems are rich in species diversity and abundance due to their ability to provide food, water, cover and their use as migration corridors. In the Sacramento River Valley, only 25,000 acres of an estimated 500,000 acres existing in 1850 remain today (Sacramento County 2014). Mixed and valley foothill riparian habitat are mainly along the American and the lower Cosumnes. As the Cosumnes River reaches the eastern end of the District the montane riparian woodlands begin to emerge.

Mixed Riparian Woodland

Mixed riparian woodland is distinguishable by an open canopy layer dominated by tall Fremont cottonwood trees. Beneath this open layer, a moderately dense mid-canopy layer is composed of tree species such as Oregon ash (*Fraxinus latifolia*), Goodding's willow (*Salix gooddingii*), northern California black walnut, valley

oak, and box elder. In some areas, a subcanopy of dense riparian scrub dominated by willow species including arroyo willow and sandbar willow is present.

Riparian scrub is interspersed with mixed riparian woodlands in the floodplains of waterways throughout Sacramento County. In the District, this habitat type consists of an open to dense shrubby thicket dominated by a mixture of sandbar willow (*Salix exigua*), Arroyo willow (*S. lasiolepis*), red willow (*S. laevigata*), and immature stands of mixed riparian woodland tree species.

Montane Riparian Woodland

Montane riparian zones are found at moderate to high elevation in the Sierra Nevada. This typing in the treatment units may be in error in classification as the elevation seems too low for this vegetation community. They are quite variable and often structurally diverse. Usually, the montane riparian zone occurs as a narrow, often dense grove of broad-leaved, winter deciduous trees up to 100 feet tall with a sparse understory. In the Sierra Nevada, characteristic species include thin leaf alder (*Alnus incana),* black cottonwood (*Populus balsalmifera trichocarpa*), dogwood (*Cornus sericea*), willow, and white alder(*Alnus rhombifolia*). Montane riparian habitats can occur as alder or willow stringers along streams of seeps. In other situations, an overstory of Fremont cottonwood, black cottonwood, and/or white alder may be present. As the Cosumnes River reaches the eastern end of the District, montane riparian woodlands begin to emerge.

Valley Foothill Riparian Woodland

Valley oak riparian woodland is the majority of riparian habitat in the District. It usually intergrades with the valley grassland land cover type and wooded borders along streams and agricultural fields in the District. Most trees are deciduous and include cottonwood, valley oak, California sycamore, California black walnut, and box elder. Typical understory shrub layer plants include wild grape (*Vitus californica*), wild rose, California blackberry (*Rubus ursinus*), blue elderberry, poison oak, and willows. The herbaceous layer consists of sedges, rushes, grasses, and other herbs. The understory vegetation is extremely dense and includes high amounts of down woody debris.

Urban

Urban habitat varies from heavily developed habitats such as downtown areas and urban residential areas to less developed areas of suburbia. Vegetation varies from street trees and shrubs to landscaping vegetation around homes to city parks with shrubs, trees, and lawns. The central portion of the District is considered urban habitat with a progression to the outer boundaries of the District toward more natural habitats.

Valley Grassland

The valley grassland land cover type is characterized by annual grasses and forbs, which are predominantly non-native species. It occurs on the flat floodplains of the valley into the foothills. Species composition is influenced by annual and seasonal weather patterns. Nonnative annual grasses that dominate this land cover type include wild oats (*Avena fatua*), soft chess *(Bromus hordeaceus*), ripgut brome (*B. diandrus*), red brome (*B. madritensis* ssp. *rubens*), wild barley (*Hordeum* spp.), and foxtail fescue (*Vulpia myuros*). Common forbs of this land cover type include broadleaf filaree (*Erodium botrys*), redstem filaree (*E. cicutarium*), turkey mullein (*Eremocarpus setigerus*), true clovers (*Trifolium* spp.), bur clover (*Medicago polymorpha*), popcorn flower (*Plagiobothrys* spp.), and many others. Some perennial species such as purple needlegrass (*Nassella pulchra*) and Idaho fescue (*Festuca idahoensis*) may be present.

The valley grassland within the District is associated with vernal pools and other seasonal wetlands. See Exhibit 3-3 for location of wetlands in the District. Also refer to the Wetlands section below for more description.

Wetlands

Freshwater Emergent Wetlands

Freshwater emergent wetlands are generally defined by herbaceous vegetation dominated by emergent hydrophytic (water-loving) plants such as grasses, reeds, rushes and sedges. They occur along rivers, streams, lakes, wet meadows and other linear or open bodies of water. They are typically perennial wetlands, but may dry out for short periods. Fresh emergent wetlands are among the most productive wildlife habitats in California. Some of the largest acreages of fresh emergent wetlands are found in the Sacramento Valley. Wetlands in the District are associated with the American River, Cosumnes River, Mather Lake, Frye Creek, Alder Creek, an unnamed creek by Meiss Road, and a canal along East Levee Road.

Non-vernal Seasonal Wetlands

A seasonal wetland is defined as ephemeral wetlands that pond during the rainy season and are dry by summer. Seasonal wetlands are dominated by hydrophytic vegetation. Seasonal wetlands occur in isolated patches as well as within the banks of bodies of water such as streams and creeks, rivers, ponds, lakes, and reservoirs.

Vernal Pool Wetlands

Vernal pools are generally found in the grassland vegetation community within small depression composed of a hardpan soil layer. These pools support downingia (spp.), meadowfoam (*Limnanthes alba*) and other rare plant and invertebrate brachiopod species. Some areas may be utilized for livestock grazing. Valley grasslands cover the majority of the area south of Highway 50 with one large area of habitat located by Elverta Road in the northwest section of the District.

SPECIAL-STATUS PLANTS

A total of 18 special-status plant species that have been documented in the CNDDB within a 5-mile radius around the District and are also included a USFWS quad search encompassing the District. This is considered the Study Area. The California Department of Fish and Wildlife (CDFW) requests that special-status species data not be displayed in reports. Therefore, known locations of special-status species are described in this document only. Of these species, seven are not considered further in this document because they are not likely to occur in the District or no work will be implemented in or near their habitat. Parry's Horkelia (*Horkelia parryi*) is found in chaparral habitat in the foothills, a habitat not located in the District. Saline Clover (*Trifolium hydrophilum*) is generally located in salt water marsh, a habitat not located in the District. Woolly Rose-Mallow (*Hibiscus lasiocarpos* var. *occidentalis*) and Sanford's arrowhead (*Sagittaria sanfordii*) are limited to aquatic habitat and no work will be implemented within aquatic habitat or wetlands. Ione formation plants would not occur within or near treatment areas including Ione manzanita, (Arctostaphylos myrtifolia), Ione Buckwheat (*Eriogonum apricum* var. *apricum*), and Irish Hill Buckwheat (*Eriogonum apricum* var. *prostratum*). No protocol-level botanical surveys for any special-status species were conducted specifically for this Plan.

These 15 species that are considered for further review in this document are listed in Table 3-3 and discussed in more detail below.

Table 3-3 Special-Status Plants With Potential to Occur in the District

Species	Status[1]			Habitat	Blooming Period
	Federal	State	CRPR		
Balsalmorhiza macrolepis Big-scale balsamroot	—	—	1B.2	**Could Occur.** Found in valley grassland and foothill woodland on open, grassy and rocky slopes at elevations of 295-5,708 feet. Two occurrences in the five mile search area; no occurrences within the District. North of the District in Roseville east of Highway 65 just south of Blue Oaks Blvd.	May-June
Cuscuta obtusiflora var. *glandulosa* Peruvian Dodder	—	—	2B.2	**Could Occur.** A parasitic annual vine that is can infest crops, ornamentals, native plants and weeds. A native species that is classified as a noxious weed by CA Department of Food and Agriculture. One occurrence within five miles of the District. None in the District. Found 3 miles southwest of the District by Lagona Lake.	July-October
Downingia pusilla Dwarf downingia	—	—	2.2	**Could Occur.** Vernal pools and mesic sites within valley and foothill grasslands. Up to 1,591 feet in elevation. Occurs primarily on Laguna and Riverbank formations. Of the 16 occurrences recorded in the study area, only three current records are within the District. One record is in the southeast corner of the District at Howard Ranch by Michigan Bar Rd. Another record is by Phoenix Park near Lake Natoma. The third is in the northwest corner of the District by Elverta Blvd.	April-August
Eryngium pinnatisectum Tuolumne Button-celery	—	—	1B.2	**Could Occur.** Can be found in freshwater wetlands, vernal pools, wetland riparian and foothill woodland communities. Found between 100 and 5,610 feet in elevation. One record within the District from 1941 by Michigan Bar Road.	May-August
Gratiola heterosepala Boggs Lake hedge-hyssop	—	E	1B.2	**Could Occur.** Associated with vernal pools. It is found in freshwater wetlands and wetland riparian areas. Can be found on lake margins as well. Occurs between 50 and 5,905 feet. Eight known occurrences within the District.	May - October
Juncus leiospemus var. *ahartii* Ahart's dwarf rush	—	—	1B.2	**Could Occur.** Mesic valley and foothill grassland between 98-751 feet in elevation. Restricted to wetlands and vernal pools. Four occurrences of Ahart's dwarf rush in Sacramento County; only one current occurrence is in the District by Eagle's Nest Road.	March-May
Juglans hindsii Northern California Black Walnut	—	—	1B.1	**Could Occur.** Found along streams and disturbed slopes. Found up to 3,600 feet in elevation. No records found within five miles of the District.	April-May
Legenere limosa Legenere	—		1B.1	**Could Occur.** Vernal pool associated species. Occurs up to 2,887 feet in elevation. There are 18 occurrences within the District.	April-June

Table 3-3 Special-Status Plants With Potential to Occur in the District

Species	Status[1]			Habitat	Blooming Period
	Federal	State	CRPR		
Navarretia myserii ssp. *myersii* Pincushion navarretia	—	—	1B.1	**Could Occur.** Associated with vernal pools that are often acidic. Can be found between 65-1,082 feet in elevation. Four records were found within the District. Two occurrences are located in the southeast corner of the District on Howard Ranch. One occurrence is in Phoenix Park owned by CDFW.	April-May
Orcuttia tenuis Slender Orcutt grass	T	E	1B.1	**Could Occur.** Vernal pool associated species. Found in valley grassland, vernal pools, freshwater wetlands and wetland riparian habitats. Found from 147-3,904 feet in elevation. Three records were found within the District; all are south of Highway 50 within or near the USFWS Mather Core Recovery Area.	May-September
Orcuttia viscida Sacramento Orcutt grass	E	E	1B.1	**Could Occur.** Vernal pool associated species. Found from 114-279 feet in elevation. Nine occurrences are known within the District. The central population is located east of Mather Air Force Base in the vicinity of the Laguna Creek Watershed and within the USFWS Mather Core Recovery Area.	April-July

Note: CNDDB = California Natural Diversity Database; USFWS = U.S. Fish and Wildlife Service; CNPS= California Native Plant Society

[1] Legal Status Definitions

Federal:
E = Endangered (legally protected)
T = Threatened (legally protected)
— = no ESA listing

State:
E = Endangered (legally protected)
— = no State listing California Rare Plant Rank (CRPR)
1B = Rare, threatened, or endangered in California and elsewhere
2 = Rare, threatened, or endangered in California but more common elsewhere

CRPR Threat Ranks
0.1 = Seriously threatened in California (high degree/immediacy of threat)
0.2 = Fairly threatened in California (moderate degree/immediacy of threat)
0.3 = Not very threatened in California (low degree/immediacy of threats or no current threats known)

Sources: CNDDB 2014; USFWS 2014; CNPS 2014

WILDLIFE SPECIES

Based on the results of the CNDDB search, the USFWS search and environmental documents from the General Plans for Sacramento County, the City of Rancho Cordova and the City of Citrus Heights, it was determined that 36 special-status wildlife species are known or have the potential to occur in the 5-mile radius District. For species not known to occur in the District, their potential for occurrence was based on the types, extent, and quality of habitats in the District; the proximity or connectivity of the District to known occurrences of the species; and the regional distribution and abundance of the species. Of these species, nine are not considered further in this document because no work will be implemented in or near their habitat or they are not likely found within the District. Golden eagle (*Aquila chrysaetos*) and bald eagle (*Haliaeetus leucocephalus*) do not nest within the District and individuals or nests would not be in or near proposed treatments. Purple martin (*Progne subis*) utilizes urban areas, bridges, and artificial nesting structures for nests and are not likely to be in or near proposed treatment areas. Lesser sandhill crane (*Grus canadensis canadensis*) and Greater sandhill crane (*Grus canadensis tabida*) do not breed in California but overwinter and forage in flooded agricultural areas, rice fields, and large preserves. There are no such large preserves or flooded agricultural fields within the District that would attract cranes or near treatment sites. California red-legged frog (*Rana draytonii*) is considered extirpated from the eastern Delta and Central

Valley, but is located in the Sierra foothills outside the District. American badger (*Taxidea taxus*) may be within District, but they prefer undisturbed and uncultivated open space areas for denning. None of the areas proposed for activities within the Plan would occur in this type of undisturbed habitat. North American Green Sturgeon (*Acipenser medirostris*) (Southern DPS) and Delta smelt (*Hypomesus transpacificus*) are not likely to be found with the upper reaches of the American River within the District.

Table 3-4 provides a list of the 27 special-status wildlife species that may occur in the District in or near treatment areas and describes their regulatory status, habitat, and potential for occurrence. CDFW requests that special-status species data not be displayed in reports. Therefore, known locations of special-status species are described in this document only.

Table 3-4 Special-Status Animals with Potential to Occur in the District that may be Impacted by Treatments

Species	Status[1]		Habitat	Probability of Occurrence
	Federal	State		
Invertebrates				
Branchinecta lynchi Vernal pool fairy shrimp	T	—	Inhabits vernal pool, grass or mud-bottomed swales with clear water that are found in valley grassland areas.	**Could Occur.** There are 42 occurrences within the District. The majority are south of Highway 50 and associated with known vernal pools. All grassland and oak savannah habitat with vernal pools is likely habitat for this species.
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	T	—	Require elderberry shrubs below 3,000 feet in elevation. While they are often associated with riparian habitat, elderberry shrubs can be found in almost any terrestrial habitat in the District.	**Could Occur.** There are seven occurrences listed within the District in the CNDDB database (2014). The majority of occurrences are along the ARP with at last two populations located along the Cosumnes River/Deer Creek riparian corridor, one along U.S. Highway 50 in Rancho Cordova.
Lepidurus packardi Vernal pool tadpole shrimp	E	—	Inhabits vernal pools and associated wetlands that can be either highly turbid or clear with aquatic vegetation. Found in elevations below 984 feet.	**Could Occur.** All grassland and oak savannah habitat with vernal pools is likely habitat for this species. There are 54 records of current populations within the District. The majority are south of Highway 50, associated with known vernal pools and in or around the USFWS Mather Core Recovery Area.
Amphibians				
Ambystoma californiense California tiger salamander (Central Valley population)	T	T	Habitat is limited to large, fishless vernal pools or similar water bodies. It occurs at elevations up to 3,200 feet. Found in riparian, wet meadows, vernal pool and valley grassland habitats.	**Could Occur.** Most of the CNDDB occurrences within the District are in rural areas south of the Cosumnes River. One occurrence within the District occurs in a stock pond by Meiss Road and Carbondale Road. The other 16 occurrences within the Study Area are just south of this sighting, outside the boundary of the District. CDFW (2010) Status Review of CTS shows that important and critical habitat is located in the eastern and south-eastern parts of Sacramento County and the District.
Spea hammondii Western spadefoot	—	CSC	Requires wetlands, shallow pools and vernal pools for breeding. Can be found using upland areas in a variety of habitats from grasslands to chaparral to oak woodlands, but requires sand and gravelly soils for burrowing underground to estivate and hibernate.	**Could Occur.** There are eight locations within the District that are presumed to be occupied currently according to CNDDB (2014). Seven of these occurrences are south of Highway 50 and east of Mather Field. The one occurrence to the north is a reintroduction into CDFW's Phoenix Park.

