

# List of Tables

## Table 1 - Quantities

Quantities for construction materials and disturbance areas are estimated in Table 1. Quantities may change slightly depending on field conditions encountered during construction.

Item	Quantity	Units	Notes
Disturbance Area	17,100	SF	Total area of grading limit shown on drawings
Staging Area	2,500	SF	Utilize existing disturbed area
Access Route	340	LF	Assume 10' width temporary road
Cut	860	CY	Berm removal + meadow restoration area
Fill	50	CY	Berm removal + meadow restoration area
Off-haul	840	CY	Assume 50% off haul due to roots
1/2-ton Boulders	180	EA	For boulder sills and log vane ballast
Logs with Rootwads	6	EA	For log veins
Remove Dam	30	CY	Estimated volume of concrete (included in off-haul)

Table 1: Quantities based on the 50% design drawings. SF=square feet, CY=cubic yards, EA=each, LF=linear feet.

## Table 2 - Project Requirements.

ISSUE	PROJECT REQUIREMENT
<b>Aesthetics</b>	
<b>STANDARD PROJECT REQUIREMENT AES-1:</b>  <b>SCENIC VIEWS</b>	<ul style="list-style-type: none"> <li>Do not alter viewsapes to expose structures or undesirable views along scenic highways or scenic viewing locations.</li> <li>Maximize the use of salvaged mature vegetation to reduce the time of regrowth.</li> <li>Rehabilitate and remove all construction related impacts to pre-project or better than pre-project conditions.</li> </ul>

<b>Air Quality</b>	
<p><b>STANDARD PROJECT REQUIREMENT AIR-1:</b></p> <p><b>EMISSIONS OF FUGITIVE DUST AND OZONE</b></p>	<ul style="list-style-type: none"> <li>• All construction areas (dirt/gravel roads and surrounding dirt/gravel area) will be watered at least twice daily during dry, dusty conditions while in use by large machinery for project actions.</li> <li>• All trucks hauling soil or other loose materials on public roads will be covered or required to maintain at least two (2) feet of freeboard.</li> <li>• All construction-related equipment engines will be maintained in good condition, in proper tune (according to manufacturer's specifications), and in compliance with all state and federal requirements.</li> <li>• Potential dust producing actions will be suspended if sustained winds exceed twenty five (25) miles per hour (mph), instantaneous gusts exceed 35 mph, or dust from construction might obscure driver visibility on public roads.</li> <li>• Earth or other material that has been transported onto paved roadways by trucks, construction equipment, erosion, or other project-related activity will be promptly removed.</li> <li>• Idling time shall be minimized to ten (10) minutes for all diesel-powered equipment.</li> </ul>
<b>Biological Resources</b>	
<p><b>SPECIFIC PROJECT REQUIREMENT BIO-1:</b></p> <p><b>CALIFORNIA SPOTTED OWL AND NORTHERN GOSHAWK</b></p>	<ul style="list-style-type: none"> <li>• Prior to project activities within habitat identified as suitable for nesting for the California spotted owl or northern goshawk, a CSP-approved biologist will conduct protocol level surveys to ensure no reproductively active California spotted owls or northern goshawks are present.</li> <li>• If an active nest is detected, project activities will not be conducted within a quarter (0.25) miles of California spotted owl nests or within five hundred (500) feet of northern goshawk nests during the breeding season (February 15 through August 15), or until the young fledge, as determined by a CSP-approved biologist. If a CSP-approved biologist determines nests have failed, project work may commence within buffer zones prior to August 15.</li> </ul>
<p><b>STANDARD PROJECT REQUIREMENT BIO-2:</b></p> <p><b>BATS, OTHER NESTING RAPTORS, AND NESTING SONGBIRDS/MIGRATORY BIRDS</b></p>	<ul style="list-style-type: none"> <li>• A CSP-approved biologist will evaluate trees for use by cavity dwelling birds and bats. If determined to be actively used for reproductive activity, removal will only occur if the tree is identified as a hazard tree by a qualified arborist or CSP-approved biologist. Tree removal will not occur during the breeding season.</li> <li>• Project activities will not deliberately result in failure of sensitive nesting songbirds, including olive-sided flycatcher and yellow warbler. Prior to activities occurring in spring or summer, a CSP-approved biologist will conduct surveys. Active sensitive songbird nests will be protected by a two hundred and fifty (250) foot buffer from the project boundary. Any proposed project activities within this buffer area will be authorized and/or</li> </ul>

