Appendix A

Resource Protection Measures

RESOURCE PROTECTION MEASURES

The following resource protection measures are standard practices that would be implemented during construction in the project area, as applicable.

BIOLOGICAL RESOURCES

BIO-1: Nesting Bird and Roosting Bat Habitat Removal

- Vegetation removal activities, including removal of riparian vegetation, removal of conifers, and topping/limbing of conifers, would be completed the year prior to commencement of construction activities between September 15 and November 15 (i.e., outside of the nesting bird season, bat maternity season, and bat hibernation season).
- Removal of bald eagle nests is prohibited regardless of the occupancy status under the federal Bald and Golden Eagle Protection Act. If a bald eagle nest is present in a tree planned for removal, then the nest and tree will not be removed.
- Removal of swallow nests under the bridge over Meeks Creek will be completed the year prior to commencement of construction activities between August 31st and January 31st (i.e., outside of the nesting bird season).
- Demolition of buildings in the project area would be completed between September 15th and November 15th (i.e., outside of the bat maternity season and bat hibernation season), if feasible.

BIO-2: Special-Status Plant Species (Not Including Tahoe Yellow Cress)

- Before the onset of construction activities, a qualified botanist designated or approved by the LTBMU botanist will conduct a complete floristic survey (i.e., all plant species present will be identified to the taxonomic level necessary to determine if they are a special-status species) of construction activity areas (including all vehicle travel routes), and suitable habitat within 0.25 mile of construction activity areas. The floristic survey will be conducted during a time that coincides with the blooming periods for target species (special-status species that have potential to occur in the project area). This survey will be conducted no more than two years prior to the start of construction and no later than the blooming period preceding construction.
- If special-status plants are found in the survey area, and these special-status plants can be avoided, the following measures will be implemented:
  - Exclusion zones will be established around areas occupied by special-status plants. The size of the exclusion zones will be determined based on: (a) plant phenology at time of construction; (b) rareness and imperilment of species; (c) vulnerability to the construction activity and immediate indirect effects; and (d) environmental conditions and terrain. Prior to project implementation, the LTBMU Botanist will review all information, including any new information, and develop buffers that will reduce effects to FSS plants. Special-status plant exclusion zones shall be flagged or fenced for avoidance, at the direction of the qualified botanist, no more than 30 days prior to the start of construction. Flagging and fencing shall be refreshed and maintained throughout construction.
  - The project implementer, in consultation with the qualified botanist, and/or the LTBMU shall first attempt to avoid effects of project implementation on special-status plants and protect their occurrences in the project area. If a special-status plant occurrence cannot be avoided by construction activities, the project implementer shall coordinate with the responsible agency (i.e., LTBMU, TRPA, or CDFW) to establish appropriate protection measures.
  - Relocation of special-status plants would only be attempted in cases where relocation has a high probability of success, and it would not be possible to implement the project without harming special-status plants. If

sacrifice seed collection (annual species) or transplantation/translocation (perennial angiosperms and bryophytes) are selected as appropriate mitigations, then the following measures would apply: a) a qualified biologist designated or approved by the responsible agency (e.g., LTBMU, TRPA) will collect mature seeds of annual species, live plants or underground buds (e.g., bulbs, rhizomes, corms) from perennial angiosperms and bryophytes store them at an appropriate native plant nursery or comparable facility; b) upon the completion of work, the qualified biologist will redistribute the salvaged plants, seeds, or propagules within the original location of the population or nearest onsite suitable habitat for the species; c) the project implementer shall establish agency-approved performance standards for survivorship and will monitor and document the success rate of the transplanted individuals for three consecutive growing seasons; d) if performance standards are not met, as determined by the responsible agency, corrective measures shall be implemented and monitoring and adaptive management continued until success criteria are met.

