

4.0 MITIGATION MEASURES

The following mitigation measures are incorporated into the proposed action to help ensure that construction and/or operation of the proposed action protects natural and cultural resources and the quality of the visitor experience. No mitigation measures are proposed for Alternative 1 (No Action Alternative). The mitigation measures are also applicable to Alternative 3 (Poopenaut Pass Alternate Site).

4.1 GEOLOGY

Mitigation Measure 1 – Geology – The San Francisco Public Utilities Commission (SFPUC) will review and approve the design for the foundations for the tower at Poopenaut Pass prior to the start of construction to ensure that the foundations will be located below the spalling surface layers for tower foundation stability.

Mitigation Measure 2 – Geology – The SFPUC will review and approve the design for the communication shelter foundation for the Poopenaut Pass site prior to the start of construction to ensure that the foundations will be deeper on the west and northwest sides to reach firm rock for foundation stability.

Mitigation Measure 3 – Geology – The SFPUC will review and approve the design for the communication shelter foundation for the Cherry Tower Site prior to the start of construction to ensure that the foundation will be deepened to reach firm rock for foundation stability.

4.2 HYDROLOGY

Mitigation Measure 1 – Hydrology – The SFPUC will review and approve the Oil and Hazardous Spill Prevention, Control, and Countermeasure Plan prepared by the construction contractor prior to the start of construction. The SFPUC will ensure that the plan addresses hazardous materials storage, spill prevention and response in the event of unexpected spills at the project sites during construction and operation. Spill response materials such as absorption materials shall be kept at each of the new sites.

Mitigation Measure 2 – Hydrology – The SFPUC will review and approve the drainage plans prepared for the Poopenaut Pass, Burnout Ridge, Cherry Tower Site and Intake Radio Sites prior to the start of construction. The SFPUC will ensure that the design plans provide for the minimization of stormwater runoff so that the rate of stormwater runoff does not exceed above pre-project conditions. Specifications shall include design features that address how the gravel would be retained within each of the sites.

Mitigation Measure 3 – Hydrology – The SFPUC shall ensure that the construction contractor implement the following Best Management Practices (BMPs) prior to the start of construction at Intake Radio Site, Cherry Tower Site, Poopenaut Pass, and Burnout Ridge: place straw rolls around stormwater inlets; install silt fences to prevent any construction water runoff from going off-site; use geotextile or plastic covers on stockpiled soil; and stabilize site ingress/egress locations to minimize erosion.

4.3 VEGETATION

Mitigation Measure 1 – Vegetation - SFPUC will review construction practices with its contractors to ensure that all off-road construction equipment, clothing, particularly footwear, and other equipment, including the transport vehicles be free of soil, mud (wet or dried), seeds, vegetative matter or other debris that could contain seeds in order to prevent new infestation of noxious weeds in the project area. Dust or very light dirt which would not contain weed seed is not a concern. The SFPUC will convey the finding of the Weed Risk Assessment to contractors so that where possible, all on- or off-road construction equipment will be kept out of sites infested with noxious weeds. Where it is not possible to keep heavy equipment out of sites infested with noxious weeds, heavy equipment will be cleaned so that it is free of soil, seeds, vegetative matter or other debris prior to being moved from infested sites to un-infested sites and prior to being transported out of the project area. Following construction activities at the Burnout Ridge and Intake Radio Site, monitoring of the new facilities post construction is required to detect new occurrences of noxious weeds and non-native invasive pest plants of concern listed by the Stanislaus National Forest and remove them when detected.

4.4 RARE, THREATENED AND ENDANGERED SPECIES

Mitigation Measure 1 – Rare, Threatened and Endangered Plants: Protect Known Occurrences of Special-status Plant Species – The SFPUC will notify NPS Resource Management staff two weeks in advance of construction activities at the Poopenaut Pass project site so that known occurrences of *Mimulus filicaulis* at that site will be fenced by NPS staff. Any construction related activities shall be restricted to the outside of the fenced-off area, and the fencing shall remain present for the duration of the construction.

Mitigation Measure 2 – Special Species Wildlife: Protect Active Spotted Owl and Northern Goshawk Nest Sites – Prior to implementation of the Proposed Action, the SFPUC will conduct surveys for California spotted owl and northern goshawk in the identified Protected Activity Centers (and other suitable habitat in the action area if necessary) to determine whether active nest sites associated with these PACs are located within 0.25 mile of project activities, including construction access routes. If the US Forest Service/National Park Service wildlife biologists determine that existing information is current and sufficient, these surveys may not be necessary.

If active nest sites are determined to exist within 0.25 mile of project activities, the SFPUC will implement limited operating periods (LOPs) within 0.25 mile of active nest sites prior to commencement of any project construction activities to avoid construction or access-related disturbances to breeding activities and habitat of California spotted owl and northern goshawk. A Limited Operating Period constitutes a period during which project activities will not occur, and will be enforced in project implementation contracts as follows:

- An LOP between February 15 and September 15 will be imposed within 0.25 mile of an active nest site. The main access road to Cherry Lake passes within 0.5 mile of PAC 54-36 and 54-21; and the access road to some sites on Yosemite National Park lands (Lake Eleanor) passes through PAC 54-13. Although these sites will be accessed on existing roads, and potential effects of

access-related disturbances to nesting attempts are expected to be minor, implementing the LOP within 0.25 mile of an active nest would avoid potential disturbances.

