

APPROVED AS TO FORM AND LEGALITY


CITY ATTORNEY'S OFFICE

OAKLAND CITY COUNCIL

RESOLUTION NO. _____ C.M.S.

A RESOLUTION:

1. ADOPTING THE CITY OF OAKLAND VEGETATION MANAGEMENT PLAN (“VMP”), WHICH: (A) DESCRIBES THE ACTIONS THAT THE OAKLAND FIRE DEPARTMENT (“OFD”) WILL TAKE OVER THE 10-YEAR PLAN TIMEFRAME TO REDUCE FIRE HAZARD ON APPROXIMATELY NINETEEN HUNDRED AND TWENTY-FOUR (1,924) ACRES OF CITY-OWNED LAND AND ALONG THREE HUNDRED AND EIGHT (308) MILES OF ROADWAY IN THE CITY OF OAKLAND’S DESIGNATED VERY HIGH FIRE HAZARD SEVERITY ZONE (“VHFHSZ”), (B) MEETS OFD’S STATED GOALS OF REDUCING WILDFIRE HAZARD ON CITY-OWNED LAND AND ALONG CRITICAL ACCESS/EGRESS ROUTES, THEREBY REDUCING THE LIKELIHOOD OF IGNITIONS AND EXTREME FIRE BEHAVIOR TO ENHANCE PUBLIC AND FIREFIGHTER SAFETY, (C) AVOIDS OR MINIMIZES IMPACTS TO NATURAL RESOURCES, AND (D) CONTRIBUTES TO REGIONAL EFFORTS TO REDUCE WILDFIRE HAZARD IN THE OAKLAND HILLS; AND

2. CERTIFYING THE ENVIRONMENTAL IMPACT REPORT FOR THE VMP THAT ANALYZES THE VMPS’S POTENTIAL SIGNIFICANT IMPACTS AND MAKES CERTAIN FINDINGS CONCERNING ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND ALTERNATIVES, AND ADOPTING A MITIGATION MONITORING AND REPORTING PROGRAM, ALL IN ACCORDANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (“CEQA”).

WHEREAS, the series of historic wildfires throughout California and the Western United States in recent years demonstrates that the impacts of global climate change will continue to have potentially devastating local effects throughout the Oakland hills and region; including habitat destruction, loss of life, economic impacts, infrastructure damage, and public health hazards associated with air quality; and

WHEREAS, since 1923, more than a dozen major wildfires have impacted the Oakland hills, resulting in extensive damage, economic harm, and loss of life. Most notably, the 1991 Oakland/Berkeley firestorm burned over 1,500 acres, destroyed more than 3,000 homes, caused the deaths of 25 people, and injured over 150 people; and

WHEREAS, most of the Oakland hills fall within High or Very High Fire Hazard Severity Zones (“VHFHSZ”), as designated by the California Department of Forestry and Fire Protection), where vegetation must be actively managed to reduce the threat and devastating effects of future wildfires; and

WHEREAS, the VHFHSZ in the Oakland hills includes areas described as the Wildland Urban Interface (“WUI”), steep and varied terrain, hill slope development, and limited accessibility for emergency responders; and

WHEREAS, the Vegetation Management Plan (“VMP”), which is available for review at: https://cao-94612.s3.us-west-2.amazonaws.com/documents/ER23007_Att.-D-Revised-Vegetation-Management-Plan-Copy.pdf, covers more than 1,900 acres of City property plus treatment areas along approximately 300 miles of roadside. Vegetation management activities conducted on these lands currently include goat grazing on nine sites covering approximately 1,300 acres, vegetation clearing along 16 roadways (58 miles), monitoring for vegetation clearance along approximately 300 miles of road within the VHFHSZ (16.5 square miles), and brush clearance on critical City-owned properties (~332 acres); and

WHEREAS, the Oakland Fire Department (“OFD”) has been actively managing vegetation on City-owned property since 2003 to minimize wildfire hazard in the VMP area, utilizing various techniques, including grazing, hand crews, and limited mechanical treatments. Goats have been used in large treatment areas, on City park land and open space where manual labor is cost-prohibitive or areas are inaccessible to mowing equipment or too steep for hand crews; and

WHEREAS, OFD has historically used hand labor to manage vegetation on urban and residential parcels, roadsides, and small treatment areas within larger parks or open space areas. Mechanical equipment has also been used, typically to grade or disk fire trails, reduce ladder fuels (e.g., removing small trees), control highly flammable/rapidly spreading species, reduce surface fuels (e.g., mowing grasses), chip and spread trimmings and down material, thin vegetation, and maintain reduced or target fuel loads; and

WHEREAS, between 2004 and 2017, OFD conducted vegetation management activities throughout the Wildfire Prevention Assessment District (“WPAD”), a City-funded special assessment district that coincides with the City’s VHFHSZ. This district financed the costs and expenses related to vegetation management, yard waste disposal, wildfire prevention education, and fire patrols in the Oakland hills; and

WHEREAS, the WPAD was disbanded in June, 2017. Although OFD has continued to conduct vegetation management activities on City-owned properties and along roads since 2017, due to funding constraints, these vegetation management activities have been conducted to a lesser degree than when the WPAD was in place, which results in increased fire risk; and

WHEREAS, development of the VMP includes a detailed field assessment of wildfire hazard, which was used to identify and classify existing vegetation community and land cover types into fuel models, and map areas with high ignition potential or where extreme wildfire behavior would be expected given current terrain and fuel conditions; and

WHEREAS, development of the VMP also included assessment and processing of geographic information system (GIS) datasets for variables influencing wildfire hazards in the VMP area, coordination with OFD personnel, fire behavior modeling, and significant public and stakeholder outreach to better understand current vegetation management activities and needs in the VMP area; and

WHEREAS, the VMP area encompasses City-owned parcels and areas within 30 feet of the edge of roadsides located within the City's VHFHSZ, as designated by the California Department of Forestry and Fire Protection ("CAL FIRE") and defined in Section 4904.3 of the Oakland Fire Code (Oakland Municipal Code Chapter 15.12). The VMP area also encompasses the area within 30-100 feet of the edge of roadsides in the City's VHFHSZ where dead and dying trees (as determined by a Certified Arborist, Licensed Forester, or Fire Safety Expert) are present on City-owned property and could strike the road if they fell; and

WHEREAS, as described in Section 9 of the VMP, the goal of fuel treatment is to alter the structure, composition, and spacing of retained vegetation to moderate potential fire behavior. Retained vegetation can reduce wind exposure, retain soil and surface fuel moisture, and reduce the potential for soil erosion; and

WHEREAS, implementation of the VMP would involve thinning, pruning, removal, and otherwise modification of trees and vegetation within the VMP area to reduce the likelihood of a wildfire occurring and to minimize/slow the spread of a wildfire, should one occur; and

WHEREAS, the City has identified the following primary goals to guide the preparation and implementation of the VMP: (1) Reduce wildfire hazard on City-owned land and along critical access/egress routes within the City's designated VHFHSZ; (2) Reduce the likelihood of ignitions and extreme fire behavior to enhance public and firefighter safety; (3) Implement practices to avoid or minimize impacts to natural resources; and (4) Maintain an active role in regional efforts to reduce wildfire hazards in the Oakland hills; and

WHEREAS, the goals, objectives, and recommendations identified in the VMP are based on a combination of evaluating existing field conditions and current vegetation and fire risk conditions at City parcels; analyzing spatial datasets of environmental and wildfire risk factors in a GIS; conducting GIS-based analysis and modeling to identify areas that may be subject to extreme fire behavior; identifying locations within the VMP area that may present increased ignition potential or otherwise contribute to increased fire hazard; and receiving feedback and guidance from many stakeholders through various meetings, site visits, and written comments; and

WHEREAS, the development of the VMP will not only allow the City to adequately respond to and mitigate fire risks in the Oakland hills, but the development of a strategic plan for vegetation management may also lead to other funding opportunities to help pay for these efforts either through a new WPAD or other funding mechanisms; and

WHEREAS, the Council hereby considers the proposed VMP for adoption together with the Environmental Impact Report (“EIR”) that considers the environmental impacts of the VMP consistent with the California Environmental Quality Act (“CEQA”), and

WHEREAS, the path to this proposed formal adoption of the VMP has been extensive over the course of several years, with the effort to engage the community being sincere and consistent and the attention to feedback and detail being the focus in moving the proposed VMP forward; and

WHEREAS, on November 1, 2019, a Notice of Preparation of an EIR (“NOP”) for the Draft VMP was prepared in accordance with the CEQA Guidelines Section 15082 and was circulated to the Office of Planning and Research’s State Clearinghouse. The original scoping period, which ended on December 2, 2019, was extended to December 12, 2019, for a total of 41 days. The NOP is included in Appendix B of the prior DEIR (“2020 DEIR”); and

WHEREAS, to provide the public, as well as responsible and trustee agencies, an opportunity to ask questions and submit comments on the Draft VMP and the scope of the 2020 DEIR, the City held a scoping meeting on Wednesday, November 20, 2019; and

WHEREAS, comments received during the public scoping period were considered in the City’s CEQA evaluation and are summarized in Appendix B of the prior 2020 DEIR; and

WHEREAS, the prior 2020 DEIR was released for a 45-day public review and comment period on November 24, 2020. The public review period allowed the public an opportunity to provide input to the lead agency on the prior 2020 DEIR.

WHEREAS, on December 16, 2020, the City Planning Commission agreed to extend the public comment period by fifteen (15) days from January 7, 2021, to January 22, 2021, for a total of sixty (60) days. The City also conducted a public meeting on the prior 2020 DEIR on December 16, 2020; and

WHEREAS, as a result of comments received on the prior 2020 DEIR, the City revised the Draft VMP to respond to and incorporate measures and recommendations from those comments. The prior 2020 DEIR was then revised and updated to the “Recirculated DEIR,” which evaluates changes to the VMP that arose from public comments; and

WHEREAS, the City prepared the Recirculated DEIR to disclose environmental impacts associated with the changes to the VMP. The City published the Recirculated DEIR on September 20, 2023, for a 45-day public comment period that ended on November 4, 2023. The City hosted one public meeting before the Planning Commission on November 1, 2023, at which time oral comments were received on the Recirculated EIR; and

WHEREAS, CEQA requires the lead agency to prepare a Final EIR (“FEIR”) that addresses all substantive comments received on the 2020 DEIR and Recirculated DEIR before approving a project that could have significant impacts on the environment. The FEIR must include a list of all individuals, organizations, and agencies that provided comments on the DEIR

and must contain copies of all comments received during the public review period along with the lead agency's responses; and

WHEREAS, the FEIR, which is available at <https://www.oaklandca.gov/projects/oakland-vegetation-management-plan>, was available to the public and public agencies that provided comments at least ten (10) days prior to certifying the FEIR. At the close of the 10-day public agency review period, City Staff hereby recommends the City Council certifies the FEIR; and

WHEREAS, the City Council has reviewed the FEIR, considered City Staff's recommendations, public testimony and public record, and hereby decides to certify the FEIR and adopt the VMP; and

WHEREAS, for significant impacts identified in the EIR that cannot be mitigated, findings of fact and a statement of overriding considerations must be included in the administrative record of approval, and are thus included in the CEQA Findings at *Exhibit A* attached hereto, for the VMP and, upon certification of the EIR and approval of the VMP, mentioned in the Notice of Determination ("NOD") to be filed with Office of Planning and Research ("OPR") and at the Office of the Alameda County Clerk pursuant to CEQA Guidelines section 15093(c); and

WHEREAS, at its May 14, 2024 meeting, the Public Safety Committee of the City Council considered the VMP and Recirculated EIR and resulting FEIR and recommended that the City Council certify the EIR and adopt the VMP; and

WHEREAS, the City Council held a meeting on May 21, 2024 to review and consider the adoption of the VMP and certification of the EIR; and

WHEREAS, the VMP webpage on the City's website, available at: <https://www.oaklandca.gov/projects/oakland-vegetation-management-plan>, includes extensive information on the timeline, progression and documents published throughout this process from 2017-present, including the VMP, 2020 and Recirculated DEIRs, and FEIR; and

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF OAKLAND DOES HEREBY ORDAIN AS FOLLOWS:

RESOLVED: That the City Council finds and determines that the foregoing recitals to be true and correct and an integral part of the City Council's decision, and hereby adopts said recitals as Findings in addition to the CEQA Findings at *Exhibit A* attached hereto; and be it

FURTHER RESOLVED: That the City Council, as the independent decision-making body for the lead agency, has independently reviewed, considered, and analyzed the VMP, the EIR, and its environmental findings; and be it

FURTHER RESOLVED: That the City Council hereby adopts the VMP, available at the following link: https://cao-94612.s3.us-west-2.amazonaws.com/documents/ER23007_Att.-D- Revised-Vegetation-Management-Plan-Copy.pdf and available by hand-copy at OFD, and further finds and determines that the public safety, health, convenience, comfort, prosperity and general welfare will be furthered by the adoption of the VMP; and be it

FURTHER RESOLVED: That the City Council, as the final decision-making body for the lead agency, hereby confirms, adopts and incorporates by reference into this Resolution (as if fully set forth herein) all the CEQA findings attached hereto at *Exhibit A* including rejecting alternatives as infeasible and adopting a Statement of Overriding Considerations, prior to taking action in adopting the VMP and EIR certification; and be it

FURTHER RESOLVED: That the City Council hereby certifies that the VMP EIR has been prepared in accordance with CEQA and adopts and certifies said EIR; and be it

FURTHER RESOLVED: That the City Council adopts and incorporates by reference into this Resolution as if fully set forth herein, as conditions of approval of the VMP and EIR, the Mitigation Monitoring and Reporting Program (“MMRP”) contained in *Attachment A to Exhibit A (Attachment A to City’s CEQA Findings)*; and be it

FURTHER RESOLVED: That the record before this City Council relating to these actions include, without limitation, the following:

1. The VMP, with accompanying maps, papers and appendices;
2. all final staff reports, final decision letters and other final documentation and information produced by or on behalf of the City, including without limitation the EIR and supporting technical studies and appendices, and all related/supporting final materials, and all final notices relating to the VMP and EIR;
3. The City Council’s formal CEQA Findings, attached hereto at *Exhibit A*;
4. The MMRP, which can be found at Appendix A to the EIR and at *Attachment A to Exhibit A*;
5. all oral and written evidence received by the City Planning Commission, Public Safety Committee of the City Council, and City Council during the public hearings; and all written evidence received by the relevant City Staff before and during the public meetings; and
6. all matters of common knowledge and all official enactments and acts of the City, such as: (a) the General Plan; (b) Oakland Municipal Code; (c) Oakland Planning Code; (d) other applicable City policies and regulations; and (e) all applicable State and Federal laws, rules and regulations; and be it

FURTHER RESOLVED, that the City Council hereby authorizes the City Administrator or designee to make non-substantive, technical conforming changes (essentially correction of typographical and clerical errors and minor clarifications) to the VMP and/or this Resolution prior to formal publication, without returning to the City Council; and be it

FURTHER RESOLVED, that nothing in this Resolution shall be interpreted or applied to create any requirement, power, or duty in conflict with any Federal or State law; and be it

FURTHER RESOLVED: that the provisions of this Resolution, the adopted VMP, the CEQA Findings, or the certified EIR are severable. If a court of competent jurisdiction determines that a word, phrase, clause, sentence, paragraph, subsection, section, Chapter or other provision is invalid, or that the application of any part of the provision to any person or circumstance is invalid, the remaining provisions of these documents (that can be given effect without the invalid provision or application) and the application of those provisions to other persons or circumstances are not affected by that decision. The City Council declares that the City Council would have adopted this Resolution irrespective of the invalidity of any particular portion of this Resolution; and be it

FURTHER RESOLVED: That the custodians and locations of documents, records, findings, environmental review documents, or other materials which constitute the record of proceedings upon which the City Council based their decision are respectively: (a) the Oakland Fire Department – 150 Frank H. Ogawa Plaza Suite 3354, Oakland, California 94612, and (b) the Office of the City Clerk, One Frank H. Ogawa Plaza, 1st Floor, Oakland, California 94612; and be it

FURTHER RESOLVED: That the City Administrator or designee is authorized to file a Notice of Determination (“NOD”) with the Clerk of the County of Alameda and any other appropriate agencies following the adoption of this Resolution.

IN COUNCIL, OAKLAND, CALIFORNIA,

PASSED BY THE FOLLOWING VOTE:

AYES - FIFE, GALLO, JENKINS, KALB, KAPLAN, RAMACHANDRAN, REID, AND
PRESIDENT FORTUNATO BAS

NOES –
ABSENT –
ABSTENTION –

ATTEST: _____
ASHA REED
City Clerk and Clerk of the Council of the
City of Oakland, California

EXHIBIT A
CITY'S CEQA FINDINGS

THE CITY OF OAKLAND’S CEQA FINDINGS:

**Certification of the EIR, Rejection of Alternatives and
Statement of Overriding Considerations In Support of Approval of the Oakland
Vegetation Management Plan**

I. INTRODUCTION

These findings are made pursuant to the California Environmental Quality Act (Pub. Res. Code section 21000 et seq; “CEQA”) and the CEQA Guidelines (Cal. Code Regs. title 14, section 15000 et seq.) by the City Council of the City of Oakland in connection with the Environmental Impact Report (“EIR”) prepared for the Oakland Vegetation Management Plan (“VMP”), with State Clearinghouse Number (“SCH #”): 2019110002.

These CEQA findings are attached and incorporated by reference into each and every staff report and resolution associated with the City Council’s approval of the VMP.

These findings are based on substantial evidence in the entire administrative record, and references to specific reports and specific pages of documents are not intended to identify those sources as the exclusive basis for the findings.

II. PROJECT DESCRIPTION

- 1. **The VMP Area:** The VMP area encompasses City-owned parcels and areas within 30 feet of the edge of roadsides located within the City’s VHFHSZ, as designated by the California Department of Forestry and Fire Protection (“CAL FIRE”) and defined in Section 4904.3 of the Oakland Fire Code (Oakland Municipal Code Chapter 15.12).

Specifically, as shown in Figure ES-1 or the Recirculated DEIR, the area also encompasses the area within 30-100 feet of the edge of roadsides in the City’s VHFHSZ where dead and dying trees (as determined by a Certified Arborist, Licensed Forester, or Fire Safety Expert) are present on City-owned property and could strike the road if they fell. As described in Section 9 of the VMP, the goal of fuel treatment is to alter the structure, composition, and spacing of retained vegetation to moderate potential fire behavior. Retained vegetation can reduce wind exposure, retain soil and surface fuel moisture, and reduce the potential for soil erosion. Specifically, as shown in Figure ES-1, the VMP area includes 419 City-owned parcels, ranging in size from <0.1 acre to 235 acres and totaling 1,924 acres. For VMP planning purposes, parcels have been divided into the following categories: urban and residential, canyon areas, ridgetop areas, City park lands and open space, other areas, and road medians. The VMP also includes roadside areas along 308 miles of road within the City’s VHFHSZ, including surface and arterial streets, State Routes (SRs) 13 and 24, and Interstate 580 (I-580). The below table summarizes the categories, sizes, and quantities of City-owned parcels in the VMP area.

City parks, recreational and open space areas considered in the VMP include Beaconsfield Canyon, Garber Park, Dimond Canyon Park, Shepherd Canyon Park, Leona Heights Park, North Oakland Regional Sports Complex, Grizzly Peak Open

Space, City Stables, Sheffield Village Open Space, Knowland Park and Arboretum, King Estate Open Space Park, Joaquin Miller Park, Tunnel Road Open Space, Marjorie Saunders Park, and Oak Knoll.

2. City-owned Parcels within the VMP Area

Parcel Category	Quantity	Total Acreage
Urban and Residential	152	51.2
Canyon Areas	89	188.7
Ridgetop Areas	11	130.2
City Park Lands and Open Space	91	1,552.9
Other Areas*	43	24.5
Medians	33	6.1
Total:	419	1,923.6

* Other areas are developed City-owned properties in the VMP area that include fire stations (nos. 6, 7, 21, 25, and 28), City facilities (parking lots, police stations), paved areas, and parks and playgrounds.

The pattern of development and land uses within the VMP area (and VHFHSZ) creates conditions that can be described as representing either a wildland urban interface or a wildland urban intermix. Areas where urban development abuts vegetative fuels are known as the wildland urban interface (“WUI”). This condition exists within the VMP area where structures abut City parklands and open space. Areas where the density of housing units and structures is lower and/or the space between structures consists of vegetative fuels capable of propagating fire are more typically characterized as a wildland urban intermix (Intermix). This condition exists throughout the VMP area, most commonly where smaller undeveloped lots covered by vegetative fuels are situated between structures.