- If special-status plants are found in the survey area and project activities would result in removal or mortality of a small number of individuals of a special-status plant population but would not result in loss of an entire special-status plant occurrence, would not reduce the number of plants in the occurrence below self-sustaining numbers, and would not remove or permanently adversely alter occupied habitat, then mitigation, such as plant salvage and relocation efforts, would not be necessary. The decision about whether plant salvage and replanting or relocation will be required will be made in consultation with the responsible agency (e.g., LTBMU or TRPA).
- Ground disturbance and vegetation and tree removal shall be minimized to only the areas necessary for construction.
- Construction or tree removal work within the exclusion zone of a special-status plant occurrence will be monitored by a qualified environmental monitor designated or approved by the responsible agency (LTBMU, TRPA, or CDFW) to ensure protective measures are sufficient.
- LTBMU will coordinate with other responsible agencies (e.g., TRPA), as appropriate, to determine an appropriate seed mix and application rate or tree-planting plan. The plan shall include approved seed mixes and soil amendments, application rates, and application methods. The plan shall also include long-term erosion and sediment control measures, slope stabilization, and monitoring procedures.
- To facilitate revegetation in temporarily disturbed areas, topsoil and/or sod, where present, shall be salvaged in areas to be graded or excavated. Surface preparations (e.g., soil loosening, scarification) necessary for reestablishment of selected plant species and appropriate to the type of vegetation establishment being used (e.g., seeding, sodding, planting) will be included in the final restoration design. Topsoil shall be segregated, stockpiled separately from subsoil, and covered. The topsoil shall then be replaced to the approximate location of its removal after project construction has been completed to facilitate revegetation of temporarily disturbed areas. Topsoil may also be salvaged from where permanent facilities are planned or where operation and maintenance activities preclude the establishment of vegetation and used to assist in revegetation of adjacent areas.
- To the maximum extent possible, existing roads shall be used to access the project area and construction areas. Temporary access routes and overland travel routes must be approved by LTBMU.

BIO-3: Tahoe Yellow Cress. A qualified biologist designated or approved by the LTBMU botanist (FSH 2609.26 sec 11) shall conduct a focused preconstruction survey for Tahoe yellow cress (TYC) in all beach habitat within 0.25 mile of where construction-related disturbance could occur in the vicinity of TYC occurrences during that year. Surveys shall be conducted between June 15 and September 30, when TYC is clearly identifiable, and shall follow *Survey Protocols for Tahoe Yellow Cress Annual Surveys* (Stanton and Pavlik 2009). Surveys shall be completed for each year that construction activities could occur in beach habitat. If construction is scheduled to begin prior to June 15 in a given year, surveys for TYC shall be completed between June 15 and September 30 of the previous year. If no TYC stems are found during the survey, the results of the survey shall be documented in a letter report to LTBMU that shall become part of the project environmental record, and no further actions shall be required.

a) If TYC stems are located in areas that may be disturbed by construction activities, the stems shall be clearly marked for avoidance in the field and protected from impacts associated with construction activities. Protective measures shall include installing high-visibility fencing around known stem locations during construction. No construction-related activities shall be allowed in areas fenced for avoidance, and construction personnel shall be briefed about the presence of the stems and the need to avoid effects on the stems.

b) If restoration actions such as the removal of sheet pile at the mouth of Meeks Creek and restoration of the barrier beach requires work in occupied TYC habitat and full avoidance of all plants is not feasible, LTBMU will identify a mitigation area in a suitable location at Meeks Bay, excavate and translocate potentially affected stems, plant additional nursery-grown TYC plants, and monitor and adaptively manage the mitigation area, as described below. If TYC mortality occurs from project construction, or from death of translocated stems, propagation and outplanting would be completed at a 3:1 ratio. Translocation, seed collection, storage, propagation, and outplanting of TYC shall follow the best management practices presented in the conservation strategy for TYC (Stanton and AMWG 2015).