- An LOP between March 1 and August 31 will be imposed within 0.25 mile of an active spotted owl nest site. The access road (1N07) to all of the Cherry Lake sites passes through PAC TL029. Although these sites will be accessed on existing roads, and potential effects of access-related disturbances to nesting attempts are expected to be minor, implementing the LOP within 0.25 mile of an active nest would avoid potential disturbances.

4.5 NOISE

Mitigation Measure 1 – Noise – The SFPUC will require all construction equipment to be properly maintained and equipped with noise controls, such as mufflers, in accordance with manufacturers' specifications throughout the entire construction project.

Mitigation Measure 2 – Noise – The SFPUC will require all construction activities to be limited to the hours of 7:00 a.m. to 7:00 p.m. Monday through Saturday. The SFPUC will designate a project liaison responsible for responding to noise complaints during the construction phases of the project. The name and phone number of the liaison will be conspicuously posted at construction areas and on all advanced notifications. This person shall take steps to resolve complaints, including periodic noise monitoring, if necessary.

4.6 CULTURAL RESOURCES

Mitigation Measure 1 – Undocumented Cultural Resources: The following mitigation measure is required to avoid any potential adverse effect from the proposed project on accidentally discovered buried or submerged historical resources (CEQA) or historic properties (NHPA). The SFPUC shall distribute the Planning Department archeological resource "ALERT" sheet to the project prime contractor; to any project subcontractor, or utilities firm involved in soils disturbing activities within the project sites. Prior to any soils disturbing activities being undertaken each contractor is responsible for ensuring that the "ALERT" sheet is circulated to all field personnel including, machine operators, field crew, supervisory personnel, etc. The SFPUC shall provide the Environmental Review Officer (ERO) of the San Francisco Planning Department with a signed affidavit from the responsible parties (prime contractor, subcontractor(s), and utilities firm) to the ERO confirming that all field personnel have received copies of the Alert Sheet.

Should any indication of an archeological resource, such as unusual amounts of bone, stone, or shell, be encountered during soils disturbing activity for the project, the project Head Foreman and/or project sponsor shall immediately notify the ERO and shall immediately suspend any soils disturbing activities in the vicinity of the discovery until the ERO has determined what additional measures should be undertaken.

If the ERO determines that a potentially significant archeological resource may be present within the project site, the SFPUC shall retain the services of a qualified archeological consultant. The archeological consultant shall advise the ERO as to whether the discovery is potentially significant under CEQA or NHPA. If a potentially significant resource is present, the archeological consultant shall identify and

evaluate the archeological resource. The archeological consultant shall make a recommendation as to what action, if any, is warranted. Based on this information, the ERO may require, if warranted, specific additional measures to be implemented by the SFPUC.

Measures might include: preservation in situ of the archeological resource; an archeological monitoring program; or an archeological testing program. If an archeological monitoring program or archeological testing program is required, it shall be consistent with the Major Environmental Analysis division of the Planning Department guidelines for such programs. The ERO may also require that the project sponsor immediately implement a site security program if the archeological resource is at risk from vandalism, looting, or other damaging actions.

The project archeological consultant shall submit a Final Archeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archeological resource and describing the archeological and historical research methods employed in the archeological monitoring/data recovery program(s) undertaken. Information that may put at risk any archeological resource shall be provided in a separate removable insert within the final report.

Copies of the Draft FARR shall be sent to the ERO for review and approval. Once approved by the ERO, copies of the FARR shall be distributed as follows: California Archeological Site Survey Central Coast Information Center (CCIC) shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the CCIC. The Major Environmental Analysis division of the Planning Department shall receive three copies of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest or interpretive value, the ERO may require a different final report content, format, and distribution than that presented above.

Mitigation Measure 2 – Human Remains: The following mitigation measure is required to avoid any potential adverse effect from the proposed project on uncovered human remains. If human remains are encountered all project-related construction activity will halt within 50 feet of the find. If the remains are discovered on Federal lands, the provisions of NAGPRA shall be adhered to. If the remains are uncovered on non-federally owned land, the following process shall be implemented:

In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, the contractor and/or the SFPUC shall immediately halt potentially damaging excavation in the area of the burial and notify the County Coroner and a professional archeologist to determine the nature of the remains. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of an American Indian, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). Following the coroner's findings, the property owner, contractor or project proponent, an archeologist, and the NAHC-designated Most Likely Descendent (MLD) shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities

for acting upon notification of a discovery of American Indian human remains are identified in California Public Resources Code Section (PRC) 5097.9.