3. Project Goals and Objectives: The CEQA Guidelines call for the identification of objectives sought by a proposed project (CEQA Guidelines Section 15124[b]). A statement of objectives helps convey the reasons for considering approval of the VMP, including its intended benefits, and guides the development of a reasonable range of alternatives to evaluate in the EIR.

The City has identified the following primary goals for the VMP:

- a. Reduce wildfire hazard on City-owned land and along critical access/egress routes within the City’s VHFHSZ;
- b. Reduce the likelihood of ignitions and extreme fire behavior to enhance public and firefighter safety;
- c. Implement practices to avoid or minimize impacts to natural resources;
- d. Maintain an active role in regional efforts to reduce wildfire hazard in the Oakland hills;

The objectives of the VMP are as follows:

- e. Reduce the likelihood of catastrophic wildfires by limiting ignition potential, reducing fuel loads, and modifying fuel arrangements on City-owned lands;
- f. Reduce the likelihood of extreme fire behavior within the VMP area;
- g. Identify and define vegetation management actions that consider site-specific vegetation type, fuel hazard, treatment effectiveness, and ongoing maintenance requirements;
- h. Identify and prioritize fuel treatment areas based on fuel loads and arrangements, terrain, topographic exposure, and proximity to roads and structures;
- i. Retain vegetation where feasible to reduce wind exposure, retain soil and surface fuel moisture, and reduce the potential for soil erosion;
- j. Develop management recommendations that enable OFD to make informed, adaptive decisions on an annual basis (or more often as necessary) regarding vegetation management within the VMP area, considering the benefits of treatment, potential environmental effects, and treatment costs;
- k. Avoid, minimize, and/or reduce potential adverse effects of vegetation management on sensitive biological resources, water resources, aesthetics, soils, and slope stability;
- l. Increase the ability of OFD and other responding agencies to suppress wildfire in the VMP area in order to minimize wildfire impacts to VMP area resources;
- m. Routinely evaluate the effectiveness and implementation frequency of vegetation management actions within the VMP area.

4. **Different Vegetation Management Techniques Evaluated:** Different vegetation management techniques may be more effective at reducing, removing, or altering vegetation, depending on vegetation type, location, condition, and site configuration. Given the dynamic nature of vegetation, a single treatment technique or management approach may not be appropriate for one site over time; therefore, an adaptive approach that provides more flexibility to adjust and select management techniques based on conditions on the ground is the preferred long-term approach. The goal remains to maintain vegetation conditions in accordance with the desired vegetation management standards, but the specific methods may evolve over time. Four categories of vegetation management techniques are proposed for use under the VMP:

- a. **Biological Techniques (Grazing)** – Grazing is the primary biological vegetation management technique that uses livestock (e.g., goats, cattle, sheep) to reduce the fuel loading of live herbaceous growth, shrubs, and new growth of trees and prevent the expansion of brush/scrub into grasslands. Grazing is an effective

method in large treatment areas where manual labor would be cost-prohibitive as well as in areas that are inaccessible to mowing equipment or in areas too steep for hand crews. Typically, grazing is conducted from late spring through the end of summer to reduce fine fuels prior to the onset of peak fire season. Grazing management plans consider site-specific conditions, specify management objectives and standards, and identify animal stocking rates and use levels (typically measured in pounds per acre of residual dry matter), grazing season, and monitoring requirements and performance criteria.

- b. **Hand Labor Techniques** – Hand labor techniques involve pruning, cutting, or removing trees, shrubs, and grasses by hand or using handheld equipment. Other hand labor treatments involve bark pulling, removing dead wood and litter, and mulching. Hand labor allows for selective management, pruning, thinning, or removal of targeted vegetation and is most effective for spot application on small areas or areas with difficult access or areas with sensitive species. The use of hand labor is focused on reducing ladder fuels, controlling highly flammable/rapidly spreading species (e.g., French broom), reducing surface fuels (e.g., grasses, weeds, down material), thinning vegetation, maintaining fuel loads, and pruning tree canopies. Compared to other vegetation management techniques, hand labor techniques typically have a lower potential for adverse environmental effects because the work is specifically targeted and implemented, although heavy foot traffic associated with hand labor can result in surface soil compaction and increase erosion potential.
- c. **Mechanical Techniques** – Mechanical techniques include fuel reduction methods that use motorized heavy equipment to remove or alter grass/herbaceous material (e.g., mowers, diskers) or woody material (e.g., masticators, feller-bunches). Mechanical treatment techniques rearrange vegetation structures, compact or chip/shred material, reduce ladder fuels, control highly flammable/rapidly spreading species, reduce surface fuels (e.g., mowing), and move material to staging areas for either reuse, off-site disposal, or composting; or burn piles. Constraints to mechanical equipment use include steep slopes, dense tree cover that prohibits access, saturated soils, and dry, high-fire hazard weather conditions where equipment use could result in ignition. Mechanical equipment is also typically not used for selective plant removal due to the large size of equipment. Typical mechanical equipment techniques to reduce fuel loads include grading, mowing, disking, mechanical cutting/crushing, chipping, tree removal, yarding, and creating fire and fuel breaks.
- d. **Chemical Techniques (Herbicide)** – Chemical techniques involve the use of herbicides to kill vegetation or prevent growth and are typically used in combination with other types of fuel reduction treatments, such as mowing, trimming, pruning, and grazing. Herbicides have a high kill rate and prevent treated plants from setting seed. They can be applied selectively, minimizing impacts to seeds of other species residing in the soil. Application of herbicides and other chemicals is typically performed by hand and can include sponging, spraying, or dusting chemicals onto unwanted vegetation. The cut-and-daub treatment is another method that is effective to control regrowth and kill the portion of the plant remaining belowground. This treatment method involves

cutting the plant stalks or trunks and then directly applying the herbicide with a brush, sponge, or hand sprayer with a cloth tied around the nozzle to the cambium layer of the freshly cut stump or stem. Herbicides must be applied by a licensed and trained professional to ensure proper and safe use, handling, and storage of chemicals to treat vegetation. Only specific types of herbicides are proposed for use in the VMP. While use of glyphosate is proposed, the Roundup formulation of glyphosate would not be used under the VMP.

III. PUBLIC ENVIRONMENTAL REVIEW OF THE PROJECT

1. **The Initial Publication of the Notice of Preparation:** Pursuant to CEQA and the CEQA Guidelines, a Notice of Preparation of an EIR (“NOP”) for the VMP was prepared in accordance with the State CEQA Guidelines (CEQA Guidelines Section 15082) and was circulated to the Office of Planning and Research’s State Clearinghouse on **November 1, 2019**. The original scoping period started on November 1, 2019 for 31 days, ending on December 2, 2019. However, the scoping period was extended to December 12, 2019, to allow the public and interested parties additional time to comment on the scope of the prior 2020 DEIR and to correct the contact name and email address of Angela Robinson Piñon, the person receiving comments during the scoping period. Thus, the scoping period extended for a total of 41 days. The NOP presented general background information on the VMP, the scoping process, and the environmental issues to be addressed in the DEIR. Copies of the NOP were distributed by mail and email to a broad range of stakeholders, including state, federal, and local regulatory agencies and jurisdictions, utilities, and interested individuals in the area. In addition, the NOP was published on the City’s website (oaklandca.gov/documents/oakland-vegetation-management-plan-comment-period-extension).
2. **Scoping Comments and Meeting:** As described in more detail in Section 2.3.2, several public and stakeholder engagement meetings were conducted to support development of the initial Draft VMP and VMP. Six workshops/meetings were conducted in 2017 and 2018 during development of the initial Draft VMP. In addition to the public meetings, a number of additional phone calls, meetings, and on-site field meetings were held with stakeholders interested in the VMP to collect additional public input. The Oakland City Council, Public Safety Committee further directed the VMP development team to conduct additional outreach to park volunteer/stewardship groups to receive information on current activities being conducted in City parks that occur in the Revise Draft VMP area with the intent of incorporating volunteer/stakeholder input into annual vegetation management planning efforts described in the VMP. In total, 11 additional group meetings were held in spring 2019 with stakeholders interested in the initial Draft VMP and VMP.

To provide the public, as well as responsible and trustee agencies, an opportunity to ask questions and submit comments on the initial Draft VMP and the scope of the prior 2020 DEIR, the City held a public scoping meeting during the public scoping period. As described above, notices of the meeting were mailed to interested parties; in addition, scoping meeting information was published on the City’s website prior to The scoping meeting was held before the Oakland Planning Commission on

Wednesday, November 20, 2019, at 6:00 p.m. at Oakland City Hall, 1 Frank H. Ogawa Plaza, Oakland.

3. The City also presented an update on the initial Draft VMP and prior 2020 DEIR as an item to the Oakland City Council, Public Safety Committee on Tuesday, December 3, 2019.
4. The City accepted verbal and written comments at the scoping meeting and the Public Safety Committee meeting, and accepted both written and electronic comments (via email) during the 41-day scoping period. During the scoping period, 41 comment letters were received. These comments were considered in the FEIR and are summarized in *Appendix B* to the FEIR.
5. **Prior 2020 DEIR Distribution and Meeting:** The prior 2020 DEIR was released for a 45-day public review and comment period on November 24, 2020. On December 16, 2020, the City Planning Commission, by motion, voted 4-0 to extend the public comment period 15 days from January 7, 2021 to January 22, 2021, for a total of 60 days. The City also conducted a public meeting on the prior 2020 DEIR on December 16, 2020.
6. **Recirculated DEIR Distribution and Meeting:** The City has prepared the Recirculated DEIR to disclose environmental impacts associated with the changes to the VMP. Where any such impacts are significant, feasible mitigation measures and potentially feasible alternatives that would substantially lessen or avoid such effects are identified and discussed. The public was provided a 45-day public review period for the opportunity to provide input to the City on the Recirculated DEIR. During this period, the City held one public meeting to receive comments on the recirculated portions of the Recirculated DEIR on November 1, 2023 before the Planning Commission. Commenters and the Planning Commission provided oral comments at the meeting.
7. **Preparation and Certification of the Final EIR:** Once the public review period on the Recirculated DEIR closed, the City prepared an FEIR, which incorporated both the prior 2020 DEIR and this Recirculated DEIR by reference. The FEIR responds to (a) comments received during the circulation period for the prior 2020 DEIR, and (a) comments received during the recirculation period on the Recirculated DEIR. It contains those comments (including those made at public meetings), responses to those comments, and any revisions to the text of the DEIR. The FEIR will be reviewed by the City of Oakland Public Safety Committee and considered for approval by the City Council. Written/emailed and oral comments received in response to the Recirculated DEIR are addressed in the "Responses to Comments" section of the FEIR. The FEIR, in turn, informs the City's exercise of its discretion as a lead agency under CEQA in deciding whether or how to approve the VMP.
8. **The Administrative Record:** The record, upon which all findings and determinations related to the approval of the VMP are based, includes the following:
 - a. The EIR and all documents referenced in or relied upon by the EIR.

- b. All information (including written evidence and testimony) provided by City staff to the Planning Commission, Public Safety Committee of the City Council, and City Council relating to the EIR, the approvals, and the VMP.
 - c. All information (including written evidence and testimony) presented to the Planning Commission, Public Safety Committee of the City Council, and City Council by the environmental consultant and sub-consultants who prepared the EIR or incorporated into reports presented to these hearing bodies.
 - d. All information (including written evidence and testimony) presented to the City from other public agencies relating to the VMP or the EIR.
 - e. All final information (including written evidence and testimony) presented at any City public hearing or City workshop related to the Plan and the EIR.
 - f. For documentary and information purposes, all City-adopted land use plans and ordinances, including without limitation general plans, specific plans and ordinances, together with environmental review documents, all documents referenced in and relied upon in such environmental review documents, findings, mitigation monitoring programs and other documentation relevant to planned growth in the VMP area.
 - g. All other documents composing the record pursuant to Public Resources Code section 21167.6(e).
9. The custodian of the documents and other materials that constitute the record of the proceedings upon which the City's decisions are based is the Oakland Fire Department, 150 Frank H. Ogawa Plaza, Oakland, California and the Office of the City Clerk, One Frank H. Ogawa Plaza, Oakland, California.

IV. CERTIFICATION OF THE EIR

- 1. In accordance with CEQA, the City Council certifies that the EIR has been completed in compliance with CEQA. The City Council has independently reviewed the record and the EIR prior to certifying the EIR and approving the VMP. By these findings, the City Council confirms, ratifies, and adopts the findings and conclusions of the EIR as supplemented and modified by these findings. The EIR and these findings represent the independent judgment and analysis of the City and the City Council.
- 2. The City Council recognizes that the EIR may contain clerical errors. The City Council reviewed the entirety of the EIR and bases its determination on the substance of the information it contains.
- 3. The City Council certifies that the EIR is adequate to support all actions in connection with the approval of the VMP and all other actions and recommendations as described in the **May 14, 2024 Public Safety Committee Agenda Report** and subsequent City Council Agenda Report(s). The City Council certifies that the EIR is adequate to support approval of the VMP described in the EIR, each component and phase of the

VMP described in the EIR, any variant of the VMP described in the EIR, any minor modifications to the VMP or variants described in the EIR and the components of the VMP.

V. ABSENCE OF SIGNIFICANT NEW INFORMATION

1. The City Council recognizes that the Final EIR incorporates information obtained and produced after the 2020 DEIR and Recirculated DEIR were completed, and that the Final EIR contains additions, clarifications, and modifications. The City Council has reviewed and considered the Final EIR and all this information. The Final EIR does not add significant new information to the 2020 DEIR and Recirculated DEIR that would require recirculation of the EIR under CEQA. The new information added to the 2020 DEIR and Recirculated DEIR does not involve a new significant environmental impact, a substantial increase in the severity of a previously identified significant environmental impact, or a feasible mitigation measure or alternative considerably different from others previously analyzed that the City declines to adopt and that would clearly lessen the significant environmental impacts of the Project. No information indicates that the 2020 DEIR and Recirculated DEIR were inadequate or conclusory or that the public was deprived of a meaningful opportunity to review and comment on the 2020 DEIR and Recirculated DEIR. Thus, recirculation of these previous DEIRs is not required.
2. The City Council finds that the changes and modifications made to the EIR after the Recirculated DEIR was circulated for public review and comment do not individually or collectively constitute significant new information within the meaning of Public Resources Code section 21092.1 or CEQA Guidelines section 15088.5.

VI. MITIGATION MONITORING AND REPORTING PROGRAM (“MMRP”) AND FINDINGS REGARDING IMPACTS

1. Public Resources Code section 21081.6 and CEQA Guidelines section 15097 require the City to adopt a monitoring or reporting program to ensure that the mitigation measures and revisions to the Project identified in the EIR are implemented. The Mitigation Monitoring and Reporting Program (“MMRP”) is set forth in *Attachment A* and incorporated by reference into Resolution Adopting the VMP and Certifying the FEIR, which is adopted by the City Council. This MMRP can also be found at Appendix A to the FEIR. The MMRP satisfies the requirements of CEQA.
2. The mitigation measures set forth in the MMRP are specific and enforceable and are capable of being fully implemented by the efforts of the City, the applicant, and/or other identified public agencies of responsibility. As appropriate, some standard conditions of approval and mitigation measures define performance standards to ensure no significant environmental impacts will result. The below table of mitigation measures adequately describes implementation procedures and monitoring responsibility in order to ensure that the VMP complies with the adopted standard conditions of approval and mitigation measures.

3. The City Council will adopt and impose the MMRP as enforceable conditions of approval for the Project. The City has adopted measures to substantially lessen or eliminate all significant effects where feasible.
4. The MMRP into and imposed upon the VMP approval will not themselves have new significant environmental impacts or cause a substantial increase in the severity of a previously identified significant environmental impact that were not analyzed in the EIR.
5. In accordance with Public Resources Code section 21081 and CEQA Guidelines sections 15091 and 15092, the City Council adopts the findings and conclusions regarding impacts and mitigation measures that are set forth in the EIR and summarized in the MMRP at **Attachment A** to these Findings. These Findings do not repeat the full discussions of environmental impacts, mitigation measures, standard conditions of approval, and related explanations contained in the EIR. The City Council ratifies, adopts, and incorporates, as though fully set forth herein, the analysis, explanations, findings, responses to comments and conclusions of the EIR. The City Council adopts the reasoning of the EIR, staff reports, and presentations provided by the staff as may be modified by these Findings.
6. The City Council recognizes that the environmental analysis of the VMP raises controversial environmental issues, and that a range of technical and scientific opinions exists with respect to those issues. The City Council acknowledges that there are differing and potentially conflicting expert and other opinions regarding the VMP. The City Council has, through review of the evidence and analysis presented in the record, acquired a better understanding of the breadth of this technical and scientific opinion and of the full scope of the environmental issues presented. In turn, this understanding has enabled the City Council to make fully informed, thoroughly considered decisions after taking account of the various viewpoints on these important issues and reviewing the record. These findings are based on a full appraisal of all viewpoints expressed in the EIR and in the record, as well as other relevant information in the record of the proceedings for the VMP.

VII. SIGNIFICANT BUT MITIGABLE IMPACTS

1. Under Public Resources Code section 21081(a)(1) and CEQA Guidelines sections 15091(a)(1) and 15092(b), and to the extent reflected in the EIR, the City Council finds that changes or alterations have been required in, or incorporated into, the components of the VMP that mitigate or avoid potentially significant effects on the environment. The following potentially significant impacts will be reduced to a less than significant level through the implementation of VMP mitigation measures.
2. **Table of Significant But Mitigatable Impacts in the MMRP:** The MMRP fully sets forth the Significant But Mitigatable Impacts at **Attachment A** to these Findings.

VIII. SIGNIFICANT AND UNAVOIDABLE IMPACTS

1. Under Public Resources Code sections 21081(a)(3) and 21081(b), and CEQA Guidelines sections 15091, 15092, and 15093, and to the extent reflected in the EIR, the City Council finds that the following impacts of the Plan remain significant and unavoidable, notwithstanding the imposition of all feasible Standard Conditions of Approval and mitigation measures:
2. The VMP would result in one significant and unavoidable impact related to generating substantial temporary or periodic increase in ambient noise in violation of the City of Oakland noise thresholds (Section 3.10 of the prior 2020 DEIR, Impact NOI-1). Mechanical treatment activities and the use of chainsaws during hand labor treatments would expose sensitive receptors to noise levels above the City's daytime weekday noise threshold of 80 dBA, resulting in a significant and unavoidable impact.