   All translocated or outplanted plants will be marked and/or mapped to facilitate monitoring. Transplanting or outplanting will be followed by active monitoring and adaptive management for the remainder of the growing season in which planting occurs, and the following two growing seasons. Monitoring and adaptive management will include the following actions:

   > Surveys will be conducted between June 15 and September 30 following Stanton and Pavlik 2009. If the number of stems in the restoration area is less than the number recorded in the growing season prior to implementation, and the reduced number cannot be explained by annual fluctuations in lake levels, then LTBMU will conduct additional outplanting of container-grown TYC plants to replace TYC mortality at a 3:1 ratio to maintain a minimum number of stems in the restoration area as were present before project implementation. If lake levels are higher than normal and the restoration area is inundated such the TYC cannot establish, monitoring may be rescheduled to occur in years with normal lake levels.

   Monitoring activities may include an annual site survey or participation in the lake-wide AMWG survey. LTBMU may enlist monitoring and adaptive management support from the TYC AMWG to facilitate success.

   To protect TYC plants from potential long-term increased beach use and disturbance as an indirect result of potential increased recreation activity in the shorezone, protective fencing, or natural barriers to discourage access (e.g., dense vegetation, logs) and/or educational signage about the need to avoid these areas will be installed around occurrences of TYC that may be subject to adverse effects from recreational activities. Protective barriers and signage would be managed adaptively based on the results of annual AMWG monitoring results to ensure their function and placement meet their objectives. These features would be designed not to interfere with necessary operations and maintenance activities at facilities.

BIO-4: Roosting Bat Survey and Avoidance of Communal Roosts

- Pursuant to the "Nesting Bird and Roosting Bat Habitat Removal" RPM, described above, vegetation in the project area would be removed the year prior to commencement of construction activities and between September 15th and November 15th, which would avoid the bat maternity season. Additionally, demolition of buildings in the project area would be completed between September 15th and November 15th (i.e., outside of the bat maternity season and bat hibernation season), if feasible.
- If buildings would be demolished during the bat maternity season (i.e., May 1 through September 15) or the bat hibernation season (i.e., November 15 through March 15), a roosting bat survey for any buildings that may require removal will be conducted prior to removal, to determine the presence of, or potential for, communal bat roosting. Factors used to rate the potential for a feature to support communal bat roosts may include, depending on the type of feature: 1) presence, orientation, and thermal properties of cavities, cracks, and crevices and 2) visible or audible sign of bat use (e.g., presence of guano, urine staining, odors, or sounds).
- Where buildings are not expected to support communal bat roosts (e.g., where sign of bat use is absent or the feature is otherwise determined low-quality for roosting), removal activities may proceed, including during the

bat maternity and hibernation seasons (May 1 through September 15 and November 15 through March 15, respectively).

- Any buildings with confirmed or suspected use by communal roosting bats will be retained and avoided by a buffer of at least 250 feet during the bat maternity and hibernation seasons, as determined by a qualified biologist. If needed to determine likelihood of use by communal roosting bats, buildings determined by the project wildlife biologist to have high potential to support communal bat roosts may receive a follow-up, pre-project dusk or dawn emergence survey to identify any active use by bats. Project activities may not occur within the buffer during the bat maternity and hibernation seasons. If a building confirmed or suspected to support a communal bat roost must be removed, removal will occur outside the bat maternity and hibernation seasons.

BIO-5: Southern Long-toed Salamander Survey and Protection Measures

- Immediately prior to project activities within Meeks Creek and in upland areas within approximately 100 feet of Meeks Creek, a qualified biologist familiar with the life cycle of southern long-toed salamander will conduct a preconstruction survey for southern long-toed salamanders in the disturbance area. Surveys will consist of visual inspections of Meeks Creek, and "walk and turn" surveys of areas beneath surface objects (e.g., rocks, leaf litter, moss mats, coarse woody debris) for salamanders. The preconstruction survey will be conducted within the appropriate season to maximize potential for observation of the species, and appropriate surveys will be conducted for the applicable life stages (i.e., eggs, larvae, adults).
- If southern long-toed salamanders are not detected during the preconstruction survey, the qualified biologist will submit a report summarizing the results of the survey to LTBMU, and further mitigation will not be required.
- If southern long-toed salamanders are detected during the preconstruction survey, LTBMU shall relocate individual animals (see BIO-6 RPM below), and apply other measures as necessary to ensure that no injury to or mortality of salamanders would occur.