Table 3-4 Special-Status Animals with Potential to Occur in the District that may be Impacted by Treatments

Species	Status[1]		Habitat	Probability of Occurrence
	Federal	State		
Reptiles				
Actinemys marmorata Western pond turtle	—	CSC	Inhabits a variety of aquatic habitats up to 6,500 feet in elevation. Usually found in marshes, rivers, ponds, streams, irrigations ditches, reservoirs, and even sewage ponds. Requires unshaded, upland slopes with dry clay or silty soils for nesting.	**Could Occur.** There are nine occurrences of the western pond turtle within the District and 20 occurrences in the District. Most aquatic and associated upland habitat in District is considered potential western pond turtle habitat.
Thamnophis gigas Giant garter snake	T	T	Inhabits freshwater marshes, low gradient streams, drainage canals and irrigation ditches.	**Could Occur.** The giant garter snake occurrence records within the District are within the northwestern portion; along a drainage canal in the area of Elverta Road. Records adjacent to the District occur immediately west of the Elverta population within the District and southwest of the District in Elk Grove by Laguna Blvd.
Birds				
Agelaius tricolor Tricolored blackbird	—	CSC	Inhabits wetlands and marshes with large amounts of tall, emergent vegetation such as cattail, tules, Himalayan blackberry, or other thorny vegetation to support a nesting colony. Requires adjacent agricultural fields or grasslands with an abundant insect population for foraging.	**Could Occur.** There are twenty-four extant records within the District; the majority of records are south of Highway 50. Potential habitat in the District is emergent wetland habitat adjacent to agricultural or grassland habitat.
Ammodramus savannarum Grasshopper sparrow	—	CSC	Nests and forages in dense grasslands; favors a mix of native grasses, forbs, and scattered shrubs.	**Could Occur.** Could nest in annual grassland habitat on the site. There are two CNDDB records of this species within the District near Rancho Murieta.
Asio flammeus Short-eared owl	—	CSC	Requires open areas such as grasslands, meadows, wetlands, irrigated lands such as crops and pastures.	**Could Occur.** A winter migrant that is found primarily in the Central Valley, the western Sierra Nevada foothills and along the coastline. No observations were found within the CNDDB within the Study Area. Potential habitat within the District includes valley grasslands, wetlands, and agriculture lands.
Asio otus Long-eared owl	—	CSC	Requires dense vegetation adjacent to open shrubland, grassland or open forest.	**Not Likely to Occur.** A year-round resident in California, although it has been nearly extirpated from the central valley. No observations were found within the CNDDB within the Study Area.
Athene cunicularia hypugea Western burrowing owl	—	CSC	Occurs in ruderal habitat, valley grasslands, oak woodland, fallow agricultural fields or habitat in which canopy cover is less than 30%; often found on disturbed sites. Require friable soils and burrows like holes in the ground for nesting.	**Could Occur.** The District occurs within the Middle Central Valley portion of the burrowing owl's range. There are 24 occurrences of burrowing owls within the District. All but three occurrences are south of Highway 50 and associated with grassland and vernal pool habitat.

Table 3-4 Special-Status Animals with Potential to Occur in the District that may be Impacted by Treatments

Species	Status[1]		Habitat	Probability of Occurrence
	Federal	State		
Buteo swainsoni Swainson's hawk	—	T	Forages in grasslands and agricultural lands (alfalfa, row, or grain crops); nests in large trees in riparian areas, grasslands with scattered trees, or in tree lines or small groves near grasslands or croplands.	**Could Occur.** Of the 30 records of Swainson's hawks within the District, 14 of these were confirmed nests. The majority of the records are south of Highway 50 in grassland and agricultural habitat. Associated with grassland and agricultural habitat within the District.
Circus cyaneus Northern harrier	—	CSC	Breeding habitats includes marshy meadows, wet and lightly grazed pastures, and dry upland habitats, such as grassland, cropland, and drained marshland Wintering habitat includes grassland, pastures, and cropland.	**Could Occur.** There are no CNDDB records in the District, but harriers are found in valley grasslands, agricultural, vernal pool, and oak savannah habitat.
Elanus leucurus White-tailed kite	—	CFP	Forages in grasslands and agricultural fields; nests in riparian zones, oak woodlands, and isolated trees.	**Could Occur.** Of the 22 occurrences of white-tailed kites recorded in the District, 13 of these were confirmed nests. Likely to be found within valley grasslands, oak woodland and agricultural habitat within the planning area.
Icteria virens Yellow-breasted chat	—	CSC	Dense riparian thickets of willow and other shrub vegetation along watercourses.	**Could Occur.** Species is a rare spring and summer visitor to the area. Some potential nesting habitat may be located along the American or Cosumnes River. Nesting has not been documented.
Lanius ludovicianus Loggerhead shrike	—	CSC	Likely found in agricultural, oak savannah and valley grassland habitat within the District. Use pasture and agricultural lands for nesting and foraging.	**Could Occur.** Loggerhead shrikes occur year-round in suitable habitat throughout the District. The CNDDB (2014) reports no occurrences of loggerhead shrike in the Study Area.
Riparia riparia Bank swallow	—	T	Nests in fine-textured or sandy banks or cliffs along rivers, streams, ponds, or lakes. Typically nests in colonies. Would be found in the area along rivers, streams, and creeks that have bridge or cliff habitat for roosting and nesting.	**Could Occur.** Five occurrences of bank swallows occur in the District. Three are from the ARP while two are south of highway 50. Potential habitat is riverine habitat.
Setophaga petechia Yellow warbler	—	CSC	Yellow warblers typically breed in wet areas with dense riparian vegetation.	**Not Likely to Occur.** Yellow Warblers currently occupy much of their former breeding range, except in the Central Valley, where they are close to extirpation (Shuford and Gardali, 2008). There are no observations of yellow warblers in the five-mile search area.
Xanthocephalus xanthocephalus Yellow-headed blackbird	—	CSC	Typically breeds in marshes that have tall emergent vegetation such as cattails or tules, in open areas near and over relatively deep water.	**Could Occur.** There are no observations of yellow-headed blackbirds in the District. Emergent wetland habitat in the District provides suitable nesting habitat.

Table 3-4 Special-Status Animals with Potential to Occur in the District that may be Impacted by Treatments

Species	Status[1]		Habitat	Probability of Occurrence
	Federal	State		
Mammals				
Antrozous pallidus Pallid bat	—	CSC	Locally common at lower elevations in California and occurs in grassland, shrubland, woodland, and mixed conifer forests. Rocky outcrops, caves, crevices, and occasional large tree cavities or buildings provide roosts.	**Could Occur.** Habitat in the District would be in structures, large trees, or rocky outcrops along the ARP. Of the two records in the Study Area, only one pallid bat occurrence was from the District and it was from 1941. Potential habitat within the District is agricultural, valley grassland, and oak woodland.
Bassariscus astutus Ringtail	—	CFP	Ringtails in the Sacramento Valley are associated with large continuous stands of riparian forest. They generally are found in mesic habitats, canyons, drainages with rocky outcrops.	**Could Occur.** There are no observations of ringtails in the District. Potential habitat is along riverine habitat with rocky outcrops or canyons.
Lasiurus blossevillii Western red bat	—	CSC	Day roosting common in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. An association with intact riparian habitat may exist (particularly willows, cottonwoods, and sycamores).	**Could Occur.** Intact mature, riparian woodland would provide roosting habitat. There are no observations of western red bat within the District.
Fish				
Oncorhynchus mykiss Steelhead trout, Central Valley DPS	T	–	All river reaches and estuarine areas accessible to listed steelhead in the Sacramento and San Joaquin Rivers and their tributaries in California.	**Could Occur.** In the Sacramento and San Joaquin Rivers and their tributaries. All river reaches and estuarine areas accessible to listed steelhead in the Sacramento and San Joaquin Rivers and their tributaries in California are designated as critical steelhead trout habitat (NMFS 2005).
Oncorhynchus tshawytscha Chinook salmon - Central Valley spring-run ESU	T	T	All river reaches and estuarine areas in the Sacramento and San Joaquin Rivers and their tributaries.	**Could Occur.** In the Sacramento and San Joaquin Rivers and their tributaries. The fall run in both the American and Sacramento Rivers is the most abundant, comprising approximately 80 percent of the annual migrations. The winter, spring and summer runs comprise the rest of the population. During very wet years a few chinook may enter into the Cosumnes River and Laguna, Deer, and Dry Creeks.
Oncorhynchus tshawytscha Chinook salmon – Central Valley fall / late-fall-run ESU	–	CSC	All river reaches and estuarine areas in the Sacramento and San Joaquin Rivers and their tributaries.	**Could Occur.** In the Sacramento and San Joaquin Rivers and their tributaries. During very wet years a few chinook may enter into the Cosumnes River and Laguna, Deer, and Dry Creeks. The fall run in both the American and Sacramento Rivers is the most abundant, comprising approximately 80 percent of the annual migrations.
Pogonichthys macrolepidotus Sacramento splittail	—	CSC	Requires flooded vegetation for spawning and juvenile foraging habitat. Spawning occurs over flooded stream bank vegetation in sloughs and in slow moving large rivers. Upstream spawning migration period is from November through May.	**Could Occur.** Present in Sacramento-San Joaquin Delta and associated marshes. Adult foraging and spawning migrations occur in the American River every year, normally from March through mid-May, and may have larvae migrating in April and May.

Table 3-4 Special-Status Animals with Potential to Occur in the District that may be Impacted by Treatments

Species	Status[1]		Habitat	Probability of Occurrence
	Federal	State		

Note: CNDDB = California Natural Diversity Database, USFWS = U.S. Fish and Wildlife Service

[1] Legal Status Definitions

Federal:
E = Endangered (legally protected)
T = Threatened (legally protected)
— = No ESA listing
BGEPA = Bald and Golden Eagle Protection Act

State:
E = Endangered (legally protected)
T = Threatened (legally protected)
CSC = California Species of Special Concern (legally protected)
CFP = Fully Protected (legally protected)
— = No State listing

Sources: CNDDB 2014; USFWS 2014

SENSITIVE HABITATS

Sensitive habitat types include those that are of special concern to CDFW, or that are afforded specific consideration through Section 1602 of the California Fish and Game Code, the Porter-Cologne Act, and/or Section 404 of the Clean Water Act. Sensitive habitats may be of special concern to regulatory agencies and conservation organizations for a variety of reasons, including their locally or regionally declining status, or because they provide important habitat to common and special-status species. Sensitive natural communities in the District include: fresh emergent wetlands, riparian woodland, oak woodlands, native grassland, seasonal wetlands and vernal pools.

WATERS OF THE UNITED STATES

There are numerous seasonal and perennial waterways within the District. 978 acres of riverine habitat, 250 acres of wetlands and 2,250 acres of lacustrine habitat within the District, plus an unknown number of vernal pools. The American and Cosumnes Rivers and their tributaries, which traverse the northern and southern portion of the District, are flanked by riparian forest and seasonal wetlands. Lakes and wetlands and ponds are scattered throughout the Fire District, as stated earlier in the Affected Environment Section. The potential jurisdictional waters of the United States in District include lakes and ponds, intermittent and perennial creeks, irrigation ditches, perennial and seasonal marsh, river, fresh emergent wetland, and vernal pools. Site specific analysis may be required for wetlands, vernal pools and other aquatic features not documented in the Sacramento County Vegetation data (2014) that is used for this analysis.

3.4.2 Regulatory Framework

Biological resources are protected by a variety of federal and state laws and policies. Key laws and regulations applicable to the proposed Plan are discussed below.

FEDERAL

Federal Endangered Species Act

Pursuant to the ESA, USFWS has authority over projects that may affect the continued existence of federally listed (threatened or endangered) species. Section 9 of ESA prohibits any person from "taking" an endangered or threatened fish or wildlife species or removing, damaging, or destroying a listed plant species on federal land or where the taking of the plant is prohibited by state law. Take is defined under ESA, in part, as killing, harming, or harassing. Under federal regulations, take is further defined to include habitat modification or degradation where it actually results in death or injury to wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (MBTA), makes it unlawful to pursue, hunt, take, capture, kill or sell birds listed therein ("migratory birds"). The statute does not discriminate between live or dead birds and also grants full protection to any bird parts including feathers, eggs and nests. The current list of species protected by the MBTA can be found in Title 50 of the Code of Federal Regulations (CFR), Section 10.13 (50 CFR 10.13). The list includes nearly all migratory birds native to the United States. Over 800 species are currently on the list.

Clean Water Act

Section 404 of the Clean Water Act (CWA) establishes a requirement for a project applicant to obtain a permit before engaging in any activity that involves any discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters of the United States, interstate waters, all other waters where the use or degradation or destruction of the waters could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries. Under Section 404 of the CWA, the U.S. Army Corps of Engineers (USACE) regulates and issues permits for activities that involve the discharge of dredged or fill materials into waters of the United States. Fills of less than 0.5 acre of non-tidal waters of the United States for residential, commercial, or institutional development projects can generally be authorized under USACE's nationwide permit (NWP) program, provided that the project satisfies the terms and conditions of the particular NWP. Fills that do not qualify for a NWP require an individual permit.

Under Section 401 of the CWA, an applicant for a Section 404 permit must obtain a certificate from the appropriate state agency stating that the intended dredging or filling activity is consistent with the State's water quality standards and criteria. In California, the authority to grant water quality certification is delegated by the State Water Resources Control Board to the nine Regional Water Quality Control Boards (RWQCBs). The District is within the jurisdiction of the Central Valley RWQCB.

STATE

California Endangered Species Act

Pursuant to the California Endangered Species Act (CESA) a permit from CDFW (formerly California Department of Fish and Game) is required for projects that could "take" a species state listed as threatened or endangered. Section 2080 of CESA prohibits take of state listed species. Under CESA, take is defined as any activity that would directly or indirectly kill an individual of a species. The definition does not include "harm" or "harass" as in the federal act. As a result, the threshold for take under CESA is higher than under ESA (i.e., habitat modification is not necessarily considered take under CESA). The take of state-listed species incidental to otherwise lawful activities requires a permit, pursuant to Section 2081(b) of CESA.

Fully Protected Species

Protection of fully protected species is described in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species and do not provide for authorization of incidental take unless a Natural Community Conservation Plan is prepared. CDFW has informed nonfederal agencies and private parties that their actions must avoid take of any fully protected species.

Protection for Bird Nests and Raptors

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (e.g., hawks, owls, eagles, and falcons), including their nests or eggs. Section 3513 of the California Fish and Game Code codifies the federal Migratory Bird Treaty Act.

California Fish and Game Code Section 1602 - Streambed Alteration

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources are subject to regulation by the CDFW under Sections 1600 et seq. of the California Fish and Game Code. Under Section 1602, it is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by CDFW, or use any material from the streambeds, without first notifying CDFW of such activity and obtaining a Lake or Streambed Alteration Agreement authorizing such activity. "Stream" is defined as a body of water that flows at least periodically or intermittently through a bed or channel having banks and that supports fish or other aquatic life. CDFW's jurisdiction within altered or artificial waterways is based on the value of those waterways to fish and wildlife.

Porter–Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act requires that each of the nine RWQCBs prepare and periodically update basin plans for water quality control. Each basin plan sets forth water quality standards for surface water and groundwater and actions to control nonpoint and point sources of pollution to achieve and maintain these standards. Basin plans offer an opportunity to protect wetlands through the establishment of water quality objectives. The RWQCBs' jurisdiction includes waters of the United States as well as areas that meet the definition of "waters of the state." Waters of the state are defined as any surface water or groundwater, including saline waters, within the boundaries of the state. The RWQCBs have the discretion to take jurisdiction over areas not federally protected under CWA Section 404 provided they meet the definition of waters of the state. Mitigation requiring no net loss of wetland functions and values of waters of the state is typically required by the RWQCBs.

Oak Woodlands Conservation Act

The Oak Woodlands Conservation Act (SB 1334) was signed into California law on September 24, 2004. Section 21083.4 of the California Public Resources Code requires counties to determine if a project within their jurisdiction may result in conversion of oak woodlands that would have a significant adverse effect on the environment. If the lead agency determines that a project would result in a significant adverse effect on oak woodlands, mitigation measures to reduce the significant adverse effect of converting oak woodlands to other land uses are required.

LOCAL

ARP Plan

ARP Plan directs the management and preservation of approximately 23 miles and about 5,000 acres along the American River. Its objective is to balance the goals of controlling flooding; preserving and enhancing native vegetation, native fish species, the naturalistic open space and environmental quality within the urban environment; maintaining and improving water flow and quality; providing adequate habitat connectivity and travel corridors to support migratory and resident wildlife; providing recreational opportunities; and ensuring public safety. Brush clearing, mowing of natural vegetation, fire breaks, or similar activities are be permitted where necessary to protect the public's health, safety, or for the purposes of habitat restoration.

Rancho Cordova General Plan

The Rancho Cordova General Plan encompasses the City of Rancho Cordova. Policies NR1.1-NR4 protect and preserve special status species, special status vegetation communities (riparian and wetlands), water quality and trees. In order to protect special status vegetation communities the plan requires a no net loss of riparian and wetlands habitats. The Plan restricts the removal of native oaks or native trees greater than 6 inches diameter breast height (dbh) or aggregate trunks at 10 inches dbh and requires that all removed trees be replaced at an inch-for-inch ratio. Based on these policies, the Rancho Cordova city codes were adopted by reference from the County of Sacramento's codes pursuant to Ordinances 20-2003 and 21-2003 in 2003 and amended in 2007.

Sacramento County Swainson's Hawk Ordinance

In 2006, Sacramento County adopted an ordinance establishing a methodology for mitigating the loss of Swainson's hawk foraging habitat within unincorporated areas of the county. The methodology recognizes that Swainson's hawk foraging habitat value is greater in large expansive open spaces and agricultural areas than in areas which have been fragmented by agricultural-residential or urban development.

Sacramento County Tree Ordinance and Tree Preservation Ordinance

The Sacramento County Tree Ordinance, Chapter 19.04 of Title 19 of the County Code, establishes guidelines for the planting, removal and protection of public trees as well as specially protected trees such as heritage or landmark trees. The Ordinance requires the protection of all native oak trees having a single trunk of 6 inches dbh (measured 4.5 feet above ground level) or greater, or with multiple trunks having an aggregate diameter of 10 inches dbh or greater. A native oak tree is defined by the ordinance as any of the following: valley oak (*Quercus lobata),* interior live oak *(Quercus wislizenii),* blue oak *(Quercus douglasii), or* oracle oak (*Quercus morehus*). The removal of any of the protected native oaks trees must be authorized through a removal permit. This ordinance is required of all non-discretionary projects and provides for protection and mitigation for discretionary projects. Grading is limited beneath oak trees and any protected oak trees damaged during construction would require mitigation as specified in the ordinance.