IX. FINDINGS REGARDING THE CITY'S ALTERNATIVES ANALYSIS

1. The City Council finds that specific economic, social, environmental, technological, legal, or other considerations make infeasible the alternatives to the Project described in the EIR for the reasons stated below, and that despite the remaining significant unavoidable impact, the VMP should nevertheless be approved, as more fully set forth in Section XII below, Statement of Overriding Considerations.
2. The EIR evaluated a reasonable range of alternatives to the Project that was described in the Recirculated EIR (Chapter 5) which are hereby incorporated by reference. The alternatives analyzed in detail in the Recirculated EIR represent a reasonable range of potentially feasible alternatives that reduce one or more significant impacts of the Project and/or provide decision makers with additional information about a project that would include partial preservation of the existing building. These alternatives include: (1) **Alternative 1:** No Project Alternative; (2) **Alternative 2:** Reduced Vegetation Management Activities Alternative; (3) **Alternative 3:** No Herbicide Use Alternative; (4) **Alternative 4:** Reduced Herbicide Use Alternative; and (5) **Alternative 5:** Prior 2019 VMP Alternative.
3. The City Council certifies that it has independently reviewed and considered the information on the alternatives provided in the 2020 DEIR, Recirculated DEIR, and FEIR and in the record. The FEIR reflects the City Council's independent judgment as to alternatives. The City Council finds that the VMP provides the best balance between the City's goals and objectives, and the VMP's benefits as described in the Staff Report and in the Statement of Overriding Considerations below. While the Project may cause one significant and unavoidable environmental impact, mitigation measures identified in the EIR mitigate the VMP's impacts to the extent feasible. The alternatives proposed and evaluated in the EIR are rejected for the following reasons. Each individual reason presented below constitutes a separate and independent basis to reject the Project alternative as being infeasible, and, when the reasons are viewed collectively, provide an overall basis for rejecting the alternative as being infeasible.
4. **Further Evaluation of Alternatives Considered:** The following alternatives were considered based on public input and because they would meet most of the VMP

objectives, may be feasible, and would avoid or substantially reduce significant and unavoidable impacts of the VMP:

5. **Alternative 1: No Project Alternative**

- a. **Characteristics of this Alternative:** Under the No Project Alternative, the City would not implement a VMP to guide and direct targeted vegetation management activities to minimize the potential for ignitions, crown fire, and extreme fire behavior on City-owned land and along access/egress routes. Instead, the City would continue to conduct vegetation management activities consistent with existing (2017 and 2018) operations (refer to Table 3.1-1 for a summary of vegetation management activities conducted between 2005 and 2018). Under the No Project Alternative, the City would conduct approximately 1,100 acres of goat grazing and approximately 152 acres of roadside treatment and other activities each year, using a combination of hand labor and mechanical techniques. Similar to existing conditions, no chemical techniques (i.e., herbicides) would be used.
- b. It is important to note that the underlying need for increased targeted vegetation management activities proposed under the VMP—to reduce wildfire risk in the City portions of the VHFHSZ—would remain unaddressed with implementation of the No Project Alternative. Without implementation of the VMP, the City would only be able to address a limited number of vegetation management activities annually based on the Public Works/OFD annual budget. By reducing the acreage of treatment that occurs in a given year compared to annual treatment acreages under the VMP, the No Project Alternative would fail to meet VMP goals and objectives. These goals and objectives, established in the midst of the region's pattern of catastrophic wildfires, include reducing wildfire hazard on City-owned land and along critical access/egress routes within the City's VHFHSZ; reducing the likelihood of ignitions and extreme fire behavior; implementing practices to avoid or minimize impacts to natural resources; reducing the likelihood of catastrophic wildfires by limiting ignition potential, reducing fuels loads, and modifying fuel arrangements on City-owned lands; and avoiding adverse effects to sensitive resources. The No Project Alternative would not meet the following VMP objectives: identifying site-specific vegetation management actions based on vegetation type, fuel hazard, treatment effectiveness, and requirements; identifying and prioritizing fuel treatment areas based on fuel load arrangements, terrain, topographic exposure, and proximity to roads and structures; developing management recommendations so that OFD can make informed vegetation management decisions that consider the benefits of treatment, environmental effects, and costs; routinely evaluating the effectiveness of the VMP; and increasing the ability of the OFD and responding agencies to suppress wildfire.
- c. As mentioned above, consideration of a No Project Alternative is required under CEQA Guidelines Section 15126(e)(1).

- d. **Impact Analysis:** Annual goat grazing activities under the No Project Alternative would be consistent with the acreage treated under the proposed VMP. However, the area subject to hand labor and mechanical treatment techniques each year would be less than under the VMP, treating approximately 152 acres compared to an annual maximum of 563 acres of hand labor and mechanical treatment under the VMP. Thus, the No Project Alternative would have no impact related to construction in comparison to the VMP. Because no additional vegetation management activities would be completed under the No Project Alternative, no construction-related effects (e.g., air quality/GHG emissions, noise, traffic, and biological resources effects) would result because no additional construction-related vehicle trips, equipment operations, or ground disturbance would take place.
- e. Goat grazing activities would occur primarily between May and August, while hand labor and the use of mechanical equipment would occur year-round as needed. Under the No Project Alternative, OFD's Fire Prevention Bureau would continue to operate an annual vegetation inspection program on public and private property in the VHFHSZ portion of the City, as mandated by City of Oakland Ordinance No. 11640. The inspection program identifies properties that are out of compliance with the City's defensible space standards and requires that inspections be conducted until properties are brought into compliance. Without approval of the VMP, the inspection program and vegetation management activities would continue, dependent upon the Public Works/OFD annual budget and consistent with past OFD vegetation management activities.
- f. Under the No Project Alternative, OFD would continue to conduct vegetation management activities using current equipment and techniques. The City of Oakland Planning Code contains laws and standards that may be relevant to the VMP, in particular Section 17.120.050, Noise, and Section 17.120.060, Vibration. In addition, Section 17.120.04 from the City Planning Code establishes allowable noise level standards (City of Oakland 2020a). Because no changes in operation would take place, the No Project Alternative would result in no additional noise impact compared to the VMP, which would have a significant and unavoidable noise impact related to sensitive receptors.
- g. The Oakland hills is one of the highest risk areas in the country for devastating WUI fires. Because no additional acreage of vegetation management activities would be conducted under the No Project Alternative compared to the VMP, the wildfire risk throughout the VHFHSZ would not be reduced and fire hazard conditions would likely worsen. As indicated in recent risk assessments (Dudek 2023), without improved vegetation management practices, fuel loads and fire risk will continue to increase (Stephens et al. 2012), and future catastrophic wildfires in the region are likely to result in greater impacts to life, property, and the environment. Additionally, the No Project Alternative would not include the requirements established in the VMP for close coordination between OFD and local volunteer and stewardship groups active in the VMP area. Without clear

communication protocols in place between OFD and local stewardship groups, locally sponsored projects may conflict with City plans or goals for vegetation management, potentially resulting in greater environmental impacts.

- h. **Conclusion:** In conclusion, the No Project Alternative would not meet any of the goals or objectives of the VMP, particularly reducing wildfire hazard on City-owned land and along critical access/egress routes within the City's VHFHSZ. Although it would reduce the VMP's significant and unavoidable noise impact on sensitive receptors and other significant impacts related to biological resources and other environmental resources, it would also fail to address the need for wildfire risk reduction identified by the City, OFD, stakeholders, and members of the public throughout the years-long initial Draft VMP and VMP development process.
- i. Under the No Project Alternative, the City would fail to comply with the following plans and policies related to wildlife risk reduction and fuel management:
 - i. Governor Newsom's Strike Force report (State of California 2019), which stated that the growing risk of catastrophic wildfires has created an imperative for the state to act urgently and swiftly to expand fire prevention efforts;
 - ii. CAL FIRE's 2018 Strategic Fire Plan for California, which sets forth sets forth goals focused on fire prevention, improved natural resource management, and increased fire suppression efforts (CAL FIRE 2018);
 - iii. policies and objectives from the City of Oakland General Plan Open Space, Conservation, and Recreation Element (City of Oakland 1996);
 - iv. goals and objectives of the California Forest Carbon Plan to reduce GHG and other carbon emissions associated with management activities, conversion, wildfire events, and other disturbances (Forest Climate Action Team 2018);
 - v. the BAAQMD's 2017 Bay Area Clean Air Plan and Regional Climate Protection Strategy, which provide a road map for the BAAQMD's future efforts to reduce air pollution (BAAQMD 2017); and
 - vi. policies related to wildfire risk reduction from the City's 2030 Equitable Climate Action Plan (City of Oakland 2020b).

6. Alternative 2: Reduced Vegetation Management Activities Alternative

- a. **Characteristics of this Alternative:** Alternative 2 is a modified version of the VMP with reduced annual treatment acreage. Under Alternative 2, the City would conduct approximately 1,100 acres of goat grazing and approximately 300 acres

of roadside treatment and other activities using a combination of hand labor, mechanical treatments, and herbicide treatments. Additionally, no vegetation management activities would occur on urban and residential treatment areas, which total 47.5 acres. While vegetation treatment activities would still occur in close proximity to sensitive uses, the use of equipment generating noise of 85 dBA at 50 feet (such as chainsaws) would be prohibited within 90 feet of sensitive receptors, and the use of equipment generating noise of 88 dBA at 50 feet (such as a chipper or excavator) would be prohibited within 130 feet of sensitive receptors. By reducing the acreage of treatment that occurs in a given year, vegetation would be more likely to become overgrown, resulting in a greater wildfire risk in the City portion of the VHFHSZ than under the VMP. Additionally, urban and residential treatment areas are considered Priority 1 treatment areas; eliminating vegetation management activities adjacent to structures in these areas would result in a greater risk of catastrophic wildfires affecting structures than under the VMP and would conflict with the City's defensible space guidelines. Alternative 2 was selected as an alternative to the VMP based on public input and because the restriction on equipment use near sensitive receptors would reduce significant and unavoidable noise impacts associated with mechanical treatment activities and the use of chainsaws during hand labor treatments.

- b. **Project Objectives:** Alternative 2 would only partially meet VMP goals and objectives, such as reducing wildfire hazard on City-owned land and along critical access/egress routes within the City's VHFHSZ; reducing the likelihood of ignitions and extreme fire behavior; reducing the likelihood of catastrophic wildfires by limiting ignition potential, reducing fuels loads, and modifying fuel arrangements on City-owned lands; identifying and prioritizing fuel treatment areas based on fuel loads arrangements, terrain, topographic exposure, and proximity to roads and structures; and increasing the ability of the OFD and responding agencies to suppress wildfire.

- c. **Impact Analysis:** Goat grazing activities under Alternative 2 would be conducted consistent with the acres treated under the VMP; however, hand labor, mechanical, and herbicide techniques would be reduced from Revised VMP levels, treating approximately 300 acres annually compared to 598 acres under the VMP, with no treatment occurring in urban and residential parcels. Compared to the VMP, this alternative would reduce construction-related impacts associated with the VMP, including air pollutant and GHG emissions from operating equipment, traffic from vehicle and truck trips, and noise. The restrictions on the operation of loud construction equipment near sensitive receptors during hand labor treatments (i.e., chainsaws) and mechanical treatments (i.e., excavators and chippers) near sensitive receptors, noise levels would not exceed the City's weekday daytime threshold of 80 dBA. Thus, Impact NOI-1 would be reduced from a significant and unavoidable impact under the VMP to a less-than-significant level. Similarly, Alternative 2 would result in fewer impacts to

sensitive habitats and nesting birds as a result of reducing the number of projects and overall ground disturbance relative to the VMP.

- d. Reducing the acreage of vegetation treatment conducted on an annual basis would delay the reduction of fuel loads in individual treatment areas, however, resulting in an increased likelihood of ignition and catastrophic wildfires in the VHFHSZ compared with the VMP. A future wildfire in the region would likely be more damaging and result in greater impacts to life, property, and the environment than under the VMP. Additionally, deferring vegetation management projects could result in the need for emergency work that tends to be addressed without adequate planning. Further, because fewer projects would occur under this alternative and no activities would occur on urban and residential parcels, Alternative 2 may result in additional impacts not identified for the VMP, such as increased public safety risks. For example, without the increased level of inspection and management proposed in the VMP, the potential exists for fallen branches and trees located on City property to damage utility lines or existing structures (i.e., residences) on private property.
- e. **Conclusion:** In conclusion, Alternative 2, the Reduced Vegetation Management Activities Alternative, would meet some of the goals or objectives of the VMP; however, the reduced annual acreage of treatment would slow OFD's progress in addressing wildfire risk concerns. Although it would reduce the VMP's significant and unavoidable noise impact on sensitive receptors and other significant impacts related to biological resources and other environmental resources, it would fail to fully address the need for wildfire risk reduction to the level identified by the City, OFD, stakeholders, and members of the public.

7. **Alternative 3: No Herbicide Use Alternative**

- a. **Characteristics of this Alternative:** Alternative 3 is a modified version of the VMP that excludes the use of herbicides for vegetation management. Other vegetation management methods described in the VMP (i.e., grazing, hand labor techniques, and mechanical techniques) would be used in lieu of herbicides. Under Alternative 3, the City would conduct approximately 1,100 acres of goat grazing and approximately 563 acres of roadside treatment and other activities using a combination of hand labor and mechanical techniques. Under this alternative, no herbicides would be used (compared to an annual maximum of 35 acres of proposed herbicide treatment under the VMP). All other maintenance activities described in Chapter 2, *Project Description*, of this Recirculated DEIR would be conducted as described in the VMP.
- b. **Background:** As background, in 2005, the City adopted Resolution 79133, which directed staff to evaluate the selective use of glyphosate and triclopyr for managing vegetation to reduce wildfire hazard in the City's WPAD. To date, herbicides have not been used for vegetation management on City-owned property or along roadsides in the VMP area. This VMP EIR process evaluates the potential environmental effects of herbicide use. However, the City also received feedback

from the public during the initial Draft VMP and VMP development and scoping process to consider a “no herbicide” alternative to address concerns about the potential impacts of herbicide use in the City. As such, Alternative 3 reflects public input on early drafts of the initial Draft VMP.

- c. **Project Objectives:** By eliminating herbicide treatment, Alternative 3 would be more likely to allow vegetation to become overgrown, increasing the wildfire risk and the potential for a catastrophic wildfire that would affect existing structures. Alternative 3 would only partially meet VMP goals and objectives such as reducing wildfire hazard on City-owned land and along critical access/egress routes within the City's VHFHSZ; reducing the likelihood of extreme fire behavior and catastrophic wildfires by limiting ignition potential, reducing fuels loads, and modifying fuel arrangements on City-owned lands; identifying and prioritizing fuel treatment areas based on fuel load arrangements, terrain, topographic exposure, and proximity to roads and structures; and increasing the ability of the OFD and responding agencies to suppress wildfire.
- d. **Impact Analysis:** Alternative 3 would require additional follow-up vegetation management activities involving a combination of grazing, hand removal techniques, and mechanical removal in some areas due to rapid regrowth of certain highly flammable vegetation types when removed and not treated with herbicide. Under Alternative 3, certain types of vegetation may be even more difficult to control without herbicides, resulting in persistent degraded habitat conditions. Because grazing, hand removal, and mechanical vegetation removal techniques may be less effective than herbicides, this alternative may also require the City to remove certain rapidly spreading/high fire risk plants, including such plants as eucalyptus, acacia, French broom, Scotch broom, pampas grass, and jubata grass, on a more frequent basis. As such, an increase in use of hand labor and mechanical vegetation removal techniques across a greater area and on a more frequent basis would result in greater air pollutant emissions and more truck trips; in addition, greater noise effects could result, as this alternative would entail more worker trips and greater use of equipment, potentially near sensitive uses. Accordingly, this alternative would result in more potentially significant environmental impacts than the VMP.
- e. Alternative 3 would eliminate potential effects related to accidental spills, use of herbicides, and other risks associated with herbicide use. However, impacts related to hazards and hazardous materials are not identified as significant and unavoidable impacts of the VMP because all such impacts associated with the VMP would be mitigated to a less-than-significant level. Significant and unavoidable noise impacts associated with mechanical treatment activities and the use of chainsaws during hand labor treatments identified for the VMP would remain with Alternative 3.
- f. **Feasibility:** Due to the need for increased frequency of vegetation removal, under this alternative, the City and OFD would require a larger number of employees and many more hours to treat a similar area compared to herbicide use and would be

less effective, requiring more frequent treatment. It is estimated that if the City were to rely on hand removal and mechanical treatments in place of herbicide, it would cost the City up to 40 times more to treat these areas than under the VMP. The cost for herbicide treatments, not including any associated physical treatments, is approximately \$250-\$500 per acre. This reflects a range of potential vegetation conditions, vegetation types, and densities. The cost for hand removal and mechanical treatments is estimated at approximately \$1,000-\$4,000 per acre, using the same range of site-specific conditions.

- g. A key difference in comparing costs of herbicide treatment to hand removal and mechanical treatment is the reduced effectiveness of these treatments, requiring repeated applications up to five times to achieve the effectiveness of a single herbicide treatment (DiTomaso, Kyser, et al. 2013) (as shown in Appendix D, *Biological Resources Information*, of this Recirculated DEIR). Accounting for the need to conduct five work cycles with hand removal and mechanical treatments, the estimated treatment cost increases to \$5,000-\$20,000 per acre for hand removal and mechanical treatments compared to herbicide treatment.
- h. Over the course of the 10-year planning timeframe for the VMP, these differences in effort and increased costs by not using herbicide treatment would result in an added cost ranging from \$1,660,000 to \$6,825,000 by using hand removal and mechanical treatments in place of herbicide to achieve a similar level of vegetation management. Accordingly, even though this alternative would achieve some of the project objectives, the substantial increase in cost compared to the proposed VMP renders this alternative infeasible (Pub. Res. Code Section 21061.1.).
- i. **Conclusion:** In conclusion, Alternative 3, the No Herbicide Use Alternative, would meet some of the goals or objectives of the VMP; however, the elimination of herbicide use as an available vegetation management treatment would slow progress toward reducing fuel loads in the VMP area. This alternative would result in additional costs and staffing needs to conduct follow-up treatments in areas where mechanical and hand removal treatments are less effective than herbicide treatments. The significant and unavoidable noise impact of the VMP related to sensitive uses would not be reduced with this alternative and would likely be more severe than under the VMP because of the need for repeated hand labor or mechanical treatments in some locations.

8. **Alternative 4: Reduced Herbicide Use Alternative**

- a. **Characteristics of this Alternative:** Alternative 4 is a modification of the VMP that would reduce, but not eliminate, herbicide application in the VMP area compared to the proposed VMP, which does not propose any reduction in herbicide use. Under Alternative 4, annual herbicide use would be reduced to a maximum of 10 acres of treatment for trees and 7.5 acres of treatment for shrubs (compared to the annual maximum of 20 acres of treatment for trees and 15 acres of treatment for shrubs under the VMP). Additionally, no herbicide application would occur within 100 feet of any creeks (which is 40 feet larger than the no-herbicide-use

buffer from creeks proposed in Mitigation Measure HAZ-5). Further, under this alternative, the City would use only non-Roundup™ formulations of glyphosate. In contrast, the VMP allows non-Roundup™ formulations of glyphosate as well as triclopyr and imazapyr. Alternative 4 would only allow application of herbicides using the cut-and-daub application method with a hand brush or sponge; no hand spraying would be conducted under this alternative. The City would conduct approximately 1,100 acres of goat grazing, as with the VMP, along with approximately 580.5 acres of roadside treatment and other activities (a reduction from 598 acres with the VMP) using a combination of hand labor, mechanical, and herbicide techniques.

- b. **Background:** As described above for Alternative 3, in 2005, the City adopted Resolution 79133, which directed staff to evaluate the selective use of glyphosate and triclopyr for managing vegetation to reduce wildfire hazard in the City's Wildfire Prevention Assessment District. To date, herbicides have not been used for vegetation management on City-owned property or along roadsides in the VMP area. This initial Draft VMP and VMP EIR process evaluates the potential environmental effects of herbicide use. However, the City also received feedback from the public during the VMP development and scoping process to consider a "reduced herbicide" alternative to address concerns about the potential impacts of herbicide use in the City. As such, Alternative 4 reflects public input on early drafts of the initial Draft VMP.
- c. **Project Objectives:** By reducing the acreage of herbicide treatment that occurs in a given year, vegetation would be more likely to become overgrown, increasing the wildfire risk and the potential for a catastrophic wildfire that would affect existing structures. Alternative 4 would only partially meet VMP goals and objectives such as reducing wildfire hazard on City-owned land and along critical access/egress routes within the City's VHFHSZ; reducing the likelihood of ignitions and extreme fire behavior; reducing the likelihood of catastrophic wildfires by limiting ignition potential, reducing fuels loads, and modifying fuel arrangements on City-owned lands; identifying and prioritizing fuel treatment areas based on fuel loads arrangements, terrain, topographic exposure, and proximity to roads and structures; and increasing the ability of the OFD and responding agencies to suppress wildfire.
- d. **Impact Analysis:** Annual goat grazing, hand labor, and mechanical treatments activities under Alternative 4 would be consistent with the acreage treated under the VMP, for a total of 563 acres. However, the area subject to herbicide techniques each year would be less than under the VMP, treating approximately 17.5 acres annually, compared to an annual maximum of 35 acres, with no herbicide treatment occurring within 100 feet of creeks. Compared to the VMP, this alternative would reduce potential effects to biological resources and water quality by limiting herbicide application to occur at least 100 feet from a creek (i.e., outside of riparian areas) and prohibit spraying which may result in drift. Further, although impacts related to hazards and hazardous materials are not identified as significant impacts of the VMP, Alternative 4 would reduce potential effects

related to accidental spills, chemicals, and other risks associated with herbicide use.