BIO-6: To minimize the stranding of fish and aquatic biota, The project would retain a qualified biologist(s) to oversee rescue and relocate fish, and other important native aquatic species (e.g., Sierra Nevada yellow-legged frog, southern long-toed salamander) when flows are diverted from in-channel construction sites. Organisms would be removed from these sites and transported and released into suitable sites (i.e., Lake Tahoe or sites on Meeks Creek upstream of the affected area). All equipment used for dewatering and aquatic species rescue would be properly decontaminated to kill or remove all potential invasive aquatic species (e.g., Eurasian watermilfoil). All pump intakes would be screened to limit entrainment of fish, other important native aquatic species, and aquatic weeds. All activities would occur in compliance with TRPA's Lake Tahoe Region Aquatic Invasive Species Management Plan.

BIO-7: Pollinator Habitat Restoration Measures. As part of restoration of Meeks Creek, LTBMU will incorporate additional restoration measures to specifically benefit bumble bees, monarch butterflies, and other pollinators as described in Conserving Bumble Bees Guidelines for Creating and Managing Habitat for America's Declining Pollinators or other applicable source (Xerces 2012). These measures may include but not be limited to:

- Plant native plants with a variety of flower shapes, flower colors, and bloom periods with an emphasis on known floral resources of western bumble bees and monarch butterflies.
- Retain snags and downed woody debris in the restoration footprint.

BIO-8: When water drafting or pumping diversions is needed for project implementation activities, ensure water levels at drafting locations would be maintained to support the needs of aquatic dependent species and associated habitat, unless action requires dewatering. Such activities would use guidance described in Best Management Practice (BMP) 2.5 (Regional BMP guidance, USDA 2011) to protect water quality and aquatic species.

BIO-9: Field gear (waders, float tubes, etc.) would be cleaned, decontaminated, and/or fully dried prior to entering or moving between aquatic habitats per the Batrachochytrium dendrobatidis (Bd) Disinfection Protocol (LTBMU 2022a).

BIO-10: Any electrofishing conducted by USFS, contractors, or partner agencies in Lahontan cutthroat trout occupied or potential habitat would follow Guidelines for Electrofishing Waters Containing Salmonids Listed under the

Endangered Species Act (LTBMU 2022b) during stream salvage activities. The guideline requires that field crews be trained in observing animals for signs of stress and shown how to adjust electrofishing equipment to minimize that stress. All electrofishing equipment operators shall be trained by qualified personnel to be familiar with equipment, handling, settings, maintenance, and safety. Equipment shall be regularly maintained to ensure proper operating condition. Voltage, pulse, width, and rate shall be kept at minimal levels, and water conductivity shall be tested before electrofishing starts so the minimum levels can be determined. Due to the low settings used, shocked fish normally revive instantaneously. Fish requiring revivification shall receive immediate, adequate care.

The LTBMU will document the number, size class as well as any injuries or mortalities to Lahontan cutthroat trout during implementation activities.

BIO-11: When dewatering and constructing/removal of coffer dams (or approved equivalent):

a) Design pump intakes and outlets to minimize turbidity and the potential to wash contaminants into adjacent creeks or wetlands. Use an energy dissipater to prevent erosion at the outlet.

b) Any turbid water pumped from the work site will be disposed of in an approved location that prevents turbid water from reentering the active channel or Lake Tahoe.

c) Locate coffer dams (or approved equivalent) to minimize bed and bank disturbance and the need to remove/prune riparian vegetation.

d) During removal of coffer dams, turbid water may need to be pumped out of the channel to avoid short term water quality impacts.

BIO-12: Contractors would be solely responsible for ensuring that all equipment, boats, and other aquatic equipment meet the Lake Tahoe Aquatic Invasive Species Watercraft Inspection Program. Further information is found at https://tahoeboatinspections.com.

