Environmental Consequences of Alternative 3 (Poopenaut Pass Alternative Site)

Alternative 3 proposes essentially the same system as the Preferred Alternative, except the Poopenaut Pass facility would be located at Site 7 as shown in Figure 2-1. Site 7 is located northwest of Site 9 (the Preferred Poopenaut Pass location), on a flat rock outcrop area across O'Shaughnessy Dam Road.

Evaluation of views of the alternative site required that a second set of simulations be prepared. This second set of simulations depicts views from all but one of the same viewpoints used for evaluation of the Poopenaut Pass Preferred Site. Figure 3.10.2-11c displays the geographic locations of the viewpoints for the alternative Poopenaut Pass site (labeled Viewpoints PPP-Alt-1 through PPP-Alt-4) relative to the viewpoints for the preferred Poopenaut Pass site (labeled Viewpoints PPP-1 through PPP-4). It should be noted that Viewpoints PPP-Alt-1 and PPP-Alt-2 are in the exact same locations and looking in the same direction as Viewpoints PPP-1 and PPP-2, respectively. However, the location of Site 7 required that the view from PPP-Alt-3 be in a different direction from the same location as PPP-3. Additionally, because Site 7 is not visible from Viewpoint PPP-4, Viewpoint PPP-Alt-4 was added and takes the place of Viewpoint PPP-4 for evaluation of the alternative site (see inset in Figure 3.10.2-11c). Figure 3.10.2-30 through Figure 3.10.2-33 display the views from Viewpoints PPP-Alt-1 through PPP-Alt-4.

As shown in Figures 3.10.2-30 and 3.10.2-31, which depict views from atop O'Shaughnessy Dam and the Poopenaut Valley trailhead, respectively, placement of the Poopenaut Pass facility at Site 7 would not have a substantially different effect on the visual landscape from the Preferred Alternative; placed at either of the sites, the tower would be difficult to discern from the tree line from these locations.

However, as shown in Figures 3.10.2-32 and 3.10.2-33, which are viewpoints along O'Shaughnessy Dam Road, the Poopenaut Pass Alternative Site would have a substantially greater impact on the existing character of the area surrounding the proposed site. Figure 3.10.2-33 depicts the lattice type tower appearing to emerge from the granite that forms Poopenaut Pass, showing that unobstructed views of the facility would be available from points along O'Shaughnessy Dam Road near the summit of the pass. Figure 3.10.2-32, which was taken from the saddle area, also shows the alternatively sited tower appearing to jut outward from the nearby rocks, such that, from this viewpoint, views of its upper portion would be unobstructed and, due to the preponderance of granitic surfaces, difficult to screen with additional vegetation. Placed in the alternative site, the tower would not be subordinate to the existing setting; it would appear to extend upward from the boulders (one of the site's scenic resources) and beyond the height of the nearby mature trees (another of the site's scenic resources) to breech the natural skyline. The saddle area, as previously described, is an unmanaged site near a pull-out on O'Shaughnessy Dam Road that is a popular stopping point with travelers as they come through the pass. At present, the area offers unobstructed background views of Hetch Hetchy. Placement of the proposed communication tower and associated facilities at the Poopenaut Pass Alternative Site would not obstruct such views, but it would introduce a man-made feature into the visual landscape, substantially altering the area's existing visual character.

3.10.2.4 Mitigation Measures

Mitigation Measure 1 – Visual: The SFPUC shall ensure that the following mitigation measure is implemented prior to, during, and after construction at all sites where new construction is proposed (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 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 pre-construction condition, including re-grading of the site and re-vegetation of disturbed areas.

3.10.2.5 Impairment

Impacts to visual/scenic resources associated with Alternative 1 are expected to be local, long-term, negligible, and beneficial, in that proposed new facilities would not be constructed and existing facilities proposed for removal would remain in place. Impacts associated with the existing sites for Alternatives 2 and 3 are expected to be, on balance, local, long-term, negligible to minor, and adverse while the new sites are expected to be generally local, long-term, minor to moderate, and adverse. With adherence to management practices, visual/scenic resources of the park would not be impaired for future generations.

3.10.2.6 Cumulative Impacts

Cumulative effects on visual/scenic resources are based on the analysis of projects in the Hetch Hetchy Communication System Upgrade project area, presented in this document in Appendix A. Other projects and plans proposed within the project area would be subject to evaluation of potential impacts to visual and scenic resources and, where appropriate, implement Best Management Practices, project-specific Mitigation Measures, and adhere to management practices.

3.10.2.7 Conclusion Statement

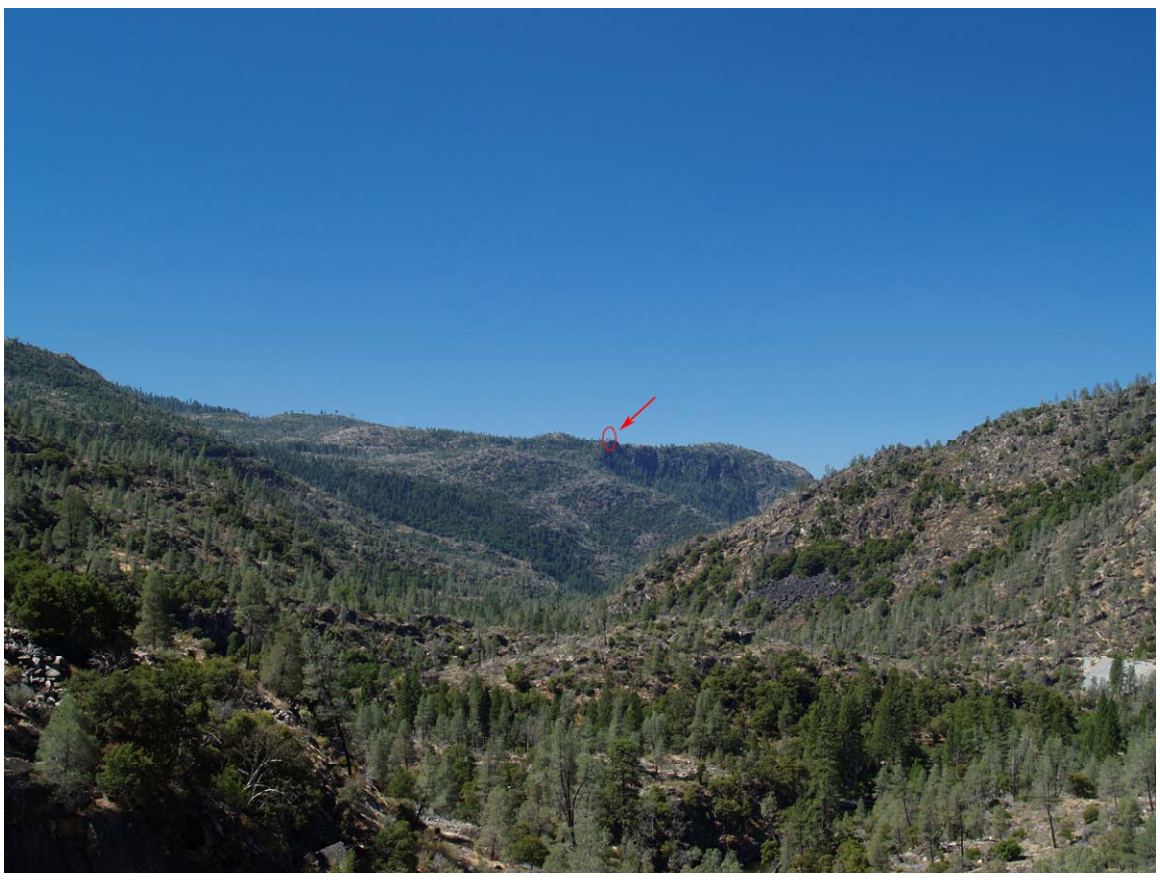
Impacts to visual/scenic resources are summarized below.

Cherry Tower Site, Intake Radio Site, and Burnout Ridge:

CEQA: Less than significant with mitigation incorporated.

Existing

Simulated



Simulated with Indicators

Simulated View of Poopenaut Pass Alternative Site (Viewpoint PPP Alt 1)
Figure 3.10.2-30

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Existing

Simulated

Simulated with Indicators

Simulated View of Poopenaut Pass Alternative Site (Viewpoint PPP Alt 2)
Figure 3.10.2-31

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Existing

Simulated

Simulated View of Poopenaut Pass Alternative Site (Viewpoint PPP Alt 3)
Figure 3.10.2-32

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Existing

Simulated

Simulated View of Poopenaut Pass Alternative Site (Viewpoint PPP Alt 4)
Figure 3.10.2-33

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NEPA: Local, long-term, moderate, adverse impact.

Poopenaut Pass:

CEQA: Less than significant with mitigation incorporated.

NEPA: Local, long-term, minor, adverse impact.

Cherry Pump Station:

CEQA: Less than significant with mitigation incorporated.

NEPA: Local, long-term, moderate, adverse impact.

Warnerville Switchyard, Moccasin Peak, Moccasin Powerhouse, O'Shaughnessy Stream Gauge, all Lake Eleanor Sites, and Cherry Water Tanks:

CEQA: Less than significant impact.

NEPA: Local, long-term, minor, adverse impact.

All O'Shaughnessy Dam sites (except O'Shaughnessy Stream Gauge), Cherry Valve House, Cherry Lake Garage and Warehouse, Cherry Lake Camphouse, and all Cherry Lake Cottages:

CEQA: No impact.

NEPA: No impact.

Kirkwood Powerhouse and Holm Powerhouse:

CEQA: No impact.

NEPA: No impact.

Intake Switchyard and Jones Point:

CEQA: Less than significant impact.

NEPA: Local, short-term, negligible, beneficial impact.

Duckwall Mountain and Moccasin Powerhouse Passive Reflector:

CEQA: No impact.

NEPA: Local, short-term, negligible, beneficial impact.

3.10.3 Visitor Experience and Recreation

This section describes the existing visitor experience and recreation of the Hetch Hetchy Communication System Upgrade project site areas.

3.10.3.1 Affected Environment

Yosemite National Park is visited by over four million people per year and has a wide range of recreational opportunities including, but not limited to: auto touring, backpacking, biking, birdwatching, camping, climbing, fishing, hiking, horseback riding, rafting, skiing, swimming, tours, and wildlife viewing. A popular visitor destination is the Yosemite Valley area, which is located in the southwest area of Yosemite National Park. Stanislaus National Forest recreational opportunities include, but are not limited to biking, camping, fishing, hiking, horseback riding, off-highway vehicles, over snow vehicles, water recreation, and wildlife viewing.

The Hetch Hetchy Reservoir and Lake Eleanor areas are located in the northwest corner of the park and distanced from the main traffic route, thereby receiving little use in comparison to Yosemite Valley (NPS 1980). Visitors generally spend time viewing the O'Shaughnessy Dam and Hetch Hetchy Reservoir, while backcountry hikers use this area as an entry or exit point (NPS 1980). Hetch Hetchy Reservoir and Lake Eleanor are part of the domestic water supply and therefore the City and County of San Francisco restricts use for water recreation and use of adjoining lands (NPS 1980). The Cherry Lake area, however, is a recreational area in Stanislaus National Forest that includes camping, boating, fishing, and hiking opportunities. A very popular dispersed camping area known as Cherry Borrow is located along Cherry Creek directly below Cherry Dam and attracts numerous visitors throughout the summer and fall for camping, hiking, horseback riding, and hunting. The Kirkwood Powerhouse and Early Intake areas are also frequented by visitors using the Anderson Mine trailhead and river put-in site just below Holm Powerhouse. In addition, the Preston Falls trailhead and parking area are near the Kirkwood Powerhouse and Early Intake sites.

3.10.3.2 Thresholds of Significance

CEQA Significance Criteria

The City and County of San Francisco has not formally adopted significance standards for impacts related to recreation, but considers that implementation of the proposed project would have a significant impact if it were to:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated;
- Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment; or,
- Physically degrade existing recreational resources.

NEPA Thresholds

Impacts on visitor experience may occur as a result of changes to road circulation, interpretation facilities, campgrounds and lodging, trails, and other facilities and resources that contribute to the type and quality of the visit to Yosemite National Park and Stanislaus National Forest. They may also occur from direct actions altering the availability of a specific experience or activity.

Visitor experience is also directly affected by actions influencing natural resources such as air quality, scenic resources, and cultural resources. Though impacts to these resources are not repeated in the analysis of visitor experience, enhancement or degradation of these resources also enhances or degrades the quality of the visitor experience.

Impacts on visitor experience have been assessed using professional judgment to develop a qualitative analysis of the effects of actions on the activities of different visitor populations. These conclusions have been considered in combination with data on the proportion, when known, of visitors who participate in different activities while in the park.

Assumptions used in evaluating visitor experience impacts for the alternatives include the following:

- Existing facilities have come into being in response to visitor demands and needs. This includes roads, trails, turnouts and viewpoints, and various visitor services and accommodations.
- Private vehicles are the preferred mode of travel for most visitors.
- Anticipated changes in visitor participation would represent an effect.
- Anticipated changes in trip quality would represent an effect.
- Anticipated changes in service level (such as reductions in accommodations or increase in services) would represent an effect.

Duration of Impact

A short-term impact on visitor experiences would be temporary in duration due to construction, restoration, or demolition activities. A long-term impact would have a permanent effect on the visitor experience.

Intensity of Impact

The intensity of impacts has been defined as negligible, minor, moderate, and major. Negligible impacts would result in little noticeable change in visitor experience. Minor impacts would result in changes in desired experiences but without appreciably limiting or enhancing critical characteristics. (Critical characteristics are those elements of a recreational activity that are most important to those who pursue it; for example, it may be important to picnickers to be able to drive to a picnic site.) Moderate impacts would change the desired experience appreciably, (i.e., changes one or more critical characteristics, or appreciably reduces/increases number of participants). Major impacts would eliminate or greatly enhance multiple critical characteristics or greatly reduce/increase participation.

Type of Impact

Impacts were evaluated in terms of whether they would be beneficial or adverse to visitor experience. Beneficial impacts would enhance visitor participation, quality of visitor experience, and service level. Adverse impacts would be effects that reduce visitor participation, quality of visitor experience, and service level.