- e. Reducing the acreage treated with herbicides on an annual basis would delay the reduction of fuel loads in individual treatment areas, however, increasing the likelihood of ignition and catastrophic wildfires in the VHFHSZ as vegetation conditions worsen. Under Alternative 4, certain types of vegetation may be more difficult to control with reduced herbicides, resulting in persistent degraded habitat conditions. Additionally, under this alternative, OFD would only use glyphosate and would be prohibited from using hand sprayers (only hand brushing or sponging would be conducted), which would reduce overall treatment options and effectiveness and increase costs. Glyphosate may not be as effective to treat certain types of vegetation as other herbicides (e.g., triclopyr, imazapyr), and excluding these herbicides may require the City to remove certain types of vegetation on a more frequent basis. As such, an increase in the frequency of herbicide application would result in more truck trips and air quality emissions, as well as more frequent ground disturbance.
- f. **Feasibility:** Hand brushing or sponging under the cut-and-daub method is time consuming, requiring more labor, thereby increasing time and labor requirements for the City. As described in Alternative 3, areas proposed for herbicide treatment under the VMP if treated only with hand removal and mechanical treatments would require up to five additional treatment cycles to match the effectiveness of herbicide treatment (DiTomaso, Kyser, et al. 2013) (see Appendix D of this Recirculated DEIR for more information). Using the same methodology as described in Alternative 3 above, over the course of the 10-year planning timeframe for the VMP these differences in effort and increased costs result in an added cost ranging from \$831,250 to \$3,412,500 for not using herbicide and using hand removal and mechanical treatments in place of herbicide to achieve a similar level of vegetation management. Accordingly, this alternative is financially infeasible.
- g. **Conclusion:** In conclusion, Alternative 4, the Reduced Herbicide Use Alternative, would meet some of the goals or objectives of the VMP; however, restrictions on the types and amounts of herbicide use as an available vegetation management treatment would slow progress toward improvement of fuel loads in the VMP area compared to the proposed VMP. This alternative would result in additional costs and staffing needs to conduct follow-up treatments in areas where mechanical and hand removal treatments are less effective than herbicide treatments. The significant and unavoidable noise impact of the VMP related to sensitive uses would not be reduced with this alternative and would likely be more severe because of the need for repeated hand labor or mechanical treatments in some locations.

9. **Alternative 5: Prior 2019 VMP Alternative.**

- a. **Characteristics of this Alternative:** Alternative 5 reflects the 2019 version of the VMP, which was analyzed under the prior 2020 DEIR. Alternative 5 would result

in slightly reduced annual treatment acreage compared to the VMP, as well as changes to the vegetation treatment standards. Under Alternative 5, the City would conduct approximately 1,100 acres of goat grazing and approximately 555 acres of roadside treatment and other activities using a combination of hand labor, mechanical treatments, and herbicide treatments. This alternative would not include treatment of dead and dying trees on City-owned property within 30-100 feet of roadsides. By slightly reducing the acreage of treatment that occurs in a given year, vegetation would be more likely to become overgrown, resulting in a greater wildfire risk in the City portion of the VHFHSZ than under the VMP. Additionally, eliminating treatment of dead and dying trees within 30-100 feet from roadways would increase potential hazards from trees that could fall across roadways during a fire, compared to the VMP.

- b. Compared to the VMP, this alternative would result in minor reductions in construction-related impacts associated with the VMP, including air pollutant and GHG emissions from operating equipment, and traffic from vehicle and truck trips. Alternative 5 was selected as an alternative to the VMP to provide a comparison to the 2019 VMP evaluated in the prior 2020 DEIR.
- c. **Project Objectives:** Alternative 5 would meet many of the VMP goals and objectives to reduce the wildfire hazard on City-owned land including reducing fuels loads, and modifying fuel arrangements on City-owned lands; identifying and prioritizing fuel treatment areas based on fuel loads arrangements, terrain, topographic exposure, and proximity to structures; and increase the ability of the OFD and responding agencies to suppress wildfire. However, the 2019 VMP would not reduce the wildfire hazard along critical access/egress routes or along roadways within the City's VHFHSZ as effectively as the VMP that includes additional areas along roadways for the focused removal of dead and dying trees.
- d. **Impact Analysis:** Goat grazing activities under Alternative 5 would be conducted consistent with the acres treated under the VMP; however, hand labor, mechanical, and herbicide techniques would be slightly reduced from VMP levels, treating approximately 590 acres annually compared to 598 acres under the VMP. Compared to the VMP, this alternative would slightly reduce construction-related impacts associated with the VMP, including air pollutant and GHG emissions from operating equipment, and traffic from vehicle and truck trips. Similarly, Alternative 5 would result in slightly fewer impacts to habitats and nesting birds as a result of reducing the annual maximum treatment acreage relative to the VMP. Reducing the acreage of vegetation treatment conducted on an annual basis would delay the reduction of fuel loads in individual treatment areas, however, resulting in an increased likelihood of ignition and catastrophic wildfires in the VHFHSZ compared with the VMP. Eliminating treatment of dead and dying trees within 30-100 feet from roadways would increase potential hazards from trees that could fall across roadways during a fire, compared to the VMP.
- e. **Feasibility:** This alternative is considered feasible. In conclusion, Alternative 5, the Prior 2019 VMP Alternative, would meet many of the goals or objectives of

the VMP; however, the slightly reduced annual acreage of treatment and elimination of treatment of dead and dying trees within 30-100 feet from roadways would slow OFD's progress in addressing wildfire risk concerns. Although it would slightly reduce the VMP's significant impacts related to biological resources and other environmental resources, it would fail to fully address the need for wildfire risk reduction (particularly along roadways) to the level identified by the City, OFD, stakeholders, and members of the public.

10. **Comparison of Alternatives:** In accordance with CEQA Guidelines Section 15126.6(e)(2), this section compares the Recirculated DEIR alternatives and identifies the environmentally superior alternative among the alternatives.
 - a. **Alternative 1 (No Project Alternative)** was not identified as the environmentally superior alternative because, although it would provide a reduction in vegetation management activities in the City portion of the VHFHSZ and thereby largely reduce construction-related impacts (e.g., air and GHG emissions, noise, traffic, biological resources) of the VMP, it would substantially increase the risk of wildfires in the region, resulting in greater impacts to life, property, and the environment.
 - b. **Alternative 3 (No Herbicide Use)** was not identified as environmentally superior because it would not reduce any significant and unavoidable impacts associated with the VMP. Alternative 3 would however, result in an incremental increase in truck trips, air pollutant emissions, and noise effects because this alternative would involve greater use of hand labor and mechanical techniques for vegetation management. Using hand labor and mechanical treatments in some locations may not be as effective at controlling highly flammable vegetation, particularly in areas that are difficult to access, and is anticipated to require additional follow-up treatments. Additionally, the increased use of hand labor and mechanical treatments would require more City staff, increasing costs, which would not be feasible for the City. This alternative would be fairly similar to the VMP and would avoid potential water quality impacts such as accidental spills and other impacts associated with herbicide use. In conclusion, Alternative 3 was not deemed environmentally superior because it would not reduce significant and unavoidable impacts associated with the VMP; would result in an increase in air quality emissions, truck trips, and noise effects adjacent to sensitive uses; may not be as effective at controlling vegetation.
 - c. **Alternative 5 (Prior 2019 VMP Alternative)** would slightly reduce the acreage of vegetation treatment completed in a given year, but would generally result in fairly similar impacts compared to the VMP, with slight decreases in impacts related to air pollutant and GHG emissions from operating equipment and traffic from vehicle and truck trips. Eliminating treatment of dead and dying trees within 30-100 feet from roadways would increase potential hazards from trees that could fall across roadways during a fire, compared to the VMP. This alternative would

not reduce any significant and unavoidable impacts associated with the VMP, and was therefore not identified as environmentally superior.

- d. **Both Alternative 2 (Reduced Vegetation Management Activities Alternative) and Alternative 4 (Reduced Herbicide Use Alternative)** would reduce the acreage of vegetation treatment completed in a given year, thereby resulting in less construction-related emissions, traffic on local roads, and other potential effects on biological resources. Between these two alternatives, Alternative 4 would result in less adverse effects to biological resources and water quality by limiting herbicide application to a maximum of 17.5 acres annually, limit herbicide application from occurring within 100 feet of a creek, limiting the City to the use of only one herbicide, and prohibiting spraying and allowing only hand brushing and sponging for herbicide application throughout the VMP area. The cut-and-daub method is time consuming, requiring more labor, thereby increasing costs for the City. Additionally, because hand removal and mechanical treatments may still occur adjacent to sensitive receptors, significant and unavoidable noise effects would still occur under Alternative 4. Alternative 2, on the other hand, would prohibit the use of loud equipment near sensitive receptors, avoiding a significant and unavoidable noise impact on sensitive receptors. For this reason, Alternative 2 is considered the environmentally superior alternative of the alternatives to the VMP evaluated in the EIR.
- e. **Environmentally Superior Alternative:** Considering the issues described above, the VMP is considered to be environmentally superior to the other identified alternatives. In comparison to the alternatives, the VMP provides the most appropriate balance of reducing wildfire hazard through limiting ignition potential, reducing fuel loads, and modifying vegetation in an effective manner; avoiding and minimizing impacts to the natural environment through implementation of practices; prioritizing management needs based on fuel loads, terrain, and proximity to roads and structures; and ensuring vegetation management needs are addressed in a reasonable timeframe to protect life and property and reduce public safety and wildfire hazards. The VMP would also ensure that vegetation management activities are conducted consistently in compliance with the methods and approaches identified in the VMP to reduce effects to natural resources and prevent excess and unnecessary vegetation removal. The VMP would also increase the ability of OFD to suppress wildfire in the VMP area, further protecting VMP area resources and require the routine evaluation of effectiveness of vegetation management activities.

X. THE CITY'S STATEMENT OF OVERRIDING CONSIDERATIONS

1. **Findings of Economic, Legal, Social, Technological, Environmental, and Other Considerations Outweigh Significant, Unavoidable Impact.** The City Council finds that each of the following specific economic, legal, social, technological, environmental, and other considerations and the benefits of the Project separately and independently outweigh the remaining significant unavoidable adverse impacts discussed above in **Section X** and is an overriding consideration independently warranting approval. The remaining significant unavoidable adverse impact identified

above is acceptable considering each of the overriding considerations that follow. Each individual benefit/reason presented below constitutes a separate and independent basis to override each and every significant unavoidable environmental impact, and, when the benefits/reasons are viewed collectively, provide an overall basis to override each and every significant unavoidable environmental impact.

2. **The VMP's Overriding Project Benefits:** Below are a list of the VMP's Project Benefits, which all serve to reduce Wildfire Hazards in the Oakland hills in a pragmatic and strategic manner, so as to protect human life and property in one of the most fire prone areas in the State of California:
 - a. The VMP will reduce wildfire hazard on City-owned land and along critical access/egress routes within the City's VHFHSZ;
 - b. The VMP will reduce the likelihood of ignitions and extreme fire behavior to enhance public and firefighter safety;
 - c. The VMP will implement practices to avoid or minimize impacts to natural resources;
 - d. The VMP will maintain an active role in regional efforts to reduce wildfire hazard in the Oakland hills;
 - e. The VMP reduces the likelihood of catastrophic wildfires by limiting ignition potential, reducing fuel loads, and modifying fuel arrangements on City-owned lands;
 - f. The VMP reduces the likelihood of extreme fire behavior within the VMP area;
 - g. The VMP identifies and define vegetation management actions that consider site-specific vegetation type, fuel hazard, treatment effectiveness, and ongoing maintenance requirements;
 - h. The VMP identifies and prioritizes fuel treatment areas based on fuel loads and arrangements, terrain, topographic exposure, and proximity to roads and structures to provide a pragmatic, strategic and organized approach to vegetation management;
 - i. The VMP retains vegetation where feasible to reduce wind exposure, retain soil and surface fuel moisture, and reduce the potential for soil erosion;
 - j. The VMP has developed helpful management recommendations that enable OFD to make informed, adaptive decisions on an annual basis (or more often as necessary) regarding vegetation management within the VMP area, considering the benefits of treatment, potential environmental effects, and treatment costs;
 - k. The VMP, to the extent feasible, avoids, minimizes, and reduces potential adverse effects of vegetation management on sensitive biological resources, water resources, aesthetics, soils, and slope stability;
 - l. The VMP increases the ability of OFD and other responding agencies to suppress wildfire in the VMP area to minimize wildfire impacts to VMP area resources;
 - m. The VMP will routinely evaluate the effectiveness and implementation frequency of vegetation management actions within the VMP area, which will help OFD monitor fire risk conditions and take measured approaches at fire suppression gradually over a 10-year period.

3. The City Council hereby finds that all the above VMP benefits clearly outweigh the one significant, unavoidable impact of excessive ambient noise of machinery used to manage vegetation. This ambient noise will only occur during the daytime hours and will be intermittent and time-limited based on where vegetation management activities are occurring on any given day. As a result, the benefits far outweigh the limited (in space and time) significant impact of excessive ambient noise levels due to vegetation management tools and machinery.

ATTACHMENT A

THE CITY'S MITIGATION MONITORING AND REPORTING PROGRAM
("MMRP")

APPENDIX A.

MITIGATION MONITORING AND REPORTING PLAN

The following mitigation monitoring and reporting program (MMRP) summary table includes the mitigation measures identified in the City of Oakland Vegetation Management Plan Project Environmental Impact Report (EIR). For each mitigation measure, this table identifies monitoring and reporting actions that shall be carried out, the party responsible for implementing these actions, and the monitoring schedule. This table also includes a column where responsible parties can check off monitoring and reporting actions as they are completed. It is the responsibility of the Contractor to ensure that actions required for all of the mitigation measures listed herein are included in the project plans and specifications. It is the responsibility of the City to review and confirm that all of the mitigation measure actions described herein are in the project plans and specifications.

Acronyms and Abbreviations

ATCM	airborne toxic control measure
BAAQMD	Bay Area Air Quality Management District
BMP	best management practice
CARB	California Air Resources Board
CASQA	California Stormwater Quality Association
CDFW	California Department of Fish and Wildlife
CDPR	California Department of Public Resources
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CRLF	California red-legged frog
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CRHR	California Register of Historical Resources
CWA	Clean Water Act
dBA	A-weighted decibel
DBH	diameter at breast height
EIR	environmental impact report
ESA	Endangered Species Act
EIR	Environmental Impact Report
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
MLD	Most Likely Descendent
MM	mitigation measure
NAHC	Native American Heritage Commission
NOA	naturally occurring asbestos

NPPA	Native Plant Protection Act
NRHP	National Register of Historic Places
OFD	Oakland Fire Department
Pub. Res. Code	Public Resources Code
RWQCB	Regional Water Quality Control Board
SOD	sudden oak death
SR	State Route
TCR	tribal cultural resource
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Act
USFWS	United States Fish and Wildlife Service
VMP	Vegetation Management Plan
WPT	Western pond turtle

Aesthetics

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>AES-1 Conduct Visual Reconnaissance Prior to Implementing Tree Removal Activities to Determine if Vegetation Relocation or Thinning of Publicly Visible Treatment Areas is Necessary</p> <p>The City will conduct a visual reconnaissance of Revised Draft VMP treatment areas involving tree thinning and removal to observe the surrounding landscape and determine if vegetation management activities will have a significant effect on scenic vistas, public trails, or scenic routes that have views of the treatment area. If none are identified, treatments may be conducted without additional mitigation.</p>	<ol style="list-style-type: none"> 1. N/A 2. N/A 3. N/A 	<ol style="list-style-type: none"> 1. Conduct a visual reconnaissance of Revised Draft VMP treatment areas. 2. Identify opportunities to potentially modify the location of tree removal activities if public viewing points would be significantly affected. 3. Thin adjacent vegetation if no changes are feasible. 	<ol style="list-style-type: none"> 1. Prior to the start of construction 2. Prior to the start of construction 3. During construction, if necessary. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>If the City identifies that public viewing points such as public trails or recreation areas with extended views of a Revised Draft VMP treatment area would be significantly affected, prior to conducting vegetation treatment activities, the City will identify opportunities to potentially modify the location of tree removal activities to reduce the visibility of removed vegetation from public viewpoints. If no changes are feasible without compromising the intended vegetation management standards and goals described in the Revised Draft VMP, the City will thin adjacent vegetation to break up the linear edges of treatment areas and reduce the contrast between the treatment area and surrounding vegetation.</p>				
<p>AES-2 Staging (VMP BMP Gen-4) Staging will occur on access roads, surface streets, or other disturbed areas that are already compacted and support only ruderal vegetation. Similarly, all vegetation management equipment and materials will be contained within the existing service roads, paved roads, or other predetermined staging areas. Staging areas for equipment, personnel, vehicle parking, and material storage will be sited as far as possible from major roadways.</p>	<ol style="list-style-type: none"> 1. Comply with specified staging and equipment requirements. 	<ol style="list-style-type: none"> 1. Ensure contractor complies with staging and equipment requirements. 	<ol style="list-style-type: none"> 1. Prior to the start of construction and during construction. 	

Air Quality

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>AQ-1 Fugitive Dust BMPs</p> <p>The City and its contractors will implement the following measures:</p> <ol style="list-style-type: none"> All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. All haul trucks transporting soil, sand, or other loose material off-site shall be covered. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. 	<ol style="list-style-type: none"> Comply with items 1-8. N/A N/A 	<ol style="list-style-type: none"> Ensure contractor compliance with items 1-8. Retain a certified mechanic to comply with item 7. Ensure appropriate city staff person is contacted if there are dust complaints, per item 8. 	<ol style="list-style-type: none"> During construction Prior to the start of construction. During construction, if necessary. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California ATCM identified in 13 CCR Section 2485). Clear signage shall be provided for construction workers at all access points.</p> <p>7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.</p> <p>8. Post a publicly visible sign with the telephone number and name of the City staff person to contact regarding dust complaints. Following the review of any dust complaints, the City contact person shall respond and take corrective action within 48 hours. Assessments and responses to dust complaints will be conducted in compliance with the BAAQMD’s applicable particulate matter rules and regulations, including but not limited to Regulation 6.</p>				

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>AQ-2 Comply with Asbestos ATCM by Obtaining an Approved Asbestos Dust Mitigation Plan or Exemption</p> <p>Revised Draft VMP-related ground-disturbing activities greater than 1 acre within potential NOA-containing areas (specifically areas near SR 13, Joaquin Miller Road, Skyline Boulevard, and parcels near Lake Chabot) will be required to comply with CARB’s ATCM for NOA. The City and its contractors will prepare and implement an asbestos dust mitigation plan in compliance with the State Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations with the BAAQMD’s implementation requiring submission of an Asbestos Dust Mitigation Plan Application, which includes a checklist of BMPs that must be implemented. The plan will specify actions to be taken during Revised Draft VMP treatment activities to minimize NOA emissions. The plan will also address specific emission sources as identified by the BAAQMD to be: track-out onto the paved public road; active storage piles; inactive disturbed surface areas and storage piles; traffic on unpaved on-site roads; earthmoving activities; off-site transport of materials; and post-project stabilization of disturbed soil surfaces. Specific measures to be implemented will include but not be limited to removing visible track out, keeping active storage piles covered or wet, controlling</p>	<ol style="list-style-type: none"> 1. Prepare and implement an asbestos dust mitigation plan. 2. Submit the plan to the BAAQMD prior to the start of work. 	<ol style="list-style-type: none"> 1. Ensure the preparation and implementation of an asbestos dust mitigation plan. 2. Ensure the plan is submitted to the BAAQMD and that work does not start until it is approved. 	<ol style="list-style-type: none"> 1. Prior to the start of construction and during construction. 2. Prior to the start of construction. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
inactive areas or storage piles, maintain trucks and wet loads to prevent spillage, and limit vehicle speeds. The City and its contractors will submit the plan to BAAQMD for approval prior to implementation and will not proceed with Revised Draft VMP implementation until BAAQMD has approved the plan and proposed BMPs or an exemption is received.				
GEO-1 Minimize Area of Disturbance (Revised from VMP BMP GEN-2) (See Geology, Soils, and Seismicity)				
HAZ-1 Vehicle and Equipment Maintenance (VMP BMP GEN-8) (See Hazards and Hazardous Materials)				
HAZ-4 Measures to Avoid or Minimize Adverse Effects on People, Pets, or Other Non-Target Organisms from Use of Herbicides (See Hazards and Hazardous Materials)				
HAZ-5 Standard Herbicide Use Requirements (VMP BMP VEG-2) (See Hazards and Hazardous Materials)				

Biological Resources

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>BIO-1 Provide Biologist Review and Worker Training</p>	<p>1. Attend a biologist-led environmental training program.</p>	<p>1. Retain a qualified biologist to review the annual work plan each year and provide guidance regarding special-status species, sensitive habitats, and mitigation measures, and to provide an environmental training program.</p>	<p>1. Prior to the start of construction</p>	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>The City shall retain a qualified biologist to review the annual work plan each year prior to conducting proposed Revised Draft VMP activities. The qualified biologist shall provide detailed guidance to staff regarding special status-species, sensitive habitats, and implementation of relevant mitigation measures described in this EIR. The qualified biologist shall also develop and present an environmental training program to all staff responsible for performing Revised Draft VMP treatment activities, including City contractors and volunteers. The training program shall be presented annually, at a minimum. Staff shall be trained to recognize special-status species and their habitats within the applicable Revised Draft VMP treatment areas. The training shall include maps and photos of known special-status species populations and location of riparian corridors or sensitive habitats. Staff shall also be trained to use protective measures, including those described in Mitigation Measures BIO-2a through BIO-5, BIO-13, BIO-14, GEO-1, and HAZ-4 and HAZ-5, to ensure that such species are not adversely impacted by Revised Draft VMP activities.</p>				