Upon the discovery of American Indian remains, the landowner shall ensure that the immediate vicinity (according to generally accepted cultural or archeological standards and practices) is not damaged or disturbed by further development activity until consultation with the MLD has taken place. The MLD shall have 48 hours to complete a site inspection and make recommendations after being granted access to the site. A range of possible treatments for the remains, including nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendents, or other culturally appropriate treatment may be discussed. PRC 5097.9 suggests that the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. The following is a list of site protection measures that the landowner shall employ:

- (1) Record the site with the Native American Heritage Commission or the appropriate Information Center
- (2) Utilize an open-space or conservation zoning designation or easement
- (3) Record a document with the county in which the property is located

The landowner or their authorized representative shall rebury the American Indian human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance if the NAHC is unable to identify a MLD or the MLD fails to make a recommendation within 48 hours after being granted access to the site. The landowner or their authorized representative may also re-inter the remains in a location not subject to further disturbance if they reject the recommendation of the MLD, and mediation by the NAHC fails to provide measures acceptable to the landowner. Adherence to these procedures and other provisions of the California Health and Safety Code will reduce potential impacts to human remains to a less than significant level.

Mitigation Measure 3 – Traditional Cultural Properties: Prior to construction at Poopenaut Pass, the Section 106 consultation process shall be completed. If Poopenaut Pass is determined to be a Traditional Cultural Place as defined in National Register Bulletin #38, any necessary documentation or agreements regarding amelioration of effects shall also be completed prior to construction.

4.7 LAND USE

Mitigation Measure 1 – Land Use – The SFPUC shall limit the Poopenaut Pass site staging area to the H2 turnout area to the extent feasible. The wilderness boundary shall be clearly marked adjacent to the project site and no construction equipment or personnel shall be allowed past the boundary to preserve the wilderness area.

4.8 VISUAL

Mitigation Measure 1 – Visual – The SFPUC shall ensure that the following measure is implemented prior to, during, and after construction at all sites where new construction is proposed at (Poopenaut Pass, Cherry Tower Site, and Burnout Ridge):

To the extent feasible, the SFPUC will conduct construction activities on SFPUC-owned lands or Raker Act right-of-way lands and minimize the need for use of non-SFPUC-owned or Raker Act right-of-way land during construction. In cases where construction easement or staging areas are needed on non-SFPUC/Raker Act land, the SFPUC will restore these areas to their prior condition so that the owner may return them to their prior use, unless otherwise arranged with the property owner. The site will be maintained to be clean and orderly. Construction staging areas will be sited away from public view where possible. Upon project completion, the construction contractor will return the project site to its general preconstruction condition, including re-grading of the site and re-vegetation of disturbed areas.

4.9 VISITOR EXPERIENCE AND RECREATION

Mitigation Measure 1 – Visitor Experience and Recreation – The SFPUC shall prepare a communication strategy which will inform visitors, and park and forest employees of the construction schedule of the new sites prior to the start of construction. This may include installing signage near construction sites and providing traffic detour information to visitors as they enter the park and forest. Fencing or barricades shall be used as necessary at the new construction sites as a safeguard for visitors in the area. The communication strategy shall be reviewed by National Park Service and the US Forest Service prior to construction.

4.10 TRANSPORTATION

Mitigation Measure 1 – Transportation – The SFPUC will require the preparation of a transportation plan by the construction contractor that shall be reviewed and approved by the SFPUC prior to construction. The SFPUC will ensure that the transportation plan addresses how to route pedestrians and vehicles around construction areas for the Poopenaut Pass and Cherry Tower Site. The plan shall be submitted for National Park Service and US Forest Service review and approval prior to the start of project construction.

4.11 HAZARDS AND HAZARDOUS MATERIALS

Mitigation Measure 1 – Hazards and Hazardous Materials – The SFPUC will review the Health and Safety Plan prepared by the construction contractor prior to the start of construction to ensure that Occupational Safety and Health Administration (OSHA) standards and other relevant regulations are addressed. The Health and Safety Plan shall be submitted to the SFPUC, National Park Service, and US Forest Service for approval prior to construction.

Mitigation Measure 2 – Hazards and Hazardous Materials – The SFPUC will review the Oil and Hazardous Materials Spill Prevention, Control, and Countermeasure Plan prepared by the construction contractor prior to the start of construction. The SFPUC will ensure that the plan will address appropriate hazardous materials storage, spill prevention and response. The Oil and Hazardous Materials Spill

Prevention, Control, and Countermeasure Plan shall be submitted to the SFPUC, National Park Service, and US Forest Service for approval prior to construction.

Mitigation Measure 3 – Hazards and Hazardous Materials – The SFPUC will require construction contractors to maintain secondary containment on site for all fuel storage to trap any leaking oil, fuel or hydraulic fluids to be inspected daily. The SFPUC will require routine oiling, lubrication, and refueling to be conducted with secondary containment and shall be prohibited adjacent to water courses.

Mitigation Measure 4 – Hazards and Hazardous Materials – The SFPUC will require construction contractors to have spill response materials including absorbent pads, booms, and other materials to contain hazardous material spills shall be maintained at Burnout Ridge, Poopenaut Pass, Intake Radio Site, and Cherry Tower Site to ensure rapid response to spills.

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