County of Sacramento, General Plan of 2005–2030

The Sacramento County General Plan of 2005–2030 Conservation Element lists goals and objectives (CO-19 through CO-140 under Section V, Vegetation and Wildlife) that direct the management and preservation of natural resources. CO-19 to CO-128 ensure a safe, reliable water supply while protected the beneficial uses of Waters for the State of California by protecting water supported ecosystems through preservation, restoration and creation of riparian and wetlands habitats and buffers to protect water quality for erosion. CO-58 through CO-63 support the management and restoration of wetland and riparian habitat, native habitat and special status species habitat, ensuring no net loss of wetlands, riparian woodlands, and oak woodlands. The plan establishes a preserve system with wildlife corridors and protects these preserves from conversion to another land use. CO-75 through 80 are designed to preserve, enhance and restore special status species habitat in Sacramento County to aid in the recovery of these species through maintain viable populations and wildlife corridors, managing vegetation on public lands to encourage native species, and controlling access and protecting to sensitive habitat. CO-83 and CO-86 establish and limit land uses on vernal pool habitat preserves. CO-88 through CO-92 supports protection and enhancement of riparian habitat and the increase of native woodlands and riparian scrub along select waterways. CO-114 through CO-124 protect stream corridors from an action that would degrade water quality and require maintenance of vegetation to allow for high water quality. CO-138 through CO-140 requires preservation and protection of heritage and landmark trees especially those used by Swainson's hawks in riparian areas, native trees other than oaks (from development), and a no net loss of oak woodland canopy area. The section also requires that the removal of native oaks be compensated with a minimum of a one to one dbh replacement and gives further mitigation measures for compensation.

Proposed South Sacramento Habitat Conservation Plan

Pursuant to Section 10(a)(1)(B) of the ESA, the proposed South Sacramento Habitat Conservation Plan (SSHCP) presents a regional approach to preserve Federal and state endangered and threatened species and to streamline the existing development-permitting process in areas under development. Currently in draft, the SSHCP is a large-scale consolidated effort to protect and enhance wetlands (primarily vernal pools), aquatic, and upland habitats to provide ecologically viable conservation areas (County of Sacramento et al., 2010). The habitat conservation District covers 374,000-acre of south Sacramento County, California. It will preserve natural lands in Sacramento County and protect habitat for 30 special-status plant and animal species, including seven federally listed species. The SSHCP will be an agreement that will allow the County and cities to extend incidental take coverage to third parties. The SSHCP has not been finalized or approved and therefore does not have any regulatory capacity and is provided in this document for information purposes.

3.4.3 Discussion

METHODS AND ASSUMPTIONS

This section describes relevant regulations pertaining to biological resources and addresses potential impacts on biological resources that could result from proposed CWPP treatment (refer to Section 2.8.1, Primary Impact Types and Mechanisms). Information in this section is based on data collected through biological database searches, and review of other relevant documentation for the treatment sites and surrounding area.

Subdivision Treatments

Fifteen Subdivision Treatments areas are proposed in the CWPP and are described in this analysis using the numbers 1 through 15 to distinguish them. The location of these treatment areas are provided in Exhibit 3-3.

Timing of Impacts

- Reapplication of treatments would occur when needed.
- Grass and weeds in Subdivision and Defensible Space Zones would be removed yearly.

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 the U.S. Fish and Wildlife Service?

Less-Than-Significant with Mitigation Incorporated.

POTENTIAL FOR IMPACTS ON SPECIAL-STATUS PLANTS

Special-status plant species could occur within proposed treatment sites in the wetland, valley grassland (including vernal pools), oak woodland, and riparian habitat types (Table 3-2). Because of the sensitivity of these resources, the locations of special-status species should not be disclosed; therefore, no graphic is provided.

Many of the proposed fuel treatments around subdivisions and in the ARP intersect or are immediately adjacent to known and recorded special-status species (CNDDB 2014) including Boggs lake hedge-hyssop, Ahart's dwarf rush, legenere, and Sacramento orcutt grass. As a result, treatments could directly impact these plant species through damage or removal.

Some of the subdivision treatment sites are located in the Mather vernal pool core recovery area, as defined by USFWS (USFWS 2005). The Mather core recovery area was designated an important area for recovery of endangered and threatened species associated with vernal pool habitat. Vernal pools are generally located in valley grassland or oak woodland savannah land covers. Core areas are distinct areas in each vernal pool region that provide the features, populations, and distinct geographic and/or genetic diversity necessary to the recovery of a species. Sacramento orcutt grass, Slender orcutt grass, Bogg's lake hedge-hyssop, Ahart's dwarf rush, and legenere are listed as species protected under this recovery plan specifically within this core area. Critical habitat, habitat essential for recovery, for Sacramento and Slender Orcutt grass surrounds the Subdivision 9.

Other special-status species which could be disturbed by fuel reduction activities include big-scale balsamroot, dwarf downingia, Tuolumne button-celery, California black walnut, and pincushion navarretia. Peruvian dodder, woolly rose-mallow, and Sanford's arrowhead could be damaged through wetland disturbance, if wetlands are present, during sprinkler upgrades at the Effie Yeaw Nature Center.

Vegetation removal and soil disturbance from CWPP fuels reduction activities could result in removal or damage of special status-species within wetland, valley grassland, oak woodland and riparian land covers types. In addition to direct removal of individuals and habitat during discing or stripping of vegetation, grading, or other treatment disturbances, plants could suffer other direct physical damage, including breaking, crushing, and burying. Threats to rare plants through weed introduction is unlikely due to design criteria that washes and cleans equipment prior to treatment initiation (see Section 2.8.1, Environmental Commitments). Damaged plants may experience altered growth and development, or reduced or eliminated seed-set and reproduction, and mortality of individuals or populations can eventually result. If special-status species or rare plants were found within fuels treatments, road construction, or sprinkler upgrade areas, their loss or damage would be a **potentially significant** impact.

Mitigation Measure BIO-1: Special-status plant species.

Metro Fire will implement the following measures to reduce potential impacts on special-status plants:

1. Prior to treatment initiation and during the blooming period for the special-status plant species with potential to occur in the treatment site, a qualified botanist will conduct pre-construction surveys for special-status plants in areas where potentially suitable habitat would be removed or disturbed by treatment activities. Table BIO-2 summarizes the normal blooming periods for special-status plant species with potential to occur on or near the treatment sites, which generally indicates the optimal survey periods when the species are most identifiable.

2. If no special-status plants are found, the botanist will document the findings in a letter report to USFWS, CDFW, and Metro Fire and no further mitigation will be required.

3. If special-status plant species are found within treatment sites, the treatment activities will be redesigned to avoid impacts to the population. Redesign alternatives include changing the method of fuel removal or adjusting the location of the fuel break.

Significance after Mitigation

Implementing Mitigation Measure BIO-1 would reduce significant impacts on special-status plants to a **less-than-significant** level because it would require Metro Fire to identify and avoid special-status plants.

POTENTIAL FOR IMPACTS ON SPECIAL-STATUS INVERTEBRATES

Valley Elderberry Longhorn Beetle

Habitat for the valley elderberry longhorn beetle is found primarily in moist valley oak woodlands and riparian land cover types along the margins of rivers and streams in the lower Sacramento River and upper San Joaquin Valley. Within the District, it can be also be found in valley grassland near waterways. The ARPs habitat is considered essential for the recovery of the beetle according to USFWS (1984). Reproduction of the valley elderberry longhorn beetle is initiated in the spring, when adults feed on elderberry shrubs (*Sambucus* spp.). To be considered suitable for valley elderberry longhorn beetle reproduction, the main stem of the elderberry shrub should generally be greater than 1 inch in diameter. After hatching, larvae tunnel into the soft core of elderberry stems and excavate passages in the wood as they feed. Larvae may remain in this stage for as long as two years before they emerge into the light of day as adults.

Fuels treatments such as herbicide applications, prescribed burning, hand labor (pruning, weed-whipping), mechanical treatments (such as mowing, discing, grading, brushing), and grazing could cause beetle mortality through the removal or damage of elderberry stems and plants. Further, if any elderberry bushes are found along the proposed access road, they would require removal.

A valley elderberry longhorn beetle mitigation site is maintained within the Effie Yeaw Nature Center in the ARP. This mitigation site compensates for previous disturbance to valley elderberry longhorn beetle habitat and requires maintenance and protection from removal. The CWPP identifies sprinkler system improvements

at the Effie Yeaw Nature Center; however, because specific locations and types of sprinkler system upgrades have not been determined, it is possible that proposed upgrades to the sprinkler system may disturb and harm elderberry shrubs and roots through digging and trenching.

The loss or disturbance of elderberry shrubs that may support valley elderberry longhorn beetle from any of the proposed fuels reduction treatments would be a **potentially significant** impact.

Mitigation Measure BIO-2: Valley elderberry longhorn beetle.

Metro Fire will implement the following measures to reduce potential impacts on valley elderberry longhorn beetle:

1. All treatment areas within barren, agriculture (pasture), oak woodland, valley grassland or riparian habitat will be surveyed prior to treatment for elderberry bushes. Any elderberry bushes found with stems measuring one-inch diameter at ground level will be flagged and the following mitigation measures will be required.

    a. No prescribed burning or grazing will occur within treatment areas with known elderberry bushes.

    b. No use of herbicide or heavy equipment will occur within 100 feet of the outside edge of the driplines of elderberry plants.

    c. A qualified biologist will conduct an Environmental Awareness Training for work crews. The training will include the status of the beetle, the need to avoid damaging the elderberry plants, and the possible penalties for non-compliance with these requirements. All members of the fuels treatment crews will attend training on identification of elderberry bushes prior to treatment in known riparian, oak woodland and areas with known elderberry bushes.

    d. Any treatment area within 100 feet of an elderberry plant with at least one stem of a one inch diameter will adhere to the following measures, consistent with USFWS Service guidelines (1999):

        i. No treatment will occur within five-feet of the dripline of the elderberry plant.

        ii. Flagging will be required at a setback of five feet from the outside edge of the dripline to ensure compliance by crews.

        iii. Only mowing, pruning by hand, or weed-whipping will occur between 5 and 100 feet of the elderberry plant dripline from July through April to reduce fire hazards. Hand labor must be done in a manner that avoids damaging the elderberry plants, such as stripping away bark through careless use of the mowing/trimming equipment.

    e. No fuel treatments will occur within existing valley elderberry mitigation sites within the ARP. For proposed sprinkler upgrades occurring within existing valley elderberry mitigation sites in the Effie Yeaw, above measures (Mitigation Measure BIO-2 will be adhered to) to avoid disturbance of valley elderberry will be implemented and sprinkler upgrade installation will occur within a linear and narrow corridor.

Significance after Mitigation

Metro Fire would implement measures to avoid direct and minimize indirect impacts to valley elderberry longhorn beetle by limiting the use of mechanical equipment within 100 feet of elderberry shrubs and prohibiting any vegetation removal within 5 feet of elderberry shrubs. Therefore, the implementing mitigation measure BIO-2 would reduce impacts to valley elderberry longhorn beetle to a **less-than-significant** level.

Vernal Pool Branchiopods

Although vernal pool and seasonal wetland habitat is limited within the proposed treatment sites due to the high level of previous disturbance, it is possible that these pools could be present, especially in areas south of Highway 50. The vernal pool fairy shrimp (*Branchinecta lynchi*) and the vernal pool tadpole shrimp (*Lepidurus packardi*) occur within the District and potentially within treatment sites. The vernal pool fairy and vernal pool tadpole shrimps are listed as threatened and endangered respectively under the ESA. Parts of treatments within Subdivisions 9, 10, 11, and 12 (see Exhibit 2-6) coincide with past observations of these vernal pool brachiopods (CNDDB 2014). The Mather subdivision is currently surrounded by USFWS designated critical habitat for both species. Additionally, most of these treatments are located within the Mather Core Recovery area as defined by the USFWS in the Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon (2005). USFWS has designated this area as important for preservation and enhancement for these species.

Fuels reduction activities such as discing or grading within valley grassland could cause direct mortality of listed brachiopods if the hydroperiod of the vernal pool is altered by the fuels treatment. Mortality of vernal pool tadpole or fairy shrimp cause by fuels reduction activities would be a **significant** impact.

Mitigation Measure BIO-3: Vernal pool brachiopods.

In order to reduce impacts to listed vernal pool branchiopods, Metro Fire shall comply with one of the following:

- All valley grassland cover types will be surveyed by a qualified biologist for vernal pools and seasonal wetlands within 250 feet of treatment sites. All vernal pools and seasonal wetlands within treatment sites will be assumed to contain listed vernal pool branchiopods.

- Treatments will avoid impacts to listed vernal pool branchiopods. A buffer of 250-feet will be established with flagging or fencing around the perimeter of any vernal pool habitat within treatment sites. No fuels reduction activity will occur within flagged/fenced area(s).

Significance after Mitigation

Implementing Mitigation Measure BIO-3 would reduce significant impacts to vernal pool fairy and tadpole shrimp to a **less-than-significant** level because it would ensure that no direct or indirect impacts would occur by establishing a 250-foot protect buffer around vernal pool or seasonal wetland habitat.

POTENTIAL FOR IMPACTS ON SPECIAL-STATUS REPTILES AND AMPHIBIANS

Western Pond Turtle

Western pond turtle can be found in the District in aquatic habitat and upland habitats within 200 feet of water. Pond turtles require slower moving water and basking sites within water or logs or rocks for basking as well as adjacent unshaded upland areas for nesting. As described in Section 2.8.1, Environmental Commitments, the use of mechanized equipment will not occur within 50 feet of water bodies, which would minimize the likelihood that western pond turtles or their nests would be in the treatment area. They are also not likely to be in dense, yellow star-thistle habitat where prescribed burn treatments are proposed. The potential for injury or mortality of western pond turtle or their eggs as a result of fuels reduction activities would be minimized and would be a **less-than-significant** impact because mechanized equipment would not be used within 50 feet of aquatic habitat and the disturbance to upland habitats in this area would be minimal.

Giant Garter Snake, California tiger salamander, western spadefoot toad.

Giant garter snake and California tiger salamander are protected as a state and federally threatened species. Western pond turtle and western spadefoot toad are designated by CDFW as species of special concern.

Giant garter snake can occur in the District in aquatic habitat and uplands habitats within 200 feet of water. Subdivision treatments that are likely to have Giant garter snake habitat in or near treatment areas include: Subdivisions 2, 3, 10, 11, 12, and 14. Giant garter snakes avoid faster rivers such as the Cosumnes or American as they do not provide suitable foraging habitat. Therefore, Giant garter snakes are not likely to be found within the ARP. They require sufficient water with emergent vegetation in the summer with vegetated banks adjacent to water for basking. Upland habitat that provides cover and refugia from floodwaters in the dormant winter season is necessary for giant garter snake survival.

Western spadefoot toad would be found throughout the District in seasonal wetlands, shallow pools, or vernal pools for breeding and adjacent uplands areas in grasslands or oak woodlands with sandy, gravelly soil for estivation and hibernation.

California tiger salamander habitat would be found in grassland and oak woodland communities within or near vernal pools and ephemeral wetlands in the District. The known distribution of this species occurs on the eastern side of the County (CDFG 2010) and, therefore, suitable habitat may only be found around the Rancho Murieta treatments (Subdivisions 14 and 15).

Impacts from proposed fuels treatments may cause individual mortality at giant garter snake upland basking sites, tiger salamander and spadefoot toad estivation sites or burrows. Heavy equipment could potentially crush estivation burrows, individuals, or young in the uplands. The potential for take of giant garter snake, California tiger salamander, western spadefoot toad, as a result of fuels reduction activities is a **potentially significant** impact because individuals in the uplands could be injured or killed through crushing or trampling.

Mitigation Measure BIO-4: Giant garter snake, California tiger salamander and western spadefoot toad.

Giant Garter Snake

Metro Fire will implement the following measures to avoid or minimize loss of adults or young of giant garter snake:

- Prior to the implementation of individual CWPP activities, Metro Fire will retain a qualified biologist to conduct surveys to document potential giant garter snake aquatic habitat within 200 feet of fuels reduction sites. Suitable habitat is described above and in Table BIO-3. Only the Subdivisions 2, 3, 10, 11, 12, and 14subdivisions will be surveyed for potential habitat.

- All ground-disturbing activities within 200 feet of aquatic habitat suitable for giant garter snakes will be conducted during the snake's active season of May 1 to October 1 so that snakes can move and avoid danger.

- If treatment occurs outside of the giant garter snake active season, ground disturbing activities that might crush estivation sites such as discing or grading will not occur. Hand labor, mowing, grazing and other non-ground disturbing activities could occur within this area.

California Tiger Salamander

Metro Fire will implement the following measures to avoid or minimize impacts on California tiger salamanders around Subdivisions 14 and 15:

- Ground disturbing activities such as discing or dozer lines will be prohibited within Subdivisions 14 and 15 treatments. Hand labor, mowing, grazing and other non-ground disturbing activities can occur within this area.

- Prior to treatment implementation, the treatment sites around Subdivisions 14 and 15 will be surveyed for potential breeding areas. If potential breeding areas occur within treatment sites, a buffer of 50 feet from the edge of the breeding pond should be established.

- Metro Fire will implement BMPs to prevent sediment from entering suitable California tiger salamander habitat near treatment sites, through the use of silt fencing and sterile hay bales, and through other measures (no plastic netting).

Western Spadefoot Toad

To minimize impacts to western spadefoot toad estivation or hibernation sites, Metro Fire will implement Mitigation Measure BIO-3. This measure requires a 250-feet treatment buffer to be established with flagging or fencing around the perimeter of any vernal pool habitat within treatment sites. No fuels reduction activity would occur within flagged/fenced area(s).