3.10.3.3 Environmental Consequences

Environmental Consequences of Alternative 1 (No Action)

The Hetch Hetchy Communication system would continue to operate as it currently does under Alternative 1. The Cherry Tower Site, Poopenaut Pass, and Burnout Ridge sites would not be developed and the system would continue to operate on the 2 GHz band. There would continue to be a need for updated and improved communication systems for HHW&P, the National Park Service, and the US Forest Service. Although routine maintenance would continue to occur at the communication sites, there would be a continued need for voice communication which would protect the safety of staff working in very remote areas. Not replacing and upgrading the communication system would result in the continued need for a foundation system that could allow for improved radio communication in the future.

Environmental Consequences of Alternative 2 (Preferred Alternative)

None of the project alternatives require the construction or expansion of recreational facilities. Thus, this issue is not discussed further in this analysis.

Oakdale Area						
		NEPA				CEQA
Site		Context	Duration	Intensity	Type	Impact
Warnerville Switchyard	WSY	N/A	N/A	N/A	N/A	NI

Moccasin Area						
		NEPA				CEQA
Site		Context	Duration	Intensity	Type	Impact
Moccasin Peak	MPK	N/A	N/A	N/A	N/A	NI
Moccasin Powerhouse	MPH	N/A	N/A	N/A	N/A	NI
Moccasin Powerhouse Passive Reflector	MPR	N/A	N/A	N/A	N/A	NI
CEQA and NEPA Impacts: N/A = Not applicable NI = No Impact LS = Less than Significant LSM = Less than Significant with Mitigation Incorporated PS = Potentially Significant						

Oakdale and Moccasin Area Sites

There are no recreational facilities in the immediate vicinity of the sites in the Oakdale and Moccasin areas. Warnerville Switchyard site is surrounded by agricultural use while the Moccasin area is used for HHW&P operations. The Moccasin Reservoir located adjacent to the Moccasin Powerhouse site is part of the SFPUC water system and therefore not used for any recreational purposes. The Moccasin Reservoir is part of the domestic water supply and therefore the City of San Francisco restricts use for

water recreation and use of adjoining lands. The upgrades proposed at Warnerville Switchyard, Moccasin Peak, and Moccasin Powerhouse and the removal of the passive reflector at the Moccasin Powerhouse Passive Reflector would not result in a change in visitor demands, recreational needs in surrounding areas, increase use of existing regional parks, or physically degrade existing recreational resources. The upgrades would provide the foundation system to improve the communication system between the Oakdale and Moccasin areas to the SFPUC facilities within the Stanislaus National Forest and Yosemite National Park.

The Proposed Actions would have no impact on visitor experience, nor adversely impact recreational facilities.

Impact Determination (Oakdale and Moccasin Areas):

CEQA: No impact.

NEPA: No impact

Yosemite National Park Sites						
		NEPA				CEQA
Site		Context	Duration	Intensity	Type	Impact
O'Shaughnessy						
O'Shaughnessy Dam Gallery	ODG	N/A	N/A	N/A	N/A	NI
O'Shaughnessy Dam Diversion Tunnel	ODT	N/A	N/A	N/A	N/A	NI
O'Shaughnessy Stream Gauge	OSG	N/A	N/A	N/A	N/A	NI
O'Shaughnessy Water Quality Building	OWQ	N/A	N/A	N/A	N/A	NI
O'Shaughnessy Chalet (Cottage 1)	OC1	N/A	N/A	N/A	N/A	NI
O'Shaughnessy Watershed Keeper's Office (Cottage 4)	OC4	N/A	N/A	N/A	N/A	NI
O'Shaughnessy Bunkhouse	OBH	N/A	N/A	N/A	N/A	NI
O'Shaughnessy Water Tanks	OWT	N/A	N/A	N/A	N/A	NI
Lake Eleanor						
Lake Eleanor Dam Level Gauge	EDS	N/A	N/A	N/A	N/A	NI
Lake Eleanor-Cherry Lake Tunnel	ECT	N/A	N/A	N/A	N/A	NI
Poopenaut Pass						
Poopenaut Pass	PPP	Local	Short-Term	Negligible	Adverse	LSM
CEQA and NEPA Impacts: N/A = Not applicable NI = No Impact LS = Less than Significant LSM = Less than Significant with Mitigation Incorporated PS = Potentially Significant						

O'Shaughnessy and Lake Eleanor Areas

The proposed upgrades at the O'Shaughnessy and Lake Eleanor sites would have no impact to visitor experience and recreation. The upgrades proposed in the O'Shaughnessy Area are internal to existing structures or within existing developed areas. These upgrades are not anticipated to result in changes to visitor participation or trips to that area, as they are in areas not frequented by visitors due to remote location, or internal to existing buildings. The Proposed Action would provide the foundation system that could allow for improved radio communication in the future.

The upgrades proposed at O'Shaughnessy and Lake Eleanor areas would not result in a change in visitor demands, recreational needs in surrounding areas, increase use of existing regional parks, or physically degrade existing recreational resources.

Impact Determination (O'Shaughnessy and Lake Eleanor Areas):

CEQA: No impact.

NEPA: No Impact.

Poopenaut Pass

The Poopenaut Pass site would be a new project site within Yosemite National Park. Project activities at this site would involve construction of a trail, a new communication tower, and a new communication shelter in a previously undeveloped area. The communication site proposed at this location would not result in a change in visitor demands, recreational needs in surrounding areas, increase use of existing regional parks, or physically degrade existing recreational resources.

The hilltop to the north of O'Shaughnessy Road and across the street from the H2 turnout is a popular viewpoint location for visitors to see the Hetch Hetchy Valley. The Poopenaut Pass site would not encroach on the views of those visitors viewing the Hetch Hetchy Valley. The construction phase of this site may have a short-term impact to the visitor experience due to the presence of construction equipment and noise, which may decrease the experience in the immediate vicinity. Although this would not be a potentially significant impact, the construction contractor shall implement Mitigation Measure 1 – Visitor Experience and Recreation, which involves the development of a communication strategy to inform visitors and employees of the construction schedule, and use of fencing or barriers to safeguard visitors in the area from construction equipment and activities.

The Poopenaut Pass site would not result in a change in visitor demands, recreational needs in surrounding areas, increase use of existing regional parks, or physically degrade existing recreational resources. The new site is not anticipated to result in changes to visitor participation or trips to that area. The Proposed Action would provide the foundation system that could allow for improved radio communication in the future.

Impact Determination (Poopenaut Pass):

CEQA: Less than significant impact with mitigation.

NEPA: Local, short-term, negligible, adverse impact.

Stanislaus National Forest Sites						
		NEPA				CEQA
Site		Context	Duration	Intensity	Type	Impact
Cherry Lake						
Cherry Valve House	CVH	N/A	N/A	N/A	N/A	NI
Cherry Pump Station	CPS	N/A	N/A	N/A	N/A	NI
Cherry Water Tanks	CWT	N/A	N/A	N/A	N/A	NI
Cherry Lake Garage and Warehouse	CGW	N/A	N/A	N/A	N/A	NI
Cherry Lake Camphouse	CCH	N/A	N/A	N/A	N/A	NI
Cherry Lake Cottage #1	CC1	N/A	N/A	N/A	N/A	NI
Cherry Lake Cottage #2	CC2	N/A	N/A	N/A	N/A	NI
Cherry Lake Cottage #3	CC3	N/A	N/A	N/A	N/A	NI
Cherry Lake Cottage #4	CC4	N/A	N/A	N/A	N/A	NI
Cherry Tower Site	CTS	Local	Short-Term	Minor	Adverse	LSM
Early Intake & Tuolumne River Area						
Intake Radio Site	IRS	N/A	N/A	N/A	N/A	NI
Intake Switchyard	ISY	N/A	N/A	N/A	N/A	NI
Kirkwood Powerhouse	KPH	N/A	N/A	N/A	N/A	NI
Holm Powerhouse	HPH	N/A	N/A	N/A	N/A	NI
Duckwall Mountain						
Duckwall Mountain	DWM	N/A	N/A	N/A	N/A	NI
Jones Point						
Jones Point	JPT	N/A	N/A	N/A	N/A	NI
Burnout Ridge						
Burnout Ridge	BOR	N/A	N/A	N/A	N/A	NI

CEQA and NEPA Impacts:
N/A = Not applicable
NI = No Impact
LS = Less than Significant
LSM = Less than Significant with Mitigation Incorporated
PS = Potentially Significant

Existing Sites in Cherry Lake, Early Intake & Tuolumne River, Duckwall Mountain, and Jones Point Areas

The proposed upgrades in the Cherry Lake, Early Intake & Tuolumne areas, would occur within the existing developed areas and the land use of the existing sites would not be altered. The Cherry Lake sites (not including Cherry Tower Site), Intake Switchyard, Holm Powerhouse, Kirkwood Powerhouse, and Intake Radio Site would continue to operate as part of the communication system. These upgrades are not anticipated to result in changes to visitor participation or trips to that area, as they are in areas not frequented by visitors due to accessibility issues (i.e., only accessible to HHW&P staff for security reasons), remote location, or internal to existing buildings. The Proposed Action would provide the foundation system that could allow for improved radio communication in the future.

The upgrades at these sites would not result in a change in visitor demands, recreational needs in surrounding areas, increase use of existing regional parks, or physically degrade existing recreational resources. Changes to visitor participation or trips to these areas are not anticipated, as it would only be accessible to maintenance staff. No impact to recreational resources would occur.

Impact Determination (Existing Sites in Cherry Lake, Early Intake & Tuolumne River, Duckwall Mountain, and Jones Point Areas):

CEQA: No impact.

NEPA: No impact.

Cherry Tower Site and Burnout Ridge

The proposed new sites in Stanislaus National Forest would not result in an increase in visitor participation or changes in trips to the area. Cherry Lake is a destination within Stanislaus National Forest that has a variety of recreational activities for visitors including camping, fishing, hiking, and water activities. Short-term impacts to the visitor experience may occur due to construction traffic and activity at the Cherry Tower Site. Construction related traffic is addressed in Section 3.9.4. The proposed project at these new sites is not anticipated to result in changes to visitor participation or trips to that area, nor would the project physically degrade existing recreational resources. The Proposed Action would provide the foundation system that would allow for future possibilities of improving the communication system in the future.

The construction phase of Cherry Tower Site may have a short-term impact to the visitor experience in the Cherry Lake area due to the presence of construction equipment and noise, which may decrease the experience in the immediate vicinity. The camping area known as Cherry Borrow is located along Cherry Creek directly below Cherry Dam that is a popular visitor location in the summer and fall for camping, hiking, horseback riding, and hunting. The construction contractor shall implement Mitigation Measure 1 – Visitor Experience and Recreation, which involves the development of a communication strategy to inform visitors and employees of the construction schedule, and use of fencing or barriers to safeguard visitors in the area. Construction activities and noise related to Cherry Tower Site may result in short term impacts to visitors in the Cherry Dam area. However, construction would not occur during noise sensitive hours (evening, nighttime, and early morning). In addition, with the implementation of Mitigation Measure 1 – Noise, requiring all construction equipment to be properly maintained and equipped with noise controls, and Mitigation Measure 2 – Noise, 2 – Noise, limiting all construction activities to specified hours and days, and compliance with air quality standards would reduce impacts to visitors in the area.

Impact Determination:

Cherry Tower Site

CEQA: Less than significant with mitigation

NEPA: Local, short-term, minor, adverse.

Burnout Ridge

CEQA: No impact.

NEPA: No impact.

3.10.3.4 Mitigation Measures

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 the National Park Service and the US Forest Service prior to construction.

3.10.3.5 Cumulative Impacts

Alternative 1 and the cumulative projects in Yosemite National Park and Stanislaus National Forest would have a local, long-term, minor, adverse impact on visitor experience and recreation. The communication facilities as they exist, provide limited and unreliable coverage in the O'Shaughnessy, Cherry Lake, and Lake Eleanor areas. While there is limited coverage in the area, the foundation infrastructure would not be in place to allow for increased coverage, which would provide the bandwidth to allow for future installation of voice radio systems to increase coverage and reliability in the area. Alternatives 2 and 3 would have local, short-term, minor adverse impacts on visitor experience and recreation during construction at some of the sites; however, with an upgraded communication system, HHW&P, the US Forest Service, and the National Park Service would have the foundation system that would allow for future possibilities of improving the communication system.

3.10.3.6 Conclusion Statement

Warnerville Switchyard, all Moccasin sites, O'Shaughnessy, Lake Eleanor Areas, existing sites in Cherry Lake, Early Intake & Tuolumne River, Duckwall Mountain, Jones Point, and Burnout Ridge Areas:

CEQA: No impact.

NEPA: No impact.

Poopenaut Pass and Cherry Tower Site:

CEQA: Less than significant with mitigation.

NEPA: Local, short-term, minor, adverse.

3.10.4 Transportation

3.10.4.1 Affected Environment

Oakdale Area

Warnerville Switchyard is located off of Warnerville Road and accessed by a paved road. Warnerville Road is classified as a "Collector Street" in the Stanislaus County General Plan Circulation Element

(Stanislaus County 1994). Collector streets are two-lane local streets that carry moderate traffic and serve adjacent land uses. They collect and distribute traffic from residential or local roadways to higher volume facilities like arterials. Warnerville Road in the vicinity of Warnerville Switchyard is not identified as operating at deficient levels.

Moccasin Area

The main roadways leading to the Moccasin area are State Highways 49 and 120. State Highways 120 and 49 are classified as Rural Arterial and Minor Rural Arterial roadways respectively, in the Tuolumne County General Plan Circulation Element (Tuolumne County 1996). These roadways in the Moccasin area are not identified as operating at deficient levels.

Stanislaus National Forest

State highways leading into Stanislaus National Forest include Highways 120, 108 and 4. The Duckwall Mountain site is accessed by an existing dirt road off of National Forest Route 14, which is a paved road. Holm Powerhouse, Intake Switchyard, and Kirkwood Powerhouse are accessed off of Cherry Lake Road, which is paved. Jones Point, Intake Radio Site, and Burnout Ridge are accessed by existing dirt roads off of Cherry Lake Road.

Yosemite National Park

State highways leading into Yosemite National Park include Highways 41, 120, and 140. Additional transportation facilities within the park and forest includes a series of roads, access drives, pedestrian trails, bike paths, and parking areas accessed from the main roads. The Poopenaut Pass and O'Shaughnessy Dam sites are accessed off of O'Shaughnessy Dam Road and the Lake Eleanor sites are accessed off of NF-1N14 road.