When pumps are needed for water drafting or dewatering, use pumps with low entry velocity to minimize removal of aquatic species, including juvenile fish, amphibian egg masses and tadpoles, from aquatic habitats. The following criteria should be used to avoid impacts:

- Drafting operations should be restricted to one hour after sunrise to one hour before sunset to avoid the use of lights that attract fish.
- Pumping rate shall not exceed 350 gallons per minute.
- The pumping rate shall not exceed ten percent of stream flow (estimated by pump operators) to ensure adequate downstream flow to support aquatic species.
- Drafting should occur in streams and pools with deep and flowing water; not streams with low flows and isolated pools.
- Water drafting locations will be monitored daily to ensure screens and pumping rates are meeting protection objectives.

BIO-13: Minimize incidental take of Lahontan cutthroat trout and impacts to its habitat.

BIO-14: Monitor incidental take resulting from the proposed project and report the findings of that monitoring to the Reno Fish and Wildlife Office (RFWO).

BIO-15: The LTBMU shall ensure that all project design features and BMPs as identified in the Biological Assessment and Environmental Impact Statement are followed.

BIO-16: The LTBMU shall provide a copy of the monitoring plan to be developed for the proposed project to the RFWO prior to project implementation.

BIO-17: The LTBMU shall develop and provide an annual report to the RFWO and shall include all activities within the action area and identification of proposed and implemented project design features and BMPs to minimize adverse effects to Lahontan Cutthroat Trout. The annual report should briefly summarize for the previous year's activities: (1)

Implementation and effectiveness of the terms and conditions, (2) any required turbidity monitoring, and (3) documentation of take of Lahontan cutthroat trout, including all Lahontan cutthroat trout contacted during fish salvage operations (include numbers released, their disposition, and any mortality). Additional information may be included as necessary or requested by the RFWO. The first annual report shall be due to the RFWO on or before December 31 of the first year of project implementation and every year thereafter for the duration of the proposed project. The address for the U.S. Fish and Wildlife Service's RFWO is:

Field Supervisor
U.S. Fish and Wildlife Service
Reno Fish and Wildlife Office
1340 Financial Boulevard, Suite 234
Reno, Nevada 89502

Reports can also be accepted via email at RFWOmail@fws.gov.

INVASIVE SPECIES MANAGEMENT

Several management measures, including standard management measures and project-specific management measures, were identified in the project Invasive Plant Risk Assessment (LTBMU 2022a) to reduce the risk of spreading invasive plants. These management measures are listed below and would be followed during project planning and implementation activities for all project alternatives; thus, impacts discussed below constitute residual impacts after application of the management measures. The following measures are designed to minimize risk of new weed introductions, minimize the spread of weeds within units, and minimize the spread of weeds between units. These measures are consistent with Forest Service policy and manual direction and the LTBMU LRMP as amended by the SNFPA.

INV-1: Inventory—As part of site-specific planning, project areas and adjacent areas (particularly access roads) will be inventoried for invasive plants. Infestations discovered prior to or during project implementation should be flagged and avoided, then reported to the Forest Botanist or their designated appointee for prioritization and assessment for treatment.

INV-2: Equipment Cleaning

a) All equipment and vehicles (Forest Service and contracted) used for project implementation must be free of invasive plant material before moving into the project area. Equipment will be considered clean when visual inspection does not reveal soil, seeds, plant material or other such debris. Cleaning shall occur at a vehicle washing station or steam-cleaning facility before the equipment and vehicles enter the project area.

b) When working in known invasive plant infestations or designated weed units, equipment shall be cleaned before moving to other National Forest Service system lands. These areas will be identified on project maps.

INV-3: Staging areas—Equipment, materials, or crews will not be staged in invasive plant-infested areas.

INV-4: Control Areas—Where feasible, invasive plant infestations will be designated as Control Areas—areas where equipment traffic and soil-disturbing project activities would be excluded. If Control Areas are designated, they will be identified on project maps and delineated in the field with flagging.

INV-5: Project-related disturbance—The amount of ground and vegetation disturbance in staging and construction areas will be minimized to the extent possible. Where feasible, vegetation will be reestablished on disturbed bare ground to reduce invasive species establishment; revegetation is especially important in staging areas. Where soil compaction has occurred to an extent that would inhibit native plant establishment disturbed areas should be decompacted by scarifying prior to seeding.