Significance after Mitigation

Implementation of Mitigation Measure BIO-4 would reduce the CWPP's potentially significant impacts to northwestern pond turtle, giant garter snake, California tiger salamander, and western spadefoot toad to a **less-than-significant** level because it would ensure that no direct or indirect mortality of listed individuals of giant garter snake and California tiger salamander and minimizes mortality of western spadefoot toad because work will either avoid suitable habitat, prevent degradation to suitable habitat or would occur during the giant garter snake active season.

POTENTIAL IMPACT ON SPECIAL-STATUS BIRDS AND RAPTORS

Implementation of the CWPP proposed fuels treatment activities could result in loss of nests of common birds that are protected by MBTA. Loss of active nests of common species during treatment activities would not substantially reduce the abundance of any species, nor cause any species to drop below self-sustaining levels. As such, potential adverse effects on common migratory birds would not alone constitute a significant impact as defined by the significance criteria established for this document. Therefore, impacts to common migratory birds are not further addressed as a CEQA issue in this IS/MND.

Special-status Birds

Tricolored Blackbird, Grasshopper Sparrow, Yellow-breasted Chat, Loggerhead Shrike, Bank Swallow, and Yellow-headed Blackbird

Tricolored blackbird, grasshopper sparrow, yellow-breasted chat, loggerhead shrike, bank swallow, and yellow-headed blackbird are considered special-status species and could nest within or near treatment units. Loggerhead shrike, grasshopper sparrow, yellow-breasted chat, and yellow-headed blackbird are designated by CDFW as species of special concern. Bank swallow is a threatened species protected under CESA. Bank swallow and grasshopper sparrow records are located within the planning boundary (CNDDB 2014).

Five previous bank swallow nesting sites are located District, three within the America River Parkway and two near Rancho Murieta along the Cosumnes River. One of these records is about 150 feet from the Subdivisions 14 and 15treatments. Because treatments are located at or greater than 150 feet from any banks, and minimization measures generally call for 50-foot disturbance buffers, treatments will likely not disturb this site, if occupied.

Tricolored blackbird records are located throughout the District but mainly in the southern portion. Sites are located near proposed treatments; one past nesting site is at the boundary of the subdivision treatment on Grantline Road. Noise disturbance from fuels treatments may cause nest abandonment if this colony still occupies this site.

Fuels reduction treatments and construction of the new fire access road would remove shrubs and small trees and thus would remove potential nesting substrates for special-status species. If special-status species

are nesting within the vegetation to be removed, treatment activities associated with the proposed CWPP could result in the loss of the nest and/or mortality of birds, chicks, or eggs.

In addition, fuels reduction activities, sprinkler system upgrade, and the construction of the new fire access road during the breeding season near active nests could disturb special-status species if they are nesting nearby. Noise disturbance from mechanized equipment or hand labor removal, smoke from prescribed fire or visual disturbance could result in nest abandonment, failure, and/or mortality of chicks or eggs, or adults. Special status species nests located within and near proposed treatment sites could also be disturbed or fail as a result of these CWPP activities during the breeding season. The CWPP treatment activities could, therefore, result in potential nest disturbance (potentially annually).This would be a **potentially significant impact** with respect to loss of nest and/or mortality of birds, chicks, eggs, or adult special-status species.

Mitigation Measure BIO-5: Special-status birds and nesting sites.

Metro Fire will implement the following measures to avoid or minimize loss of adults or young of tricolored blackbird, yellow-breasted chat, loggerhead shrike, bank swallow, and yellow-headed blackbird and other special-status nests:

- To minimize the potential for loss of active special status species nests, CWPP activities will commence during the nonbreeding season (September 1-February 15), including removal of grassland, shrub, and woodland vegetation. If all suitable nesting habitat is removed during the nonbreeding season, no further mitigation will be required.

- If activities occur during the breeding season (February 1-August 31), prior to commencing any CWPP activities, Metro Fire will retain a qualified biologist to conduct preconstruction surveys for special-status species birds on and within 50 feet of any treatment site. The surveys will be conducted no more than seven days before activity commences.

- If active special-status nests are found, a 50-foot no-disturbance buffer will be established around the nest site until the breeding season has ended or a qualified biologist determines the young have fledged

Significance after Mitigation

Implementation of Mitigation Measure BIO-5 would reduce significant impacts on special-status birds to a **less-than-significant** level because it would avoid the potential disturbance or loss of active nests; therefore, CWPP activities would not result in adult mortality, nest abandonment and loss of eggs or young for special-status species.

Swainson's Hawk and Other Nesting Raptors

Within the District, CNDDB (2014) records for nesting raptors include: burrowing owl, Cooper's hawk, Swainson's hawk, and white-tailed kite. All these species could potentially nest within the District. All raptors are protected under Section 3503.5 of the Fish and Game Code. Swainson's hawks are threatened species protected under CESA. White-tailed kites are Fully Protected Species under California Fish and Game Code. Northern harrier, short-eared owl, and burrowing owl are designated by CDFW as species of special concern. Other protected raptors known to nest in the District include osprey, American kestrel, red-tailed hawk, red-shouldered hawk, great horned owl, and barn owl.

Fuels reduction activities, sprinkler system upgrade, and the construction of the new segment of unpaved fire access road during the breeding season near active nests could disturb Swainson's hawks or other raptors if they are nesting nearby. While treatment would occur over a day or two in one area, noise disturbance from mechanized equipment such as chainsaws, chippers or brush/tree removal equipment smoke from prescribed burns or visual disturbance could result in nest abandonment, failure, and/or mortality of chicks or eggs, or adults if treatments are near nests. Flushing of nests near treatments could cause predation of nest and ultimately nest failure. Fuels reduction treatments would not remove trees greater than 6 inches and, thus, would not remove potential nesting trees for any raptors. However, potential

nesting trees may be removed through establishment of a new paved access road. Additionally, mowing, discing, prescribed burning, or shrub and tree removal could crush nests of burrowing owls, which use burrows, or northern harriers, which nest on the ground. If special-status raptor nesting is disturbed from CWPP treatment activities, ground nests are removed, or nest trees are removed along the fire access road, this would be a **potentially significant** impact.

Swainson's Hawk Foraging Habitat

Swainson's hawk foraging habitat in unincorporated areas of the Sacramento County is protected under the Sacramento County Swainson's Hawk Ordinance (SCC No. 1328). Swainson's hawks forage on rodents in open areas of grassland or agricultural habitat. The intent of the ordinance is to mitigate for removal and fragmentation of foraging habitat from development. The proposed CWPP activities would maintain open space grassland habitat through clearing of dense shrubs or trees as well as mowing and discing of annual grasslands within fire breaks. While the vegetation and soil would be disturbed, rodent populations are expected to persist. The quality of the foraging habitat is not expected to change as a result of the fuel reduction; therefore, impacts to Swainson's hawk foraging habitat would be **less-than-significant**.

Mitigation Measure BIO-6: Swainson's hawks and other nesting raptors.

Swainson's Hawk and Other Nesting Raptors.

The following measures will be implemented and will avoid, minimize, and fully mitigate impacts on Swainson's hawk, as well as to other raptors (such as red-tailed hawk, red-shouldered hawk, white-tailed kite, and great horned owl):

- Necessary removal of any large trees associated with the new access road and removal of large snags within the Rossmoor burn areas will be completed outside of the breeding season (between September 1 and January 31).

- For treatment activities occurring between February 1-August 31 within grassland habitat, Metro Fire will retain a qualified biologist to conduct preconstruction surveys for ground nesting northern harriers within treatment sites.

- For treatment activities occurring between February 1-August 31, that would involve chainsaws, chippers, or mechanized equipment for the removal of brush or trees, Metro Fire will retain a qualified biologist to conduct preconstruction surveys for Swainson's hawk and other nesting raptors and to identify active nests on and within 500 feet of the treatment sites. The surveys will be conducted no more than 30 days before the beginning of treatment activities that could disturb nesting raptors. To the extent feasible, guidelines provided in Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in the Central Valley (Swainson's Hawk Technical Advisory Committee 2000) will be followed.

- If active nests are found, impacts on nesting Swainson's hawks and other raptors will be avoided by establishing appropriate buffers around the nests. A 500-foot buffer will be required for Swainson's hawks and other raptors. No treatment activity will commence within the buffer area until a qualified biologist confirms that any young have fledged and the nest is no longer active. For Swainson's hawk nests, DFG guidelines (1994) recommend maintenance of 0.25 mile buffers around Swainson's hawk nests in developed areas, but the size of the buffer may be adjusted if a qualified biologist, in consultation with CDFW, determines that such an adjustment would not be likely to adversely affect the nest. Since only a few Swainson's hawk nests occur along the ARP because their foraging habitat is limited, nests are likely to be few near the highly urban and suburban areas of proposed treatments. Therefore, while Swainson's hawk nests may be in the Parkway, their disturbed would be limited. Thus, the disturbance buffer has been decreased for this plan. Monitoring of the nest by a qualified biologist will be required if the activity has potential to adversely affect the nest.

Burrowing Owl

Metro Fire will implement the following measures to reduce impacts on burrowing owl:

- Metro Fire will retain a qualified biologist to conduct focused breeding and nonbreeding season surveys in barren, grassland and oak woodland land cover types for burrowing owls in areas of suitable habitat on and within 1,500 feet of the treatment sites. Surveys will be conducted prior to the start of treatment activities and in accordance with Appendix D of CDFW's Staff Report on Burrowing Owl Mitigation (2012) (2012 Staff Report).

- If no occupied burrows are found, a letter report documenting the survey methods and results will be submitted to CDFW and no further mitigation will be required.

- If an active burrow is found during the nonbreeding season (September 1 through January 31), Metro Fire will consult with CDFW regarding protection buffers to be established around the occupied burrow and maintained throughout CWPP activities

- If an active burrow is found during the breeding season (February 1 through August 31), occupied burrows will not be disturbed and will be provided with a 1,500-foot protective buffer unless a qualified biologist verifies through noninvasive means that either: 1) the birds have not begun egg laying, or 2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. The 1,500-foot buffer may be reduced if a broad-scale, long-term, monitoring program acceptable to CDFW is implemented to ensure burrowing owls are not detrimentally affected. Once the fledglings are capable of independent survival, the owls can be evicted and the burrow can be destroyed per the terms of a CDFW-approved burrowing owl exclusion plan developed in accordance with Appendix E of CDFW's 2012 Staff Report.

- If active burrowing owl nesting, occupied, or satellite burrows are found on the treatment sites the district will create a 50 foot buffer around the site and no ground disturbing activities such as disking or grading will occur within that buffer.

Significance after Mitigation

Implementation of Mitigation Measure BIO-6 would reduce impacts to Swainson's hawks and other nesting raptors to a **less-than-significant** level because it would ensure that these species are not disturbed during nesting and that CWPP activities would not result in nest abandonment and loss of adults, eggs, or young.

POTENTIAL IMPACTS ON SPECIAL-STATUS MAMMALS

Special-status mammals with potential to occur within the proposed treatment areas are limited to two bat species. Pallid and western red bats are considered Species of Special Concern by the California Department of Fish and Wildlife. Both species utilize large trees for maternity roosting. Deciduous mature trees around greater than 16 inches dbh (Pierson et al. 2006) could support roosting western red bats that are known to roost in riparian areas; oaks, pine, or riparian trees could be used by pallid bats. Day roosts are used throughout the spring and summer and maternity colony roosts can be active from approximately early April until August. Hibernation is generally not likely to occur in the Central Valley where temperatures are mild in the winter (Johnston 2004), but roosting bats still occur in these areas during those times.

It is unknown if any trees within treatment areas provide suitable thermal or structural conditions for roosting bats. However, if any of the large trees within treatment sites are used as a day roost, or maternity colony roost, their removal for the road construction nearby could result in injury or mortality of these sensitive bats. These effects could occur from direct physical harm to individuals or from untimely roost abandonment (e.g., death of young that cannot care for themselves due to abandonment of a maternity roost).

Large tree removal (greater than sixteen inches dbh) during construction of the unpaved access road could result in injury and mortality of individual bats and would be a **potentially significant** impact on special-status bat species.

Mitigation Measure BIO-7: Special-status bat species.

- Avoid removal of trees greater than sixteen inches dbh during access road construction.
- If trees cannot be avoided, retain a qualified biologist to conduct surveys for roosting bats in areas of large tree removal (e.g. the construction of the access road). Surveys will consist of daytime pedestrian surveys to look for visual signs of bats (e.g., guano) and/or evening emergence surveys to note the presence or absence of bats, if determined necessary. If evidence of bat use is observed, the number and species of bats using the roost will be determined. Bat detectors may be used to supplement survey efforts. If no evidence of bat roosts are found, then no further study shall be required.
- When roosting sites are located in trees to be removed, removal shall occur outside of the nursery seasons April through August.
- If roosts of pallid or western red bats are determined to be present and must be removed, the bats will be excluded from the roosting site before the tree is removed. Exclusion methods may include use of one-way doors at roost entrances (bats may leave but not re-enter), or sealing roost entrances when the site can be confirmed by a bat expert to contain no bats.
- Exclusion efforts would be restricted to outside the nursery season (September through March).
- Prior to the nursery season nursery sites can be sealed.

Significance after Mitigation

Implementation of Mitigation Measure BIO-7 would reduce significant impacts to special-status bat species to a **less-than-significant** level because it would minimize direct mortality of individuals of these species as a result of large tree removal.

POTENTIAL IMPACT ON SPECIAL-STATUS FISH

All river reaches and estuarine areas accessible to listed steelhead and Chinook salmon in the Sacramento and San Joaquin Rivers and their tributaries in California are habitat for these species (National Marine Fisheries Service 2005). Steelhead trout and Chinook salmon may be within the vicinity of proposed CWPP activities during their upstream migration period from November through May.

Sacramento splittail may be present in the American river at various times of the year, depending on flood conditions and water quality. Adult foraging and spawning migrations occur in the American River every year, normally from March through mid-May, and may have larvae migrating in April and May.

Treatments near the American and Cosumnes Rivers would not likely affect individual fish of these protected fish species. As described in Section 2.8.1, Environmental Commitments, design criteria for fuel treatments will include prevention of soil erosion and canopy cover changes within riparian or oak woodland stream bank habitat, use of mechanized equipment will not occur within 50 feet of water bodies or designated riparian areas, and herbicide treatment in areas adjacent to water bodies, riparian areas, and primary drainage access would be avoided per requirements set forth by the California Department of Pesticide Regulation (i.e. follow all herbicide labels and direction in determining applications near water resources or riparian habitats. Limit aerial application to greater than 100 feet from water resources; limit ground and hand application to greater than 50 feet). The construction of a new segment of unpaved access road and sprinkler system upgrades would not cause sedimentation into the river. Thus, there would be no changes to turbidity, water temperature, or water quality as the result of proposed CWPP activities. Impacts to these protected fish species would be **less-than-significant**.

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 the U.S. Fish and Wildlife Service?

Less-Than-Significant with Mitigation Incorporated.

Potential Impacts to Riparian Woodland and Native Perennial Grassland

Approximately 43 acres of riparian woodland and 366 acres of valley grassland is located within CWPP treatment sites. Riparian woodland within the treatment sites occurs mainly within the ARP with only eight acres located within subdivision fuels treatments outside the parkway. Approximately 55 acres of riparian habitat is located within the Effie Yeaw nature preserve sprinkler system upgrade; however, only approximately one acre would be disturbed because the upgrade would occur within a linear and narrow corridor. Most of the riparian area outside the ARP is at Subdivisions 14 and 15, located along the Cosumnes River. One small portion of Subdivision 1 includes minimal riparian vegetation proposed to be treated.

Valley grassland occurs mainly within subdivision treatments. Most of this habitat is likely to be nonnative annual grassland due previous disturbance from subdivision construction. However, site-specific surveys would need to confirm this and this analysis assumes that native perennial grassland may occur on these sites.

Riparian woodlands and native perennial grassland are considered sensitive because they are declining in quantity and condition throughout the region and because they provide important habitat functions. The Sacramento County 2030 General Plan, ARP Plan, and Rancho Cordova General Plans include goals and policies for the protection and mitigation of impacts to riparian woodland. Rancho Cordova requires a no net loss of existing function for riparian areas with policy NR 1.9. Sacramento County policy CO-59 states that any loss or modification of riparian habitat would be mitigated. Native perennial grassland is considered a sensitive natural community by CDFW and any removal requires mitigation by County policy CO-59.

Because the proposed fuels reduction treatments and the sprinkler upgrade system would not remove overstory canopy in riparian communities, there would be no loss of riparian woodland habitat from fuels reduction treatments. Proposed fuels reduction treatments might alter native perennial grassland (if present) structure and function through mowing and remove it through discing; essentially removing it for burn by wildlife. The majority of removal would be around subdivisions which are already highly disturbed and do not likely benefit native wildlife or native perennial grassland ecosystem function. The permanent loss of native perennial grassland would be **less than significant** because the removal of these narrow (100 foot) linear swaths of habitat that are highly disturbed is not likely to substantially degrade native wildlife or ecosystem function of this habitat type in the Sacramento Valley.