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>BIO-2a Avoid Special-Status Plant Species (revised from VMP BMP BIO-3)</p> <p>The City and its contractors shall ensure that, before conducting treatment activities, Revised Draft VMP treatment areas shall be surveyed for special-status plants with the potential to occur in the Revised Draft VMP area. Avoidance of Presidio Clarkia is described in Mitigation Measure BIO-4. To avoid and/or minimize potential impacts on special-status plants, the following actions shall be taken:</p> <ol style="list-style-type: none"> 1. A qualified botanist shall conduct protocol-level surveys for special-status plants within the treatment area following survey methods from CDFW’s Protocols for Surveying and Evaluating Impacts on Special Status Native Plant Populations and Natural Communities (CDFW 2018), or most updated version. Surveys shall be conducted during the appropriate blooming period before commencement of work. 	<ol style="list-style-type: none"> 1. N/A 2. Provide the City with advance notice of construction schedule and anticipated start date. Support site access for qualified biologist. 3. N/A 4. Comply with biologist recommended measures. 5. N/A 6. Do not use herbicide within 100 feet of special-status plant populations. 7. N/A 	<ol style="list-style-type: none"> 1. Retain a qualified biologist to conduct protocol-level surveys for special-status plants within the treatment area. 2. Ensure qualified biologist conducts pre-construction surveys of construction work area according to CDFW protocol. 3. If special-status species are not found, ensure receipt of a report from the biologist documenting findings. 4. If special-status species are found, work with biologist to implement one or more of listed measures. 5. Ensure biologist conducts follow-up surveys, if needed. 	<ol style="list-style-type: none"> 1. Prior to the start of construction. 2. Prior to the start of construction. 3. Prior to the start of construction, if needed. 4. Prior to the start of construction, as needed. 5. Prior to the start of construction, if needed. 6. During construction, as needed. 7. During construction, as needed. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>2. If protocol-level surveys, consisting of at least two survey visits (e.g., early blooming season and later blooming season) during a normal weather year, have been completed in the 53 years before implementation of the Revised Draft VMP treatment project and no special-status plants were found, and no treatment activity occurred after the protocol-level survey, treatment may proceed in that area without additional plant surveys.</p> <p>3. If special-status plants are not found, the botanist will document the findings in a report to the City and no further mitigation will be required. Botanical survey reports will be made available to the public upon request.</p> <p>4. If special-status plant species are present at the treatment area based on the pre-treatment survey, the City’s preferred approach is to avoid causing any impacts to the special-status species or its habitat, if feasible. In the event that complete avoidance is not possible, the qualified biologist shall minimize impacts on the species by implementing one or more of the following measures, as appropriate based upon the plant identified, the nature of the treatment, and the location:</p>		<p>6. Ensure contractor compliance with herbicide use restrictions.</p> <p>7. Ensure biologist determines if the special-status plant population will benefit from treatment in the occupied habitat area If impacts to special-status plant populations cannot be completely avoided or minimized to a less than significant level.</p>		

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>A. Flag or otherwise delineate in the field the special-status plant populations and/or sensitive natural community to be protected;</p> <p>B. Allow adequate (large enough to avoid direct or indirect impacts to the plants or habitat) buffers around plants or habitat; the location of the buffer zone shall be shown on the contract documents and marked in the field with stakes and/or flagging in such a way that exclusion zones are visible to personnel without excessive disturbance of the sensitive habitat or population itself (e.g., from installation of fencing); and</p> <p>C. Schedule vegetation treatment or other activities to take place during dormant and/or non-critical life cycle period.</p> <p>5. If special-status plant species are identified at the treatment area and treatment is not planned for two years, the qualified biologist will conduct a follow-up survey prior to treatment to determine if the boundaries of the population have shifted and to implement the measures outlined in step (4) above.</p>				

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>6. Herbicides, if chosen as a Revised Draft VMP treatment method, shall not be used within 100 feet of special-status plant populations.</p> <p>7. If impacts to special-status plant populations cannot be completely avoided or minimized to a less than significant level, the City shall implement the following measures:</p>				

<ul style="list-style-type: none"> • The qualified botanist will determine if the special-status plant population will benefit from treatment in the occupied habitat area even though some of the individual plants may be adversely affected during treatment activities. If the qualified botanist determines that treatment activities will be beneficial to a special-status plant population, no compensatory mitigation will be required. For a treatment to be considered beneficial to special-status plants, the qualified botanist will demonstrate that habitat function is expected to improve with implementation of the treatment such that special-status plant populations would expand, regenerate, or display increased vigor after treatment implementation. This determination will consider and cite scientific studies demonstrating that the species or a similar species has benefitted from increased sunlight from canopy opening, eradication of invasive species, or otherwise reduced competition for resources. This determination will be documented in the survey results letter report. The City may consult with CDFW and/or USFWS for technical information regarding this determination. • If a qualified botanist determines that treatment activities will not be beneficial 				
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Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>to a special-status plant population, then Mitigation Measure BIO-2b shall be implemented.</p>				
<p>BIO-2b Provide Compensatory Mitigation for Special-Status Plant Species</p> <p>The City shall prepare a Compensatory Mitigation Plan and provide compensatory mitigation for impacts on special-status plant populations where such impacts are unavoidable, and a qualified botanist has determined that the treatment activity will not be beneficial to the special-status plant population. The Compensatory Mitigation Plan will detail the compensatory mitigation strategy for unavoidable impacts on special-status plants. Compensation for unavoidable impacts on populations of special-status plants shall be provided by a combination of preservation and enhancement of those species’ populations. For impacts on populations (including partial populations) of a specific special-status plant species, compensatory mitigation shall include preservation, enhancement, and management of lands that (a) already support equal or greater numbers (and health) of individuals of that species and (b) contain sufficient unoccupied habitat to allow for an increase in populations (at least equivalent to the number affected) through habitat enhancement and management.</p>	<ol style="list-style-type: none"> 1. N/A 2. N/A 	<ol style="list-style-type: none"> 1. Prepare and implement a Compensatory Mitigation Plan per measure specifications that is submitted to CDFW and/or USFWS (as appropriate) for review and comment. 2. Document the results in a mitigation monitoring report until the success criteria in the plan are met. 	<ol style="list-style-type: none"> 1. Prior to the start of construction. 2. During Mitigation, following construction. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>Compensatory mitigation may also include creating off-site populations on mitigation sites through seed collection or transplantation and/or restoring or creating suitable habitat. To determine the magnitude of the impact to the entire population of the species, the number of individuals affected will be determined by using the highest number of individuals known to be present in the impact area within the prior 10 years (if the impact area has undergone multiple surveys in recent years). If the special-status plant taxa impacted are listed under ESA, CESA, or NPPA, the Compensatory Mitigation Plan will be submitted to CDFW and/or USFWS (as appropriate) for review and comment.</p> <p>Success criteria for preserved and compensatory populations shall include:</p> <ul style="list-style-type: none"> • The extent of occupied area and plant density (number of plants per unit area) in compensatory populations would be equal to or greater than the affected occupied habitat. • Compensatory and preserved populations would be self-producing. Populations would be considered self-producing when: 				

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<ul style="list-style-type: none"> ○ plants reestablish annually for a minimum of five years with no human intervention such as supplemental seeding; and ○ reestablished and preserved habitats contain an occupied area and flower density comparable to existing occupied habitat areas in similar habitat types in the treatment area vicinity. <p>If off-site conservation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the Compensatory Mitigation Plan shall include details of these measures, including information on responsible parties for long-term management, conservation easement holders, long term management requirements, success criteria such as those listed above and other details, as appropriate to target the preservation of long -term viable populations.</p>				

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>If relocation efforts are part of the Compensatory Mitigation Plan, the plan shall include details on the methods to be used, including collection, storage, propagation, receptor site preparation, installation, long-term protection, and management, monitoring and reporting requirements, success criteria such as those listed above, and remedial action responsibilities should the initial effort fail to meet long-term conservation requirements.</p> <p>After the Compensatory Mitigation Plan has been implemented, the City shall document the results in a mitigation monitoring report until the success criteria in the plan are met.</p>				
<p>BIO-3. Seeding with Native Species (VMP BMP BIO-10)</p> <p>To minimize the potential for invasive plant species to colonize exposed soils and subsequently spread into adjacent listed plant populations, the City and its contractors shall reseed exposed soil resulting from Revised Draft VMP activities as follows:</p>	<ol style="list-style-type: none"> 1. Reseed exposed soil per measure specifications. 	<ol style="list-style-type: none"> 2. Ensure that contractor reseeds exposed soil per measure specifications. 	<ol style="list-style-type: none"> 1. Following the completion of soil- disturbing VMP activities. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<ol style="list-style-type: none"> Sites where vegetation management activities result in exposed soil shall be stabilized to prevent erosion. Disturbed areas shall be seeded with native seed as soon as is appropriate after vegetation management activities are completed. An erosion control seed mix may be applied to exposed soils, including down to the ordinary high-water mark on stream banks. The erosion control seed mix shall consist of California native grasses (such as, but not limited to <i>Hordeum brachyantherum</i>, <i>Elymus glaucus</i>, <i>Stipa pulchra</i>, <i>Danthonia californica</i>, and <i>Festuca microstachys</i>) or annual, sterile seed. If feasible, the collection sources of native seeds will be from local or regional sources. 				
<p>BIO-4. Avoid Presidio Clarkia Sensitive Time Periods</p>	<ol style="list-style-type: none"> Comply with listed measures if stated criteria are met. 	<ol style="list-style-type: none"> Ensure contractor compliance with listed measures if stated criteria are met. 	<ol style="list-style-type: none"> Prior to the start of construction and during construction, if needed. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>If Revised Draft VMP treatment activities, including mowing and weed eating, are planned within known habitat for Presidio clarkia (defined as the median strips and roadside along Skyline Boulevard and Chadbourne Way between Crestmont Drive and Redwood Road, roadsides along the north side of Kimberlin Heights Drive, Colgett Drive, the roadside of Crestmont Drive at the junction with Westfield Way, the roadside of Old Redwood Road, and the portion of Joaquin Miller Park located south of Skyline Boulevard near the junction with Joaquin Miller Road), the City and its contractors shall ensure that the following processes are followed:</p> <ul style="list-style-type: none"> Annually prior to the implementation of proposed Revised Draft VMP treatment activities within Presidio clarkia known habitat areas, a qualified botanist shall conduct a survey of Presidio clarkia distribution in areas where Revised Draft VMP treatments are proposed during the blooming period for this species (typically May and June). The botanist shall mark the limits of the Presidio clarkia distribution, and no work shall occur in these areas until a qualified botanist determines that the Presidio clarkia have released their seeds, which typically occurs in the late summer. 				

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<ul style="list-style-type: none"> If Revised Draft VMP treatments occur in areas adjacent to marked Presidio clarkia populations during the species growing season prior to Presidio clarkia seed release, a biological monitor shall be present during treatment implementation. The biological monitor shall monitor work crews to prevent accidental entry into the Presidio clarkia areas. Herbicides, if chosen as a Revised Draft VMP treatment method, shall not be used within 100 feet of Presidio clarkia known habitat areas. 				
<p>BIO-5. Grazing (revised from VMP BMP BIO-6)</p> <ol style="list-style-type: none"> Livestock shall generally (in >80 percent of situations) be excluded from riparian areas where feasible, and shall be entirely (i.e., completely) excluded from streams with steep banks. Grazing contractors shall provide alternative water sources to avoid livestock reliance on natural water sources. Prior to conducting grazing on creekside properties (as defined in the Creek Protection Ordinance), the City shall obtain a Creek Protection Permit. 	<ol style="list-style-type: none"> Comply with listed measures pertaining to grazing. 	<ol style="list-style-type: none"> Ensure contractor compliance with listed measures pertaining to grazing. 	<ol style="list-style-type: none"> Prior to the start of construction and during construction. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>2. If temporary fencing is used during grazing treatments, wildlife-friendly fencing design shall be used. The fencing shall minimize the chance of wildlife entanglement by avoiding barbed wire, loose or broken wires, or any material that could impale or snag a leaping animal. The fencing shall be highly visible to birds and mammals by using high-visibility tape or wire, flagging, or other markers. Fencing shall be constructed to allow wildlife to jump over easily without injury by installing the top wire low enough (no more than approximately 40 inches high on flat ground) to allow adult deer to jump over it.</p> <p>3. Livestock shall be excluded from known locations of special-status plant species and mixed chaparral habitat. If a qualified botanist determines that grazing would be beneficial to a special-status plant species, grazing may occur within the special-status plant population under the direct supervision of a qualified botanist.</p> <p>4. Livestock shall be monitored to ensure over-grazing of treatment areas does not occur. Grasslands should not be grazed to less than 4 inches.</p>				

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>5. Livestock shall be excluded from areas treated with herbicide for, at a minimum, the post-treatment exclusion period included on the herbicide product label.</p>				
<p>BIO-6. Trash Removal (revised from VMP BMP BIO-7)</p> <p>The City and its contractors shall be required to keep all waste and contaminants contained and remove them daily from the work site. Wildlife-proof trash receptacles shall be used. Uneaten human food and trash attracts predators of the California red legged frog and Alameda whipsnake. A litter control program shall be instituted at each vegetation treatment site. All workers shall ensure their food scraps, paper wrappers, food containers, cans, bottles, and other trash are deposited in covered or closed trash containers. The trash containers shall be removed from the vegetation treatment site at the end of each working day.</p>	<p>1. Comply with listed trash removal measures.</p>	<p>1. Ensure contractor compliance with trash removal measures.</p>	<p>1. During construction.</p>	
<p>BIO-7. Protection of Alameda Whipsnake (revised from VMP BMP BIO-5)</p> <p>1. Prior to implementing vegetation treatments in suitable Alameda whipsnake habitat (within 500 feet of core habitat), personnel involved in vegetation removal and earth-disturbing activities shall participate in an Environmental Awareness Training per</p>	<p>1. Attend an Environmental Awareness Training per Measure BIO-1.</p> <p>2. N/A</p>	<p>1. Retain a qualified biologist to conduct an Environmental Awareness Training per Measure BIO-1.</p>	<p>1. Prior to the start of construction.</p> <p>2. Prior to the start of construction.</p>	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>Mitigation Measure BIO-1. Workers shall be informed about Alameda whipsnake and their habitat, conservation goals, identification, and procedures to follow in the event of a possible sighting.</p> <p>2. Any coastal scrub and chaparral habitat present within a vegetation treatment area shall be inspected by a qualified biologist prior to treatment to determine the presence or potential presence of Alameda whipsnakes.</p> <p>3. To the maximum extent practicable, vegetation clearing activities in coastal scrub habitats shall be scheduled to avoid the breeding period for the Alameda whipsnake (March 15 through June 15).</p> <p>4. A qualified biological monitor shall monitor vegetation removal and ground disturbance within Alameda whipsnake habitat, or other activities that may result in take of Alameda whipsnake. The biological monitor shall have the authority to stop any work that could result take of Alameda whipsnake. If an Alameda whipsnake is observed, the snake will be allowed to leave the area on its own volition.</p>	<p>3. Work with the City to schedule vegetation clearing activities in coastal scrub habitats outside of the Alameda Whipsnake breeding period, as feasible.</p> <p>4. Listen to recommendations of biologist and stop work if needed. Resume work only if biologist says it's okay.</p> <p>5. N/A</p> <p>6. Do not use plastic monofilament netting of erosion occurs.</p>	<p>2. Ensure biologist inspects any coastal scrub or chaparral habitat prior to treatment.</p> <p>3. Work with the contractor to schedule vegetation clearing activities in coastal scrub habitats outside of the Alameda Whipsnake breeding period, as feasible.</p> <p>4. Ensure biologist monitors vegetation removal and ground-disturbing activities within Alameda Whipsnake Habitat.</p> <p>5. Ensure biologist monitors treatment area for Alameda Whipsnake prior to the start of work and checks equipment and debris piles before they are moved.</p>	<p>3. Prior to the start of construction.</p> <p>4. During construction.</p> <p>5. During construction.</p> <p>6. During construction, if needed.</p>	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>5. The biological monitor shall inspect the treatment area for Alameda whipsnake each day before work begins by checking debris piles, and also beneath vehicles/equipment before it is moved.</p> <p>6. If erosion control is needed, plastic monofilament netting or similar material containing netting shall not be used, as Alameda whipsnake may become entangled in this material. Coconut coir matting or tackified hydroseeding compounds are acceptable alternatives.</p>		<p>6. N/A</p>		
<p>BIO-8: Protection of California Red-legged Frogs and Western Pond Turtles (based on VMP BMP BIO-4)</p> <p>If vegetation treatment areas are planned within 100 feet of aquatic habitat, the City and its contractors shall implement the following measures.</p> <p>1. A qualified biologist shall conduct one daytime survey for California red-legged frog and western pond turtle within 48 hours before commencement of vegetation management activities.</p>	<p>1. Communicate with the City regarding planned construction start dates to support biologist surveys.</p> <p>2. Comply with all biologist measures and recommendations.</p> <p>3. N/A</p> <p>4. Comply with biologist buffer for WPT.</p>	<p>1. Retain a qualified biologist to conduct a daytime survey for CRLF and WPT within 48 hours before start of construction, if needed.</p> <p>2. Ensure biologist implements the listed measures, if applicable.</p>	<p>1. Prior to the start of construction.</p> <p>2. Prior to the start of construction and during construction.</p> <p>3. Prior to the start of construction.</p> <p>4. During construction.</p>	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>2. If no California red-legged frogs or western pond turtles are found within the activity area during the survey, the work may proceed.</p> <p>3. If a California red-legged frog or western pond turtle, or the eggs or hatchlings of western pond turtle, are found within the activity area during the survey or during VMP activities, the qualified biologist shall implement the following measures:</p> <p>A. For vegetation management activities that will take less than 1 day, conduct a survey for red-legged frogs and western pond turtles on the morning of and before the scheduled work.</p> <p>I. If no California red-legged frogs, western pond turtles, or turtle nests are found, the work may proceed.</p>	<p>5. Resume work in buffer area only when biologist suggests it is okay.</p> <p>6. N/A</p>	<p>3. For work that will take more than one day, ensure biologist a survey for California red-legged frogs and western pond turtles each morning before the scheduled work commences.</p> <p>4. If WPT nest is found, ensure biologist implements a 100-foot buffer zone around the nest shall be established and maintained during the breeding and nesting season.</p> <p>5. Provide notice to the contractor when work can resume, with recommendation of the biologist.</p>	<p>5. During construction, if needed.</p> <p>6. During construction, if needed.</p>	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>II. If eggs or larvae of either species are found, a 100-foot no-disturbance buffer zone shall be established around the location of the eggs. Work may proceed outside of the buffer zone; however, work within the buffer zone shall be postponed until the eggs have hatched and young turtles have moved outside of the work area. The monitoring biologist shall determine the buffer size based on the specific site conditions and type of vegetation management.</p> <p>III. If an active western pond turtle nest is detected within the treatment area, a 100-foot buffer zone around the nest shall be maintained during the breeding and nesting season (April 1-August 31). The buffer zone shall remain in place until the young have left the nest and moved outside of the work area, as determined by a qualified biologist.</p> <p>IV. If adult or juvenile California red-legged frogs or western pond turtles are found, the qualified biologist shall implement one of the following two procedures:</p>		<p>6. If WPT or CRLF are found, ensure individual(s) are captured and relocated by a qualified biologist (with USFWS and/or CDFW approval).</p>		

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>a.) If, in the opinion of the qualified biologist, the individual(s) are likely to leave the work area on their own, and work can be feasibly rescheduled, a buffer zone shall be established around the location of the individual(s). Work may proceed outside of the buffer zone. Work within the buffer zone shall be postponed until the individual(s) have left the area, as determined by the qualified biologist. The monitoring biologist shall determine the buffer size based on the specific site conditions and type of vegetation management.</p>				

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>b.) If, in the opinion of the qualified biologist, capture and removal of the individual(s) to a safe location outside of the work area is less likely to result in adverse effects than leaving the individual(s) in place and rescheduling the work (e.g., if the individual[s] could potentially hide and be missed during a follow-up survey), the individual(s) shall be captured and relocated by a qualified biologist (with USFWS and/or CDFW approval, depending on the listing status of the species in question), and work may proceed.</p> <p>B. For vegetation management that will take more than 1 day, the qualified biologist shall conduct a survey for California red-legged frogs and western pond turtles each morning before the scheduled work commences.</p>				

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>I. If an active western pond turtle nest is detected within the treatment area, a 100-foot buffer zone around the nest shall be established and maintained during the breeding and nesting season (April 1-August 31). The buffer zone shall remain in place until the young have left the nest and moved outside of the work area, as determined by a qualified biologist.</p> <p>II. If adult or juvenile California red-legged frogs or western pond turtles are found, the individual(s) shall be captured and relocated by a qualified biologist (with USFWS and/or CDFW approval, depending on the listing status of the species in question), and work may proceed.</p>				
<p>BIO-9: Protection of California Red-legged Frogs from Herbicide Use (VMP BMP BIO-2)</p> <ul style="list-style-type: none"> In accordance with Mitigation Measure HAZ-5, only herbicides approved for use by USEPA and registered for use by CDPR shall be used for vegetation management, and approved herbicides shall be applied in accordance with federal, state, and local regulations. 	<p>1. Comply with all measures related to the protection of California red-legged frogs.</p>	<p>1. Ensure contractor compliance with relevant measures.</p>	<p>1. During construction.</p>	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<ul style="list-style-type: none"> • In accordance with Mitigation Measure HAZ-5, no herbicides shall be applied in open water or within 60 feet of streams. • In project areas identified as providing suitable habitat for the California red legged frog, the City shall ensure that any applications of sprayable formulations of herbicides shall: <ol style="list-style-type: none"> 1. be applied only when the air is calm or moving away from red-legged frog habitat; 2. begin in the portion of the work area nearest the suitable habitat and proceed away from the habitat; and 3. not be conducted within 40 yards upwind of suitable habitat when air currents are moving toward the habitat. 				
<p>BIO-10: Minimize Impacts to Nesting Birds via Site Assessments and Avoidance Measures (revised from VMP BMP BIO-1)</p> <ul style="list-style-type: none"> • When feasible, tree and shrub removal shall be conducted outside of the typical bird nesting season (February 1 and August 31). 				