INV-6: Early Detection—Any additional infestations discovered prior to or during project implementation shall be reported to the Forest Botanist or their designated appointee for prioritization and assessment for treatment.

INV-7: Post Project Monitoring—After the project is completed, the Forest Botanist will be notified so that the project area can be monitored for invasive plants for a minimum of three years after project implementation.

INV-8: Gravel, fill, and other materials—All gravel, fill, or other materials will be required to be determined as a suitable or conditional weed-free source by the LTBMU weed free material program. Onsite sand, gravel, rock, or organic matter will be used when possible. If conditional sources are used, EDRR monitoring of application sites will be conducted for two growing seasons following implementation.

INV-9: Mulch and topsoil—NAISMA certified weed-free mulch will be used if chipped material is not available on site. Topsoil will be salvaged from the project area for use in onsite revegetation, unless contaminated with invasive species.

INV-10: Revegetation:

a) Seed and plant mixes must be approved by the Forest Botanist or their designated appointee who has knowledge of local flora.

b) Invasive species will not be intentionally used in revegetation. Seed lots will be tested for weed seed and test results will be provided to Forest Botanist or their designated appointee.

Seed and plant material will be sourced from species native to the Lake Tahoe Basin. As a general rule, plant and seed material should be collected from local genetic sources within the USFS Provisional Seed Zone of the disturbed area and within 500 – 1,000 ft elevation of the site.

INV-11: Project-Specific Management Measures. The following measures are included either to a) address the specific risks identified in this analysis that are not addressed by the standard measures or b) to provide site-specific direction to implement the standard management measures (Table A-1). Different treatment protocols are described for some infestations of the same species.

Table A-1 Proposed Management and Treatment Methods for Each Infestation

Species	Infestation	Management/Treatment
Cheatgrass (*Bromus tectorum*)	BRTE-5	Management: ▶ revisit site prior to the start of ground disturbance and treat via hand-pulling (no plants found in 2020); ▶ wash equipment after working in infestation area; ▶ minimize disturbance in infested areas; and ▶ where possible, work should progress from uninfested area to infested area.
	All other BRTE infestations	Flag and avoid.
Canada thistle (*Cirsium arvense*)	CIAR-1	Manual removal: ▶ removal should occur within six weeks of the start of ground disturbance on the site; ▶ dig plants removing as much of the root system as possible, securely bag plants, and dispose in a landfill; ▶ revisit site every 6 weeks during the growing season and repeat treatment as necessary; and ▶ coordinate with forest botanist for continued treatment. ▶ Where appropriate to meet weed management objectives, herbicide treatment would be considered for these species and would be administered within the terms of the 2010 Terrestrial Invasive Plan Species Treatment Project Environmental Assessment and Decision Notice.

Species	Infestation	Management/Treatment
Bull thistle (*Cirsium vulgare*)	All CIVU infestations	Manual removal: ▶ cut and securely bag any flower heads; ▶ dig plants removing at least two inches of the taproot; and ▶ cut plants may be turned upside-down and left on-site to desiccate if they have no flower heads.
Common St. Johnswort (*Hypericum perforatum*)	HYPE-1	Revisit site prior to the start of construction and remove any target plants via hand pulling or other appropriate mechanical treatments. Where appropriate to meet weed management objectives, herbicide treatment would be considered for these species and would be administered within the terms of the 2010 Terrestrial Invasive Plan Species Treatment Project Environmental Assessment and Decision Notice.
Oxeye daisy (*Leucanthemum vulgare*)	LEVU-1	Revisit site prior to the start of construction and remove any target plants via hand pulling.

Source: Created by Ascent Environmental in 2020.

All treatment of infestations would occur in the growing season prior to the start of ground disturbance. Infestations prioritized for treatment will be treated in accordance with Forest Service management direction and the design features of the LTBMU 2010 Terrestrial Invasive Plant Species Treatment Project Environmental Assessment (USDA Forest Service 2010).