Modification of riparian habitat from fuels reduction activities would occur as a result of removal of understory vegetation including small trees, shrubs, and herbs. This modification can be considered permanent because they would be re-treated as vegetation density returns. The alteration of riparian habitat from fuels reduction activities would not be substantial because only understory vegetation is being thinned and species composition would not substantially change. While the riparian habitat would still remain intact, the reduction of understory density may result in shifts of wildlife and plant species use of these habitats to species that prefer more open, spacious understories. Adjustments in species composition would not be a significant or substantial change to the function of these habitats on the landscape given they are already in highly disturbed areas and treatment areas are generally linear fragments of the habitat. Large acres of riparian habitat are located in the Rossmoor burn areas and the sprinkler system upgrade areas. The Rossmoor burn areas have already been degraded through wildfire. The burn areas would only be treated once and include pruning lower dead branches of oak trees, removal and piling away of the dead material away from trees, and weed-whip/mow the grass under the trees. This small amount of vegetation treatment is not likely to alter the remaining functionality of this habitat, especially because it is only affecting dead material and herbs. The sprinkler system upgrade already has an existing system in place that is maintained

and is likely to remove minimal shrub and herbaceous species through digging and trenching. However, the new unpaved fire access road would remove less than one acre of riparian habitat and would result in permanent loss of a sensitive natural community.

California Fish and Game Code Section 1602 regulates activities that would affect streams and their associated riparian habitat. As described in Section 2.8.1, Environmental Commitments, protection for soil immediately around waterbodies is included within design criteria for treatment of fuels activities and in the Mitigation Measure BIO-3 for waters of the United States. All these measures would prevent soil disturbance from stream banks immediate near waterbodies within the treatment areas. Permanent removal of riparian habitat or alternation of stream banks by grading or discing along the American or Cosumnes River, and removal of less than one acre of riparian habitat along the new unpaved fire access road, may require a streambed alteration agreement with CDFW.

The permanent loss of riparian habitat would be **potentially significant** because it is a sensitive natural community of limited distribution and of high value to fish and wildlife species.

Mitigation Measure BIO-8: Riparian woodland.

If riparian habitat is removed from the new unpaved fire access road and fuels reduction activities, then the following measures will be implemented to minimize, avoid, and compensate for impacts to riparian habitat and avoid potential conflicts with CDFG code 1602 and the local policies that protect them.

- To the extent practicable, and in consideration of other design requirements and constraints (such as meeting primary treatment objectives and needs, avoidance of other sensitive resources, etc.), Metro Fire will attempt to design the fire access road and fuels reduction activities to minimize the removal of riparian vegetation, particularly trees that contribute to the overstory canopy of these communities.

- Metro Fire will notify DFG before commencing any activity within the bed, bank, or riparian corridor of any waterway. If necessary, Metro Fire will obtain a Lake and Streambed Alteration Agreement from DFG and conduct CWPP fuels reduction activities and paving of the new fire access road in accordance with the agreement, including implementing reasonable measures in the agreement necessary to protect the fish and wildlife resources, when working within the bed or bank of waterways that function as a fish or wildlife resource or in riparian habitats associated with those waterways.

- Metro Fire will prepare and implement a riparian woodland restoration or enhancement plan for these elements of the plan. The primary goals of the plan will be to compensate for the treatment-related loss or degradation of riparian woodland habitats, and achieve a no-net-loss of habitat acreage and functions over the long term through vegetation planting or other habitat enhancement actions. The plan will consider and incorporate the applicable policies and implementation measures related to riparian conservation and mitigation in the Sacramento County 2030 General Plan (Sacramento County 2011a), including Policies CO-58, CO-59, CO-60, CO-61, CO-62, and their associated implementation measures. Implementation of this plan may be achieved in suitable locations on the CWPP area.

Significance after Mitigation

Implementing Mitigation Measure BIO-8 would reduce significant impacts to riparian woodlands and native perennial grassland to a **less-than-significant** level because CWPP activities would be designed to avoid removal of riparian habitat or replace riparian habitat for any loss that occurs.

Potential Impact to Oak Woodland

Implementation of the CWPP and its associated fuels reduction activities would alter the understory of some oak woodland habitat but would not remove any stands of oak woodland or remove overstory canopy within the District. Oak woodlands stands would remain intact after treatment. Therefore, implementation of the CWPP would not result in conversion of oak woodlands or loss of oak woodland canopy and would result in **no impact**.

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, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less-Than-Significant with Mitigation Incorporated.

The proposed upgrade to the Effie Yeaw Nature Center sprinkler system could result in direct impacts to jurisdictional waters within the District. This action would entail trenching and digging. Because no site specific habitat analysis is available, it is possible that wetlands areas may be included within the sprinkler upgrade footprint. If any wetlands areas are to be trenched or dug up, or any areas within 50 feet of wetlands are to be trenched or dug up, a permit for fill by the USACE might be required. Indirect impacts could occur through sedimentation from soil erosion after treatments into waterbodies, wetlands, or vernal pools.

Prescribed burning has specific setbacks for waterbodies (from 25 feet for 5% slopes to 250 feet for 10% slopes) and other BMPs to avoid soil erosion into Waters or wetland habitats. Additionally, the current location of the proposed burn is about 80 feet from the American River, on flat ground and not likely to cause sedimentation into the river. The proposed access road is about 190 feet from the American River and on a cliff, therefore, sedimentation into the river from road construction is unlikely. No heavy mechanical fuels treatments (discing, dozer use) would occur in drainage channels, run-off areas or dry streambeds, within 50 feet of any waterbodies or riparian habitat, but wetlands areas would not have this buffer and other treatments that may cause soil disturbance such as grazing, are not restricted near these areas. Indirect impacts of sedimentation from grazing or heavy mechanical equipment use near wetlands and direct disturbance of wetlands from the sprinkler system upgrade could have a **significant** effect on wetlands of the United States.

Herbicide treatment within 50-100 feet of water resources could negatively impact water quality and wetland plant species. Herbicide could drift into the water or precipitation may cause runoff of applied herbicide into nearby waters or wetlands of the United States. Design criteria within the proposed CWPP would limit application of herbicide near water bodies and riparian habitat (50 to 100 feet) require following all California Department of Pesticide Regulations, and following all herbicide labels and directions for determining applications near water resources or riparian habitats. No indirect affects would occur to waters of the United States because use of herbicide would be limited through the treatment BMPs (As described in Section 2.8.1, Environmental Commitments,). With these design criteria, indirect impacts of herbicide on water quality and wetland plants would have a **less-than-significant** impact on waters of the United States.

Mitigation Measure BIO-9: Wetlands and waters of the United States.

Metro Fire will implement the following measures to reduce potential impacts on waters of the United States:

- A person qualified to perform wetland delineations (in accordance with the most recent USACE delineation manual) shall inspect treatments areas, determine if wetlands are present, and provide written documentation of the findings. This need not include a formal wetland delineation if the site investigator determines a finding of negative presence can be made without the delineation. If wetlands are not present, no further action is required. If wetlands are present, the following measure shall apply.

Significance after Mitigation

Implementation of Mitigation Measure Bio-9 would reduce significant impacts on waters of the United States to a **less-than-significant** level because it would ensure no net loss of functions and acreage of waters of the United States.

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?

Less-Than-Significant with Mitigation Incorporated.

Colonial Nesting Sites

Great Egret and Blue Heron Rookeries

Three Great blue heron (*Ardea herodias*) and two Great egret (*Ardea alba*) rookeries are located within the ARP, at Sacramento Bar (Great blue heron), Mississippi Bar (both), and by William Pond Park (both). These rookeries are greater than 1/4 mile from proposed treatment sites and are not likely to be disturbed from treatments. However, if unknown rookeries are present near treatment sites, the noise or visual disturbance from these treatments could cause nest abandonment at these rookeries. Therefore, the CWPP treatment activities could result in potential nest abandonment and loss of eggs or young at rookery sites. This loss of a colony's nests (potentially annually) could be a substantial impact on the population.

The proposed CWPP could result in a **potentially significant** impact with respect to loss of nest and/or mortality of birds, chicks, eggs, or adults for colonial nesting sites of great egrets and blue herons.

Migratory Birds

The District is located within the Pacific flyway, which is a major north-south route for migratory birds along western North America. Large numbers of waterfowl, shorebirds, and cranes move through the area seasonally and congregate in wetlands, grasslands, and agricultural fields for winter or use them as resting grounds during longer migrations from the Arctic to Central or South America. Many treatments are also located on the American River corridor, which is a significant east-west corridor for animal movement. Many migratory birds utilize the grasslands and oak woodlands for food, cover and nesting. However, the CWPP would not create a barrier to movement of migratory species or alter the character of existing habitat available to migrating birds. Habitat to be treated is generally low quality habitat as it is immediately adjacent to the urban interface. Any disturbance impact to high quality habitat such as riparian areas or native perennial grassland, would be temporary and would occur on a small portion of the habitat, leaving the surrounding area available for use by migrating animals. The activities proposed under the CWPP would, thus, not affect a substantial amount of migrating or reproductive animals. The impact is **less than significant**.

Mitigation Measure BIO-10: Wildlife nursery sites.

Metro Fire will implement the following measures to avoid or minimize loss of eggs or young to great egret and great blue heron rookeries:

- To the extent feasible, all treatments in the ARP will be completed before the breeding season (February 1-August 31st).
- If treatments occur within the ARP during the breeding season, a survey for rookeries within 300 feet of the treatment area will be conducted by a qualified biologist during the breeding season (February 1-August 31st).
- If treatments occur within the ARP during the breeding season, no treatments will occur within 300 feet of a rookery and shall not resume until the breeding season has ended or a qualified biologist determines the young have fledged

Significance after Mitigation

Implementation of Mitigation Measure BIO-10 would reduce significant impacts on wildlife nursery sites to a **less-than-significant** level because it would avoid the potential disturbance or loss of active nests; therefore,

CWPP activities would not result in adult mortality, nest abandonment and loss of eggs or young for wildlife nursery sites.

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

Less-Than-Significant with Mitigation Incorporated. The Sacramento County 2030 General Plan and Rancho Cordova General Plan contain policies requiring no net loss of wetlands and vernal pools. (No treatments are proposed in Citrus Heights.) The proposed CWPP would satisfy these requirements through compliance with the no-net-loss policy as part of compliance with Section 404 of the CWA. Impacts on wetlands and vernal pools are addressed under "c" above and implementation of Mitigation Measure BIO-3 requires avoidance of these habitats consistent with County Policies CO-58 through CO-62 and (for wetlands only) with Rancho Cordova General Plan Policies N.R. 2.1 and N.R. 2.2 which require protection and preservation of these habitats. Impacts to riparian habitat are addressed under "a" above and impacts reduced by implementation of Mitigation Measure BIO-8. They are also consistent with County Policies CO-58 through CO-62 and Rancho Cordova General Plan Policy N.R. 1.9. In addition, the CWPP would comply with the County's Swainson's Hawk Ordinance as no loss of foraging habitat would occur. Fuels treatments and vegetation removal are consistent with the Rancho Cordova Plan Policy S.9.1.7 and ARP policies 3.2.3, 7.3, 3.2.4, 9.17, and 9.18. Therefore, the CWPP would not conflict with these local policies or ordinances protecting biological resources.

The Sacramento County Tree Preservation Ordinance (12.12) applies to native oaks (greater than 6 inches, dbh) (at 4.5 feet above ground), or multiple trunks greater than 10 inches dbh, heritage oak trees over 60 inches in circumference, public trees or landmark trees. It provides protection for trees within the designated urban area of the unincorporated area of Sacramento County; the City of Rancho Cordova has also adopted this tree ordinance. Almost all treatments are located within this designated area and are subject to this ordinance except the area directly around Saddle Back Creek (Subdivision 12), a small portion of Elder Creek (Subdivision 11), the Folsom South Canal (Subdivision 13), the preserve areas within the Subdivision 10 and in the ARP, which are considered Recreational or the Natural Preserve areas surrounding the Sheldon Hills subdivision. Treatments within these areas would not be subject to the Sacramento County Tree Preservation Ordinance.

Sacramento County General Plan Policies protect native trees and oak trees and require mitigation. CO-139 requires that any trees native to California greater than 6 inches dbh are protected and requires in-kind and one-to-one dbh replacement for removal. Policy CO-140 requires native oak woodland and oak savannah tree canopy to be replaced, and replacement of native oaks with a minimum one to one dbh replacement.

Only trees 6 inch dbh or less would be removed in proposed fuels treatment activities. Therefore, none of the trees to be directly removed by fuels treatments would be protected by the Sacramento County Tree Preservation and Protection Ordinance (19.12), or the Sacramento County General Plan Policies. However, the new unpaved fire access road would result in the removal of less than one acre of riparian habitat, potentially including oak trees and trees greater than 6 inches dbh. Thus, trees may be removed that are protected under this tree removal ordinance and these County policies.

Indirect impacts that could damage protected trees involve those impacts that scar or maim tree parts which could cause a loss of vitality and lead to mortality. Prescribed burning, in particular, could damage roots by burning them on the top of the soil or through overheating roots beneath the surface if the temperature or soil moisture is too high. The proposed prescribed burn site has no trees located within the perimeter; therefore no protected trees would be damaged or killed in this manner. Heavy mechanical equipment such as tractors with mowing equipment and dozer work for grading, could crush, rip or otherwise damage trees, their roots and their functionality. The sprinkler system upgrade may involve trenching or digging within the dripline of heritage, landmark or trees greater than 6 inches dbh. Discing is not likely to occur in the dripline of trees as it will mainly be implemented in grassland, while dozer line for fuel breaks could occur within the dripline of trees. Direct removal or post-treatment tree mortality that affects non-native tree canopy, heritage trees, or native trees (greater than 6-inch dbh) would conflict with these local ordinances and policies.

The Sacramento County Public Tree Ordinance (19.04) provides protection for heritage trees, landmark trees and public trees greater than six inches dbh that are planted or maintained by the county. Altering the trees in any way requires a tree permit. The intent of this ordinance is for landscaped trees that are public property. While only trees greater than six inches dbh or less would be removed in fuels treatment activities, trimming or pruning of trees may take place. The majority of treatments would occur in natural habitat and not on landscaped trees. However, some areas around subdivisions or within the ARP could have county landscaped trees that require maintenance. Altering a public tree as defined by this ordinance by fuels treatments would be a **potentially significant** impact.

Mitigation Measure BIO-11: Tree preservation ordinance.

Metro Fire will avoid, to the extent feasible, removal or damage to all native oaks and non-oak trees (greater than six inches dbh or ten inches aggregate dbh), landmark trees, or heritage trees. If avoidance is not feasible, Metro Fire will be required to mitigate damage to these trees. In accordance with the Sacramento County Tree Preservation Ordinance (12.19), and Sacramento County General Plan Policies, the following mitigations measures will be required to mitigate damage to these trees to prevent mortality during fuels reduction activities or sprinkler system upgrades.

- If trees with dbh of six inches or greater need to be removed, a survey to determine if the tree qualifies as a landmark or heritage tree will be conducted by a qualified arborist.
- A circle with a radius measurement from the trunk of the protected tree to the tip of its longest limb shall constitute the dripline of the tree.
- All landmark and heritage trees will be given suitable guards around the bases of their trees to protect them during fuels reduction operations that involve heavy mechanized equipment.
- No vehicles, heavy equipment or materials will be driven, parked, or stockpiled within the dripline of a protected tree.
- For sprinkler system upgrades, all irrigation lines will be routed outside the driplines of protected trees. If lines must encroach upon the dripline they will be tunneled or bored under the trees.
- Grading or dozer line similar to grading beneath trees to be saved will be given special attention. Every reasonable effort will be made to avoid creating conditions adverse to the tree's health. The natural ground within the driplines of protected trees will remain as undisturbed as possible. No grade cuts greater than one foot will occur within the driplines of oak trees, and no grade cuts whatsoever will occur within five feet of their trunks
- To the extent practicable, and in consideration of other design requirements and constraints (such as meeting primary treatment objectives and needs, avoidance of other sensitive resources, etc.), Metro Fire will attempt to design the dozer lines to minimize the impact to protected trees vegetation, particularly trees that contribute to the overstory canopy of these communities.
- Before grading or excavation within 5 feet outside the driplines of protected trees, root pruning shall be required at the limits of grading or excavation to cut roots cleanly to a depth of the excavation or 36 inches (whichever is less). Roots will be cut by manually digging a trench and cutting exposed roots.
- Major roots two inches or greater in diameter encountered within the tree's dripline in the course of excavation from beneath trees which are not to be removed will not be cut and will be kept moist and covered with earth as soon as possible. Roots 1 inch to 2 inches in diameter which are severed will be trimmed and treated with pruning compound and covered with earth as soon as possible.

- Support roots that are inside the dripline of the tree will be protected. Metro Fire is required to hand-dig in the vicinity of major trees to prevent root cutting and mangling which may be caused by heavy equipment.

In accordance with Sacramento County Public Tree Ordinance (19.04), any public trees damaged by fuels reduction activities, the following mitigation measures apply:

- Metro Fire will place suitable guards around the bases of all nearby public trees to protect them during fuels reduction operations that involve heavy mechanized equipment.
- Metro Fire will not secure, fasten or run any rope, wire, sign, unprotected electrical installation or other device or material to, around, or through a public tree;
- Metro Fire will not break, injure, deface, kill or destroy a public tree or permit any fire to burn where it will injure any public tree;
- Metro Fire will not permit any chemical, gas, smoke, salt brine, oil or other injurious substance to seep, drain or be emptied upon, above or below any public tree;
- Metro Fire will not excavate any ditch, tunnel, or trench or lay any drive within a radius of ten feet from any public tree;
- If Metro Fire is expecting to do any of the above (a-e) to public trees at a treatment site, then a tree permit would be required.