3.10.4.2 Thresholds of Significance

CEQA Significance Criteria

The City and County of San Francisco has not formally adopted significance standards for impacts related to transportation and circulation, but considers that implementation of the proposed project would have a significant impact if it were to:

- Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system;
- Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways;
- Result in a change in air traffic patterns, including either an increase in traffic levels, obstructions to flight, or a change in location, that results in substantial safety risks;
- Substantially increase hazards due to a design feature or incompatible uses;
- Result in inadequate emergency access;

- Result in inadequate parking capacity that could not be accommodated by alternative solutions; or
- Conflicts with adopted policies, plans, or programs supporting alternative transportation or cause a substantial increase in transit demand which cannot be accommodated by existing or proposed transit capacity or alternative travel modes.

NEPA Thresholds (National Park Service/US Forest Service Sites)

This impact assessment focuses on the effect of temporary changes to the roadway system and associated traffic flow, access and circulation, and safety conditions. Transportation impacts are evaluated in terms of their context, duration, intensity, and whether the impacts are considered to be beneficial or adverse.

Duration of Impact

A short-term impact is one that would be created during the implementation phase of the alternative action (e.g., temporary disruption of access created during construction of facility improvements). A long-term impact would be created through a permanent change to traffic generation, as well as changes to circulation patterns expected following the implementation phase of the alternative action.

Intensity of Impact

The intensities of impacts consider whether the impact would be negligible, minor, moderate, or major. Negligible impacts are effects considered not detectable and would have no discernible effect on traffic flow and/or traffic safety conditions. Minor impacts are effects on traffic flow and/or traffic safety conditions that would be slightly detectable, but not expected to have an overall effect on those conditions. Moderate impacts would be clearly detectable and could have an appreciable effect on traffic flow and/or traffic safety conditions. Major impacts would have a substantial, highly noticeable influence on traffic flow and/or traffic safety conditions and could permanently alter those conditions.

Type of Impact

Impacts are considered in the context of being either beneficial or adverse on traffic flow and/or traffic safety conditions. Beneficial impacts would improve traffic flow and traffic safety by reducing levels of congestion and occurrences of vehicle/vehicle, vehicle/bicycle, and vehicle/pedestrian conflicts. Adverse impacts would negatively alter traffic flow and traffic safety by increasing levels of congestion and occurrences of such conflicts.

3.10.4.3 Environmental Consequences

Environmental Consequences of Alternative 1 (No Action)

The Hetch Hetchy Communication system would continue to operate as it currently does under Alternative 1. The Cherry Tower Site, Poopenaut Pass, and Burnout Ridge sites would not be developed and the system would continue to operate on the 2 GHz band. There would be no additional traffic trips generated by construction vehicles since no new sites would be developed. Routine maintenance would continue to occur at the existing communications sites with no increase in trips to and from the sites. Implementation of Alternative 1 would have no impact on traffic.

Environmental Consequences of Alternative 2 (Preferred Alternative)

The proposed upgrades would not change air traffic patterns, create hazards due to design features, result in inadequate emergency access or parking capacity, or conflict with any alternative transportation plans or policies. The majority of the sites would involve upgrades within existing buildings or the addition of antennas and new towers. The new tower (120 feet) at Warnerville Switchyard would be the same height as the existing tower, and less than the height of the adjacent substation structure. The new towers at Intake Radio Site (40 feet), Poopenaut Pass (40 feet), Cherry Tower Site (40 feet), and Burnout Ridge (120 feet) are located in areas that would not affect flight patterns. In addition, the tower at Intake Radio Site would be less than the height of the adjacent power transmission tower. The Cherry Tower Site tower would be located in an area where the trees surrounding it are larger in height. The Burnout Ridge and Poopenaut Pass towers would be comparable in height to surrounding trees. The upgrades would not consist of structures that are tall enough to obstruct any air traffic patterns and no impacts would occur. Thus, this issue is not discussed further in this analysis.

The project does not propose any residential, commercial, or industrial development, and would not generate a need for parking or alternative transportation. Therefore, no impacts would occur. All sites are accessed by paved or unpaved roads, and therefore accessible to emergency personnel. Thus these issues are not discussed further in this analysis. Short-term parking impacts are discussed below.

Oakdale Area						
		NEPA				CEQA
Site		Context	Duration	Intensity	Type	Impact
Warnerville Switchyard	WSY	Local	Short-Term	Negligible	Adverse	LS

Moccasin Area						
		NEPA				CEQA
Site		Context	Duration	Intensity	Type	Impact
Moccasin Peak	MPK	Local	Short-Term	Negligible	Adverse	LS
Moccasin Powerhouse	MPH	Local	Short-Term	Negligible	Adverse	LS
Moccasin Powerhouse Passive Reflector	MPR	Local	Short-Term	Negligible	Adverse	LS
CEQA and NEPA Impacts: N/A = Not applicable NI = No Impact LS = Less than Significant LSM = Less than Significant with Mitigation Incorporated PS = Potentially Significant						

Oakdale and Moccasin Area Sites

Construction trips to the Warnerville Switchyard site and the associated parking demand during construction would be short-term and would involve trucks entering and leaving for the following: removal of the passive reflector and associated 120-foot tower, removal of the 20-foot communication tower and parabolic dish antenna, installation of a new 120-foot lattice type communication tower and associated dishes and antennae. Parking during the upgrade would be accommodated on the paved area surrounding the building at this site. Maintenance and operations staff would continue to enter and leave the Warnerville Switchyard as they currently do and the new tower would be part of the existing maintenance schedule. No long-term change to parking demand would occur as a result of this project.

Therefore, the project would not generate additional trips to the site once these upgrades are installed and completed. The traffic load and capacity along Warnerville Road would not be impacted by the operation of the Warnerville Switchyard as a result of the upgrades.

Trips to the Moccasin Peak site would be short-term and involve trucks entering and leaving the site to install a new 60-foot high lattice type communication tower and three new parabolic dish antennas. The site is served by an existing dirt road off of State Highway 49. A battery would be located at this site in the event of prime power failure. This would require annual visits during the summer for testing and/or replacement, and another site visit for maintenance work. Occasional trips may be necessary for propane trucks to refuel the emergency generators as needed. These trips would be minimal and would not cause a substantial increase in traffic in relation to the existing traffic load and capacity of State Highway 49. Parking during the upgrade and for maintenance would be accommodated within the site.

Trips to the Moccasin Powerhouse site would be short-term and involve trucks entering and leaving the site to: remove the parabolic dish antenna and install a new 80-foot high monopole type communication tower with one parabolic dish antenna. The site is immediately adjacent to the powerhouse, in a paved and fenced lot area, and accessed by an existing paved road. Parking for the upgrade at this site would be accommodated in the paved and fenced lot area. The site would not generate additional trips once these upgrades are made. Maintenance and operator staff would continue to enter and leave Moccasin Powerhouse as they currently do and the new tower would be part of the existing maintenance schedule. No long-term change to parking demand would occur as a result of this project. State Highway 120 and road network in the town of Moccasin would not be impacted by the operational nature of the upgrades proposed at this site.

The Moccasin Passive Reflector site would involve the removal of a passive reflector located along the penstock right-of-way east of Moccasin Powerhouse. The site is accessed by an existing dirt road off of a local road near the Moccasin Powerhouse, which connects to State Highway 120. Once the passive reflector is removed, maintenance trips to the Moccasin Powerhouse Passive Reflector site would no longer be required. There would be a decrease in the number of trips on the dirt road between the Moccasin Powerhouse Passive Reflector site and Moccasin Powerhouse.

The impact to surrounding roadways as a result of construction and operational related traffic would be local, short-term, negligible, and adverse under NEPA and less than significant under CEQA.

Impact Determination (Oakdale and Moccasin Areas)**:**

CEQA: Less than significant.

NEPA: Local, short-term, negligible, adverse.

Yosemite National Park Sites						
		NEPA				CEQA
Site		Context	Duration	Intensity	Type	Impact
O'Shaughnessy						
O'Shaughnessy Dam Gallery	ODG	Local	Short-term	Negligible	Adverse	LS
O'Shaughnessy Dam Diversion Tunnel	ODT	Local	Short-term	Negligible	Adverse	LS
O'Shaughnessy Stream Gauge	OSG	Local	Short-term	Negligible	Adverse	LS
O'Shaughnessy Water Quality Building	OWQ	Local	Short-term	Negligible	Adverse	LS
O'Shaughnessy Chalet (Cottage 1)	OC1	Local	Short-term	Negligible	Adverse	LS
O'Shaughnessy Watershed Keeper's Office (Cottage 4)	OC4	Local	Short-term	Negligible	Adverse	LS
O'Shaughnessy Bunkhouse	OBH	Local	Short-term	Negligible	Adverse	LS
O'Shaughnessy Water Tanks	OWT	Local	Short-term	Negligible	Adverse	LS
Lake Eleanor						
Lake Eleanor Dam Level Gauge	EDS	Local	Short-term	Negligible	Adverse	LS
Lake Eleanor-Cherry Lake Tunnel	ECT	Local	Short-term	Negligible	Adverse	LS
Poopenaut Pass						
Poopenaut Pass	PPP	Local	Short-Term	Minor	Adverse	LSM
CEQA and NEPA Impacts: N/A = Not applicable NI = No Impact LS = Less than Significant LSM = Less than Significant with Mitigation Incorporated PS = Potentially Significant						

O'Shaughnessy and Lake Eleanor Sites

The O'Shaughnessy Bunkhouse, O'Shaughnessy Dam Gallery, and O'Shaughnessy Watershed Keeper's Office/Residence would be accessed by existing paved roads. O'Shaughnessy Chalet, O'Shaughnessy Dam Diversion Tunnel, O'Shaughnessy Stream Gauge, and O'Shaughnessy Water Tanks would be accessed by existing dirt access roads. The Lake Eleanor Dam Level Gauge site would be accessed by an existing paved road. Lake Eleanor-Cherry Lake Tunnel would be accessible by vehicle when the water level is down. However, when the lake is above a certain level, the only access to the site is by foot via an existing trail or by boat via Lake Eleanor. Construction of new access roads would not be required for the O'Shaughnessy and Lake Eleanor sites.

Trips to the O'Shaughnessy and Lake Eleanor sites and parking demand would be short-term and would involve trucks accessing the site during the installation of the communication equipment. Following the installation of communication equipment, maintenance and operations staff would access the O'Shaughnessy and Lake Eleanor sites as they currently do, as part of the existing maintenance schedule. Therefore no long-term change to parking demand would occur as a result of this project. The project would not generate additional trips to the sites once communication upgrades are installed and completed. The traffic load and capacity along O'Shaughnessy Dam Road would not be impacted by the operation of the O'Shaughnessy and Lake Eleanor sites as a result of the upgrades.

The impact to surrounding roadways at or near the O'Shaughnessy and Lake Eleanor sites as a result of construction and operational related traffic would be local, short-term, negligible, adverse under NEPA and less than significant under CEQA.

Impact Determination (O'Shaughnessy and Lake Eleanor Areas)**:**

CEQA: Less than significant.

NEPA: Local, short-term, negligible, adverse.

Poopenaut Pass

Construction of Poopenaut Pass would involve an access trail, a new communication tower, and a new communication shelter in a previously undeveloped area. The construction phase of the Poopenaut Pass site would result in short-term increase in construction-related traffic, which includes construction equipment and construction workers traveling to and from the sites for approximately four months. This would not be a substantial increase in relation to existing traffic on O'Shaughnessy Dam road. Construction workers would park at the H2 turnout during the Poopenaut Pass site construction to the extent feasible.

The installation of the tower and shelter is anticipated to be delivered by truck to the H2 turnout, and then lifted by helicopter to the tower location where they would be assembled. It is also anticipated that helicopters would be used to transport a portable generator, air compressor, and other equipment and tools to the site for use in site preparation and construction. The construction phase of the Poopenaut Pass Site involving the delivery of equipment and transporting them to the site via helicopter may constitute an adverse impact that could negatively alter traffic flow and traffic safety in the immediate vicinity. The implementation of Mitigation Measure 1 – Transportation, requiring implementation of a transportation plan during construction to route pedestrians and vehicles around the construction area for the Poopenaut Pass Site, would reduce potential impacts to vehicular and pedestrian circulation.

A battery would be located at this site in the event of prime power failure. This would require annual visits during the summer for testing and/or replacement, and another site visit for maintenance work. Occasional trips may be necessary for maintenance staff to refuel the emergency generators with propane as needed. Maintenance staff would park at the H2 turnout to the extent feasible and access the Poopenaut Pass site via the trail. These trips would be minimal and would not cause a substantial increase in traffic in relation to the existing traffic load and capacity of O'Shaughnessy Dam Road. The new communication site is not a use that would generate additional visitor trips. Therefore, visitor trips to and from this area would not increase as a result of the proposed project.

Impact to surrounding roadways as a result of construction and operational related traffic would be local, short-term, minor, and adverse under NEPA and less than significant with mitigation incorporated under CEQA.

Impact Determination (Poopenaut Pass Site)**:**

CEQA: Less than significant with mitigation incorporated.

NEPA: Local, short-term, minor, adverse.