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<ul style="list-style-type: none"> • For activities occurring between February 1 and August 31, project areas shall be surveyed by a qualified biologist for nesting birds within 2 weeks prior to starting work. If a lapse in project-related work of 2 weeks or longer occurs, the treatment area shall be resurveyed before project work can be reinitiated. • If nesting birds are found, a buffer shall be established around the nest and maintained until the young have fledged. Appropriate buffer widths are 250 feet for raptors, herons, and egrets; 25 feet for ground-nesting non-raptors; and 50 feet for non-raptors nesting on trees, shrubs, and structures. A qualified biologist may identify an alternative buffer based on a site-specific evaluation. No work shall occur within the buffer without written approval from a qualified biologist, for as long as the nest is active. • The boundary of each buffer zone shall be marked with fencing, flagging, or other easily identifiable marking if work will occur immediately outside the buffer zone. • All protective buffer zones shall be maintained until the nest becomes inactive, as determined by a qualified biologist. 				

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<ul style="list-style-type: none"> If monitoring shows that disturbance to actively nesting birds is occurring, buffer widths shall be increased until monitoring shows that disturbance is no longer occurring. If this is not possible, work shall cease in the area until young have fledged and the nest is no longer active. 				
<p>BIO-11: Protection of Bat Colonies (VMP BMP BIO-8)</p> <p>To minimize impacts on special-status bats (e.g., pallid bat, western mastiff bat, and western red bat) and large colonies of CEQA-relevant bats, the City and its contractors shall implement the following practices during tree trimming and removal activities:</p>	<ol style="list-style-type: none"> Comply with all listed measures. 	<ol style="list-style-type: none"> Ensure contractor compliance. 	<ol style="list-style-type: none"> During construction. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<ol style="list-style-type: none"> 1. If high-quality habitat for roosting bats (i.e., large trees with cavities of sufficient size to support roosting bats, as determined by a qualified bat biologist) is present, a qualified bat biologist shall conduct a survey for evidence of bat use within 2 weeks before the commencement of work activities. If bat-use evidence is observed, or if high-quality roost sites are present in areas where evidence of bat use might not be detectable (such as a tree cavity), the biologist shall conduct an evening survey and/or nocturnal acoustic survey (as necessary) to determine if a bat colony is present and to identify the specific location of the bat colony. 2. If no active maternity colony or non-breeding bat roost is located, work can continue as planned. 3. If an active maternity colony or non-breeding bat roost is located, work shall be redesigned/rescheduled to avoid disturbance of the roosts, if feasible. 				

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>4. If an active maternity colony is located and work cannot be redesigned to avoid removal or disturbance of the occupied tree or structure, disturbance shall take place outside the maternity roost season (March 15–July 31), and a disturbance free buffer zone (determined by a qualified bat biologist based on the roost situation and species’ sensitivity) shall be observed during this period.</p> <p>5. If an active non-breeding bat roost is located and work cannot be redesigned to avoid removal or disturbance of the occupied tree or structure, the individuals shall be safely evicted between August 1 and October 15 or from February 15 to March 14. Bats may be evicted through exclusion after notifying CDFW. Trees with roosts that need to be removed shall first be disturbed at dusk, just before removal that same evening, to allow bats to escape during the darker hours.</p>				
<p>BIO-12: Protection of Dusky-footed Woodrats (VMP BMP BIO-9)</p>	<p>1. Communicate with the City regarding planned construction start dates to support biologist surveys.</p>	<p>1. Retain a qualified biologist to conduct a focused survey for woodrat houses.</p> <p>2. Preserve any woodrat stick houses found, as feasible.</p>	<p>1. Prior to the start of construction.</p> <p>2. During construction, as needed.</p>	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<ol style="list-style-type: none"> 1. If woodland, forest, or scrub habitat is present in a treatment area, a qualified biologist shall conduct a focused survey for woodrat stick houses within the treatment area, access routes, and staging areas within seven days of the commencement of treatment activities. 2. If a woodrat stick house is identified in a work area, the City shall attempt to preserve the nest and maintain an intact dispersal corridor between the stick house and undisturbed habitat. Retained woodrat stick houses shall be marked with high visibility construction fencing or flagging to avoid accidental encroachment on the stick house. 	<ol style="list-style-type: none"> 2. Work with City to preserve and avoid woodrat houses. 3. N/A 	<ol style="list-style-type: none"> 3. Ensure the biologist deconstructs the woodrat house if it cannot be avoided and relocates it to the nearest undisturbed suitable habitat 	<ol style="list-style-type: none"> 3. During construction, as needed. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>3. If the woodrat stick house cannot be avoided, a qualified biologist shall deconstruct the stick house by hand in a phased approach and relocate the stick house materials to the nearest undisturbed suitable habitat. In the phased dismantling process, each house will be partially dismantled on the first day, and the remainder will be dismantled the next day, to encourage dispersal of any woodrats present. If the biologist observes that young are present, dismantling shall cease. Dismantling shall resume when the biologist determines that the young have left or are old enough to vacate under their own volition.</p>				
<p>BIO-13: Avoid Monarch Butterfly Host Plants and Overwintering Sites</p> <ul style="list-style-type: none"> A qualified biologist or biological monitor working under a qualified biologist shall conduct pre-construction surveys for milkweed (<i>Asclepias</i> spp.). Detected milkweeds shall be inspected for evidence of monarch butterfly eggs, larvae, or pupae. 	<ol style="list-style-type: none"> Communicate with the City regarding planned construction start dates to support biologist surveys. Follow biologist recommendations. 	<ol style="list-style-type: none"> Retain a qualified biologist to conduct pre-construction surveys for milkweed. Ensure biologist recommends appropriate buffers, if needed. Ensure herbicide requirements are followed. 	<ol style="list-style-type: none"> Prior to the start of construction. Prior to the start of construction, if needed. During construction. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<ul style="list-style-type: none"> • Milkweeds found containing eggs, larvae, or pupae of monarch butterflies shall be avoided and protected with an appropriately-sized buffer as determined by a qualified biologist (at least 10 feet). The biologist shall consider plant species characteristics and the nature of the proposed treatment when establishing the buffer. • No herbicides shall be applied within 60 feet of milkweed occupied by any life stage of monarch butterfly. • Vegetation treatment may proceed if a qualified biologist determines that the milkweeds (1) are not occupied by monarchs, and (2) may benefit from treatment (such as if the host plants have already set seed and post-treatment conditions would favor them over non-native weed species). • Prior to Revised Draft VMP activities in tree groves comprised primarily or entirely of pine, cypress, or eucalyptus, a qualified biologist or biological monitor working under a qualified biologist shall survey the grove for aggregations of monarch butterflies during the overwintering season (November 1 – March 1). 	<ol style="list-style-type: none"> 3. Do not spray herbicide within 60 feet of occupied monarch habitat. 4. Only continue vegetation treatments if biologist determines it is okay to do so. 5. N/A 6. Follow biologist recommendations and timeline. 	<ol style="list-style-type: none"> 4. N/A 5. Ensure biologist monitors work in applicable tree groves during the overwintering season. 6. Ensure biologist makes appropriate recommendations per measure specifications. 	<ol style="list-style-type: none"> 4. During construction, if needed. 5. During construction. 6. During construction. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<ul style="list-style-type: none"> • If no monarch overwintering aggregations are observed, Revised Draft VMP activities may proceed if they occur prior to November 1. If Program activities are delayed beyond November 1, then the grove shall be re-surveyed. • If a monarch overwintering aggregation of any size is detected, then no Revised Draft VMP activities may take place inside the tree canopy within 200 feet of the aggregation. Activities outside of the canopy line but within 200 feet (e.g., treatment of low-growing vegetation outside of the tree grove) may proceed if a qualified biologist or monitor determines that the activity does not pose a threat to the monarch aggregation. <ul style="list-style-type: none"> (i) Once the aggregation disperses (typically by March), treatment of vegetation within 200 feet of trees where monarch aggregations were observed may proceed if, as determined by a qualified biologist or monitor, it would not result in significant adverse impacts to monarch overwintering habitat. 				

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
(ii) Standing dead trees generally do not contribute to monarch overwintering habitat (Xerces Society 2017) and may be removed within the grove, outside of the overwintering period, as determined appropriate by a qualified biologist or monitor.				
<p>BIO-14: Avoid Crotch Bumble Bee Nests</p> <ul style="list-style-type: none"> • Prior to ground-disturbing activities in grassland or coastal scrub habitat, a qualified biologist shall conduct a pre-construction survey for nesting Crotch bumble bees. Surveys shall focus on burrows and, when feasible, shall be conducted during the period of highest detection probability (April through August) for this species. • If no state-listed bumble bee nests are detected during the survey, Revised Draft VMP activities may proceed. • If state-listed bumble bee nests are detected, the qualified biologist shall establish a non-disturbance buffer around the nest (at least 10 feet) and no ground-disturbing activities shall occur within the buffer until the qualified biologist determines that the nest is no longer active. 	<ol style="list-style-type: none"> 1. Communicate with the City regarding planned construction start dates to support biologist surveys. 2. Comply with biologist recommendations. 	<ol style="list-style-type: none"> 1. Retain a qualified biologist to conduct pre-construction surveys for nesting Crotch bumble bees. 2. Ensure biologist establishes an appropriate disturbance buffer around nest, if needed. 	<ol style="list-style-type: none"> 1. Prior to the start of construction. 2. Prior to the start of construction, as needed. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>BIO-15: Avoid Riparian Habitat and Develop and Implement a Plan to Replace Affected Riparian Habitat</p> <p>The City’s preferred approach is to avoid causing any impacts to riparian areas, if feasible. Before implementation of treatment activities, the City, under the direction of a qualified biologist, shall flag or fence riparian areas to be avoided with brightly visible construction flagging and/or fencing. For unavoidable impacts to riparian habitat, the City shall develop and implement a plan to replace riparian habitat affected by VMP activities.</p> <p>For replacement of riparian habitat, native riparian trees 4-6 inches dbh removed for the Revised Draft VMP shall be replaced at a 2:1 ratio; native riparian trees larger than 6 inches dbh shall be replaced at a 3:1 ratio. These replacement trees shall be planted within riparian zones in the Revised Draft VMP area. Planted trees shall be monitored annually for 5 years to assess the effectiveness of replacement efforts, and results shall be reported to CDFW. The performance standard for success of the mitigation shall be 65 percent survival of planted trees after 5 years.</p>	<ol style="list-style-type: none"> 1. Communicate with the City regarding planned construction start dates to support biologist surveys. 2. Comply with the City’s plan to replace riparian habitat affected by VMP activities. Per measure specifications. 	<ol style="list-style-type: none"> 1. Retain a qualified biologist to flag or fence riparian areas to be avoided. 2. Develop and implement a plan to replace riparian habitat affected by VMP activities, per measure specifications. 	<ol style="list-style-type: none"> 1. Prior to the start of construction. 2. Prior to the start of construction and during construction. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>Alternatively, the City may preserve existing riparian habitat of equal or better value to the affected riparian habitat through a conservation easement at a sufficient ratio to offset the loss of riparian habitat function.</p>				
<p>BIO-16: Prevent the Spread of Invasive Plants and Plant Pathogens</p> <p>To minimize the spread of plant pathogens, the City and its contractors shall require that all equipment (including personal gear such as boots) shall be cleaned of soil, seeds, and plant material prior to arriving on a treatment site. All soil and organic material (e.g., roots, sap) shall be removed from the surfaces of equipment and clothing. If necessary, a detergent solution and brush shall be used to scrub surface contaminants at a utility sink.</p>	<ol style="list-style-type: none"> 1. Comply with all listed measures. 	<ol style="list-style-type: none"> 1. Ensure contractor compliance with listed measures. 	<ol style="list-style-type: none"> 1. During construction. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>Tools and machinery used to prune, cut, or chip trees infected with pitch canker disease shall be cleaned and sterilized before being used on uninfected trees or in uninfested areas. Tools and machinery used to prune, cut, or chip trees or shrubs in areas of known SOD infestation (currently Garber Park, Shepherd Canyon, Dimond Canyon Park, Joaquin Miller Park, Leona Heights Park, Knowland Park, Sheffield Village, and roadside areas of Skyline Boulevard) shall be cleaned and sterilized before being used in a new treatment area. Tools and machinery will be cleaned and sterilized prior to being used in proximity to known pallid manzanita populations. Ethyl or isopropyl alcohol (70-90%), 10% solution of bleach (1 part household bleach in 9 parts water), or a quaternary ammonium disinfectant (such as Lysol®) may be used. Proper use of ethyl or isopropyl alcohol involves spraying to thoroughly wet the surface and allowing to air dry before use. For freshly diluted bleach solution, exposure for a minimum of 1 minute is required. As bleach solutions degrade quickly, bleach solutions dispensed by spray bottles must be made fresh daily. Due to corrosivity, bleach solutions are not advised for steel or other materials that could be damaged by corrosion. Proper use of quaternary ammonium disinfectant involves use according to manufacturer recommendations.</p>				

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>Limbs and small pieces of wood from diseased trees may be chipped and the mulch deposited on site. Any material, including logs, that is removed from the site should be tightly covered with a tarp during transit and taken to the nearest landfill or designated disposal facility for prompt burial, chipping, and composting, or burning. Diseased wood shall not be transported beyond Alameda or Contra Costa County.</p>				
<p>BIO-17: Avoid Impacts on Federally Protected and State-Protected Wetlands and Waters, as Feasible</p> <p>To the extent feasible, Revised Draft VMP activities shall avoid federally protected and state-protected wetlands and waters. If Revised Draft VMP treatments are planned to occur within or immediately adjacent to wetlands or waters, the City and its contractors shall restore surface topography and drainage to pre-implementation conditions. Where appropriate, revegetation shall be implemented with site-adapted native species.</p>	<ol style="list-style-type: none"> 1. Avoid federally protected and state-protected wetlands and waters during construction, to the extent feasible. 2. Work with the City to restore surface topography and drainage to pre-implementation conditions and to revegetate, when necessary. 	<ol style="list-style-type: none"> 1. Ensure contractor avoids federally protected and state-protected wetlands and waters during construction, to the extent feasible. 2. Work with the contractor to restore surface topography and drainage to pre-implementation conditions and to revegetate, when necessary. 	<ol style="list-style-type: none"> 1. During construction. 2. During construction. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>BIO-18: Provide Compensatory Mitigation for Unavoidable Impacts on Waters of the United States and the State</p>	<ol style="list-style-type: none"> 1. N/A 2. N/A 	<ol style="list-style-type: none"> 1. Obtain necessary permits to work in Waters of the U.S. and of the State. 2. Comply with related mitigation in areas where permanent loss would result, as needed, consistent with CWA Section 404 permit, the Final Rule on Compensatory Mitigation for Losses of Aquatic Resources (73 Code of Federal Regulations [CFR] 19594), and the Regional Compensatory Mitigation and Monitoring Guidelines for the South Pacific Division (U.S. Army Corps of Engineers [USACE] 2015, or current version). 	<ol style="list-style-type: none"> 1. Prior to the start of construction. 2. During construction and following the completion of construction. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>Work within areas defined as waters of the U.S. that includes placement of fill will require a Clean Water Act (CWA) Section 404 permit and Section 401 Water Quality Certification. All work proposed in jurisdictional waters of the U.S. must be authorized under these permits, and the work must comply with the general and regional conditions of the permits. In areas where permanent loss of jurisdictional waters or wetlands would result, the City shall ensure that mitigation is implemented such that no net loss would occur for permanent impacts, consistent with the terms of the CWA Section 404 permit, the Final Rule on Compensatory Mitigation for Losses of Aquatic Resources (73 Code of Federal Regulations [CFR] 19594), and the Regional Compensatory Mitigation and Monitoring Guidelines for the South Pacific Division (U.S. Army Corps of Engineers [USACE] 2015, or current version). Compensatory mitigation may include purchase of credits from an approved mitigation bank or in-lieu fee program, or creation, reestablishment, or enhancement of wetlands in the Revised Draft VMP area or at an off-site location. At a minimum, mitigation shall be provided at a ratio that ensures no net loss of the functions and values associated with the affected resources.</p>				

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
GEO-1: Minimize Area of Disturbance (Revised from VMP BMP GEN-2) (See Geology, Soils, and Seismicity)				
GEO-2: Erosion and Sediment Control Measures (VMP BMP GEN-3) (See Geology, Soils, and Seismicity)				
HAZ-1: Vehicle and Equipment Maintenance (VMP BMP GEN-8) (See Hazards and Hazardous Materials)				
HAZ-2: Vehicle and Equipment Fueling (VMP BMP GEN-9) (See Hazards and Hazardous Materials)				
HAZ-3: On-Site Hazardous Materials Management (VMP BMP GEN-5) (See Hazards and Hazardous Materials)				
HAZ-4: Measures to Avoid or Minimize Adverse Effects on People, Pets, or Other Non-Target Organisms from Use of Herbicides (See Hazards and Hazardous Materials)				
HAZ-5: Standard Herbicide Use Requirements (VMP BMP VEG-2) (See Hazards and Hazardous Materials)				

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
HAZ-6: Spill Prevention and Response (VMP BMP GEN-7) (See Hazards and Hazardous Materials)				
HAZ-8: Existing Hazardous Materials (VMP BMP GEN-6) (See Hazards and Hazardous Materials)				
HYD/WQ-1: Work Windows (VMP BMP GEN-1) (See Hydrology and Water Quality)				

Cultural Resources

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
CUL-1: Provide Sensitivity Training, Assess Archaeological Sensitivity, and Survey Areas of High or Highest Sensitivity	1. N/A 2. N/A 3. N/A 4. N/A	1. Ensure that City workers receive informal training to educate them about archaeological resources. 2. Work with a qualified archaeologist to prepare adequate training materials.	1. Prior to the start of construction. 2. Prior to the start of construction. 3. Prior to the start of construction. 4. Prior to the start of construction.	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>Although vegetation management activities can occur all year round, the City will ensure that City workers and members of stewardship groups who assist with implementing the VMP will receive informal training in the form of a brochure to educate them about the need to avoid and protect significant archaeological resources. The material will be developed by a qualified archaeologist meeting the U.S. Secretary of the Interior’s guidelines for professional archaeologists. The material will include relevant information regarding sensitive cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating state laws and regulations. The material will also describe appropriate avoidance and minimization measures for resources that could be discovered and will outline what to do and whom to contact if potential archaeological resources or artifacts are encountered. The requirement for confidentiality and culturally appropriate treatment of any finds of significance to Native Americans, consistent with Native American tribal values, will be underscored.</p> <p>During development of the VMP annual work plan, the maps that depict the archaeological sensitivity of each treatment area will be reviewed by OFD and compared to the proposed VMP treatment activities. If the work plan includes ground-disturbing techniques in areas</p>		<ol style="list-style-type: none"> 3. Ensure OFD reviews archaeological sensitivity maps for each treatment area during development of the VMP annual work plan. 4. If ground-disturbing techniques are set to occur in areas with high sensitivity, modify the work plan to include non-ground-disturbing techniques, or, retain a qualified archaeologist to survey prior to the start of work. 		