If landmark trees, heritage trees, native oak or non-oak trees (greater than 6 inches or 10 inches aggregate) are removed through construction of the new access road or are accidentally or indirectly killed through fuels reduction activities or sprinkler system upgrades, the following measures would be required.

- Metro Fire will obtain a tree removal permit from the County for native oak trees greater than 6-inch dbh or greater than 10-inch aggregate dbh, landmark trees or heritage trees. (Sacramento County Tree Preservation Ordinance [12.19 and 12.04]).
- The removal of native and non-native trees greater than 6 inches dbh will be compensated for by planting native oak and non-oak trees equivalent to the dbh inches lost. Oak trees can also be compensated for through payment into the County Tree Preservation Fund. (CO-139 and 140)

Significance after Mitigation

Implementation of Mitigation Measure BIO-11 would reduce significant impacts of tree removal to a **less-than-significant** level because indirect protected tree mortality caused by CWPP activities would be minimized through tree protection measures and replacement plantings would compensate for an unavoidable loss of protected trees.

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?

No Impact. The District is within the proposed South Sacramento Habitat Conservation Plan (SSHCP) area and Metro Fire is participating in the development of the SSHCP. The SSHCP is currently being drafted by Sacramento County and is in the initial stages of environmental review; however, the SSHCP has not been adopted. Because the SSHCP is not currently an adopted plan, **no impact** would occur regarding consistency with the provisions of an adopted HCP.

3.5 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. Cultural Resources. Would the project:				
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?	☐	☒	☐	☐

3.5.1 Environmental Setting

Sacramento County and City of Rancho Cordova maintain in-house records regarding the confidential locations of all known cultural resources within its boundaries. Based on review of the Sacramento County General Plan and City of Rancho Cordova General Plan, known sensitive areas could be located in the project area. No historic structures are within the project footprint of physical activities requiring soil disturbance. However, known cultural resources may be located at some of the selected treatment sites.

A number of sensitive areas are located within Sacramento County and City of Rancho Cordova. The ARP is an area within Sacramento County that was intensively utilized by both prehistoric and historic populations, the result of which is an abundance of unique resources that are dispersed across the Parkway's landscape. Numerous known resources have been uncovered in the Parkway and are fully documented. (ARP EIR 2008; p. 10-11, 10-15).

3.5.2 Discussion

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?

Response to items a through c.

Potentially significant impact. Because of the largely non-invasive nature of construction of a small segment of an unpaved access road and proposed vegetation management actions (i.e., shallow soil disturbance from discing, mowing or weed eating) it is not likely that disturbance of archaeological, paleontological, or

historic resources would occur. However, it is possible that previously undiscovered paleontological, archaeological, or historic resources could be disturbed by the uprooting of plants or minor digging activities. This would be a **potentially significant** impact.

Mitigation Measure CUL-1: Sensitive cultural resources training.

Prior to implementation of ground-disturbing activities under the CWPP, District staff (or appointed workers) involved in these activities shall receive training in the recognition of sensitive cultural resources. In the event of a find, a qualified archaeologist shall evaluate the significance of any discovered cultural resources prior to commencement or recommencement of work.

Significance after Mitigation

Implementation of mitigation measure CUL-1 would reduce this impact to a **less-than-significant** level because actions to appropriately handle any archaeological, paleontological, or historic resources discovered would be implemented. This measure would be implemented at all vegetation management sites covered under the CWPP to properly identify and protect any discovered resources during vegetation management activities.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less-than-significant with mitigation. As noted above, it is unlikely that cultural resources, such as a burial, would be disturbed by earth-disturbing activities associated with the CWPP (construction of an unpaved access road segment and vegetation management activities) because of their largely non-invasive nature and shallow soil disturbance. Nevertheless, the potential exists for previously undiscovered human resources to be discovered when soils are disturbed. This would be a **potentially significant** impact.

Mitigation Measure CUL-2: Disturbance of human remains.

If human remains are encountered, all work within 100 feet of the remains shall cease immediately and the contractor shall contact Metro Fire. Metro Fire will contact the appropriate coroner (Sacramento County or City of Rancho Cordova) to evaluate the remains, and follow the procedures and protocols set forth in §15064.5(e) of the CEQA Guidelines. No further disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County or City Coroner has made a determination of origin and disposition, which shall be made within two working days from the time the Coroner is notified of the discovery, pursuant to State Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98. If the remains are determined to be Native American, the Coroner will notify the Native American Heritage Commission (NAHC) within 24 hours, which will determine and notify the Most Likely Descendant (MLD). The MLD may recommend within 48 hours of their notification by the NAHC the means of treating or disposing of, with appropriate dignity, the human remains and grave goods. In the event of difficulty locating a MLD or failure of the MLD to make a timely recommendation, the human remains and grave goods shall be reburied with appropriate dignity on the property in a location not subject to further subsurface disturbance.

Significance after Mitigation

Implementation of mitigation measure CUL-2 would reduce this impact to a **less-than-significant** level because actions to appropriately handle any human remains that are discovered would be implemented.

3.6 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Geology and Soils. Would the project:				
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 California Geological Survey Special Publication 42.)	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
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 Table 18-1-B of the Uniform Building Code (1994, as updated), 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?	☐	☐	☐	☒

3.6.1 Environmental Setting

SEISMIC HAZARDS

Sacramento County has experienced relatively little seismic activity, although the higher seismic activities of surrounding areas, such as the San Francisco Bay Area and Sierra Nevada, suggest that the County could be affected by future ground motion originating elsewhere. The eastern and central portions of Sacramento County, where most of the District is located, are located within a relatively low intensity groundshaking area. (County of Sacramento 2010: 13-4 through 13-5)

LIQUEFACTION

Liquefaction is a process whereby the strength and stiffness of a soil (typically saturated) is reduced by earthquake shaking or rapid cyclic loading. The District is located outside of the areas in the County that are most subject to liquefaction (downtown and the Delta). (County of Sacramento 2010b: 13-7)

SUBSIDENCE

Subsidence is the gradual settling or sinking of the earth's surface with little or no horizontal motion. The pumping of water for residential, commercial, and agricultural uses from subsurface aquifers causes the greatest amount of subsidence in Sacramento County. (County of Sacramento 2010b: 13-10)

EXPANSIVE SOILS

Expansive soils represent approximately one third of all soil types in Sacramento County. They are largely comprised of clays, which greatly increase in volume when water is absorbed and shrink when dried. Expansive soils are primarily a concern for structural integrity because building foundations may rise during the rainy season and fall during the dry season in response to the clay's action. (County of Sacramento 2010b: 13-10)

LANDSLIDES

The topography of the majority of Sacramento County is relatively flat and not subject to landslide. (County of Sacramento 2010b: 13-10)

3.6.2 Discussion

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 California Geological Survey Special Publication 42.)

No impact. The likelihood for substantial seismic ground shaking is low within the District. The proposed project involves primarily public outreach and education, increased agency coordination, and several specific wildfire protection projects, including enhancement of existing defensible space near structures associated with the ARP and providing increased defensible space around planned communities within the WUI. Other wildfire protection projects include irrigation system updates, increased vegetation clearance on specific horse trails in the ARP, restoration of burned areas in the ARP, limited prescribed burning in the ARP, and a new unpaved emergency access road in the ARP. The CWPP would not include development of any habitable structures or placement of additional people in areas that are subject to fault rupture or strong seismic ground shaking. The proposed project would result in **no impact**.

ii) Strong seismic ground shaking?

No impact. See the discussion under "a-i" above. The proposed project would result in **no impact**.

iii) Seismic-related ground failure, including liquefaction?

No impact. As discussed under "a-i" above, the proposed project does not include development of any habitable structures. Therefore, the proposed CWPP would not expose people or structures to substantial adverse effects associated with seismic-related ground failure. **No impact** would occur.

iv) Landslides?

No impact. Landslides do not typically occur within the District and the proposed project does not include habitable structures and would not otherwise increase exposure of people to risk of landslides. **No impact** related to landslides would occur.

b) Result in substantial soil erosion or the loss of topsoil?

Less than significant with mitigation incorporated. The proposed project includes some vegetation clearing and minor ground disturbance associated with grading a new access road, trenching for irrigation system upgrades, and discing for fuels reduction within the ARP and around planned development within the District. Without appropriate BMPs in place, exposure of top soil associated with these activities could result in increased erosion during rain events.

The project also includes prescribed burning of a field of yellow star thistle (over 60 acres). Most portions of these fields are located over 100 feet from the American River; however, the eastern portion of the fields is located within 50 feet of the river. The loss of vegetation on these fields from prescribed burning could result in increased erosion potential. Similar to the soil disturbance associated with the construction activities discussed above, without implementation of BMPs in these prescribed burn areas, increased soil erosion could occur during rain events. This impact would be **potentially significant**.

Mitigation Measure GEO-1: BMPs for prescribed burns.

Metro Fire shall implement the following BMPs recommended by the State Water Resourced Control Board (2014) for proposed prescribed burns to reduce adverse impacts of fire on water quality:

- **Fire intensity:** High-intensity fires will be avoided, especially severe burns on highly erodible soils. Low-intensity prescribed fires will be used to reduce the fuel loads. Low-intensity fires usually have little effect on water quality because burned areas with an intact organic layer yield little sediment and revegetate more quickly.

- **Timing of prescribed burns:** Burning will be planned to take into account weather, time of year, and fuel conditions so that these factors help achieve the desired results and minimize effects on water quality.

- **Logistics of prescribed burns:** The prescribed burn should be executed with an District-qualified crew and burn boss. Burning permits must be obtained before burning.

- **SMAs and wetlands:** When applying prescribed fire in wetlands, burns should be conducted in a manner that does not completely remove the organic layer. The fire should be conducted to minimize the potential to increase surface runoff and soil erosion. Fire lines should not be placed in sensitive areas such as wetlands, marshes, prairies, and savannas unless absolutely necessary.

- **Fire lines:** Fire line construction involves removing all organic material to expose mineral soil, and this can result in excessive erosion and water quality degradation. Natural or in-place barriers (e.g., roads, streams, and lakes) should be used to minimize the need for fire line construction in situations where construction of artificial fire lines could result in excessive erosion and sedimentation. Conditions that require extensive blading of fire lines with heavy equipment should be avoided when planning burns. Hand lines, firebreaks, and hose lays should be used to minimize blading of fire lines. Fire lines need to be constructed in a manner that minimizes erosion and sedimentation and prevents runoff from directly entering watercourses. The location of fire lines should be balanced with the potential for a larger fire that would consume greater amounts of material. Where possible, alternatives to plowed lines such as harrowing, foam lines, wet lines, or permanent grass should be considered.

- **Revegetation:** Once the fire is put out, vegetative cover on fire lines and disturbed areas should be reestablished as soon as possible using native species, as feasible, to control soil erosion.

- **Runoff controls:** Grades, ditches, and water bars to fire lines should be installed as soon as it is safe to begin rehabilitation work. Water bars should be installed on any fire line running up and down the slope, and runoff should be directed onto a filter strip or sideslope, not into a drainage area.

- **Fire retardants:** Chemical fire retardants will not be applied within 300 feet of the river or other water body. If it becomes absolutely necessary to apply retardant within the 300-foot zone (i.e., due to safety

hazard), the application method that most accurately keeps the retardant from entering the water will be used. Fire retardant chemicals that contain sodium ferrocyanide will not be used.

- **Fire detection/prevention:** A diligent aerial or ground inspection should be conducted within the first 2 hours after cessation of burning each day during the dry period when fire is likely to spread. The person conducting the inspection should have adequate communication available for prompt reporting of any fire that may be detected.

- **Public safety:** Management practices for fire lines, road construction, and stream crossings should be suspended during wildfire emergencies to benefit public safety and should be restored as soon as possible. Remediation should begin after the emergency is controlled.

Significance after Mitigation

Implementation of GEO-1 would reduce prescribed-burn-related impacts to topsoil to a less-than-significant level by limiting fire intensity and timing and by requiring strategic planning of fire breaks and runoff controls, as well as revegetation and follow-up monitoring.

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?

No impact. As discussed above under "a," the proposed CWPP does not include development of structures. Therefore, the proposed project would not locate structures on unstable soils or cause soils to become unstable, such that landslide, lateral spreading, subsidence, liquefaction, or collapse could occur. The proposed project would result in **no impact**.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial risks to life or property?

No impact. See discussion under "a" and "c" above. The proposed CWPP does not include development of structures and would result in **no impact** associated with expansive soils.

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?

No impact. The proposed CWPP does not include septic tanks or other waste water treatment or disposal. The proposed project would result in **no impact**.

3.7 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. Greenhouse Gas Emissions. Would the project:				
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?	☐	☐	☒	☐

3.7.1 Environmental Setting

It is widely-accepted that human activities, particularly the burning of fossil fuels, affects the world's climate by increasing the atmospheric concentration of greenhouse gas (GHG) beyond natural levels. Contributing additional GHG pollution to the atmosphere leads to higher global average temperatures, changes to climate, and adverse environmental impacts both locally and worldwide.

In response to the challenge of climate change, California has taken a leadership role by committing to reduce its GHG emissions to 1990 levels by 2020 (about a thirty percent reduction in business-as-usual emissions in 2020) and to 80% below 1990 levels by 2050.

Sacramento County's General Plan Update was adopted in November 2011, which included policies directing the County to complete a multi-phase Climate Action Plan (CAP). The Sacramento County Board of Supervisors has approved the first phase of a climate action plan that will provide a framework for reducing GHG emissions. The first phase focuses on the County's overall strategy and goals for addressing climate change (Sacramento County 2009). Key goals in the first phase include a reduction in VMT per capita in the region; improving energy efficiency of all existing and new buildings; emphasizing water use efficiency as a way to reduce energy consumption; maximizing waste diversion, composting, and recycling through residential and commercial programs; and protecting important farmlands and open space from conversion and encroachment and maintaining connectivity of protected areas.

The proposed CWPP could generate short-term GHG emissions associated with heavy equipment and construction worker trips associated with construction of the proposed fire access road. The CWPP could intermittently generate long-term GHG due to vegetation clearing activities resulting in exhaust emissions of GHGs from fuel combustion for mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commuter trips. Proposed prescribed burning could also result in a net increase in GHG.

ARB and SMAQMD have not identified a significance threshold for analyzing GHG emissions associated with land use development projects. SMAQMD has updated its CEQA guidance, and it released its *Guide to Air Quality Assessment in Sacramento County* in December 2009 (SMAQMD 2009a). SMAQMD has not adopted any particular GHG significance threshold in its guide. Instead, it suggests that lead agencies identify thresholds of significance applicable to a proposed project that is supported by substantial evidence (SMAQMD 2009a, page 6-5). Nevertheless, the primary focus of SMAQMD's guidance for addressing GHG emissions is "to provide guidance about evaluating whether the GHG emissions associated with a proposed project would be a cumulatively considerable contribution to global climate change" (SMAQMD 2009a, page 6-3). It should be noted that SMAQMD is currently considering a screening-level threshold of either 900 or 1,100 MT CO_2e/yr (SMAQMD 2013).

By adoption of Assembly Bill 32 (Global Warming Solutions Act of 2006) and Senate Bill 97, the State of California has identified GHG emission reduction goals and that the effect of GHG emissions as they relate to global climate change is inherently an adverse environmental impact. While the emissions of one single project will not cause global climate change, GHG emissions from multiple projects throughout the world could result in a cumulative impact with respect to global climate change.

To meet AB 32 goals, California would need to generate less GHG emissions than current levels. It is recognized, however, that for most projects there is no simple metric available to determine if a single project would substantially increase or decrease overall GHG emission levels.

Foreseeable GHG emissions from the activities proposed under the CWPP are estimated using the current methodologies available The analysis also focuses on whether the project's emissions would substantially help or hinder the State's ability to attain the goals identified in AB 32 (i.e., reduction of statewide GHG emissions to 1990 levels by 2020). As stated above, the mandate of AB 32 demonstrates California's commitment to reducing GHG emissions and the State's associated contribution to climate change, without intending to limit population or economic growth within the State. Thus, to achieve the goals of AB 32, which are tied to mass GHG emission levels of a specific benchmark year (i.e., 1990), California would have to achieve a lower rate of emissions per unit of population (per person) and/or per level of economic activity (e.g., per job) than its current rate. Furthermore, to accommodate future population and economic growth, the state would have to achieve an even lower rate of emissions per unit than it achieved in 1990. (The goal—to achieve 1990 quantities of GHG emissions by 2020—will need to be accomplished despite 30 years of population and economic growth beyond 1990.) For this reason, land uses need to be GHG "efficient" to attain AB 32 goals while accommodating population and job growth.

One of the primary challenges to establishing a reasonable threshold and determining impacts (and mitigation) relates to enactment of AB 32 and other GHG emission-reduction legislations. As previously described, much of this legislation requires ARB and others to establish standards that relate to energy efficiency, carbon levels in fuels, stationary-source emissions, and regional transportation planning (i.e., SB 375). These standards are in the development process but may be a few to several years away from implementation.