Stanislaus National Forest Sites						
		NEPA				CEQA
Site		Context	Duration	Intensity	Type	Impact
Cherry Lake						
Cherry Valve House	CVH	Local	Short-Term	Negligible	Adverse	LS
Cherry Pump Station	CPS	Local	Short-Term	Negligible	Adverse	LS
Cherry Water Tanks	CWT	Local	Short-Term	Negligible	Adverse	LS
Cherry Lake Garage and Warehouse	CGW	Local	Short-Term	Negligible	Adverse	LS
Cherry Lake Camphouse	CCH	Local	Short-Term	Negligible	Adverse	LS
Cherry Lake Cottage #1	CC1	Local	Short-Term	Negligible	Adverse	LS
Cherry Lake Cottage #2	CC2	Local	Short-Term	Negligible	Adverse	LS
Cherry Lake Cottage #3	CC3	Local	Short-Term	Negligible	Adverse	LS
Cherry Lake Cottage #4	CC4	Local	Short-Term	Negligible	Adverse	LS
Cherry Tower Site	CTS	Local	Short-Term	Minor	Adverse	LSM
Early Intake & Tuolumne River Area						
Intake Radio Site	IRS	Local	Short-Term	Minor	Adverse	LS
Intake Switchyard	ISY	Local	Short-Term	Negligible	Adverse	LS
Kirkwood Powerhouse	KPH	Local	Short-Term	Negligible	Adverse	LS
Holm Powerhouse	HPH	Local	Short-Term	Negligible	Adverse	LS
Duckwall Mountain						
Duckwall Mountain	DWM	Local	Short-Term	Negligible	Adverse	LS
Jones Point						
Jones Point	JPT	Local	Short-Term	Negligible	Adverse	LS
Burnout Ridge						
Burnout Ridge	BOR	Local	Short-Term	Minor	Adverse	LSM

CEQA and NEPA Impacts:
N/A = Not applicable
NI = No Impact
LS = Less than Significant
LSM = Less than Significant with Mitigation Incorporated
PS = Potentially Significant

Existing Sites in Cherry Lake, Early Intake & Tuolumne River, Duckwall Mountain, and Jones Point Areas

Cherry Valve House, Cherry Water Tanks, Duckwall Mountain, and Jones Point would be accessed by existing dirt roads. Cherry Lake Cottages #1 through 4, Cherry Lake Garage and Warehouse, Cherry Lake Camphouse, Holm Powerhouse, Intake Switchyard, Kirkwood Powerhouse, would be accessed by existing paved roads. Cherry Pump Station would be accessible by vehicle when the water level is down at Cherry Lake. However, when the lake is above a certain level, the only access to the site is by foot via an existing trail or by boat via Cherry Lake when the water elevation is high. Construction of new access roads would not be required for these sites.

The construction phase of Intake Radio Site would result in short-term increase in construction-related traffic and parking, which includes construction equipment and workers traveling to and from the sites for approximately three months. This would not be a substantial increase in relation to existing traffic on NF-1S26 road. Parking during the upgrade would be accommodated on the paved area surrounding the building at this site. No long-term change to parking demand would occur as a result of this project. Trips to the Cherry Lake, Early Intake and Tuolumne River areas and parking demand would be short-term and would involve trucks entering and leaving the sites during the installation of communication equipment. Parking during the upgrade would be accommodated at the sites. Following the installation of communication equipment, maintenance and operations staff would access these sites (with the

exception of Jones Point and Duckwall Mountain, which would no longer be part of the communication system) as they currently do, as part of the existing maintenance schedule. These sites would not generate additional trips once these upgrades are installed and completed and no long-term change to parking demand would occur as a result of this project.

Impact Determination (Existing Sites in Cherry Lake, Early Intake & Tuolumne River, Duckwall Mountain and Jones Point areas)**:**

CEQA: Less than significant.

NEPA: Local, short-term, negligible, adverse.

Cherry Tower Site and Burnout Ridge

The proposed new sites in Stanislaus National Forest would be local in context, short-term in duration, minor in intensity, and adverse in type for transportation.

The construction contractor shall adhere to General Management Practice 16-A in Transportation and Facilities for both Cherry Tower and Burnout Ridge sites. The Standards and Guidelines for Management Practice 16-A require: geometric standards and location be planned to provide acceptable levels of service and traffic safety to meet resource management needs; surfacing to be planned with consideration for the total cost of transportation, including construction, operation, and maintenance costs, while meeting resource management objects; and the location, design and construction standards to protect soil, watersheds, fisheries and other resources. The Cherry Tower and Burnout Ridge sites are also subject to Transportation and Facilities Management Practice 16-C for the Wildlife and General Forest Areas, as identified in the Forest Plan as amended. In addition to General Management Practice 16-A, the construction contractor shall adhere to restricting passenger car traffic by warning signs or barriers in the vicinity of the Cherry Tower and Burnout Ridge Sites pursuant to Transportation and Facilities Management Practice 16-C.

The construction phase of the Cherry Tower and Burnout Ridge sites would result in short-term increase in construction-related traffic and parking demand, which includes construction equipment and construction workers traveling to and from the sites for approximately three and four months respectively. This would not be a substantial increase in relation to existing traffic in the Cherry Lake area and Burnout Ridge access road area. Parking during construction would be accommodated at the sites. The Cherry Lake area is a recreation area, and construction vehicles and equipment entering and leaving the Cherry Tower Site may potentially cause some conflicts with recreational users. In addition to Management Practices 16-A and 16-C, Mitigation Measure 1 – Transportation, requiring implementation of a transportation plan during construction to route pedestrians and vehicles around the construction area for the Cherry Tower Site, would be implemented to reduce potential impacts to vehicular and pedestrian circulation in the project area. A battery would be located at Burnout Ridge in the event of prime power failure. This would require annual visits during the summer for testing and/or replacement, and another site visit for maintenance work. Occasional trips may be necessary for maintenance staff to refuel the emergency generators with propane as needed. Maintenance trips would be minimal and would not cause a substantial increase in traffic in relation to the existing traffic load and capacity of Highway 120, nor

would it result in a long term change to parking demand. The new communication sites are not uses that would generate additional visitors. Therefore, visitor trips to and from this area would not increase as a result of the new sites. The impact to surrounding roadways at or near the Cherry Tower and Burnout Ridge sites as a result of construction and operational related traffic would be local, short-term, minor, adverse under NEPA and less than significant with mitigation under CEQA.

Impact Determination (Cherry Tower Site and Burnout Ridge)**:**

CEQA: Less than significant with mitigation incorporated.

NEPA: Local, short-term, minor, adverse impact.

3.10.4.4 Mitigation Measures

Mitigation Measure 1 – Transportation – The SFPUC will require the preparation of a transportation plan by the construction contractor that shall be reviewed 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 USFS review and approval prior to the start of project construction.

3.10.4.5 Cumulative Impacts

Alternatives 2, and 3 and the cumulative projects in Yosemite National Park and Stanislaus National Forest would result in local, short-term, minor adverse impacts to traffic and transportation.

3.10.4.6 Conclusion Statement

Impact on traffic and transportation is summarized below:

Warnerville Switchyard, all Moccasin sites, O'Shaughnessy, Lake Eleanor sites Existing Sites in Cherry Lake, Early Intake and Tuolumne River areas**:**

CEQA: Less than significant.

NEPA: Local, short-term, negligible, adverse.

Poopenaut Pass, Cherry Tower Site, Burnout Ridge

CEQA: Less than significant with mitigation incorporated.

NEPA: Local, short-term, minor, adverse.

3.10.5 Population and Housing

This section addresses potential impacts to population and housing in the Proposed Action area related to the Hetch Hetchy Communication System Upgrade project. The effects of the Proposed Action were analyzed using the City and County of San Francisco CEQA Checklist. Population and Housing is

CEQA specific and therefore project alternatives, cumulative impacts, and impairment are not analyzed in this section.

3.10.5.1 Affected Environment

Warnerville Switchyard is located southeast of the City of Oakdale, which has a population of approximately 18,500. The Warnerville Switchyard area is not in an urbanized area: the land surrounding this site is largely agricultural in nature with the exception of two duplexes and the switchyard maintenance yard along the road south of the site. Moccasin is a small town which consists mainly of the HHW&P facilities, including the powerhouse and offices, and a small network of cottage-lined streets. The 49 cottages house HHW&P staff who work in the Moccasin area.

Employee housing is provided for employees that support National Park Service functions. For example, Yosemite Valley and the El Portal Administrative Site have housing to accommodate employees (NPS 2000). Stanislaus National Forest and Yosemite National Park are federally owned lands that consist of wilderness lands and are largely managed for preservation. Stanislaus National Forest and Yosemite National Park are popular visitor destinations providing outdoor recreational activities; however, it does not have a large residential population aside from employees that support the agency functions.

3.10.5.2 CEQA Significance Criteria

The City and County of San Francisco has not formally adopted significance standards for impacts related to population and housing, but considers that implementation of the proposed project would have a significant impact if it were to:

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure);
- Displace substantial numbers of existing housing units or create demand for additional housing, necessitating the construction of replacement housing; or
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

3.10.5.3 Environmental Consequences

Oakdale Area		
		CEQA
Site		Impact
Warnerville Switchyard	WSY	NI

Moccasin Area		
		CEQA
Site		Impact
Moccasin Peak	MPK	NI
Moccasin Powerhouse	MPH	NI
Moccasin Powerhouse Passive Reflector	MPR	NI
CEQA Impacts: N/A = Not applicable NI = No Impact LS = Less than Significant LSM = Less than Significant with Mitigation Incorporated PS = Potentially Significant		

Oakdale and Moccasin Area Sites

The proposed upgrades would not create a demand for additional housing as it involves the removal and/or installation of communication towers within the sites' existing developed area. The Proposed Action would not induce substantial population growth because new homes or businesses or extension of major infrastructure are not proposed, nor would they be needed. Warnerville Switchyard and Moccasin Powerhouse are already staffed facilities. The Moccasin Powerhouse Passive Reflector and Moccasin Peak sites do not require staffed operations. Impacts to population growth would not occur.

There are no residences at any of the project sites. Although there are existing residential units near the Warnerville Switchyard and Moccasin Powerhouse sites, no housing or people would be displaced as a result of the proposed project. Therefore, no impacts to housing or people would occur.

Impact Determination (Oakdale and Moccasin Areas):

CEQA: No Impact.

Yosemite National Park Sites		
		CEQA
Site		Impact
O'Shaughnessy		
O'Shaughnessy Dam Gallery	ODG	NI
O'Shaughnessy Dam Diversion Tunnel	ODT	NI
O'Shaughnessy Stream Gauge	OSG	NI
O'Shaughnessy Water Quality Building	OWQ	NI
O'Shaughnessy Chalet (Cottage 1)	OC1	NI
O'Shaughnessy Watershed Keeper's Office (Cottage 4)	OC4	NI
O'Shaughnessy Bunkhouse	OBH	NI
O'Shaughnessy Water Tanks	OWT	NI
Lake Eleanor		
Lake Eleanor Dam Level Gauge	EDS	NI
Lake Eleanor-Cherry Lake Tunnel	ECT	NI
Poopenaut Pass		
Poopenaut Pass	PPP	NI
CEQA Impacts: N/A = Not applicable NI = No Impact LS = Less than Significant LSM = Less than Significant with Mitigation Incorporated PS = Potentially Significant		

O'Shaughnessy, Lake Eleanor, and Poopenaut Pass Areas

The proposed upgrades at O'Shaughnessy and Lake Eleanor areas would not create a demand for additional housing as it involves the removal and/or installation of communication towers within the sites' existing developed area. The construction of a new communication site at Poopenaut Pass would not result in demand for additional housing. The Proposed Action would not induce substantial population growth because new homes or businesses or extension of major infrastructure are not proposed, nor would they be needed. Impacts to population growth would not occur.

The O'Shaughnessy Watershed Keeper's Office is the residence and office for the O'Shaughnessy Dam Watershed Keeper. The upgrade at this site would not displace the residents or housing, as it involves the installation of a wall-mounted cabinet on the exterior of the building.

There are no residences at the other project sites in the O'Shaughnessy, Lake Eleanor, or Poopenaut Pass areas. No housing or people would be displaced as a result of the proposed project. Therefore no impacts to housing or people would occur.

Impact Determination (O'Shaughnessy, Lake Eleanor, and Poopenaut Pass Areas):

CEQA: No Impact.

Stanislaus National Forest Sites		
		CEQA
Site		**Impact**
Cherry Lake		
Cherry Valve House	CVH	NI
Cherry Pump Station	CPS	NI
Cherry Water Tanks	CWT	NI
Cherry Lake Garage and Warehouse	CGW	NI
Cherry Lake Camphouse	CCH	NI
Cherry Lake Cottage #1	CC1	NI
Cherry Lake Cottage #2	CC2	NI
Cherry Lake Cottage #3	CC3	NI
Cherry Lake Cottage #4	CC4	NI
Cherry Tower Site	CTS	NI
Early Intake & Tuolumne River Area		
Intake Radio Site	IRS	NI
Intake Switchyard	ISY	NI
Kirkwood Powerhouse	KPH	NI
Holm Powerhouse	HPH	NI
Duckwall Mountain		
Duckwall Mountain	DWM	NI
Jones Point		
Jones Point	JPT	NI
Burnout Ridge		
Burnout Ridge	BOR	NI
CEQA Impacts: N/A = Not applicable NI = No Impact LS = Less than Significant LSM = Less than Significant with Mitigation Incorporated PS = Potentially Significant		

Cherry Lake, Early Intake & Tuolumne River, Duckwall Mountain, and Burnout Ridge Areas

The proposed upgrades at Cherry Lake, Early Intake & Tuolumne River, Duckwall Mountain, and Burnout Ridge areas would not create a demand for additional housing as it involves the removal and/or installation of communication towers within the sites' existing developed area, and construction of one new communication site. The Proposed Action would not induce substantial population growth because new homes or businesses or extension of major infrastructure are not proposed, nor would they be needed. Impacts to population growth would not occur.

There are several residences for HHW&P employees adjacent to and west of Holm Powerhouse. Cherry Lake Cottage #1 is the residence and office for the Cherry Lake Watershed Keeper. The Holm Powerhouse site work involves the installation of a replacement aerial fiber optic cable service from Intake Switchyard and replacement of existing fiber optic equipment internal to the powerhouse building. The Cherry Lake Cottage #1 work would involve the installation of a wall-mounted cabinet on the exterior of the building. The upgrades at Holm Powerhouse and Cherry Lake Cottage #1 would not displace these residents or housing. Therefore no impacts to housing or people would occur.

Impact Determination (Cherry Lake, Early Intake & Tuolumne River, Duckwall Mountain, Jones Point, and Burnout Ridge Areas)

CEQA: No impact.

3.10.5.4 Mitigation Measures

None required.

3.10.6 Utilities and Service Systems

This section addresses potential impacts to utilities and service systems in the Proposed Action area related to the Hetch Hetchy Communication System Upgrade project. The effects of the Proposed Action were analyzed using the City and County of San Francisco CEQA Checklist. This resource area is specific to the City and County of San Francisco CEQA checklist. Therefore project alternatives, cumulative impacts, and impairment are not analyzed in this section.