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>identified as having high or highest sensitivity, either the work plan will be modified to use non-ground-disturbing techniques, or the treatment area will be surveyed by a qualified archaeologist. If archaeological resources are identified, Mitigation Measure CUL-2 will be implemented.</p>				
<p>CUL-2: Avoid Use of Techniques that Cause Ground Disturbance within Known Archaeological Historical Resources</p>	<ol style="list-style-type: none"> 1. Either avoid areas that have been identified as archaeological sites, or work with the City to conduct an evaluation study. 2. If a site is evaluated and found to be eligible for listing, preserve the site in place, as feasible. 	<ol style="list-style-type: none"> 1. Either avoid areas that have been identified as archaeological sites, or work with the contractor to conduct an evaluation study. 2. If a site is evaluated and found to be eligible for listing, preserve the site in place, as feasible. 	<ol style="list-style-type: none"> 1. Prior to the start of construction and during construction. 2. During construction, as needed. 3. During construction, as needed. 4. During construction, as needed. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>One known archaeological site (Skyline Ranch) that appears eligible for listing in the CRHR/NRHP exists within the VMP area, and four previously recorded sites in the VMP area have not been evaluated for eligibility. Additionally, other sites may be identified in the future during VMP-related activities or through cultural resources studies for other City projects. Archaeological sites that have been identified but not evaluated can be treated by avoidance or by conducting an evaluation study. If a site is evaluated and determined not to be eligible for listing in the CRHR/NRHP, future avoidance of any kind is not required. If a site is found to be eligible, preservation in place is the preferred treatment under Section 15126.4(b)(3) of the CEQA Guidelines. As such, grazing and mechanical techniques, along with hand labor activities that cause ground disturbance, would not be implemented within the site boundaries and a 10-foot buffer. Alternatively, though not preferred, data recovery studies of eligible sites could take place, and the OFD would then be able to use any VMP method deemed appropriate.</p>	<ul style="list-style-type: none"> 3. Halt grazing, mechanical treatments, or ground-disturbing hand labor activities occur within ten feet of a site that is found eligible for listing. 4. If preservation in place of a site that is listed for eligibility is not feasible, work with City and OFD to set-up data recovery studies of all eligible sites and evaluate which VMP methods are appropriate. 	<ul style="list-style-type: none"> 3. Ensure no grazing, mechanical treatments, or ground-disturbing hand labor activities occur within ten feet of a site that is found eligible for listing. 4. If preservation in place of a site that is listed for eligibility is not feasible, set-up data recovery studies of all eligible sites and work with OFD to evaluate which VMP methods are appropriate. 		

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>CUL-3: Response Measures for Potential Unknown Archaeological Resources and Tribal Cultural Resources</p> <p>If evidence of any subsurface archaeological features or deposits (e.g., lithic scatters, midden soils, historic era mining, farming, or construction materials) is discovered during VMP treatment activities, all ground-disturbing activity in the area of the discovery shall be halted within 50 feet of the find until a qualified archaeologist can assess the significance of the find and make recommendations. If the finds are of Native American origin, a Native American representative from a traditionally and culturally affiliated tribe will be notified and invited to assess the significance of the find and make recommendations in collaboration with the archaeologist. If the site can be protected in place and avoided, no further action is necessary. Further evaluation for CRHR eligibility and treatment will be required if the resource cannot be protected and avoided. Such evaluations shall be conducted by a qualified archaeologist and, if the site is of Native American origin, in consultation with a Native American representative from a tribe with a traditional and cultural affiliation with the project area.</p> <p>If, after evaluation, a resource is considered significant, or is considered a tribal cultural</p>	<ol style="list-style-type: none"> 1. Halt work within 50 feet if any evidence of subsurface archaeological features or deposits are found. 2. Do not resume work until qualified archaeologist states it is okay. 3. Follow all archaeologist recommendations. 4. N/A 5. N/A 	<ol style="list-style-type: none"> 1. Ensure that work is halted within 50 feet of any archaeological discoveries. 2. Retain a qualified archaeologist to assess the finding of the resource(s) and make recommendations about the significance and appropriate timeline to resume work activities. 3. Ensure contractor compliance with archaeologist recommendations. 4. Ensure proper CEQA process is followed, if needed. 	<ol style="list-style-type: none"> 1. During construction, if needed. 2. During construction, if needed. 3. During construction, if needed. 4. During construction, if needed. 5. During construction, if needed. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>resource, all preservation options shall be considered as required by CEQA (see Pub. Res. Code Section 21084.3), including avoidance of the resource, possible capping, data recovery, and/or mapping. Treatment that preserves or restores the cultural character and integrity of a tribal cultural resource may include tribal monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or soil.</p> <p>If artifacts are recovered from significant prehistoric archaeological resources or tribal cultural resources, the first option shall be to transfer the artifacts to an appropriate tribal representative. If possible, accommodations shall be made to re-inter the artifacts near the site. If no other options are available, recovered prehistoric archeological material will be housed at a qualified curation facility.</p> <p>The results of the identification, evaluation, and/or data recovery program for any unanticipated discoveries shall be presented in a professional-quality report that details all methods and findings, evaluates the nature and significance of the resources, analyzes, and interprets the results, and distributes this information to the public.</p>		<p>5. Ensure appropriate handling and transfer of artifacts.</p>		

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>CUL-4: Stop Work if Human Remains Are Unearthed during Project Activities</p>	<ol style="list-style-type: none"> 1. Halt work within 50 feet if any evidence of human remains is found and contact County Coroner. 2. N/A 	<ol style="list-style-type: none"> 1. Ensure work is halted within 50 feet if any evidence of human remains is found and County Coroner is contacted. 2. If remains are found to be of Native American descent, City will work with MLD and County Coroner to determine proper treatment of the remains and take appropriate steps to ensure that additional human interments, if present, are not disturbed 	<ol style="list-style-type: none"> 1. During construction, if needed 2. During construction, if needed. 	

<p>California law protects Native American human burials, skeletal remains, cremated remains, and items associated with Native American burials from vandalism and inadvertent destruction. Consistent with the California Health and Safety Code Sections 7050.5 and 7052 and the California Native American Historical, Cultural, and Sacred Sites Act, if suspected human remains are found during treatment activities, potentially damaging ground-disturbing activities within 50 feet of the remains will be halted immediately, and the Alameda County Coroner shall be notified immediately to determine the nature of the remains. The Coroner shall examine all discoveries of suspected human remains within 48 hours of receiving notice of a discovery (Health and Safety Code Section 7050.5[b]). If the remains are determined to be those of a Native American, the Coroner shall contact the NAHC by phone within 24 hours of making that determination (Health and Safety Code Section 7050.5[c]). The NAHC shall then assign a most likely descendant (MLD) to serve as the main point of Native American contact and consultation. Following the coroner’s findings, the MLD, in consultation with the City, shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments, if present, are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains</p>				
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Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
are identified in the California Native American Historical, Cultural, and Sacred Sites Act.				

Geology, Soils, and Seismicity

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>GEO-1: Minimize Soil Disturbance (Revised from VMP BMP GEN-2)</p> <p>To reduce the potential for erosion and loss of topsoil, the City and its contractors shall implement the following measures during ground-disturbing activities:</p> <ul style="list-style-type: none"> To minimize impacts to natural resources, the City and its contractors shall limit the area of ground disturbance to the minimum footprint necessary to meet the goals and objectives of the vegetation management activity. This will be accomplished by determining a perimeter of work activity around the vegetation treatment site that will not exceed 25 feet from the treated vegetation. Entry and exit points to the treatment will be clearly defined. 	<ol style="list-style-type: none"> Determine a perimeter of work activity that will not exceed 25 feet from the treated vegetation and define all entry and exit points. 	<ol style="list-style-type: none"> Ensure the determination and implementation of an appropriate perimeter of work activity that will not exceed 25 feet from the treated vegetation and define all entry and exit points. Ensure that disturbing activities are halted when soils are saturated, or, within one week following one or more inches of rain if needed, as determined by field inspection. 	<ol style="list-style-type: none"> During construction During construction, if needed. During construction. During construction. During construction. During construction. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<ul style="list-style-type: none"> • Ground-disturbing activities will not occur when soils are saturated, or within one week following an inch or more of rain, unless the ground is consistently firm and can support the weight of machinery or livestock (during grazing) without creating ruts, as determined by soil field inspection. • The City and its contractors shall leave stumps from removed trees and shrubs intact, with stump heights not exceeding 6 inches, as measured from the uphill side. • When heavy equipment is used, the City and its contractors shall utilize low ground pressure equipment, to the extent feasible. • The City and its contractors shall not use heavy equipment on unstable slope areas, slopes with gradients exceeding 65%, slopes with gradients between 50% and 65% where the erosion hazard rating is high or extreme, or slopes with gradients over 50% that lead without flattening to sufficiently dissipate water flow and trap sediment before reaching a stream or other water resource. 	<ol style="list-style-type: none"> 2. Halt ground-disturbing activities when soils are saturated, or, within one week following one or more inches of rain if needed, as determined by field inspection. 3. Leave stumps from removed trees and shrubs intact, per measure specifications. 4. Utilize low ground pressure equipment, as feasible. 	<ol style="list-style-type: none"> 3. Ensure that stumps or shrubs are left intact, per measure specifications. 4. Ensure the use of low ground pressure equipment, as feasible. 5. Ensure that the listed requirements are followed for heavy equipment on slopes. 6. Ensure that the contractor regrades of recontours areas subject to soil disturbance from heavy equipment, as needed. 		

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<ul style="list-style-type: none"> The City and its contractors shall regrade or recontour any areas subject to soil disturbance from heavy equipment, including dragging or skidding of trees or other material. 	<ol style="list-style-type: none"> Follow listed requirements for the use of heavy equipment on slopes. Regrade or recontour areas subject to soil disturbance from heavy equipment, as needed. 			
<p>GEO-2: Erosion and Sediment Control Measures (VMP BMP GEN-3)</p> <p>The City and its contractors shall implement the following measures:</p> <ul style="list-style-type: none"> Upland soils exposed by maintenance activities shall be seeded and stabilized using erosion control fabric or hydroseeding. 	<ol style="list-style-type: none"> Comply with all listed measures. 	<ol style="list-style-type: none"> Ensure contractor compliance with listed measures. 	<ol style="list-style-type: none"> During construction. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<ul style="list-style-type: none"> • Erosion control fabrics shall consist of natural fibers that biodegrade over time. No plastic or other non-porous material shall be used as part of a permanent erosion control approach. Plastic sheeting may be used to protect a slope from runoff temporarily, but only if there are no indications that special-status species would be affected by the application, as determined by a qualified biologist. • Erosion control materials shall be absent of monofilament material or netting that can entrap wildlife. • Erosion control measures shall be installed according to manufacturer’s specifications. • Appropriate measures include, but are not limited to, the following: <ul style="list-style-type: none"> ○ silt fences ○ straw bale barriers ○ brush or rock filters ○ storm drain inlet protection ○ sediment traps ○ sediment basins ○ erosion control blankets and mats ○ soil stabilization (e.g., tackified straw with seed, jute, or geotextile blankets, broadcast and hydroseeding) 				

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<ul style="list-style-type: none"> • All temporary construction-related erosion control methods (e.g., silt fences) shall be removed at the completion of the project. • The City and its contractors shall comply with California Stormwater Quality Association (CASQA) Construction BMPs guidance and specifications on implementation of the erosion control measures listed above (see also www.casqa.org/resources/bmp-handbooks/construction): <ul style="list-style-type: none"> ○ SC-3. Sediment Basins ○ SC-4. Straw or Sand Bag Barriers ○ SC-5. Sediment Traps ○ SC-6. Silt Fences ○ SS-1. Erosion Control Blankets, Mats, and Geotextiles ○ VR-1. Brush or Rock Filters ○ VR-4a. Temporary Outlet Protection ○ VR-4b. Storm Drain Inlet Protection ○ WD-1. Earth Dike ○ WD-1. Slope Drain ○ WD-3. Temporary Drains and Swales 				

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>GEO-3: Geotechnical Evaluation</p> <p>City staff shall determine on a case-by-case basis whether to retain a qualified professional (e.g., engineering geologist or geotechnical engineer) to conduct a geotechnical reconnaissance to evaluate the potential impacts of Revised Draft VMP treatment activities on future landslide potential if:</p> <ul style="list-style-type: none"> • Habitable structures are located within 100 feet of the toe of the slope downhill of the treatment area and • The prescribed treatment would include the use of heavy equipment or machinery and substantial ground-disturbing activities (i.e., this measure would not apply to methods such as hand treatment, weed eating, or herbicide treatment), and one or more of the following conditions is identified: <ul style="list-style-type: none"> ○ The treatment area is listed as “unstable,” “many landslides” on applicable slope stability mapping; or ○ The average slope steepness of the treatment area is greater than 10 degrees (about 18 percent); or 	<p>1. N/A</p>	<p>1. Retain a qualified engineering geologist or geotechnical engineer to conduct a geotechnical reconnaissance if the following situations apply.</p>	<p>1. Prior to the start of construction</p>	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<ul style="list-style-type: none"> ○ There is visible evidence of landslide activity (e.g., scarps, crooked trees, landslide-generated debris piles) within the treatment area, as documented by a field reconnaissance visit. 				
<p>GEO-4: Stop Work if Paleontological Resources Are Unearthed during VMP Treatment Activities</p> <p>If evidence of any paleontological resources (e.g., fossilized remains of plants and animals) is discovered during Revised Draft VMP treatment activities, the City and its contractors shall halt all ground-disturbing activity within 20 feet of the find until a qualified professional paleontologist can assess the significance of the find and make recommendations. If the site can be protected in place and avoided, no further action is necessary. Further evaluation and treatment shall be required if the resource cannot be protected and avoided. Such evaluations shall be conducted by a qualified paleontologist. Treatment may include preparation and recovery of fossil materials for an appropriate museum or university collection and may include preparation of a report describing the finds. The City shall be responsible for ensuring that the consulting paleontologist’s recommendations for treatment are implemented.</p>	<ol style="list-style-type: none"> 1. Halt ground-disturbing activities within 20 feet of all paleontological findings, if needed. 2. Comply with City and qualified paleontologist. 	<ol style="list-style-type: none"> 1. Ensure that ground-disturbing activities within 20 feet of all paleontological findings is halted, if needed. 2. Provide a qualified paleontologist to evaluate any findings, if needed and comply with all paleontologist recommendations. 	<ol style="list-style-type: none"> 1. During construction, if needed. 2. During construction, if needed. 	
<p>BIO-5: Grazing (revised from VMP BMP BIO-6)</p> <p>(See Biological Resources)</p>				

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
AES-2: Staging (VMP BMP GEN-4) (See Aesthetics)				
HYD/WQ-1: Work Windows (VMP BMP GEN-1) (See Hydrology and Water Quality)				

Greenhouse Gas Emissions

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
AQ-1: Fugitive Dust BMPs (See Air Quality)				

Hazards and Hazardous Materials

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>HAZ-1. Vehicle and Equipment Maintenance (VMP BMP GEN-8)</p> <p>The City and its contractors shall implement the following measures:</p> <ul style="list-style-type: none"> All vehicles and equipment shall be kept clean. Excessive buildup of oil and grease shall be prevented. 	<p>1. Comply with all listed measures.</p>	<p>1. Ensure contractor compliance with all listed measures.</p>	<p>1. During construction.</p>	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<ul style="list-style-type: none"> • Incoming vehicles and equipment (including delivery trucks and employee and subcontractor vehicles) shall be checked for leaking oil and fluids. Leaking vehicles or equipment shall not be allowed on-site. • No heavy equipment shall operate in a running stream. • No equipment shall be serviced in the creek channel or immediate floodplain. • If necessary, servicing of equipment at the job site shall be conducted in a designated, protected area to reduce threats to water quality from vehicle fluid spills. Designated service areas shall not connect directly to the ground, surface water, or storm drain system. The service area shall be clearly designated with berms, sandbags, or other barriers. Secondary containment, such as a drain pan, shall be used to catch spills or leaks when removing or changing fluids. Fluids shall be stored in appropriate containers with covers and recycled or disposed of properly off-site. • If emergency repairs are required in the field, only those repairs necessary to move equipment to a more secure location shall be conducted in the channel or floodplain. 				