HAZARDOUS MATERIALS

HAZ-1: Hazardous materials required for project implementation will be stored at designated staging areas outside of the stream environment zone, and other suitable sites.

HAZ-2: Work will stop immediately if suspected contamination is encountered, and the Project Engineer shall be notified immediately. Upon confirmation of contamination, the Project Engineer will assess the Project design and obtain the required approvals to modify the design to avoid conflicts with the contaminated material and/or any ongoing or future remediation projects.

HAZ-3: All encountered contamination will be addressed and handled appropriately, as described in the SWPPP. The Landowner will provide records regarding any contamination encountered during the Proposed Project to any appropriate requesting party. Appropriate requesting parties include, but are not limited to, the Lahontan Regional Water Quality Control Board, El Dorado County Department of Environmental Management, any responsible party or potentially responsible party, or the designated environmental consultant to any responsible party or potentially responsible party.

HAZ-4: All soil and groundwater materials removed during construction activities that have been deemed hazardous shall be placed in labeled containers and disposed of appropriately. Excavated soils that have been deemed hazardous will not be used as backfill material. Depending on the type of hazardous material, a water truck or other approved water spraying device will be on site at all times during excavation of hazardous or potentially hazardous materials, or materials would be covered to prevent particles from becoming airborne.

HAZ-5: On NFS lands, spill prevention and clean-up of hazardous materials would be implemented in accordance with the LTBMU Spill Notification and Response Plan (for emergency spills) or with USFS BMPs for non-emergency spills (USDA 2011). Contractors will train/instruct onsite construction personnel in spill prevention practices and provide spill containment materials near all staging areas. Further information regarding spills will be available in the Spill Response section of the SWPPP.

HAZ-6: The contractor or USFS shall clear dry vegetation and other potential fire fuels, to the extent feasible, in and near work areas. Ignition sources unrelated to project implementation (e.g., smoking [unless in designated areas], barbecues, stoves, campfires) shall be prohibited.

HYDROLOGY AND WATER QUALITY

HYD-1: Construction BMPs would include temporary erosion control BMPs (e.g., silt fencing, fiber rolls, drain inlet protection) and other requirements consistent with the project Stormwater Pollution Prevention Plan (SWPPP).

HYD-2: The extent of all excavation and soil disturbance would be minimized to avoid unnecessary soil disturbance.

HYD-3: Grading and ground-disturbing construction areas would be winterized by October 15, unless authorized by a TRPA grading season extension.

HYD-4: Surplus or waste earthen materials would be removed from project sites, and stockpiled material would be stabilized and protected from erosion.

HYD-5: Spill prevention plans would be prepared and implemented to capture and contain pollutants from fueling operations, and an emergency spill kit must be at the project during active construction periods.

HYD-6: Diversion and Dewatering: Use screening devices for water drafting pumps. Use pumps with low entry velocity to minimize removal of aquatic species, including juvenile fish, amphibian egg masses and tadpoles, from aquatic habitats. The following criteria should be used to avoid impacts:

a) Drafting operations should be restricted to one hour after sunrise to one hour before sunset to avoid the use of lights that attract fish.

b) Pumping rate shall not exceed 350 gallons per minute.

c) The pumping rate shall not exceed ten percent of stream flow (estimated by pump operators) to ensure adequate downstream flow to support aquatic species.

d) Drafting should occur in streams and pools with deep and flowing water; not streams with low flows and isolated pools.

e) Pumping operations shall not result in obvious down-down of upstream or downstream pools.

f) Each pumping operation shall use screens. The screen face should be oriented parallel to flow for best screening performance.

HYD-7: No debris, cement, concrete (of wash water therefrom), oil or petroleum products would enter surface waters or be placed where it may be washed from the project area by rainfall or runoff into surface waters. When operations are complete, any excess material would be removed from the project area and from any areas adjacent to the work area where such material may be transported into surface waters.

HYD-8: Construction equipment would be monitored for leaks and removed from service if necessary to protect water quality.