3.10.6.1 Affected Environment

Utilities in the Warnerville and Moccasin areas include electric, water, and wastewater lines to serve the residential areas nearby and the Moccasin Powerhouse operations. The Cherry Lake area is also served by utility lines for visitor services. With the exception of the passive reflector sites (Duckwall Mountain, Jones Point, and Moccasin Passive Reflector) and the new construction sites, the existing sites in the Moccasin, Stanislaus National Forest, and Yosemite National Park areas are served by electricity. Moccasin Powerhouse, Kirkwood Powerhouse, Intake Switchyard, Holm Powerhouse, O'Shaughnessy Watershed Keeper's Office/Residence, and the Cherry Lake Cottage # 2 (Watershed Keeper's Office) are served by water, sewer, and electric utilities.

3.10.6.2 CEQA Significance Criteria

The City and County of San Francisco has not formally adopted significance standards for impacts related to utilities and service systems, but considers that implementation of the proposed project would have a significant impact if it were to:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Have sufficient water supply available to serve the project from existing entitlements and resources, or require new or expanded water supply resources or entitlements;
- Result in a determination by the wastewater treatment provider that would serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or
- Comply with federal, state, and local statutes and regulations related to solid waste.

3.10.6.3 Environmental Consequences

None of the project sites would generate a need for solid waste services, water treatment, or wastewater treatment during operations. Communication sites do not generate a need for wastewater treatment. Thus, these issues are not discussed further in this analysis. The communication sites would not generate a need for solid waste disposal. Thus, this issue is not discussed further in this analysis. The equipment that would be removed would be disposed of in compliance with federal, state, and local regulations related to solid waste by the construction contractor, and therefore would have no impact.

Oakdale Area		
		CEQA
Site		**Impact**
Warnerville Switchyard	WSY	NI

Moccasin Area		
		CEQA
Site		**Impact**
Moccasin Peak	MPK	NI
Moccasin Powerhouse	MPH	NI
Moccasin Powerhouse Passive Reflector	MPR	NI
CEQA Impacts: N/A = Not applicable NI = No Impact LS = Less than Significant LSM = Less than Significant with Mitigation Incorporated PS = Potentially Significant		

Oakdale and Moccasin Area Sites

The proposed upgrade at the Warnerville Switchyard site would involve the removal of an existing tower and passive reflector, and installation of a new tower and antenna dish. This would not result in the need to alter existing, or require new, wastewater treatment, sewer, or water supply systems. The Moccasin Powerhouse Passive Reflector site only involves the removal of the passive reflector. This site is not served by any utilities and would no longer be part of the communication system. The upgrades proposed at Moccasin Peak and Moccasin Powerhouse would not require wastewater treatment, sewer, or water supply systems. There would be no impact to utilities and service systems.

Impact Determination (Oakdale and Moccasin Areas**):**

CEQA: No impact.

Yosemite National Park Sites		
		CEQA
Site		**Impact**
O'Shaughnessy		
O'Shaughnessy Dam Gallery	ODG	NI
O'Shaughnessy Dam Diversion Tunnel	ODT	NI
O'Shaughnessy Stream Gauge	OSG	NI
O'Shaughnessy Water Quality Building	OWQ	NI
O'Shaughnessy Chalet (Cottage 1)	OC1	NI
O'Shaughnessy Watershed Keeper's Office (Cottage 4)	OC4	NI
O'Shaughnessy Bunkhouse	OBH	NI
O'Shaughnessy Water Tanks	OWT	NI
Lake Eleanor		
Lake Eleanor Dam Level Gauge	EDS	NI
Lake Eleanor-Cherry Lake Tunnel	ECT	NI
Poopenaut Pass		
Poopenaut Pass	PPP	LS
CEQA Impacts: N/A = Not applicable NI = No Impact LS = Less than Significant LSM = Less than Significant with Mitigation Incorporated PS = Potentially Significant		

O'Shaughnessy and Lake Eleanor Areas

The upgrades proposed at the O'Shaughnessy and Lake Eleanor sites are internal to or on existing structures and would not require wastewater treatment, sewer, or water supply systems during construction or operations.

Impact Determination (O'Shaughnessy and Lake Eleanor Areas**):**

CEQA: No impact.

Poopenaut Pass

The Poopenaut Pass site would not require utility services including wastewater treatment, sewer, or water supply systems. An underground secondary electrical service line would be installed from an existing power pole on O'Shaughnessy Dam Road, along the footpath to the new communication site. The Poopenaut Pass Site would not require a significant amount of electricity to operate and would result

in less than significant impacts to utilities service systems, specifically electricity. The Poopenaut Pass Site would have battery power back up in the event of a power failure. The communication shelter would be equipped with a manual transfer switch and means of connecting a portable emergency generator.

Impact Determination (Poopenaut Pass Site)**:**

CEQA: Less than significant.

Stanislaus National Forest Sites		
		CEQA
Site		Impact
Cherry Lake		
Cherry Valve House	CVH	NI
Cherry Pump Station	CPS	NI
Cherry Water Tanks	CWT	NI
Cherry Lake Garage and Warehouse	CGW	NI
Cherry Lake Camphouse	CCH	NI
Cherry Lake Cottage #1	CC1	NI
Cherry Lake Cottage #2	CC2	NI
Cherry Lake Cottage #3	CC3	NI
Cherry Lake Cottage #4	CC4	NI
Cherry Tower Site	CTS	LS
Early Intake & Tuolumne River Area		
Intake Radio Site	IRS	LS
Intake Switchyard	ISY	NI
Kirkwood Powerhouse	KPH	NI
Holm Powerhouse	HPH	NI
Duckwall Mountain		
Duckwall Mountain	DWM	NI
Jones Point		
Jones Point	JPT	NI
Burnout Ridge		
Burnout Ridge	BOR	LS
CEQA Impacts: N/A = Not applicable NI = No Impact LS = Less than Significant LSM = Less than Significant with Mitigation Incorporated PS = Potentially Significant		

Cherry Lake, Early Intake & Tuolumne River, and Duckwall Mountain

The upgrades proposed at the Cherry Lake (with the exception of Cherry Tower Site), Early Intake and Tuolumne River sites are internal to or on existing structures and would not require wastewater treatment, sewer, or water supply systems during construction or operation. Passive reflectors would be removed from the Duckwall Mountain and Jones Point sites, and would not require any utility services.

Impact Determination (Existing Sites in Cherry Lake, Early Intake and Tuolumne River areas)**:**

CEQA: No impact.

Burnout Ridge and Cherry Tower Sites

The Burnout Ridge and Cherry Tower Sites would not require utility services, including wastewater treatment, sewer, or water supply system. However, both would require underground secondary electrical

service lines installed from an existing power pole. These sites would not require a significant amount of electricity to operate and would result in less than significant impacts to utilities service systems, specifically electricity.

Impact Determination (Burnout Ridge and Cherry Tower Site)**:**

CEQA: Less than significant.

3.10.7 Public Services

This section addresses potential impacts to public services in the Proposed Action area related to the Hetch Hetchy Communication System Upgrade project. The effects of the Proposed Action were analyzed using guidelines prepared for the CEQA analysis, as described below. This resource area is specific to the City and County of San Francisco CEQA checklist. Therefore project alternatives, cumulative impacts, and impairment are not analyzed in this section.

3.10.7.1 Affected Environment

The Warnerville Switchyard area is served by the Stanislaus County Fire and Sheriff's Departments, while the Moccasin area is served by the California Department of Forestry (CDF) and Tuolumne County Fire and Sheriff's Department. The National Park Service and US Forest Service both have law enforcement personnel throughout Yosemite National Park and Stanislaus National Forest respectively.

The Fire and Aviation Management (FAM) branch of the USFS provides fire protection services. The Fire Management elements consist of fire prevention, fire suppression, and fire use while Aviation Management includes including operational personnel transport, research, forest rehabilitation, law enforcement support, aerial photography, infrared detection, and fire prevention and suppression (USDA 2007). The NPS also has a Fire and Aviation Management department (NPS 2007), which has functions similar to the USFS FAM. Both the National Park Service and USFS have firefighters, smokejumpers, and equipment to transport firefighters and cargo, and capability for aerial delivery of fire retardant and water. In addition, the CDF has a cooperative program between the USFS and the National Park Service, also known as mutual aid, for the exchange of fire protection services with federal wildland fire agencies (CDF 2007). This mutual aid process allows for the closest agency to respond to a wildfire, regardless of jurisdiction (CDF 2007).

There are no schools in the immediate vicinity of the project sites. Most of the project sites are located in remote areas within Stanislaus National Forest and Yosemite National Park. The closest school to the Warnerville Switchyard site is approximately 5 miles away in the City of Oakdale. The closest school to the Moccasin area is approximately 6.5 miles away in the town of Groveland.

3.10.7.2 CEQA Significance Criteria

The City and County of San Francisco has not formally adopted significance standards for impacts related to public services, but considers that implementation of the proposed project would have a significant impact if it were to:

- Result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any public services such as fire protection, police protection, schools, parks, or other services.

3.10.7.3 Environmental Consequences

Oakdale Area		
		CEQA
Site		**Impact**
Warnerville Switchyard	WSY	NI

Moccasin Area		
		CEQA
Site		**Impact**
Moccasin Peak	MPK	NI
Moccasin Powerhouse	MPH	NI
Moccasin Powerhouse Passive Reflector	MPR	NI
CEQA Impacts: N/A = Not applicable NI = No Impact LS = Less than Significant LSM = Less than Significant with Mitigation Incorporated PS = Potentially Significant		

Oakdale and Moccasin Area Sites

The proposed project upgrades would not result in increased demand for public services such that the construction of new public service facilities would be required. Warnerville Switchyard would continue to be served by the Stanislaus County Fire and Sheriff's Departments. The Moccasin area would continue to be served by the CDF, and Tuolumne County Fire and Sheriff's Department. None of the upgrades would require new public service facilities or increased staffing; result in the need for residential development; result in an increased demand for fire and police protection; additional demand for schools, parks, or other public services. No impacts to public services would occur.

Impact Determination (Oakdale and Moccasin Areas)**:**

CEQA: No impact.

Yosemite National Park Sites		
Site		**CEQA Impact**
O'Shaughnessy		
O'Shaughnessy Dam Gallery	ODG	NI
O'Shaughnessy Dam Diversion Tunnel	ODT	NI
O'Shaughnessy Stream Gauge	OSG	NI
O'Shaughnessy Water Quality Building	OWQ	NI
O'Shaughnessy Chalet (Cottage 1)	OC1	NI
O'Shaughnessy Watershed Keeper's Office (Cottage 4)	OC4	NI
O'Shaughnessy Bunkhouse	OBH	NI
O'Shaughnessy Water Tanks	OWT	NI

Yosemite National Park Sites		
Site		**CEQA Impact**
Lake Eleanor		
Lake Eleanor Dam Level Gauge	EDS	NI
Lake Eleanor-Cherry Lake Tunnel	ECT	NI
Poopenaut Pass		
Poopenaut Pass	PPP	NI
CEQA Impacts: N/A = Not applicable NI = No Impact LS = Less than Significant LSM = Less than Significant with Mitigation Incorporated PS = Potentially Significant		

O'Shaughnessy, Lake Eleanor, and Poopenaut Pass Areas

The proposed project upgrades would not result in increased demand for public services such that the construction of new public service facilities would be required. The O'Shaughnessy, Lake Eleanor, and Poopenaut Pass sites are within the service area of the National Park Service Fire and Aviation Management and NPS law enforcement. None of the upgrades would require new public service facilities or increased staffing; result in the need for residential development; result in an increased demand for fire and police protection; additional demand for schools, parks, or other public services. The Proposed Action would provide the foundation system that could allow for improved radio communications in the future. No impacts to public services would occur.

Impact Determination (O'Shaughnessy, Lake Eleanor and Poopenaut Pass Areas**):**

CEQA: No impact.

Stanislaus National Forest Sites		
		CEQA
Site		**Impact**
Cherry Lake		
Cherry Valve House	CVH	NI
Cherry Pump Station	CPS	NI
Cherry Water Tanks	CWT	NI
Cherry Lake Garage and Warehouse	CGW	NI
Cherry Lake Camphouse	CCH	NI
Cherry Lake Cottage #1	CC1	NI
Cherry Lake Cottage #2	CC2	NI
Cherry Lake Cottage #3	CC3	NI
Cherry Lake Cottage #4	CC4	NI
Cherry Tower Site*	CTS	NI
Early Intake & Tuolumne River Area		
Intake Radio Site	IRS	NI
Intake Switchyard	ISY	NI
Kirkwood Powerhouse	KPH	NI
Holm Powerhouse	HPH	NI
Duckwall Mountain		
Duckwall Mountain	DWM	NI

Stanislaus National Forest Sites		
		CEQA
Site		Impact
Jones Point		
Jones Point	JPT	NI
Burnout Ridge		
Burnout Ridge	BOR	NI
CEQA Impacts: N/A = Not applicable NI = No Impact LS = Less than Significant LSM = Less than Significant with Mitigation Incorporated PS = Potentially Significant		

Sites in Cherry Lake, Early Intake & Tuolumne River, Duckwall Mountain, and Burnout Ridge Areas

The proposed project upgrades would not result in increased demand for public services such that the construction of new facilities would be required. The Cherry Lake, Early Intake and Tuolumne River Area, Duckwall Mountain, and Burnout Ridge are within the service area of the US Forest Service Fire and Aviation Management and USFS law enforcement. None of the upgrades would require new public service facilities or increased staffing; result in the need for residential development; increased demand for fire and police protection; or additional demand for schools, parks, or other public services. The Proposed Action would provide the foundation system that could allow for improved radio communications in the future. No impacts to public services would occur.

Impact Determination (Sites in Cherry Lake, Early Intake and Tuolumne River, Duckwall Mountain, and Burnout Ridge areas)**:**

CEQA: No impact.

3.10.8 Hazards and Hazardous Materials

This section addresses potential impacts from hazards and hazardous materials in the Proposed Action area related to the Hetch Hetchy Communication System Upgrade project. The effects of the Proposed Action are analyzed using the City and County of San Francisco CEQA Checklist. This resource area is specific to the City and County of San Francisco CEQA checklist. Therefore project alternatives, cumulative impacts, and impairment are not analyzed in this section. Assumptions and information used to conduct this analysis are also described.