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<ul style="list-style-type: none"> Equipment shall be cleaned of any sediment or vegetation before being transferred and used in a different watershed, to avoid spreading sediment, pathogens, or exotic/invasive species. Vehicle and equipment washing can take place on-site only as needed to prevent the spread of sediment, pathogens, or exotic/invasive species. No runoff from vehicle or equipment washing shall be allowed to enter water bodies, including creek channels and storm drains, without being subjected to adequate filtration (e.g., vegetated buffers, hay wattles or bales, and silt screens). The discharge of decant water from any on-site wash area to water bodies or areas outside of the active project site is prohibited. 				
<p>HAZ-2. Vehicle and Equipment Fueling (VMP BMP GEN-9)</p> <p>The City and its contractors shall implement the following measures:</p> <ul style="list-style-type: none"> No fueling shall be done in stream channels (top-of-bank to top-of-bank) or immediate floodplain. 	<ol style="list-style-type: none"> Comply with all listed measures. 	<ol style="list-style-type: none"> Ensure contractor compliance with all listed measures. 	<ol style="list-style-type: none"> During construction. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<ul style="list-style-type: none"> All off-site fueling sites (i.e., on access roads above the top-of-bank) shall be equipped with secondary containment and avoid a direct connection to soil, surface water, or the storm drainage system. For stationary equipment that must be fueled on-site, secondary containment, such as a drain pan or drop cloth, shall be used to prevent accidental spills of fuels from reaching soil, surface water, or the storm drain system. 				
<p>HAZ-3: On-Site Hazardous Materials Management (VMP BMP GEN-5)</p> <p>The City and its contractors shall implement the following measures:</p> <ul style="list-style-type: none"> An inventory of all hazardous materials used (and/or expected to be used) at the work site and the end products that are produced (and/or expected to be produced) after their use shall be maintained by the worksite manager. As appropriate, containers shall be properly labeled with a “Hazardous Waste “label and hazardous waste shall be recycled or disposed of properly off-site at an appropriate hazardous waste facility. 	<ol style="list-style-type: none"> Comply with all listed measures. 	<ol style="list-style-type: none"> Ensure contractor compliance with all listed measures. 	<ol style="list-style-type: none"> During construction. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<ul style="list-style-type: none"> • Contact of chemicals with precipitation shall be minimized by storing chemicals in watertight containers or in a storage shed (completely enclosed), with appropriate secondary containment to prevent any spillage or leakage. • Petroleum products, chemicals, cement, fuels, lubricants, non-storm-drainage water, and water contaminated with the aforementioned materials shall not contact soil and shall not be allowed to enter surface waters or the storm drainage system. • All toxic materials, including waste disposal containers, shall be covered when not in use and located as far as possible from any direct connection to the storm drainage system or surface water. • All trash that is brought to a project site during maintenance activities (e.g., plastic water bottles, lunch bags or other trash) shall be removed from the site daily. 				
<p>HAZ-4: Measures to Avoid or Minimize Adverse Effects on People, Pets, or Other Non-Target Organisms from Use of Herbicides</p>	<ol style="list-style-type: none"> 1. Post signs for herbicides with no intervals listed, if needed. 	<ol style="list-style-type: none"> 1. Ensure signs are posted for herbicides with no listed intervals, if needed. 	<ol style="list-style-type: none"> 1. During construction, if needed. 2. During construction. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>The City of Oakland or its contractors shall implement the following measures to avoid or minimize effects on non-target entities from application of herbicides for the VMP:</p> <ul style="list-style-type: none"> • Reentry intervals included on the product label shall be followed and enforced for workers and the public. In instances where a reentry interval is not provided on the herbicide product label, a reentry interval of at least 48 hours shall be implemented. Signs shall be installed on all sides of the treatment area clearly stating the date of treatment and reentry interval and describing potential hazards to people and pets from entering the area prior to the close of the reentry interval. • Where herbicides are applied in public parks or publicly accessible areas or in open space areas within 30 feet of public-use trails, or in any other situations where it is reasonably possible that people or pets could enter treated areas, fencing or other material preventing entry shall be temporarily installed around the treated area for the duration of the reentry interval to prevent access. • Spray application methods shall not be used when wind velocities are greater than 7 miles per hour. Spray application methods 	<ol style="list-style-type: none"> 2. Implement barrier fencing to protect from public herbicide use, where needed. 3. Halt the spray of herbicides when winds reach seven miles per hour and avoid spraying within 100 feet of residences and public areas. 	<ol style="list-style-type: none"> 2. Ensure contractor implements herbicide barrier fencing, where needed. 3. Ensure herbicide spray is halted when winds are seven miles per hour or greater and that no herbicide is sprayed within 100 feet of residences or public areas. 	<ol style="list-style-type: none"> 3. During construction, if needed. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>shall not be used within 100feet of any residences or public use areas.</p>				
<p>HAZ-5: Standard Herbicide Use Requirements (VMP BMP VEG-2)</p> <p>The City and its contractors shall implement the following measures:</p> <ul style="list-style-type: none"> Herbicides shall not be used in areas within 0.25 mile of schools. Only hand or mechanical vegetation removal shall be used within 0.25 mile of schools. Herbicides (if selected as a vegetation management technique) shall be applied only if hand or mechanical vegetation removal is not feasible, and at no times within 0.25 mile of schools as described above. Only herbicides and surfactants that have been approved for use by the U.S. Environmental Protection Agency (USEPA) and are registered for use by the California Department of Pesticide Regulation (CDPR) shall be used for vegetation control activities. 	<ol style="list-style-type: none"> Only use approved herbicides and do not spray within 0.25 miles of a school. Halt the spray of herbicide within 48 hours of predicted rain. Use the lowest rate of herbicides possible to complete project objectives. 	<ol style="list-style-type: none"> Ensure contractor complies with herbicide application requirements. Ensure the spray of herbicide is halted within 48 hours of predicted rain. Ensure the lowest rate of herbicide is used to complete project objectives. 	<ol style="list-style-type: none"> During construction. During construction, as needed. During construction. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<ul style="list-style-type: none"> • Herbicide application shall be consistent with Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) label instructions and use conditions issued by USEPA, CDPR, and the Alameda County Agricultural Commissioner. • Herbicides shall not be applied within 48 hours of predicted rainfall. • The lowest recommended rates of herbicides and surfactants that achieve project objectives shall be utilized to achieve desired control. Cut-and-daub application of herbicides shall be used where feasible to reduce the amount of herbicide used. This is anticipated to be on the stumps of removed eucalyptus and acacia trees. • An indicator dye may be added to the tank mix to help the applicator identify areas that have been treated and to better monitor the overall application. • Herbicides shall not be applied in open water or within 60 feet of streams. 				
<p>HAZ-6: Spill Prevention and Response (VMP BMP GEN-7)</p>	<ol style="list-style-type: none"> 1. N/A 2. N/A 3. N/A 4. N/A 	<ol style="list-style-type: none"> 1. Provide adequate training for new city field personnel. 	<ol style="list-style-type: none"> 1. Prior to the start of construction. 2. Prior to the start of 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>City personnel shall prevent the accidental release of chemicals, fuels, lubricants, and non-storm-drainage water into channels by following these measures:</p> <ol style="list-style-type: none"> 1. New City field personnel shall be trained appropriately in spill prevention, hazardous material control, and cleanup of accidental spills. 2. Equipment and materials for cleanup of spills shall be available on site at all times, and spills and leaks shall be cleaned up immediately and disposed of at a hazardous waste facility. 3. City field personnel shall ensure that hazardous materials are handled properly, and natural resources are protected by all reasonable means. 4. Spill prevention kits shall always be in close proximity when City personnel are using hazardous materials (e.g., at crew trucks and other reasonable locations). All City field personnel shall be advised of these locations. 	<ol style="list-style-type: none"> 5. N/A 	<ol style="list-style-type: none"> 2. Ensure the availability of spill kits and other materials for spills on site. 3. Ensure hazardous materials are handled properly throughout the duration of project activities. 4. Provide routine inspections of all work sites, vehicles, and equipment for proper hazardous material handling. 5. Report significant spills, if needed. 	<ol style="list-style-type: none"> construction and during construction. 3. During construction. 4. During construction. 5. During construction, if needed. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>5. City personnel shall routinely inspect the work site, vehicles, and equipment to verify that spill prevention and response measures are implemented and maintained properly. All leaks shall be repaired promptly. Drip pans shall be used to catch leaks until repairs are made.</p> <ul style="list-style-type: none"> • For small spills on impervious surfaces, absorbent materials shall be used to remove the spill, rather than hosing it down with water. For small spills on pervious surfaces such as soil, the spill area shall be excavated and properly disposed of rather than being buried. Absorbent materials shall be collected and disposed of properly and promptly. • All significant spills of hazardous materials, including oil, shall be reported immediately. To report a spill: (1) Dial 911 or your local emergency response number; and (2) Call the Governor’s Office of Emergency Services Warning Center, (800) 852-7550 (24 hours). 				

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>HAZ-7: Review Proximity of Proposed Treatment Sites to Known Hazardous Materials Clean-up Sites and Implement Safety Measures</p> <p>The City of Oakland and/or its contractors shall evaluate the proximity of proposed treatment sites to known hazardous material cleanup sites. This review shall include examination of the planned treatment activity footprint in relation to records of hazardous materials sites in the State Water Resources Control Board's GeoTracker database and the Department of Toxic Substances Control's EnviroStor database.</p> <p>If the proposed treatment activity is located on or within 100 feet of a documented hazardous material contamination site, for which cleanup activities have not been completed or successful, the City of Oakland and/or its contractors shall commission a Phase I Environmental Site Assessment to more fully characterize the past land uses and potential for soil and/or groundwater contamination to occur at or in close proximity to the site.</p> <p>If the Phase I Environmental Site Assessment demonstrates a reasonable likelihood that contamination remains within the proposed treatment activity's area of disturbance, the City of Oakland and/or its contractors shall commission a Phase II Environmental Site Assessment, including soils testing, to characterize the extent of the contamination</p>	<ol style="list-style-type: none"> 1. With the City, evaluate the proximity of proposed hazardous material cleanup sites to treatment areas. 2. Commission a Phase 1 Environmental Site Assessment, if needed. 3. Commission a Phase II Environmental Site Assessment and follow all relevant recommendations, if needed. 	<ol style="list-style-type: none"> 1. With the Contractor, evaluate the proximity of proposed hazardous material cleanup sites to treatment areas. 2. Commission a Phase 1 Environmental Site Assessment, if needed. 3. Commission a Phase II Environmental Site Assessment and follow all relevant recommendations, if needed. 	<ol style="list-style-type: none"> 1. Prior to the start of construction. 2. Prior to the start of construction. 3. Prior to the start of construction and during construction, if needed. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>and develop ways to avoid the contaminated areas during treatment activities. Alternatively, if the Phase I Environmental Site Assessment demonstrates no potential for soil vapor off-gassing of hazardous gases, then non-ground-disturbing treatment methods may be used on the site. The City of Oakland shall follow all recommendations of the Phase II Environmental Site Assessment and conduct the proposed treatment to avoid areas of contamination, to the extent feasible. In the event that it is not feasible to avoid all areas of contamination, the City of Oakland and/or its contractors shall follow all applicable laws regarding management of hazardous materials and wastes. This includes proper disposal of any contaminated soil in a hazardous waste landfill and ensuring that workers are provided with adequate personal protective equipment to prevent unsafe exposure.</p>				
<p>HAZ-8: Existing Hazardous Materials (VMP BMP GEN-6)</p> <p>The City and its contractors shall implement the following measures:</p>	<ol style="list-style-type: none"> 1. Dispose of previously unknown hazardous contaminants at an appropriate facility. 	<ol style="list-style-type: none"> 1. Ensure proper disposal of hazardous contaminants. 2. Contact the Alameda County Public Health Department, if needed. 	<ol style="list-style-type: none"> 1. During construction, if needed. 2. During construction, if needed. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<ul style="list-style-type: none"> If previously unknown hazardous contaminants, including oil, batteries, or paint cans, are encountered during vegetation management work, City personnel will carefully remove and dispose of hazardous materials at an appropriate hazardous waste disposal facility. In the event that hazardous contaminants are discovered that are beyond the means of the City’s disposal capabilities, then the City will contact Alameda County Public Health Department to determine what measures need to be implemented to address the hazardous materials and ensure that the work site is safe for people and the environment. City personnel will wear proper protective gear when handling hazardous materials. All contaminated materials will be stored in appropriate hazardous waste containers for transport and disposal at a permitted hazardous waste facility. 	<ol style="list-style-type: none"> Coordinate with the City if hazardous contaminants are found that are beyond the City’s means of disposal. Wear proper protective apparel when handling hazardous materials. 	<ol style="list-style-type: none"> Wear proper protective apparel when handling hazardous materials. 	<ol style="list-style-type: none"> During construction, as needed. 	
<p>HAZ-9: Proper Handling and Disposal of Contaminated Soil and Groundwater</p> <p>Prior to initiating ground-disturbing activities (e.g., disking, grading, etc.), the City of Oakland or its contractors will inspect the soil or groundwater (if readily observable) for the presence of possible contamination. If indicators of contamination (e.g., foul odor,</p>	<ol style="list-style-type: none"> With the City, inspect the soil or groundwater for the presence of possible contamination. 	<ol style="list-style-type: none"> With the contractor, inspect the soil or groundwater for the presence of possible contamination. 	<ol style="list-style-type: none"> Prior to the start of construction Prior to the start of 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
staining or sheen, etc.) are found, the City of Oakland or its contractors will then test the soil or groundwater. If the lab results confirm contamination is present, the soil or groundwater will be treated as hazardous, and any contaminated materials will be disposed of at an approved hazardous waste disposal facility. In removing potentially contaminated soil or groundwater, workers will wear protective clothing and equipment to limit their exposure.	2. If found, coordinate with the City so proper testing can occur. 3. If testing confirms contamination, materials should be treated and disposed of as hazardous and proper protection should be worn.	2. If found, coordinate with the contractor so proper testing can occur. 3. If testing confirms contamination, materials should be treated and disposed of as hazardous and proper protection should be worn.	construction, if needed. 3. Prior to the start of construction, if needed.	
TRA-1: Maintain Traffic Flow (See Transportation)				
TRA-2: Traffic Control and Public Safety (See Transportation)				

Hydrology and Water Quality

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
HYD/WQ-1: Work Windows (VMP BMP GEN-1) The City and its contractors shall implement the following measures: <ul style="list-style-type: none"> Hand pruning and hand removal of vegetation may occur year-round, except when wheeled or tracked equipment needs to access a site by 	1. Comply with listed measures.	1. Ensure contractor compliance with listed measures.	1. During construction, as needed.	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>crossing a creek, ponded area, or secondary channel.</p> <ul style="list-style-type: none"> • When wheeled or tracked equipment needs to access the site by crossing a creek, ponded area, or secondary channel, this shall occur only when the appropriate permits have been obtained from the City, CDFW, and the RWQCB and only when there is no flow in the creek, or when the width of the wet creek is less than 3 feet (typically June 1 – October 15). • Vegetation treatment shall not occur within 48 hours of significant rainfall (0.25-inch of rain within a 12-hour period or greater). • Herbicide applications (if selected as a vegetation management technique) shall only occur between June 15 and November 15, with an extension through December 31 or until the first occurrence of local rainfall greater than 0.5 inch is forecasted within a 24-hour period following planned application events. • Work shall occur during daylight hours, except in the case of emergency. 				
<p>GEO-1: Minimize Soil Disturbance (Revised from VMP BMP GEN-2) (See Geology, Soils, and Seismicity)</p>				
<p>GEO-2: Erosion and Sediment Control Measures (VMP BMP GEN-3)</p>				

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
(See Geology, Soils, and Seismicity)				
HAZ-1: Vehicle and Equipment Maintenance (VMP BMP GEN-8) (See Hazards and Hazardous Materials)				
HAZ-2: Vehicle and Equipment Fueling (VMP BMP GEN-9) (See Hazards and Hazardous Materials)				
HAZ-3: On-Site Hazardous Materials Management (VMP BMP GEN-5) (See Hazards and Hazardous Materials)				
HAZ-5: Standard Herbicide Use Requirements (VMP BMP VEG-2) (See Hazards and Hazardous Materials)				
HAZ-6: Spill Prevention and Response (VMP BMP GEN-7) (See Hazards and Hazardous Materials)				
HAZ-8: Existing Hazardous Materials (VMP BMP GEN-6) (See Hazards and Hazardous Materials)				
BIO-5: Grazing (revised from VMP BMP BIO-6) (See Biological Resources)				

Minerals

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
None required				

Noise

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>NOI-1: Limit Work Near Sensitive Receptors</p> <p>To reduce noise levels below the City’s 80 dBA weekday daytime threshold, in areas within 90 feet of sensitive receptors, minimize the frequency and duration of chainsaw use during hand labor treatment activities. In areas within 130 feet of sensitive receptors, minimize the use of mechanical treatments (excavator, chipper).</p>	<p>1. Minimize the use of chainsaws during hand labor treatments within 90 feet of sensitive receptors, and of excavators and chippers within 130 feet of sensitive receptors.</p>	<p>1. Ensure that contractor complies with minimizing the use of stated equipment within sensitive receptor thresholds.</p>	<p>1. During construction.</p>	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>NOI-2: Notify Sensitive Receptors Near Treatment Areas</p> <p>Notify sensitive receptors located within 150 feet of treatment areas at least one week prior to commencement of treatment work.</p>	<p>1. N/A</p>	<p>1. Ensure sensitive receptors within 150 feet of treatments are notified one week prior to start of work.</p>	<p>1. Prior to the start of construction.</p>	

Recreation

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>REC-1: Provide Notification of Temporary Trail Closures</p> <p>If a treatment project requires temporary trail closures, the City and its contractors will implement the following measures:</p> <ul style="list-style-type: none"> • Provide signage at trailheads at least one week prior to temporary trail closure indicating the location and period of closure as well as any trail detours. Notification of treatment activity and trail closure will also be posted on the City’s website. All signage will be removed once work is complete. • Provide road guards to usher recreationalists around hazardous areas where activities impede on a road or trail. 	<p>1. Comply with listed measures, as needed.</p>	<p>1. Comply with listed measures, as needed.</p>	<p>1. Prior to the start of construction and during construction, as needed.</p>	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<ul style="list-style-type: none"> Provide fencing around the active work area to protect recreationalists, as necessary. 				
<p>HAZ-4: Measures to Avoid or Minimize Adverse Effects on People, Pets, or Other Non-Target Organisms from Use of Herbicides</p> <p>(See Hazards and Hazardous Materials)</p>				

Transportation

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>TRA-1: Maintain Traffic Flow</p> <p>The City and its contractors will implement the following measures:</p> <ul style="list-style-type: none"> To the extent feasible, work will be staged and conducted in a manner that maintains two-way traffic flow on roadways in the vicinity of the work site. Heavy equipment and haul traffic will be avoided in residential areas to the greatest extent feasible. When no other route to and from the site is available, heavy equipment and haul traffic through residential areas shall be restricted to the hours of 8 a.m. to 5:30 p.m., Monday through Friday. If heavy equipment or hauling is required beyond the hours above, the City or its contractor will provide notice to adjacent 	<ol style="list-style-type: none"> Comply with listed staging requirements to maintain traffic flow. Restrict the use of heavy equipment and haul traffic to stated hours. Work with City to notify property owners if heavy equipment or hauling is 	<ol style="list-style-type: none"> Ensure contractor compliance with staging requirements for traffic flow. Ensure contractor compliance with stated hours for heavy equipment and haul traffic. Work with contractor to notify property owners if heavy equipment or 	<ol style="list-style-type: none"> Prior to the start of construction and during construction. During construction. During construction, if needed. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
property owners 48 hours in advance of such activities.	needed beyond stated hours.	hauling is needed beyond stated hours.		
<p>TRA-2: Traffic Control and Public Safety</p> <p>The City and its contractors will implement the following measures:</p> <ul style="list-style-type: none"> In the event that work activities require the temporary closure of any traffic lanes, the City will implement measures to guide traffic (such as signage and flaggers), safeguard construction workers, provide safe passage of vehicles, and minimize traffic impacts through the duration of work activities. The City also will notify local emergency service providers regarding any planned lane closures. For any other work within or near the roadway that could pose a hazard to the public, the City will install/implement appropriate measures, such as fences, barriers, flagging, guards, and/or signs, to give adequate warning and provide protection from the potentially dangerous condition. For work activities along or near roadways with sidewalks and bike routes/lanes, the City will implement measures to ensure the safe passage of pedestrians and bicyclists around the work site. Public transit access and routes will be maintained in the vicinity of the work site. If public transit will be affected by temporary 	<ol style="list-style-type: none"> N/A N/A N/A 	<ol style="list-style-type: none"> Guide traffic, protect crews, minimize impacts, and notify local emergency service providers if traffic lanes must be closed. Install and implement appropriate road, sidewalk, and bike lane measures if needed. Consult transit authorities if public transit will be impacted by project activities. 	<ol style="list-style-type: none"> During construction, if needed. During construction, if needed. During construction, if needed. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
road closures and require detours, the City will consult affected transit authorities and keep them informed of project activities.				

Tribal Cultural Resources

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
CUL-1: Provide Sensitivity Training, Assess Archaeological Sensitivity, and Survey Areas of High or Highest Sensitivity (See Cultural Resources)				
CUL-2: Avoid Use of Techniques that Cause Ground Disturbance within Known Archaeological Historical Resources (See Cultural Resources)				
CUL-3: Response Measures for Potential Unknown Archaeological Resources and Tribal Cultural Resources (See Cultural Resources)				
CUL-4: Stop Work if Human Remains Are Unearthed during Project Activities (See Cultural Resources)				

Utilities

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
None required				

Wildfire

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>WLD-1: Fire Prevention</p> <p>The City and its contractors shall implement the following measures:</p> <ul style="list-style-type: none"> • All vegetation management and portable equipment with internal combustion engines shall be equipped with spark arrestors. • Work crews shall not conduct vegetation treatment activities during Red Flag Day and Fire Weather Watch warnings, except in the case of emergency. • During the high fire danger period (April 1–December 1), work crews shall: <ul style="list-style-type: none"> ○ Have appropriate fire suppression equipment available at the work site. ○ Keep flammable materials, including flammable vegetation slash, at least 10 feet away from any equipment that could produce a spark, fire, or flame. 	<ol style="list-style-type: none"> 1. Use spark arrestors for all equipment with internal combustion engines. 2. Stop work during Red Flag and Fire Watch warnings, unless an applicable emergency occurs. 	<ol style="list-style-type: none"> 1. Ensure the use of spark arrestors. 2. Ensure no work occurs during Red Flag and Fire Watch warning days. In case of emergency, communicate with contractor and allow work to continue. 3. Ensure contractor compliance with listed measures during high fire danger period. 	<ol style="list-style-type: none"> 1. During construction 2. During construction, if necessary. 3. During construction. 	

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<ul style="list-style-type: none"> ○ Not use portable tools powered by gasoline-fueled internal combustion engines within 25 feet of any flammable materials unless a round-point shovel or fire extinguisher is within immediate reach of the work crew (no more 25 feet away from the work area). 	3. Comply with applicable measures during the high fire danger period.			
<p>HAZ-1: Vehicle and Equipment Maintenance (VMP BMP GEN-8) (See Hazards and Hazardous Materials)</p>				
<p>GEO-1: Minimize Soil Disturbance (Revised from VMP BMP GEN-2) (See Geology, Soils, and Seismicity)</p>				
<p>GEO-2: Erosion and Sediment Control Measures (VMP BMP GEN-3) (See Geology, Soils, and Seismicity)</p>				
<p>GEO-3: Geotechnical Evaluation (See Geology, Soils, and Seismicity)</p>				

Cumulative Impacts

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
<p>BIO-1 through BIO-16 (See Biological Resources)</p>				

Mitigation Measures	Contractor Responsibility	City Responsibility	Monitoring Schedule	Completion Date and Initials
NOI-1 and NOI-2 (See Noise)				