While the SMAQMD, the local agency in charge of air quality considerations in Sacramento County, has not established specific thresholds applicable to GHG emissions, CEQA still requires an evaluation of GHGs. CEQA also specifies that thresholds adopted by other agencies may also be considered by lead agencies when determining project significance. The Bay Area Air Quality Management District (BAAQMD) formally adopted a CEQA significance threshold for GHGs of 1,100 MT CO_2e/yr (BAAQMD 2012). The BAAQMD's threshold is specific to that district, and is not meant to apply to construction-related GHG emissions (rather, it is applicable to operational emissions). It is not the intention of the RWQCB to adopt BAAQMD's threshold as its own. Rather, it is making a comparison of the magnitude of emissions considered substantial by the nearby BAAQMD. As mentioned above, SMAQMD is considering a screening-level threshold of 900 or 1,100 MT CO_2e/yr. To remain conservative, the analysis below relies on the 900 MT CO_2e/yr screening-level threshold currently under consideration by SMAQMD.

3.7.2 Discussion

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less-Than-Significant. GHG emissions generated by the proposed project would predominantly be in the form of CO_2 from the exhaust associated with worker commute trips and equipment used on site during roadway construction (e.g., grader and excavator) and during fuels treatment (primarily tractors/mowers). While emissions of other GHGs such as methane and nitrous oxide are important with respect to global climate change, the emission levels of these GHGs for the sources associated with project activities are

nominal compared with CO_2 emissions, even considering their higher global warming potential. Therefore, all GHG emissions for construction are reported as CO_2.

GHG emissions associated with the project were calculated using applicable portions of CalEEMod (Table 3-5), as recommended by SMAQMD. See the discussion under Section 3.2 above for modeling assumptions. See Appendix B for specific model input and output parameters and detailed assumptions.

Table 3-5 Summary of Modeled Annual GHG Emissions Associated with the CWPP

Weed Control Activities	CO_2 MT/yr
On-site Activities (construction equipment and fuel treatment equipment)	57.1
Mobile-source (worker commute)	7.4
Yearly Total	64.5

Notes: CO_2 = carbon dioxide; GHG = greenhouse gas; MT/yr = metric tons per year.

See Appendix B for detailed modeling results.

Source: Modeling Conducted by Ascent Environmental 2014.

Based on the modeling conducted, project-related activities would result in a total of 64.5 MT of CO_2. These emissions levels are well below SMAQMD's the screening threshold of 900 MT/year that is currently being considered by SMAQMD, and the emissions level would be even lower after the roadway construction is complete. Thus, project-generated operational emissions would not result in a cumulatively considerable net increase of GHGs. As a result, this impact would be **less than significant**.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less-Than-Significant. As discussed under item a) above, the total GHG emissions associated with this project would be below other established thresholds (e.g., 900 MT CO_2e/yr screening-level threshold currently being considered by SMAQMD). Additionally, the County's General Plan Update was adopted in November 2011, which included policies directing the County to complete a multi-phase CAP (Sacramento County 2011b: p 115). The first phase of the County's CAP was adopted concurrently with the General Plan Update. The CAP includes an emissions inventory for activities in the County in 2005 and a general policy framework for the County's climate action strategy (Sacramento County 2011b). The proposed project would not result in any land use changes or any development of land. The project would be consistent with the County's zoning code and associated general strategies in the CAP.

As evaluated above in a) the proposed project would not generate substantial GHG emissions, and therefore, would not substantially conflict with AB 32, the Sacramento County General Plan, or the Sacramento County CAP. As a result, this impact would be **less than significant**.

Please refer to Section 7 of the CWPP (Appendix A of this document) for a detailed discussion of climate change and fire risk.

3.8 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. Hazards and Hazardous Materials. Would the project:				
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/or accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
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?	☐	☐	☐	☒

3.8.1 Environmental Setting

Sacramento County has a variety of hazardous substances associated with many uses. These include known contaminated properties, businesses that handle (use and/or collect) contaminants, household contaminants, landfills, lead-based paint, and asbestos (both in buildings predating 1970 and naturally occurring in rock outcroppings). The types of hazardous materials found in Sacramento County include known and undiscovered contamination of soil; surface water; groundwater; structures constructed before 1979 (asbestos and lead-based paint); industrial, business, and household waste considered a hazardous

material according to the definition in the California Health and Safety Code (see the Introduction section in this chapter); and naturally-occurring asbestos (serpentine rock).

According to the California Department of Toxic Substances Control (DTSC) EnviroStor database, the District includes a variety of sites that contain or currently use hazardous substances. Most notably, there are several Federal Superfund sites in the District, and they are all associated with Aerojet Rocketdyne facilities near Rancho Cordova and the former McClellan Air Force Base in North Highlands. These areas have restricted land uses; none of the fuel treatment sites would occur within a Superfund Site. No hazardous materials sites are identified within the segment of the ARP located within the District (DTSC 2014).

3.8.2 Discussion

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than significant. Construction activities associated with the proposed fire access road would result in a short-term increase in the regional transportation, use, storage, and disposal of hazardous materials and petroleum products (such as diesel fuel, lubricants, paints and solvents, and cement products containing strong basic or acidic chemicals). Standard accident and hazardous materials recovery training and procedures are enforced by the state and followed by private state-licensed, certified, and bonded transportation companies and contractors. Further, pursuant to 40 CFR 112, a spill prevention, containment, and countermeasures plan or, for smaller quantities, a spill prevention and response plan, that identifies BMPs for responding to and disposing of spills and releases would be established for the project. As required under state and federal law, plans for notification and evacuation of site workers and local residents in the event of a hazardous materials release would be in place throughout implementation of the projects.

The proposed CWPP fuels treatment would primarily utilize mechanical equipment, which typically does not include routine use of hazardous materials with the exception of small quantities of common household hazardous materials such as fuels, oils, lubricants, solvents, and detergents. Targeted application of herbicide may occur, if needed and the proposed project includes BMPs for herbicide application (See Section 3). The BMPs require that herbicides be applied by a licensed professional and consistent with label requirements and other local, state, and federal requirements. Also, herbicide application in public recreation areas would require signage notifying the public and staff of the presence of herbicides. Herbicide application would also be applied 300-feet from any water body or sensitive habitat. For these reasons, the impact would be **less than significant**.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?

Less than significant. Use of herbicide is addressed under "a" above, and implementation of the BMPs described in the Project Description for herbicide application requires proper procedures for the handling of herbicides and equipment, including supervision of personnel, public noticing, safety procedures, storage, mixing, and cleanup and would minimize the potential for accidents that would result in release of hazardous materials. If an herbicide spill, or other type of spill (such as ruptured fuel tank or hydraulic line on a piece of equipment), did occur, Metro Fire would be contacted and would respond with appropriate hazardous materials cleanup. Such a spill would be a rare occurrence, and Metro Fire would respond appropriately. Further, all fuels and other household hazardous wastes used for fuel treatment activities would be handled in accordance with appropriate regulations, therefore, this impact is considered **less than significant.**

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less than significant. The proposed project would not involve emission of hazardous or acutely hazardous materials. Impacts associated with use of herbicides are described under "a" and "b" above and are reduced by implementation of Environmental Commitments described in the Project Description. This impact is considered **less than significant**.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less-Than-Significant. As indicated above, under the Environmental Setting, the proposed treatment sites would be located within the ARP and surrounding existing residential subdivisions. The treatment areas would not be located on a hazardous materials site. This impact is **less than significant**.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

No impact. The proposed CWPP does not include development of structures and would not otherwise interfere with aircraft flight patterns or air traffic control communications. The project would, therefore, not pose a safety hazard for people residing or working within the project area. **No impact** would result.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No impact. The proposed CWPP does not include development of structures and would not otherwise interfere with aircraft flight patterns or air traffic control communications. The project would, therefore, not pose a safety hazard for people residing or working within the project area. **No impact** would result.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No impact. The proposed CWPP is designed to reduce fire risk for communities located near wildland areas. The CWPP would help facilitate better emergency response and would not interfere with an adopted emergency response plan or emergency evacuation plan. **No impact** would result. A beneficial impact would likely occur with the enhanced emergency access road.

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?

No impact. The proposed CWPP is designed to reduce fire risk for communities located near the urban-wildland interface areas. The CWPP would reduce the risk of loss, injury, or death associated with a wildland fire through actions promoting prevention, education, and effective response. **No impact** to the environment would result. A beneficial impact of reduced fire damage would be intended to occur with implementation of the plan.

Please refer to Section 7 of the CWPP (Appendix A of this document) for a detailed discussion of climate change and fire risk. The CWPP is based, most importantly, on modeling of current fire risks in the Metro Fire District, so that it addresses the existing needs of the local communities for fire prevention, public education, and fire response. In addition, the District will also continue to monitor the evolving science of climate change and wildfire risk to look ahead in updates of the CWPP and promote climate adaptation measures that enhance preparedness for future fire risks, as well.

3.9 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. Hydrology and Water Quality. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be 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 which would result in substantial on- or off-site erosion or siltation?	☐	☐	☒	☐
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 which would result in on- or off-site flooding?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
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 within a 100-year flood hazard area structures 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) Result in inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

3.9.1 Environmental Setting

The Sacramento River Basin encompasses about 26,500 square miles and is bounded by the Sierra Nevada Mountains to the east, the Coast Ranges to the west, the Cascade Range and Trinity Mountains to the north and the Delta Central Sierra area to the south. Within the Sacramento River Basin are sub-basins or smaller

watersheds that drain to the tributaries of the Sacramento River. The American River watershed is a sub-basin of the Sacramento River watershed. The American River originates in the Tahoe and Eldorado National Forests and flows into the Folsom Lake reservoir, which holds approximately 1 million acre feet of water.

The Cosumnes and the Mokelumne Rivers are not tributaries of the Sacramento River; they flow into the San Joaquin River and are typically considered part of a separate watershed. The majority of Sacramento County is within the Sacramento River basin; however, southwestern Sacramento County contains Delta waterways, which interconnect the Sacramento, San Joaquin and Mokelumne Rivers. (Sacramento County 2010:7-2)

Within urban neighborhoods and communities there are engineered drainage systems consisting of pipes, gutters, swales, ditches and graded land. The character of the urban watershed is reflected by the quality of water flowing in the rivers and streams. In Sacramento County relatively high quality water is available for various uses including: recreation, agriculture, municipal water supply and wildlife habitat. The average runoff from the Sacramento River Basin is estimated to be 21.3 million acre-feet per year. The melting snow pack in the Sierra Nevada keeps the water flowing even during dry summer months.

Sacramento County contains a comprehensive flood control system consisting of dams, levees, weirs or diversion structures. These facilities regulate flood flows and water levels in the rivers though out the year. (Sacramento County 2010:7-2)

In addition to surface water, Sacramento County has underlying aquifers. Recharge to the groundwater basin is derived from rain, applied water and streamflow. (Sacramento County 2010:7-2)

3.9.2 Discussion

a) Violate any water quality standards or waste discharge requirements?

Potentially significant. Most of the ground disturbance within the ARP would involve mowing/discing to maintain the original functionality of the clear zones that were previously created for fire abatement in 2010. Maintenance of existing facilities does not require a permit under the National Pollutant Discharge Elimination System (NPDES) Construction General Stormwater Permit (Construction General Permit). However, the proposed discing and brush clearing around the subdivisions would be subject to the NPDES Construction General Permit requirements because they would be new and exceed one acre in size. Trenching associated with the proposed irrigation system upgrades in Effie Yeaw Nature Preserve, as well as minor construction associated with the Rossmoor burn area restoration would also contribute to the ground disturbance if these activities occurred during the same year as the discing and would also be subject to the NPDES Construction General Permit. The Construction General Permit requires preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must list Best Management Practices (BMPs) that would be used to protect stormwater runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. (The Clean Water Act requires states to submit to EPA the 303(d) list of impaired and threatened waters every 2 years.)

The construction of the proposed fire access road would also be subject to NPDES Construction General Permit requirements identified above; however, because it is considered new construction within the ARP, the roadway would also be subject to additional mitigation measures included in the ARP Plan EIR (Sacramento County 2006:7-30), which restrict the season for grading and require design to be consistent with the County's design manuals for stormwater quality and erosion and sediment control. Without implementation of these mitigation measures, the proposed new fire access road could result in potential adverse effects to water quality.

Prescribed burning can also result in soil disturbance associated with creation of fire lines, which, if unmitigated, could increase sediment in stormwater runoff. Also, high-intensity fires that remove all

vegetation and litter down to the mineral soil can adversely affect water quality. Therefore, the proposed prescribed burns to reduce yellow star thistle could result in **potentially significant** impacts associated with water quality.

Mitigation Measure HYDRO-1: ARP EIR water quality mitigation for new roadway.

Metro Fire will implement the following water quality mitigation measures required for new construction projects by the ARP Plan EIR (2006:7-30):

- **Implement ARP Plan EIR Mitigation Measure HY-1.** All new construction projects within the Parkway all incorporate the design components within the latest version of the *Sacramento County Guidance Manual for Development of Erosion and Sediment Control Plans*. No grading shall be permitted from October 1 – April 30, unless the grading is associated with an emergency project or it can be demonstrated to the Department of Environmental Review and Assessment that there is an environmental benefit to wet-season construction.

- **Implement ARP Plan EIR Mitigation Measure HY-2.** All new construction or redevelopment of facilities within the Parkway shall incorporate the design components within the latest version of the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*, unless the Department of Environmental Review and Assessment determines that the project does not have the potential to release post-construction pollutants (e.g. signage). This shall include all new roads and trails, which shall be designed to minimize transport of sediment from the road or trail surface into nearby water bodies.

Implement Mitigation Measure GEO-1: BMPs for Prescribed Burns (described above)

Significance after Mitigation

Implementing Mitigation Measure HYDRO-1 would reduce significant impacts associated with construction of the proposed fire access road because it requires implementation of ARP Parkway EIR mitigation measures related to consistency with County stormwater and erosion/sediment control manuals. Implementation of GEO-1 would reduce water quality impacts related to the proposed prescribed burns by limiting fire intensity and timing and by requiring strategic planning of fire breaks and runoff controls, as well as revegetation and follow-up monitoring. Implementation of these two mitigation measure would reduce potential impact to water quality to a **less-than-significant** level.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be 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)?

Less than significant. The proposed project does not propose new wells or use of any existing wells. The project does not include new development or land uses that would utilize groundwater. The proposed project includes no impervious surfaces, other than a small new fire access road (totaling less than one acre), which would not substantially impede groundwater recharge. Impacts to groundwater would be **less than significant**.

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 which would result in substantial on- or off-site erosion or siltation?

Less than significant. The proposed project involves some ground disturbance, as discussed under "a" above. However, the majority of this ground disturbance (i.e., discing, mowing, brush clearing, restoration, prescribed burning, etc.) would not involve moving earth or altering topography or drainage patterns. The only activity that would involve minor grading and leveling (and possibly minor import/export of fill material)

would be construction of the proposed fire access road. This road would total less than one acre and would not cross any stream or waterway. Other impacts related to erosion and sedimentation are discussed under "a" above. Therefore, the proposed project would result in a **less-than-significant** impact.

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 which would result in on- or off-site flooding?

Less than significant. As discussed above, under "c" the proposed project would not substantially alter existing topography and would not interfere with current stream or river courses. No additional on- or off-site flooding could result. This would be a **less than significant** impact.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

No impact. The proposed project does not include any new developed land uses and would not require connection to or otherwise contribute to existing or planned stormwater drainage systems. **No impact** would occur.

f) Otherwise substantially degrade water quality?

No impact. The project's potential to degrade water quality is described above under "a." The project would not otherwise substantially degrade water quality. **No impact** would occur.

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?

No impact. The proposed project would not result in the development of new housing or other occupied structures. **No impact** would occur.

h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?

No impact. The proposed project would not result in the development of structures. **No impact** would occur.

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?

No impact. The proposed project would not result in the development of new housing or other occupied structures. The proposed project would not affect dam or levee safety. **No impact** would occur.

j) Result in inundation by seiche, tsunami, or mudflow?

No impact. The proposed project would not increase exposure to risk of inundation by a seiche, tsunami, or mudflow because it does not involve steep slopes and does not include development of any occupied structures. **No impact** would occur.

3.10 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. Land Use and Planning. Would the project:				
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?	☐	☐	☐	☒

3.10.1 Environmental Setting

Several planning documents guide land use and development throughout the District. The primary planning documents include the Sacramento County General Plan, the ARP Plan, the City of Rancho Cordova General Plan, and the City of Citrus Heights General Plan. In addition to their General Plan's the County and cities also have zoning codes, which establishes the land use regulations and provides the mechanism for enforcement.

3.10.2 Discussion

a) Physically divide an established community?

No Impact. The proposed CWPP is designed to protect existing communities from the risk of wildfire. The project does not include any new land use or feature that would divide an existing community. The proposed project would result in **no impact**.

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?

Less-Than-Significant. The proposed CWPP is designed to enhance public safety by increased education and agency coordination and implementation of several fire protection projects. One of the primary goals of a city/county general plan is to promote public safety. This includes encouraging local agencies to update their fire codes to be more protective. Because the proposed project would increase public safety and would not involve any new development or land use, the proposed project would be consistent with the goals and policies of the applicable plans. This impact is **less than significant**.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. See the discussion under "f" in Section 3.4 "Biological Resources." As discussed above, the proposed project would result in **no impact**.

3.11 MINERAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. Mineral Resources. Would the project:				
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?	☐	☐	☐	☒

3.11.1 Environmental Setting

The Sacramento County General Plan identifies sand, gravel, clay, gold, silver, peat, topsoil, lignite, natural gas, and petroleum resources within Sacramento County. The principal resources which are in production are aggregate (sand and gravel) and natural gas. Aggregate resource areas located primarily within the Jackson Highway Corridor within the District. The natural gas production areas are located mostly outside the District in the Delta's Rio Vista Field. There are three major and several smaller producers of sand and gravel in Sacramento County.