3.10.8.1 Affected Environment

The proposed project sites are located in rural areas and not located within one-quarter mile of an existing or proposed school. The closest school to Warnerville Switchyard is approximately 5 miles away in the City of Oakdale. The closest school to the Moccasin area is approximately 6.5 miles away in the town of Groveland. The Moccasin area, Stanislaus National Forest, and Yosemite National Park sites are not located within an airport land use plan. Warnerville Switchyard is located approximately one mile south of the Oakdale Municipal Airport.

The Department of Toxic Substances Control (DTSC) is required by under California Government Code Section 65962.5(a) to list: All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code; all land designated as hazardous waste property or border zone property pursuant to Article 11 (commencing with Section 25220) of Section 6.5 of Division 20 of the Health and Safety Code; all information received by the Department of Toxic Substances Control pursuant to Section 25242 of the Health and Safety Code on hazardous waste disposals on public land; all sites listed pursuant to Section 25356 of the Health and Safety Code; and all sites included in the Abandoned Site Assessment Program. None of the project sites have been listed as hazardous material sites compiled pursuant to Government Code Section 65962.5 (DTSC 2007).

Stanislaus National Forest and Yosemite National Park both have Fire Management Plans, which is required through the 2001 Federal Wildland Fire Management Policy, which states "complete, or update, Fire Management Plans for all areas with burnable vegetation" (NPS 2004b). The Fire Management Plan is required by Forest Service Manuals 5101, 5103, 5106, and 5108 for the US Forest Service and by Director's Order 18 for the National Park Service. These Fire Management Plans cover wildland management goals, options, and strategies.

3.10.8.2 CEQA Significance Criteria

The City and County of San Francisco has not formally adopted significance standards for impacts related to hazards and hazardous materials, but considers that implementation of the proposed project would have a significant impact if it were to:

- Create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit, hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, the project would result in a safety hazard for people residing or working in the project area;
- For a project within the vicinity of a private airstrip, the project would result in a safety hazard for people residing or working in a project area within two miles of a public airport;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- Expose people or structures to a significant risk of loss, injury or death involving fires.

3.10.8.3 Environmental Consequences

As further discussed under Section 3.10.8.1, there are no schools in close proximity to the project sites; the project sites are not listed as hazardous material sites; and the project would not interfere with an emergency response plan. Therefore, the project would not result in any impact, and the significance criteria addressing these topics are not discussed further in this section.

Oakdale Area		
		CEQA
Site		**Impact**
Warnerville Switchyard	WSY	LSM

Moccasin Area		
		CEQA
Site		**Impact**
Moccasin Peak	MPK	LSM
Moccasin Powerhouse	MPH	LSM
Moccasin Powerhouse Passive Reflector	MPR	LSM
CEQA Impacts: N/A = Not applicable NI = No Impact LS = Less than Significant LSM = Less than Significant with Mitigation Incorporated PS = Potentially Significant		

Oakdale and Moccasin Area Sites

Construction activities at the Oakdale and Moccasin sites would require the use of certain potentially hazardous materials such as fuels, oils, and solvents. These materials would generally be used for construction equipment and generators, and would be contained within vessels engineered for safe storage. Accidental spills during on-site fueling of equipment or an upset condition (e.g., puncture of a fuel tank through operator error), could result in a release of fuel or oils into the environment. Implementation of Best Management Practices for sediment and erosion control, required by the Regional Water Quality Control Board for construction activities greater than one acre, would reduce potential risks associated with hazardous materials release to less than significant. The proposed construction activities at the three new communication sites and staging areas of equipment and materials (the total disturbance area) would exceed an acre. Therefore, the SFPUC would be required to prepare and implement a Storm Water Pollution Prevention Plan that identifies Best Management Practices to prevent or reduce pollution into surface waters.

To reduce impacts to less than significant levels at all sites Mitigation Measures 1, 2, and 3 – Hazards and Hazardous Materials, shall be implemented. These mitigation measures include the implementation of a Health and Safety Plan to meet OSHA standards and other relevant regulations prior to the start of construction (Mitigation Measure 1 – Hazards and Hazardous Materials); the implementation of an Oil and Hazardous Materials Spill Prevention, Control, and Countermeasure Plan prior to the start of construction (Mitigation Measure 2 – Hazards and Hazardous Materials); and requiring construction contractors to maintain secondary containment on site for all fuel storage (Mitigation Measure 3 – Hazards and Hazardous Materials).

The Moccasin area sites are not located in the vicinity of any private or public airstrips. Safety hazards for people residing or working in the project area would not occur. Therefore, there would be no impact. Warnerville Switchyard is located approximately one mile from the Oakdale Municipal Airport. The proposed upgrade at this site involves the removal and installation of a communication tower. The new tower does not exceed the height of existing switchyard structures and would not be a safety hazard for Oakdale Municipal Airport and would not result in a safety hazard for people residing or working in the project area. Impacts would be less than significant.

In the long-term, the project sites would be used as part of the Hetch Hetchy communication system. Maintenance personnel would be the only people with access to the sites. Operations of these sites do not require the use of toxic or hazardous materials. Therefore, the impact would be less than significant.

Impact Determination (Oakdale and Moccasin Areas)**:**

CEQA: Less than significant with mitigation incorporated.

Yosemite National Park Sites		
		CEQA
Site		**Impact**
O'Shaughnessy		
O'Shaughnessy Dam Gallery	ODG	LSM
O'Shaughnessy Dam Diversion Tunnel	ODT	LSM
O'Shaughnessy Stream Gauge	OSG	LSM
O'Shaughnessy Water Quality Building	OWQ	LSM
O'Shaughnessy Chalet (Cottage 1)	OC1	LSM
O'Shaughnessy Watershed Keeper's Office (Cottage 4)	OC4	LSM
O'Shaughnessy Bunkhouse	OBH	LSM
O'Shaughnessy Water Tanks	OWT	LSM
Lake Eleanor		
Lake Eleanor Dam Level Gauge	EDS	LSM
Lake Eleanor-Cherry Lake Tunnel	ECT	LSM
Poopenaut Pass		
Poopenaut Pass	PPP	LSM
CEQA Impacts: N/A = Not applicable NI = No Impact LS = Less than Significant LSM = Less than Significant with Mitigation Incorporated PS = Potentially Significant		

O'Shaughnessy, Lake Eleanor and Poopenaut Pass Areas

Construction activities at the project sites in the O'Shaughnessy, Lake Eleanor, and Poopenaut Pass areas would require the use of certain potentially hazardous materials such as fuels, oils, and solvents. These materials would generally be used for construction equipment and generators, and would be contained within vessels engineered for safe storage. Accidental spills during on-site fueling of equipment or an upset condition (e.g., puncture of a fuel tank through operator error), could result in a release of fuel or oils into the environment. Implementation of Best Management Practices for sediment and erosion control, required by the Regional Water Quality Control Board for construction activities greater than one acre, would reduce potential risks associated with hazardous materials release to less than significant. The proposed construction activities at the three new communication sites and staging areas of equipment and materials (the total disturbance area) would exceed an acre. Therefore, the SFPUC would be required

to prepare and implement a Storm Water Pollution Prevention Plan that identifies Best Management Practices to prevent or reduce pollution into surface waters.

To reduce impacts to less than significant levels at these sites, Mitigation Measures 1, 2, 3 and 4 – Hazards and Hazardous Materials, shall be implemented. These mitigation measures include the implementation of a Health and Safety Plan to meet OSHA standards and other relevant regulations prior to the start of construction (Mitigation Measure 1 – Hazards and Hazardous Materials); the implementation of an Oil and Hazardous Materials Spill Prevention, Control, and Countermeasure Plan prior to the start of construction (Mitigation Measure 2 – Hazards and Hazardous Materials); requiring construction contractors to maintain secondary containment on site for all fuel storage (Mitigation Measure 3 – Hazards and Hazardous Materials); and requiring construction contractors to have on-site spill response materials at Poopenaut Pass (Mitigation Measure 4 – Hazards and Hazardous Materials).

In the long-term, the project sites would be used as part of the Hetch Hetchy communication system. Maintenance personnel would be the only people with access to the sites. Operations of the majority of the communication sites do not require the use of toxic or hazardous materials. Impacts would be less than significant.

The O'Shaughnessy, Lake Eleanor, and Poopenaut Pass areas are not located in the vicinity of any private or public airstrips. Safety hazards for people residing or working in the project area would not occur. Therefore, there would be no impact.

These project sites are located in remote, forested areas within Yosemite National Park. Human activities such as brush clearing, automobiles, and cigarettes often result in the ignition of wildland fires. The nature of use at the project sites is not likely to result in a wildland fire that would spread to surrounding areas. The proposed facilities would not involve use of fire or materials likely to result in combustion and therefore would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Implementation procedures established in the Fire Management Plan for Yosemite National Park would reduce fire related hazards to less than significant levels.

Impact Determination (O'Shaughnessy, Lake Eleanor, and Poopenaut Pass Areas)**:**

CEQA: Less than significant with mitigation incorporated.

Stanislaus National Forest Sites		
		CEQA
Site		**Impact**
Cherry Lake		
Cherry Valve House	CVH	LS
Cherry Pump Station	CPS	LS
Cherry Water Tanks	CWT	LS
Cherry Lake Garage and Warehouse	CGW	LS
Cherry Lake Camphouse	CCH	LS
Cherry Lake Cottage #1	CC1	LS
Cherry Lake Cottage #2	CC2	LS
Cherry Lake Cottage #3	CC3	LS
Cherry Lake Cottage #4	CC4	LS
Cherry Tower Site	CTS	LSM

Stanislaus National Forest Sites		
		CEQA
Site		Impact
Early Intake & Tuolumne River Area		
Intake Radio Site	IRS	LSM
Intake Switchyard	ISY	LS
Kirkwood Powerhouse	KPH	LS
Holm Powerhouse	HPH	LS
Duckwall Mountain		
Duckwall Mountain	DWM	LS
Jones Point		
Jones Point	JPT	LS
Burnout Ridge		
Burnout Ridge	BOR	LSM
CEQA Impacts: N/A = Not applicable NI = No Impact LS = Less than Significant LSM = Less than Significant with Mitigation Incorporated PS = Potentially Significant		

Sites in Cherry Lake, Early Intake & Tuolumne River, Duckwall Mountain, and Burnout Ridge Areas

Construction activities at the Cherry Lake, Early Intake & Tuolumne River, Duckwall Mountain, and Burnout Ridge areas would require the use of certain potentially hazardous materials such as fuels, oils, and solvents. These materials would generally be used for construction equipment and generators, and would be contained within vessels engineered for safe storage. Accidental spills during on-site fueling of equipment or an upset condition (e.g., puncture of a fuel tank through operator error), could result in a release of fuel or oils into the environment. Implementation of Best Management Practices for sediment and erosion control, required by the Regional Water Quality Control Bard for construction activities greater than one acre, would reduce potential risks associated with hazardous materials release to less than significant. The proposed construction activities at the three new communication sites and staging areas of equipment and materials (the total disturbance area) would exceed an acre. Therefore, the SFPUC would be required to prepare and implement a Storm Water Pollution Prevention Plan that identifies Best Management Practices to prevent or reduce pollution into surface waters.

To reduce impacts to less than significant levels at all sites, Mitigation Measures 1, 2, 3 and 4 – Hazards and Hazardous Materials, shall be implemented. These mitigation measures include the implementation of a Health and Safety Plan to meet OSHA standards and other relevant regulations prior to the start of construction (Mitigation Measure 1 – Hazards and Hazardous Materials); the implementation of an Oil and Hazardous Materials Spill Prevention, Control, and Countermeasure Plan prior to the start of construction (Mitigation Measure 2 – Hazards and Hazardous Materials); requiring construction contractors to maintain secondary containment on site for all fuel storage (Mitigation Measure 3 – Hazards and Hazardous Materials); and requiring construction contractors to have on-site spill response materials at Burnout Ridge, Intake Radio Site, and Cherry Tower Site (Mitigation Measure 4 – Hazards and Hazardous Materials).

In the long-term, the project sites would be used as part of the Hetch Hetchy communication system. Maintenance personnel would be the only people with access to the sites. Operations of the majority of

the communication sites do not require the use of toxic or hazardous materials. However, the transportation, usage, and storage of propane would occur at Burnout Ridge, and Intake Radio Site. Transportation and use of propane at these sites would only occur as necessary. Bollards would be placed in front of the propane tanks, which would serve to protect propane tank-related accidents at the site. Therefore, the impact would be less than significant.

These sites are not located in the vicinity of any private or public airstrips. Safety hazards for people residing or working in the project area would not occur. Therefore, there would be no impact. Impacts would be less than significant.

These project sites are located in remote, forested areas within Stanislaus National Forest. Human activities such as brush clearing, automobiles, and cigarettes often result in the ignition of wildland fires. The nature of use at the project sites is not likely to result in a wildland fire that would spread to surrounding areas. The proposed facilities would not involve the use of fire or materials likely to result in combustion and therefore would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

The Forest Plan, as amended, requires in its Forestwide Standards and Guidelines, Fire Prevention Management Practice 4-A that all contractors working on National Forest land during fire season will be required to submit a fire plan for the people and equipment under their authority (USDA 2005). The fire plan will be required to contain specific fire prevention requirements as determined by the US Forest Service. In addition, the implementation procedures established in the Fire Management Plan for Stanislaus National Forest would reduce fire related hazards to less than significant levels.

Impact Determination (Sites in Cherry Lake, Early Intake and Tuolumne River, Duckwall Mountain, and Burnout Ridge areas)**:**

CEQA: Less than significant with mitigation incorporated.

3.10.8.4 Mitigation Measures

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 OSHA standards and other relevant regulations are addressed. The Health and Safety Plan shall be submitted to the SFPUC, National Park Service, and the 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 hazardous materials storage, spill prevention and response. The Oil and Hazardous Materials Spill Prevention, Control, and Countermeasure Plan shall be submitted to the SFPUC, the National Park Service, and the 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 maintained at Burnout Ridge, Poopenaut Pass, Intake Radio Site, and Cherry Tower Site.

3.10.9 Mineral and Energy Resources

This section addresses potential impacts to mineral and energy resources in the Proposed Action area related to the Hetch Hetchy Communication System Upgrade project. The effects of the Proposed Action were analyzed using the City and County of San Francisco CEQA Checklist. This resource area is specific to the City and County of San Francisco CEQA checklist. Therefore project alternatives, cumulative impacts, and impairment are not analyzed in this section.