HYD-9: Caissons, sleeves, or turbidity curtains would be used during placement of pilings to prevent re-suspension and discharge of lakebed sediments. The control measures would be inspected and maintained as necessary to prevent discharge of suspended sediment outside the containment area. Construction activities would cease for periods of high wind and wave action that cause degraded water quality within the curtained area until weather conditions improve.

HERITAGE RESOURCES

HER-1: Removal of the mortared stone wall in the day use area at Meeks Bay Resort would be limited to the minimum amount necessary to construct project features.

HER-2: All eligible cultural resource sites and properties with undetermined eligibility within the Area of Potential Effects (APE) will be avoided and protected in place.

HER-3: If unrecorded/new cultural resources (i.e., prehistoric sites, historic sites, and isolated artifacts and features) are discovered during project implementation, then work shall be halted immediately within 50 feet of the discovery,

the LTBMU shall be notified, and a professional archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards and Guidelines ([Code of Federal Regulations, 36 CFR Part 61]) in archaeology and/or history shall be retained to determine the significance of the discovery.

HER-4: If potentially unique paleontological resources (fossils) are discovered during Project implementation, then standard BMPs shall be followed, including: work shall be halted immediately within 50 feet of the discovery, the LTBMU shall be notified, and a professional paleontologist shall be retained to determine the significance of the discovery.

HER-5: If human remains are discovered during the Proposed Project implementation, then work shall be halted immediately within 50 feet of the discovery, the LTBMU shall be notified, and the County Coroner must be notified, according to Section 5097.98 of the State Public Resources Code and Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), and the procedures outlined in the Native American Graves Protection and Repatriation Act and CEQA Section 15064.5(d) and (e) shall be followed.

RECREATION

REC-1: LTBMU or concessionaire will notify overnight guests and day users of anticipated construction. Notification of planned construction would be posted on LTBMU and concessionaire websites. Signage would also be posted at the entrances to the Meeks Bay Campground and Meeks Bay Resort regarding anticipated construction activities and any temporary closures.

SCENIC RESOURCES

VIS-1: Railings of the SR 89 bridge will be constructed of natural stone, stamped and painted concrete, or a similar material, and would be designed to closely mimic the appearance of the existing railings.

VIS-2: The removal of native vegetation located between the lake and developed features would be limited to the minimum amount necessary to construct project features.

VIS-3: Feasible recommendations for landscaping and vegetative screening from the Lake Tahoe Basin Scenic Resource Evaluation (TRPA 1993) would be incorporated into the final site design.

VIS-4: Shoreline revetments will include boulders and native vegetation that blends with natural environment.

TRANSPORTATION AND CIRCULATION

TRANS-1: A Traffic Management Plan will be developed and implemented to minimize traffic disruption during construction and maintain continual emergency access and evacuation across Meeks Creek.

TRANS-2: Signage will be installed on multi-use paths to support safety of bicyclists and pedestrians and circulation through the project area consistent with the California Manual on Uniform Traffic Control Devices and the USDA Forest Service Built Environment Image Guide. Where multi-use paths intersect with roadways, "STOP" or "YIELD" signs for either the path or the cross street shall be installed. Wayfinding signage along the paths shall direct users to the primary destinations in the project area (e.g., beach, day-use areas, campgrounds). Signage shall be installed directing bicyclists or pedestrians traveling outside of Meeks Bay to use the path along SR 89.

TRANS-3: Traffic flow will be maintained during bridge demolition and construction; temporary lane and/or shoulder closure with traffic control or a temporary structure would be required during construction. Night work may be necessary.

UTILITIES

UTL-1: The sewer and water line encasements and associated infrastructure will be constructed in a manner that is compatible with the long-term restored channel profile. This may involve burying utilities at a sufficient depth, armoring with rock, and/or encasement in concrete.

WILDFIRE

WLD-1: Defensible space and healthy forest communities would be achieved by thinning conifer trees smaller than 30 inches diameter at breast height (dbh) outside the restoration footprint (note that most, if not all, conifers within the channel and lagoon restoration disturbance footprint could be removed).

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