3.11.2 Discussion

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?

Response to items a and b.

No impact. Vegetation management and other activities associated with the CWPP would not preclude or inhibit the extraction of known, available, high quality mineral resources in the District, and would not result in obstruction of access to, mineral resources within the County. No impact would occur.

3.12 NOISE

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

3.12.1 Environmental Setting

Because the proposed fuel treatment activities are primarily intended to protect existing and planned communities from wildfire hazard, many of these fuel treatment activities would occur within close proximity to residential uses, which are considered "sensitive receptors" (uses that are generally considered to be sensitive to excessive noise).

The proposed fuel treatment and other construction sites associated with the CWPP are located primarily in unincorporated Sacramento County; however, some of the fuel treatment activities would occur within the City of Rancho Cordova. Therefore, the noise standards for both agencies are provided below. Note that the noise standards relate only to construction-generated noise because the proposed project does not include any development or other operations-related noise generation. The proposed fire access road would not generate substantial noise after construction because it would only be accessed by emergency vehicles when necessary (which would be infrequent).

Sacramento County Code

Section 6.68.070 of the Sacramento County Code contains exterior noise standards for specific zoning districts (Table 3-6).

Table 3-6 Exterior Noise Standards

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

Source: Sacramento County Code

Section 6.68.090 of the Sacramento County Code provides the following exemption to the exterior noise standards:

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

City of Rancho Cordova Municipal Code

The City if Rancho Cordova's noise ordinance, which is based on the County noise ordinance, establishes maximum allowable exterior and interior noise levels for affected land uses. The ordinance generally limits exterior noise levels (measured at residential land and agricultural land uses) to a maximum of 55 A-weighted decibels (dBA during any cumulative 30-minute period during the daytime hours (7 a.m.–10 p.m.), and 50 dBA during any cumulative 30-minute period during the nighttime hours (10 p.m.–7 a.m.). The ordinance sets somewhat higher noise limits for noise of shorter duration; however, noise shall not exceed 75 dBA during the day and 70 dBA at night. Activities generally considered to be exempt from the noise standards include construction activities (provided that they occur between the daytime hours of 7 a.m.–6 p.m., Monday through Saturday, and 9 a.m.–6 p.m. on Sunday), school athletic and entertainment events, activities conducted on public parks and playgrounds, and transportation noise.

City of Rancho Cordova General Plan

Action N.1.4.1 of the Rancho Cordova General Plan limits construction activity to the hours of 7 a.m. to 7 p.m. weekdays and 8 a.m. to 6 p.m. weekends when construction is conducted in proximity to residential uses.

3.12.2 Discussion

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?

Less-Than-Significant. The proposed project includes fuel treatment, prescribed burns, and minor construction associated with a proposed emergency access road and the irrigation system upgrade. No new stationary noise sources or other types of development are proposed. These activities would be temporary in nature, although the proposed fuel treatment activities could potentially recur every year (depending on funding).

Noise would result from the use of motorized equipment required for both the fuel treatment and the construction activities. Construction equipment used for roadway construction and irrigation upgrades would include a grader and excavator (for roadway construction) and a trencher and possibly a small backhoe for the irrigation system upgrade. Motorized equipment for the fuel treatment could include chainsaws, wood chippers, motorized brush-cutters, mowers, and tractors. Noise generated from these pieces of equipment would be intermittent and short in duration as typical use is characterized by short periods of full-power operation followed by extended periods of operation at lower power, idling, or powered-off conditions. These characteristics are similar in nature to noise generated from typical construction activities and; therefore, for the purposes of this analysis, it is assumed that use of this equipment would be exempt from the Sacramento County and Rancho Cordova noise ordinances, provided that all activity would take place between 6:00 a.m. and 8:00 p.m. within the County and between 7:00 a.m. and 6:00 p.m. within Rancho Cordova. Compliance with the construction times identified in the Noise Ordinances is required by the Environmental Commitments identified in the Project Description. The ARP Plan EIR indicates (Sacramento County 2008:CK-14-6) that project construction would not result in significant impacts due to the temporary nature of the these activities, limits on the duration of noise, and evening and nighttime restrictions imposed by the County noise ordinance. In addition, because the fuel treatment activities that are located near sensitive receptors involve vegetation clearing within a linear buffer (100 feet) along residential properties, the duration of noise exposure for each residence would be very brief as the treatment activities move along the buffer (in most cases, less than three hours total for each residence). By adhering to the requirements of the noise ordinances, the activities included in the proposed CWPP would result in a **less-than-significant** impact.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less-Than-Significant. Construction activities that most commonly cause vibration related impacts are pile driving and blasting. Use of very large pieces of heavy construction equipment (earth movers, large front end loaders, large dump trucks, etc.) can also result in exposure of persons to excessive groundbourne vibration when they move in close proximity to sensitive receptors. The activities proposed in the CWPP would not include use of pile driving, blasting, or major construction equipment. This impact is considered **less than significant**.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

No Impact. No new stationary noise sources or land development would be included in the project. Therefore, the project would not result in any permanent increase in ambient noise levels. The project would result in **no impact**.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less-Than-Significant. As discussed under "a," the County of Sacramento and City of Rancho Cordova include exemptions for construction noise in their noise ordinances. The activities proposed within the CWPP would be exempt and would adhere to the evening and nighttime restrictions identified above. This impact is **less than significant**.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less-Than-Significant. Several subdivisions identified for proposed fuel treatment are located within two miles of airports. One subdivision is located approximately 1.5 miles north of former McClellan Air Force Base (which remains primarily inactive as an airfield except for use by the U.S. Coast Guard) and two subdivisions are located within two miles of Sacramento Mather Airport near Rancho Cordova. The proposed project does not include development any new residential land uses or permanent structures where people

would live or work. Furthermore, the fuels treatment would be short-term and workers would not be exposed to long-term excessive noise from aircraft. Therefore, the proposed project would not expose residences or workers to excessive noise levels from airports. The impact would be **less than significant.**

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Less-Than-Significant. The proposed activities in the CWPP would not occur within the vicinity of a private airstrip, except for one treatment near the private airstrip in Rancho Murieta. For the same reasons discussed under "e" the impact is considered **less than significant.**

3.13 POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. Population and Housing. Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing homes, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.13.1 Environmental Setting

Metro Fire serves a population of over 640,000 in a 417 square mile service area (see Exhibit 2-1 for location) from 42 stations. Metro Fire is the 7th largest fire agency in the State of California. Metro Fire employs approximately 750 uniformed and support personnel. On any given day, there are 155 on-duty personnel to serve the District's communities.

3.13.2 Discussion

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

b) Displace substantial numbers of existing homes, necessitating the construction of replacement housing elsewhere?

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Response to items a through c:

No Impact. The CWPP would not induce population growth because it would not involve any alteration of existing land uses or the introduction of new land uses associated with population increases (e.g., housing, employment centers). Moreover, the project would not involve new infrastructure or services that would draw new residents to the area. Because the proposed project would not alter existing land uses, it would not displace housing units or people. **No impact** related to population and housing would occur with implementation of the proposed project.

3.14 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Public Services. Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

3.14.1 Environmental Setting

Metro Fire provides fire protection services within the District. Police protection services within the District are provided by a variety of agencies, including Sacramento County Sheriff, City of Citrus Heights Police Department, City of Rancho Cordova Police Department, California Highway Patrol, as well as Sacramento County Regional Park Rangers (within the ARP).

School districts within the District include Aroche Union, Center Joint Unified, Elk Grove Unified, Elverta Joint, Folsom Cordova Unified, Galt Joint Union High, Natomas Unified, Robla, San Juan Unified, and Twin Rivers Unified.

There are numerous public parks within the District managed primarily by the County, the Cities of Citrus Heights and Rancho Cordova, as well as the State of California.

3.14.2 Discussion

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?

No impact. The proposed CWPP would result in increased fire protection for communities currently at risk of wildfire hazard. The proposed project would not increase demand for fire protection services and would not

adversely affect response times and would likely result in a benefit to fire protection services. With implementation of the CWPP **no impact** to fire protection services would occur.

Police protection?

No impact. The CWPP would not result in development of any occupied structure and would not increase demand for police protection. Implementation of the CWPP would not adversely affect police response times. Therefore, **no impact** related to police protection would occur.

Schools?

No impact. Implementation of the CWPP would not result in development of any residences or other occupied structures and would not affect local or regional population. Therefore, **no impact would occur**.

Parks?

No impact. Implementation of the CWPP would increase the level of fire protection for naturally-vegetated parks and open space areas by increasing education and agency coordination and also by implementing fuels management projects, several of which would occur within the ARP. Therefore, the proposed project would result in a fire protection benefit to many parks. Regarding potential adverse effects, the CWPP would result in **no impact**.

Other public facilities?

No impact. Implementation of the CWPP would not result in development of any residences or other occupied structures and would not affect local or regional population. Therefore, the proposed project would not increase demand for other public facilities and would result in **no impact**.

3.15 RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. Recreation. Would the project:				
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?	☐	☐	☒	☐

3.15.1 Environmental Setting

The ARP is an open space area surrounding the American River. A portion of the ARP falls within District boundaries (refer to Exhibit 2-5). In its entirety, the Parkway extends approximately 29 miles from Folsom Dam in the northeast portion of Sacramento County to the confluence of the American and Sacramento Rivers in the northwest area of downtown Sacramento. Recreational facilities within the ARP include maintained trails, some roads and staging areas, and active and passive recreational facilities (an interpretive center, boat launches, bathrooms, benches, picnic tables, etc.). There are numerous public parks within the District managed primarily by the County, the Cities of Citrus Heights and Rancho Cordova, as well as the State of California.

3.15.2 Discussion

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?

Response to items a and b:

Less-than-significant impact. The CWPP would result in the implementation of vegetation management activities within the ARP and adjacent to selected subdivisions, construction of a segment of unpaved access road within the ARP, enhancement of an existing sprinkler system, and installation of weather stations atop existing structures or developed areas. Except for installation of weather stations, the project would not result in the construction of any structures. As a result, the project would not result in an increase in population in the area that would result in an increase in use of parks and recreational facilities, or require construction or expansion of recreational facilities that could have an adverse effect on the environment. The creation and annual maintenance of firebreaks adjacent to recreational facilities (i.e., trails; access roads that provide discretionary recreational use) could result in temporary closures of all or a portion of affected recreational segment. However, any closures as a result of treatment would be temporary, generally no more than 3 to 5 days and would not have an adverse effect on recreational opportunities in the District or in adjacent parks. This would be a **less-than-significant** impact.

3.16 TRANSPORTATION/TRAFFIC

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. Transportation/Traffic. Would the project:				
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 due to 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?	☐	☐	☐	☒

3.16.1 Environmental Setting

There are many transportation facilities within the District, both major and minor. Freeways within the District include Interstate 5, State Route 99, State Route 16, US Highway 50, and Interstate 80. There are hundreds of roadways within the District, but a few of the highest volume roads include (but are not limited to): Auburn Road, Antelope Road, Douglas Road, Fair Oaks Boulevard, Folsom Boulevard, Madison Avenue, Greenback Lane, Bradshaw Road, San Juan Avenue, Sunrise Boulevard, and Hazel Avenue.

Sacramento Regional Transit is the major transit provider in the region providing both bus and light rail service within the District.

3.16.2 Discussion

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?

Less-Than-Significant. The proposed CWPP does not include modification to the public roadway system and would not result in long-term and sustained increase in trip generation. The proposed project would result in short-term trips associated with vegetation clearing crews and materials, as well as a few construction worker trips associated with the proposed fire access road and the sprinkler system upgrades. These trips, which would not exceed 100 daily vehicle trips total, would be spread across the District, and would not all occur during the same time period. Because these trips would dispersed and would not measurably change existing traffic conditions, the proposed project would not conflict with plans or policies associated with the circulation system performance. This impact is **less than significant**.

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?

Less-Than-Significant. For the reasons discussed in "a" above, the proposed CWPP would not conflict with a congestion management program, including level of service standards. This impact is **less than significant**.

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?

No Impact. The proposed CWPP does not include development of residences or other structures that could affect air traffic patterns. The CWPP would not increase air traffic and would not result in safety risks related to aircraft. Therefore, **no impact** related to changed air traffic patterns and safety risks would occur.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less-Than-Significant. The CWPP does not include new public roadways or other facilities that the public would drive on. The proposed new fire access road would be designed and constructed to Metro Fire standards and would, therefore, provide appropriate and safe access to fire and emergency vehicles. The proposed project would result in a **less-than-significant** impact related to hazardous design features.

e) Result in inadequate emergency access?

No Impact. The CWPP would improve emergency access in the ARP with provision of the proposed fire access road. Activities proposed under the CWPP would not obstruct emergency vehicle access and **no impact** related to emergency access would occur.

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?

No Impact. The CWPP does not include construction of new public roadways or other facilities that would be accessed by pedestrians, bicyclists, or transit riders. The CWPP would not include activities that would obstruct pedestrian or bicyclist access to any existing roadways or facilities. The CWPP would not conflict with any policies or programs regarding public transportation or alternate modes and **no impact** would occur.

3.17 UTILITIES AND SERVICE SYSTEMS

	ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII.	**Utilities and Service Systems. Would the project:**				
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 storm water 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 are new or expanded entitlements 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?	☐	☐	☒	☐

3.17.1 Environmental Setting

CWPP activities would occur within natural open spaces and open spaces adjacent to urban uses. Sprinkler system updates would occur within one recreational area of the ARP (see Exhibit 2-5). Otherwise, the need for water, wastewater, and stormwater infrastructure and solid waste disposal services under the CWPP is minimal. Solid waste disposal services within the ARP and selected subdivisions are provided by local providers.

3.17.2 Discussion

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?

Response to items a and b.

No impact. The project would not generate any wastewater. No impact would occur.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less-than-significant impact. Proposed project activities would be limited to vegetation management and minor construction associated with the proposed unpaved fire access road (approximately 700 feet) and irrigation system upgrades and would not result in any activities or uses that would substantially increase stormwater runoff such that new or expanded facilities would be required. This impact would be **less than significant**.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements 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?

Response to items d and e.

No impact. The proposed project would not consume water beyond existing use levels, and would not generate any wastewater. The sprinkler system updates would provide increased water efficiency and fire suppression during fire events. Further, the improvements would result in irrigation of areas previously irrigated and no expansion of the system is proposed. **No impact** would occur.

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?

Response to items f and g.

Less-than-significant impact. The project would generate minimal solid waste consistent with existing waste generation rates for fuel treatment projects. No more than 200 cubic yards of plant material would be disposed of into landfills annually (as funding permits). When appropriate, plant material would be left to decompose on site. Metro Fire's Environmental Commitment 9 identifies the proper disposal requirements for herbicide containers. Because the project would not generate substantial solid waste above existing levels and appropriate disposal of waste containers would occur, the project would have **less-than-significant** impacts related to landfill capacity and compliance with applicable solid waste regulations.

3.18 MANDATORY FINDINGS OF SIGNIFICANCE

	ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII.	**Mandatory Findings of Significance.**				
a)	Does the project have the potential to substantially 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 an endangered, rare, or threatened species, 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?	☐	☐	☒	☐

Authority: Public Resources Code Sections 21083, 21083.5.

Reference: Government Code Sections 65088.4.
Public Resources Code Sections 21080, 21083.5, 21095; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

3.18.1 Discussion

a) Does the project have the potential to substantially 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 an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

Less-than-significant with Mitigation Incorporated. As discussed above in the Biological Resources and Cultural Resources sections, the proposed project would not degrade the natural 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 native 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.

Environmental Commitments identified in the Project Description (Section 2.8) and mitigation recommended as part of this IS would prevent impacts on natural resources. No sensitive special-status plant or animal

species would be harmed, and no sensitive natural communities or habitats would be permanently or substantially affected. The project would not obstruct habitat corridors necessary for the movement of species. The project would not disturb geological, archaeological, paleontological, or historical resources. Impacts pertaining to biological and cultural resources were determined to be less than significant with mitigation incorporated.

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.)

Less- than-significant impact. The proposed project consists of implementation of a CWPP and related fuel-treatment projects that were selected for Metro Fire (see Exhibit 2-5 and 2-6). In addition, Metro Fire has been implementing recent and on-going fuel management projects within the District. Because of the dispersed location of these projects within the District, the environmental effects are site-specific and generally do not combine to create cumulative impacts. Impacts associated with population increases or demand for services and infrastructure would not result from these types of projects and, therefore, would not combine to create a significant cumulative impact. Impacts associated with water quality are minimized at each site through the use of Environmental Commitments identified in the Project Description and protective measures identified in the Biological Resources and Hydrology and Water Quality section of this chapter, such that no cumulative impacts would occur with projects located within the same drainages. Air emissions associated with the project in combination with other cumulative projects would be minimal and would be substantially below adopted thresholds. Therefore, the proposed project would not result in a considerable contribution to any significant cumulative impacts.

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Less- than-significant impact. No substantial adverse effects on humans are expected. As described in Section 3.8, Hazards and Hazardous Materials, Metro Fire is required to implement BMPs for application of herbicides. Herbicides would be applied by a licensed professional and consistent with label requirements and other local, state, and federal requirements. Also, herbicide application in public recreation areas would require signage notifying the public and staff of the presence of herbicides. Herbicide application would also be applied 300-feet from any water body or sensitive habitat. Impacts on human health and safety were determined to be less than significant.

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