3.10.9.1 Affected Environment

Sand and gravel deposits at present constitute the only significant extractive resource in Stanislaus County (Stanislaus County 1994). The majority of these deposits are a result of stream deposition or dredge tailing and can be found Orestimba Creek and along the San Joaquin River (Stanislaus County 1994). The Warnerville Switchyard site is not located in the area identified as having these deposits.

The Tuolumne County General Plan has identified the following sites as having significant mineral deposits based on a study approved by the State Mining Geology Board pursuant to the State Mining and Reclamation Act of 1975: the southern half of the Bald Mountain/Browns Flat Gold Mining District, the Jamestown Mine property, and portions of the Rough and Ready Creek site (Tuolumne County 1996). The sites located in the Moccasin area, Stanislaus National Forest, and Yosemite National Park are not located in those areas identified as having significant mineral deposits.

Approximately 58% of the 11,800 mines in the Sierra Nevada are located on national forest lands; however most of the active mines are located outside of national forest lands (USDA 2004). There are no active mines in the vicinity of the project sites. With the exception of one mine in Inyo National Forest, mines located on national forest lands do not contribute significantly to regional or national outputs (USDA 2004).

3.10.9.2 CEQA Significance Criteria

The City and County of San Francisco has not formally adopted significance standards for impacts related to mineral resources, but considers that implementation of the proposed project would have a significant impact if it were to:

- Result in loss of availability of a known mineral resource that would be of value to the region and residents of the state;

- Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan; or
- Encourage activities which would result in the use of large amounts of fuel, water, or energy, or use of these in a wasteful manner.

3.10.9.3 Environmental Consequences

Oakdale Area		
		CEQA
Site		Impact
Warnerville Switchyard	WSY	NI

Moccasin Area		
		CEQA
Site		Impact
Moccasin Peak	MPK	NI
Moccasin Powerhouse	MPH	NI
Moccasin Powerhouse Passive Reflector	MPR	NI
CEQA Impacts: N/A = Not applicable NI = No Impact LS = Less than Significant LSM = Less than Significant with Mitigation Incorporated PS = Potentially Significant		

Oakdale and Moccasin Areas

Warnerville Switchyard and the Moccasin area sites are not located in the areas of known mineral resources. There are no operational mineral resource recovery sites in the project area whose operations or accessibility would be affected by the construction or operation of the proposed project upgrades, and would therefore have no impact.

The proposed communication upgrades at each of the sites are consistent with the existing uses and would not encourage activities that would result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner.

Impact Determination (Oakdale and Moccasin Areas)**:**

CEQA: No impact.

Yosemite National Park Sites		
		CEQA
Site		Impact
O'Shaughnessy		
O'Shaughnessy Dam Gallery	ODG	NI
O'Shaughnessy Dam Diversion Tunnel	ODT	NI
O'Shaughnessy Stream Gauge	OSG	NI
O'Shaughnessy Water Quality Building	OWQ	NI
O'Shaughnessy Chalet (Cottage 1)	OC1	NI
O'Shaughnessy Watershed Keeper's Office (Cottage 4)	OC4	NI
O'Shaughnessy Bunkhouse	OBH	NI
O'Shaughnessy Water Tanks	OWT	NI

Yosemite National Park Sites		
		CEQA
Site		Impact
Lake Eleanor		
Lake Eleanor Dam Level Gauge	EDS	NI
Lake Eleanor-Cherry Lake Tunnel	ECT	NI
Poopenaut Pass		
Poopenaut Pass	PPP	LS
CEQA Impacts: N/A = Not applicable NI = No Impact LS = Less than Significant LSM = Less than Significant with Mitigation Incorporated PS = Potentially Significant		

O'Shaughnessy, Lake Eleanor and Poopenaut Pass Areas

The O'Shaughnessy and Lake Eleanor areas and Poopenaut Pass site are not located in the areas of known mineral resources. There are no operational mineral resource recovery sites in the project area whose operations or accessibility would be affected by the construction or operation of the proposed project upgrades, and would therefore have no impact.

The proposed communication upgrades at each of the sites are consistent with the existing uses and would not encourage activities that would result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner. Poopenaut Pass would require electrical service from an existing distribution line pole located east of the project site along O'Shaughnessy Dam Road. However, the electricity required to serve the site would not be substantial; therefore, impacts would be less than significant.

Impact Determination (O'Shaughnessy and Lake Eleanor Areas)**:**

CEQA: No impact.

Impact Determination (Poopenaut Pass Site)**:**

CEQA: Less than significant.

Stanislaus National Forest Sites		
		CEQA
Site		Impact
Cherry Lake		
Cherry Valve House	CVH	NI
Cherry Pump Station	CPS	NI
Cherry Water Tanks	CWT	NI
Cherry Lake Garage and Warehouse	CGW	NI
Cherry Lake Camphouse	CCH	NI
Cherry Lake Cottage #1	CC1	NI
Cherry Lake Cottage #2	CC2	NI
Cherry Lake Cottage #3	CC3	NI
Cherry Lake Cottage #4	CC4	NI
Cherry Tower Site	CTS	LS

Stanislaus National Forest Sites		
		CEQA
Site		Impact
Early Intake & Tuolumne River Area		
Intake Radio Site	IRS	NI
Intake Switchyard	ISY	NI
Kirkwood Powerhouse	KPH	NI
Holm Powerhouse	HPH	NI
Duckwall Mountain		
Duckwall Mountain	DWM	NI
Jones Point		
Jones Point	JPT	NI
Burnout Ridge		
Burnout Ridge	BOR	LS
CEQA Impacts: N/A = Not applicable NI = No Impact LS = Less than Significant LSM = Less than Significant with Mitigation Incorporated PS = Potentially Significant		

Existing Sites in Cherry Lake, Early Intake & Tuolumne River, and Duckwall Mountain Areas

The Cherry Lake and Early Intake and Tuolumne River areas, and Duckwall Mountain sites are not located in the areas of known mineral resources. There are no operational mineral resource recovery sites in the project area whose operations or accessibility would be affected by the construction or operation of the proposed project upgrades, and would therefore have no impact.

Impact Determination (Cherry Lake, Early Intake & Tuolumne River, and Duckwall Mountain Areas)**:**

CEQA: No impact.

Burnout Ridge and Cherry Tower Site

The proposed communication upgrades at each of the sites are consistent with the existing uses and would not encourage activities that would result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner. Burnout Ridge and Cherry Tower Site would require electrical service from existing distribution line poles. However, the electricity required to serve these sites would not be substantial; therefore, impacts would be less than significant.

Impact Determination (Burnout Ridge and Cherry Tower Site)**:**

CEQA: Less than significant.

3.10.10 Agricultural Resources

This section addresses potential impacts to agricultural resources in the Proposed Action area related to the Hetch Hetchy Communication System Upgrade project. The effects of the Proposed Action were analyzed using the City and County of San Francisco CEQA Checklist. This resource area is specific to the City and County of San Francisco CEQA checklist. Therefore project alternatives, cumulative impacts, and impairment are not analyzed in this section.

3.10.10.1 Affected Environment

Stanislaus County has 376,033 acres of important farmland and mapped in 2004 (CDC 2004). Agriculture is an important industry in Stanislaus County and ranks as one of the top producers in the nation for milk, eggs, chickens, turkeys, almonds, walnuts, peaches, beans, silage and cherries (Stanislaus County 1994). Tuolumne County is not mapped as part of California Department of Conservation's Important Farmland in California, which identifies prime farmland, farmland of statewide importance, unique farmland, and farmland of local importance. Except for the Warnerville Switchyard and Moccasin area sites, the rest of the project sites fall within Stanislaus National Forest and Yosemite National Park.

Agriculture is the leading industry in Stanislaus County. The availability of flat land, irrigation water, low-cost power, and fertile soils contribute to the success of this industry (Stanislaus County 1994). The Warnerville Switchyard site is surrounded by agricultural uses to the west, north, and east. The site's General Plan designation is "Agriculture" and zoning designation is "General Agriculture District" (A-2). The Warnerville Switchyard, Moccasin Powerhouse, and Moccasin Powerhouse Reflector sites are not under Williamson act contracts. Moccasin Peak is located on non-prime agricultural land, however the site is already developed as part of the communication system.

3.10.10.2 CEQA Significance Criteria

The City and County of San Francisco has not formally adopted significance standards for impacts related to agricultural resources, but considers that implementation of the proposed project would have a significant impact if it were to:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural uses;
- Conflict with existing zoning for agricultural use, or a Williamson Act contract; or
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland of Statewide Importance, to non-agricultural use.

3.10.10.3 Environmental Consequences

Oakdale Area		
		CEQA
Site		**Impact**
Warnerville Switchyard	WSY	NI

Moccasin Area		
		CEQA
Site		**Impact**
Moccasin Peak	MPK	NI
Moccasin Powerhouse	MPH	NI
Moccasin Powerhouse Passive Reflector	MPR	NI
CEQA Impacts: N/A = Not applicable NI = No Impact LS = Less than Significant LSM = Less than Significant with Mitigation Incorporated PS = Potentially Significant		

Oakdale and Moccasin Area Sites

Warnerville Switchyard and the Moccasin area sites are developed and in use as communication facilities. The proposed upgrades would not result in the conversion of farmlands of importance or conflict with Williamson Act contracts. No impacts to agricultural resources would occur.

The proposed upgrades at the sites would not result in the conversion of prime farmland, unique farmland, or farmland of statewide importance. The upgrades involve the removal and/or installation of new communication towers within the developed site boundaries, which would not result the conversion of any agricultural lands. There would be no impact.

Impact Determination (Oakdale and Moccasin Areas)**:**

CEQA: No impact.

Yosemite National Park Sites		
		CEQA
Site		**Impact**
O'Shaughnessy		
O'Shaughnessy Dam Gallery	ODG	NI
O'Shaughnessy Dam Diversion Tunnel	ODT	NI
O'Shaughnessy Stream Gauge	OSG	NI
O'Shaughnessy Water Quality Building	OWQ	NI
O'Shaughnessy Chalet (Cottage 1)	OC1	NI
O'Shaughnessy Watershed Keeper's Office (Cottage 4)	OC4	NI
O'Shaughnessy Bunkhouse	OBH	NI
O'Shaughnessy Water Tanks	OWT	NI
Lake Eleanor		
Lake Eleanor Dam Level Gauge	EDS	NI
Lake Eleanor-Cherry Lake Tunnel	ECT	NI
Poopenaut Pass		
Poopenaut Pass	PPP	NI
CEQA Impacts: N/A = Not applicable NI = No Impact LS = Less than Significant LSM = Less than Significant with Mitigation Incorporated PS = Potentially Significant		

O'Shaughnessy, Lake Eleanor, and Poopenaut Pass Areas

Yosemite National Park does not have land used for agricultural purposes and has not been mapped for Important Farmlands by the California Department of Conservation. There are no Williamson Act contracts at the project sites and the proposed upgrades would not result in the conversion of important farmland to non-agricultural use. The proposed upgrades, with the exception of Poopenaut Pass site, are located within or on existing structures and are already developed and in use as part of the communication system. The Poopenaut Pass site is not located on agricultural land. No impacts to farmland as a result of the proposed project upgrades would occur.

Impact Determination (O'Shaughnessy, Lake Eleanor, and Poopenaut Pass Areas)**:**

CEQA: No impact.

Stanislaus National Forest Sites		
		CEQA
Site		Impact
Cherry Lake		
Cherry Valve House	CVH	NI
Cherry Pump Station	CPS	NI
Cherry Water Tanks	CWT	NI
Cherry Lake Garage and Warehouse	CGW	NI
Cherry Lake Camphouse	CCH	NI
Cherry Lake Cottage #1	CC1	NI
Cherry Lake Cottage #2	CC2	NI
Cherry Lake Cottage #3	CC3	NI
Cherry Lake Cottage #4	CC4	NI
Cherry Tower Site	CTS	NI
Early Intake & Tuolumne River Area		
Intake Radio Site	IRS	NI
Intake Switchyard	ISY	NI
Kirkwood Powerhouse	KPH	NI
Holm Powerhouse	HPH	NI
Duckwall Mountain		
Duckwall Mountain	DWM	NI
Jones Point		
Jones Point	JPT	NI
Burnout Ridge		
Burnout Ridge	BOR	NI
CEQA Impacts: N/A = Not applicable NI = No Impact LS = Less than Significant LSM = Less than Significant with Mitigation Incorporated PS = Potentially Significant		

Cherry Lake, Early Intake & Tuolumne River, Duckwall Mountain, Jones Point, and Burnout Ridge Areas

Stanislaus National Forest does not have land used for agricultural purposes and has not been mapped for Important Farmlands. There are no Williamson Act contracts at the project sites and the proposed upgrades would not result in the conversion of important farmland to non-agricultural use. The proposed upgrades, with the exception of Burnout Ridge and Cherry Tower Site, are located within or on existing structures. Burnout Ridge and Cherry Tower Site are new sites but are not located on agricultural land. No impacts to farmland as a result of the proposed project upgrades would occur.

The proposed upgrades at the sites would not result in the conversion of prime farmland, unique farmland, or farmland of statewide importance. The upgrades involve the removal and/or installation of new communication towers within the developed site boundaries, which would not result the conversion of any agricultural lands. There would be no impact.

Impact Determination (Cherry Lake, Early Intake and Tuolumne River, Duckwall Mountain, and Burnout Ridge areas)**:**

CEQA: No impact.

3.11 MANDATORY FINDINGS OF SIGNIFICANCE

The following discussions are provided to satisfy the CEQA requirements for Mandatory Findings of Significance.

1. *Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare of endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

   The Proposed Action may have the potential to degrade the quality of the environment by generating effects to geology. The granite outcrop layers at the Poopenaut Pass site were observed to be spalling and lifting, which may be unstable. Implementation of Mitigation Measures 1 and 2 – Geology, would reduce impacts to less than significant levels such that the tower and communication foundations would be stable. The artificial fill mixture at the Cherry Tower site could potentially settle unevenly. Implementation of Mitigation Measure 3 – Geology, would reduce impacts to less than significant levels such that the foundation of the shelter would reach firm rock.

   The Proposed Action may have the potential to degrade the quality of the environment by generating effects to hydrology and exposure to hazardous materials. Construction activities at the new sites involve use of equipment that may use hazardous materials. This could result in unexpected spills and construction-related non-point source water quality effects. Implementation of Mitigation Measure 1 – Hydrology, would reduce impacts to less than significant levels requires the preparation of an Oil and Hazardous Materials Spill Prevention, Control, and Countermeasure Plan. The new sites would alter the drainage pattern of the area and the gravel at these sites could be potentially transported off-site during storm events. Implementation of Mitigation Measure 2 – Hydrology, would reduce impacts to less than significant levels by requiring the preparation of a drainage plan. Implementation of Mitigation Measure 3 – Hydrology, would require Best Management Practices to reduce construction-related erosion. Implementation of Mitigation Measures 1, 2, 3 and 4 – Hazards and Hazardous Materials, would also reduce impacts to less than significant levels. These mitigation measures would require the preparation of a health and safety plan, require the contractors to maintain secondary containment and have spill response materials on site.

   The Proposed Action may have the potential to create a substantial temporary increase in noise levels from construction activity. Implementation of Mitigation Measures 1 and 2 – Noise, would reduce impacts to less than significant levels by requiring all construction equipment to be properly maintained and equipped with noise controls in accordance with manufacturers' specifications and limiting all construction activities to the hours of 7:00 a.m. to 7:00 p.m. Monday through Saturday.

Buried archeological resources that have not been documented may be present in the vicinity of the project sites. Implementation of Mitigation Measure 1 – Archeological Resources, would reduce this impact to less than significant levels in the event archeological resources are discovered during ground disturbance activities. In addition, implementation of Mitigation Measure 1 – Traditional Cultural Places, would reduce impacts to less than significant levels in the event American Indian human burials and skeletal remains are discovered.

The Proposed Action may have the potential to introduce and spread noxious weeds from construction activities. Implementation of Mitigation Measure 1 – Vegetation, would reduce impacts to less than significant levels by requiring the SFPUC to 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.

The Proposed Action may impact special-status plant species *Mimulus filicaulis* that occurs in the Poopenaut Pass project site. Implementation of Mitigation Measure 2 – Rare, Threatened and Endangered Vegetation: Protect Known Occurrences of Special-status Plant Species, would reduce potential effects to a less than significant level. Construction or access-related activities may impact Spotted Owl and Northern Goshawk Nest sites. Implementation of Mitigation Measure 3 – Rare, Threatened and Endangered Wildlife - Protect Active Spotted Owl and Northern Goshawk Nest Sites, would reduce potential effects to less than significant levels.

The Proposed Action may have the potential to degrade the quality of the environment, and affect existing land use. The Poopenaut Pass site is located in close proximity to the Wilderness Boundary. Construction activities may impact this sensitive area. Implementation of Mitigation Measure 1 – Land Use, would reduce impacts to less than significant levels by limiting the construction staging area and clearly marking the wilderness boundary to prevent construction activities from entering the wilderness area.

The Proposed Action may have the potential to degrade the quality of the environment by generating effects to visitor experience and recreation. Construction activities at the new sites could have a short-term impact to the visitor experience due to the presence of construction equipment and noise, which may decrease the visitor experience in the immediate vicinity. Implementation of Mitigation Measure 1 – Visitor Experience and Recreation, would reduce impacts to less than significant levels by informing visitors, park, and forest employees of the construction schedule of the new sites in the vicinity. The Proposed Action may have the potential to degrade the quality of the environment by generating effects to transportation. Construction activities at Poopenaut Pass and Cherry Tower Site could temporarily alter traffic flow and safety in the immediate vicinity. Implementation of Mitigation Measure 1 – Transportation, would address pedestrian and vehicle routing around construction areas and reduce potential impacts to less than significant levels.

2. *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

The cumulative projects discussed in this analysis include past actions, present actions, and reasonably foreseeable future projects in the vicinity of the proposed project. Appendix A describes each of these projects included in the cumulative impacts analysis. The cumulative project list includes projects within Yosemite National Park, Stanislaus National Forest and other projects within the vicinity of the proposed project sites that could overlap with the project area.

The proposed project would have no cumulative impacts in the following resource areas: Population and Housing, Utilities and Service Systems, Public Services, Mineral and Energy Resources and Agricultural Resources.

Geologic Resources – The proposed project effects to geologic resources would be temporary, occurring during project construction, and less than significant with incorporation of mitigation measures. Cumulative impacts could occur from construction and ground disturbance activities associated with reasonably foreseeable future projects such as the Hetch Hetchy Repair and Rehabilitation Program, Parkwide Communications Data Network, Utilities Master Plan/East Yosemite Valley Utilities Improvement Plan, Tunnel View Overlook Rehabilitation, Multi-Use Trail to West Yosemite Valley, Environmental Education Campus Project, and Parkwide Invasive Plant Management Plan. Generally, geologic and seismic impacts are site specific and depend on local geologic and soil conditions. Additionally, future projects within the project area would be subject to erosion control practices, implementation of BMPs and project-specific mitigation measures, and adhere to management practices to reduce the potential for cumulative impacts. With site specific mitigation, the proposed project's contribution to any localized cumulative impacts related to geology and soils would not be cumulatively considerable.

Air Quality – The proposed project effects to air quality would be less than significant. Cumulative air quality impacts are anticipated to be short-term, and temporary, related to project-generated emissions of criteria air pollutants and precursors from heavy-duty diesel equipment, material transport, and ground disturbance that could occur as a result of construction activities associated with future projects in the area, including the Hetch Hetchy Repair and Rehabilitation Program, Parkwide Communications Data Network, Utilities Master Plan/East Yosemite Valley Utilities Improvement Plan, Tunnel View Overlook Rehabilitation, Multi-Use Trail to West Yosemite Valley, Environmental Education Campus Project, and Groveland Roadside Hazard Trees. Similar to the proposed project, foreseeable future projects within the project area would be required to implement project-specific mitigation measures, follow standard dust control measures, and comply with applicable air quality regulations. The proposed project would implement standard dust control measures and would not exceed the SJVAPDC's significance thresholds. Operation of the proposed project would not result in any new major stationary

emission sources. Therefore, the proposed project is not expected to contribute considerably to potential cumulative air quality impacts.

Hydrology – The proposed project effects related to hydrology would be less than significant with incorporation of mitigation measures. Anticipated cumulative impacts from future projects could include short-term impacts and beneficial effects. The Tuolumne Wild and Scenic River Comprehensive Management Plan under development by National Park Service, and the Management Plan under the US Forest Service would be expected to have a beneficial effect by protecting river-related natural resources through the application of management elements. Short-term impacts could occur from construction activities and ground disturbance activities associated with the Hetch Hetchy Repair and Rehabilitation Program, Parkwide Communications Data Network, Utilities Master Plan/East Yosemite Valley Utilities Improvement Plan, Tunnel View Overlook Rehabilitation, Multi-Use Trail to West Yosemite Valley, Environmental Education Campus Project, and Parkwide Invasive Plant Management Plan. Similar to the proposed project, future projects within the project area would be subject to erosion control practices, implementation of BMPs and mitigation measures, and adhere to management practices to reduce potential impacts. The proposed project effects would be contained within the project sites and would not result in adverse impacts to water quality and hydrology effects related to construction-related discharges of treated water or groundwater produced during dewatering, or operational discharges of treated water and therefore would not be expected to contribute considerably to potential cumulative hydrology effects.

Biological Resources - Cumulative effects on biological resources are based on analysis of reasonably foreseeable future projects in the project area, which includes areas that encompass HHW&P facilities as well as those within Yosemite National Park and Stanislaus National Forest. Vegetation at the project sites has been affected by development and maintenance of HHW&P facilities, past logging activities in the area, catastrophic fires, and visitor activities. Future projects are anticipated to have temporary impacts and beneficial effects. Beneficial effects on biological resources include vegetation management, restoration and rehabilitation associated with the Hetch Hetchy Repair and Rehabilitation Program, Tuolumne Wild and Scenic River Comprehensive Management Plan, and the Parkwide Invasive Plant Management Plan, while adverse effects could be related to increased development associated with the Utilities Master Plan/East Yosemite Valley Utilities Improvement Plan, Multi-Use Trail to West Yosemite Valley, and Environmental Education Campus Project. Future projects within the project area would be subject to USFS Management Practices (for USFS sites), a Vegetation Management Plan (for National Park Service sites), implementation of BMPs, and project-specific mitigation measures that would be anticipated to minimize ground disturbance, clearing of vegetation, and spread of noxious weeds. Implementation of the proposed project with incorporation of mitigation measures would be less than significant, and the proposed project is not expected to substantially contribute to changes in habitat structure (e.g., forest canopy closure, tree size distribution) or composition, or affect the viability of common wildlife species in the area. Therefore, the proposed project is not expected to contribute considerably to potential cumulative biological resources impacts.

Noise - The proposed project effects related to noise would be temporary occurring during project construction, and less than significant with incorporation of mitigation measures. Cumulative noise impacts associated with future projects in the project area, including the Hetch Hetchy Repair and Rehabilitation Program, Parkwide Communications Data Network, Utilities Master Plan/East Yosemite Valley Utilities Improvement Plan, Tunnel View Overlook Rehabilitation, Multi-Use Trail to West Yosemite Valley, Environmental Education Campus Project, and Groveland Roadside Hazard Trees, are anticipated to be temporary and generated during construction activities. After construction, the proposed project would not generate any new substantial noise sources. Therefore, the operation of the proposed project would not have a cumulatively considerable impact on noise. Potential cumulative impacts could occur if other cumulative projects generated truck traffic and used the same access routes at the same time as construction of the proposed projects. However, because the construction phases of the projects would be short-term and temporary and the projects would be required to implement noise mitigation measures, the proposed project is not expected to contribute considerably to potential cumulative noise impacts.

Cultural Resources - The proposed project effects to cultural resources would be less than significant with incorporation of mitigation measures. Potential cumulative impacts and accidental discoveries could occur from construction and ground disturbance activities associated with future projects, including the Hetch Hetchy Repair and Rehabilitation Program, Parkwide Communications Data Network, Utilities Master Plan/East Yosemite Valley Utilities Improvement Plan, Tunnel View Overlook Rehabilitation, Multi-Use Trail to West Yosemite Valley, Environmental Education Campus Project, and Parkwide Invasive Plant Management Plan Future projects could potentially impact cultural resources, but such effects are anticipated to be mitigated to less than significant by implementing the 1999 Programmatic Agreement (National Park Service) or compliance with Cultural Resources Management Practices in the Forest Plan, as amended (USFS). The proposed project would not alter the significance of historic architectural resources and project impacts on archaeological and paleontological resources would be site specific and mitigated to less than significant. Therefore, the proposed project is not expected to contribute considerably to potential cumulative impacts related to cultural resources.

Land Use - The proposed project would not introduce incompatible land uses to the project area. The project would amend the Forest Plan, such that Burnout Ridge could be developed with the approval of a special use permit. Future projects that would result in land use changes have not been proposed in the project area. The project does not involve construction of new structures nor any substantial changes in land use, and therefore the land use effects of the proposed project would be incremental and would not be considered cumulatively considerable.

Visual/Scenic Resources – The proposed project effects to visual/scenic resources would be less than significant with incorporation of project-specific mitigation measures. Impacts to visual/scenic resources could occur from construction and ground disturbance activities and the construction of new facilities associated with future projects in the area, including the Hetch Hetchy Repair and Rehabilitation Program, Parkwide Communications Data Network, Utilities

Master Plan/East Yosemite Valley Utilities Improvement Plan, Tunnel View Overlook Rehabilitation, Multi-Use Trail to West Yosemite Valley, Environmental Education Campus Project, and Parkwide Invasive Plant Management Plan. The Tunnel View Overlook Rehabilitation would be expected to have a beneficial impact on visual/scenic resources by enhancing and maintaining viewing opportunities for visitors. Other reasonably foreseeable future projects and plans proposed within the project area would be subject to evaluation of potential impacts to visual and scenic resources and, where appropriate, implement BMPs, and mitigation measures. As the proposed project would result in an incremental change in the visual environment, it is not expected to contribute considerably to potential cumulative impacts related to visual/scenic resources.

Recreation – The proposed project effects to recreation would occur during construction at some of the project sites, and would be less than significant with incorporation of mitigation. Additionally, with an upgraded communication system, HHW&P, the USFS, and the NPS would have the foundation system to allow for future possibilities of improving the communication system, which could have a beneficial effect to recreation users. Anticipated cumulative impacts from future projects could include adverse and beneficial effects. The proposed Multi-Use Trail to West Yosemite Valley would be expected to have a beneficial impact on recreation by providing an accessible trail to destinations in the west Valley; however, short-term, temporary impacts related to access to recreation could occur from construction activities associated with the Tunnel View Overlook Rehabilitation, and Hetch Hetchy Repair and Rehabilitation Program. However, future projects within the project area would be subject to mitigation measures, and adhere to management practices to reduce potential impacts to recreation. As the proposed project impacts on recreation would be temporary and could benefit recreation users by constructing the foundation to allow for future improvements to the communication system, the project would not contribute considerably to potential cumulative recreation effects.

Transportation - The proposed project effects related to transportation, which are limited to short-term (construction-related) impacts, would be less than significant with incorporation of mitigation measures. Cumulative transportation impacts related to access and parking could occur as a result of construction activities associated with future projects, including the Hetch Hetchy Repair and Rehabilitation Program, Parkwide Communications Data Network, Utilities Master Plan/East Yosemite Valley Utilities Improvement Plan, Tunnel View Overlook Rehabilitation, Multi-Use Trail to West Yosemite Valley, Environmental Education Campus Project, and Groveland Roadside Hazard Trees. Similar to the proposed project, construction vehicles and associated equipment for future projects would be subject to control practices and mitigation measures to reduce potential effects. Even if the construction phase of future projects overlaps with that of the proposed project, because the project-generated traffic would be minimal and would not result in any long-term increases in traffic or parking demand, the project would not be expected to contribute considerably to potential cumulative transportation impacts.

3. *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

The Proposed Action would result in temporary, indirect effects on human beings associated with construction activities (i.e., noise, air quality). However, with the implementation of proposed mitigation measures identified in Section 4.0, impacts would be reduced to a less than significant level.

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