	<p>monitored by CSP-approved biologist to avoid project related nest failure.</p> <ul style="list-style-type: none"> <li>• Active nests of forest birds not otherwise classified as sensitive but protected by the Migratory Bird Treaty Act will be protected with a one hundred (100) foot buffer area from the project boundary and any project activities within this buffer area will be authorized and/or monitored by a CSP-approved biologist to avoid project related nest failure.</li> <li>• Raptors not specifically addressed in other Project Requirements will be protected by a quarter (0.25) mile active nest buffer from April 1 to August 15, or until young fledge, as determined by a CSP-approved biologist. Any proposed project activities within this buffer area must receive prior authorization from a CSP-approved biologist.</li> </ul>
<p><b>SPECIFIC PROJECT REQUIREMENT BIO-3: SIERRA NEVADA MOUNTAIN BEAVER</b></p>	<ul style="list-style-type: none"> <li>• Prior to the start of construction, a CSP-approved biologist will conduct a survey for Sierra Nevada Mountain Beaver (SNMB) in suitable habitat within and adjacent to the project area. If occupied SNMB habitat is located then a CSP Environmental Scientist or CSP-approved biologist will conduct a training session for all construction personnel involved with the project. At a minimum, the training will include a description of SNMB and its' habitat and the measures that will be implemented to protect this species.</li> <li>• All noise related construction and ground disturbing activities within 25 feet of occupied habitat, as determined by the CSP-approved biologist, will occur between August 1 and January 31 to avoid the SNMB breeding season.</li> <li>• All vehicles and equipment will avoid SNMB habitat, as delineated by the CSP-approved biologist.</li> </ul>
<p><b>SPECIFIC PROJECT REQUIREMENT BIO-4: SOUTHERN LONG-TOED SALAMANDER</b></p>	<ul style="list-style-type: none"> <li>• Prior to the start of construction, a CSP-approved biologist will conduct a survey for southern long-toed salamander within the project area. Salamanders located within the project area will be relocated to nearby suitable habitat by the CSP-approved biologist.</li> </ul>
<p><b>STANDARD PROJECT REQUIREMENT BIO-5: SPECIAL STATUS PLANT SPECIES</b></p>	<ul style="list-style-type: none"> <li>• Surveys for special status plant species with a potential to occur in the project area will be conducted by a CSP-approved botanist during the appropriate blooming periods or when identity can be confirmed. All occurrences of special status plant species within the project areas will be recorded on project maps, flagged or otherwise identified on the ground. Where possible, occurrences of all special status plants will be avoided and protected from construction activities. Those locations where special status plants can't be avoided will be subject to the following conditions: <ul style="list-style-type: none"> <li>• Perennial Species: Prior to construction plants will be carefully excavated and transplanted nearby in suitable habitat. All transplant work will be conducted under the direction of a CSP-approved botanist. Transplanting will occur during the dormant growing season (i.e. late fall)</li> </ul> </li> </ul>

	<p>when the plants are least disturbed and when they can be watered by winter precipitation.</p> <ul style="list-style-type: none"> <li>• Annual Species: Seeds from annual special status plant species will be collected during the appropriate season and properly stored prior to ground disturbing activities. Seeds will be sown during the appropriate season in suitable locations identified by a CSP-approved botanist.</li> </ul>
<b>SPECIFIC PROJECT REQUIREMENT BIO-6: FISH</b>	<ul style="list-style-type: none"> <li>• Prior to project activities within the active channel, fish will be excluded from the area through the use of standard methods such as seining and/or electrofishing. Standard depletion methods will be utilized to ensure maximum fish removal is attained.</li> <li>• Handling of fish will be minimized.</li> <li>• Fish will be immediately relocated to the active channel outside of the project area; they will not be retained in holding tanks for any period of time.</li> </ul>
<b>STANDARD PROJECT REQUIREMENT BIO-7: INVASIVE PLANTS</b>	<ul style="list-style-type: none"> <li>• All equipment, and tools used for project activities will be cleaned free of plant parts and soil in order to prevent the introduction and spread of invasive plants to uncontaminated areas.</li> <li>• A CSP-approved biologist will survey project locations prior to construction activities to ensure the area does not support invasive species that could be spread by project activities.</li> <li>• Project areas will be surveyed by a CSP-approved biologist in the first growing season, after project activities are completed, to ensure that no weeds were introduced during project activities.</li> <li>• Any inadvertent weed introductions or expansions will be treated for removal.</li> <li>• Any imported new fill, such as gravel or soil, shall be from a certified-weed free source where feasible.</li> </ul>
<b>Cultural Resources</b>	
<b>STANDARD PROJECT REQUIREMENT CULT-1: ARCHEOLOGICAL MONITORING</b>	<ul style="list-style-type: none"> <li>• At the discretion of the project archaeologist a State Park qualified archaeologist will monitor ground-disturbing activities for this project. Particularly the work along the access route and berm removal area, north of Burton Creek, will be monitored. The archaeologist will have the authority to stop construction work in the area of find and evaluate it and implemented appropriate treatment measures to avoid have a significant impact to historical resources per PRC 15064.5</li> </ul>
<b>STANDARD PROJECT REQUIREMENT CULT-2: UNDOCUMENTED CULTURAL RESOURCES</b>	<ul style="list-style-type: none"> <li>• In the event that previously undocumented cultural resources are encountered during project construction (including but not limited to dark soil containing shellfish, bone, flaked stone, groundstone, or deposits of historic trash), work within the immediate vicinity of the find will stop until State Park qualified cultural resource specialist has evaluated the find and implemented appropriate treatment measures to avoid have a significant impact to historical resources per PRC 15064.5</li> </ul>

<p><b>STANDARD PROJECT REQUIREMENT CULT-3:</b></p> <p><b>HUMAN REMAINS OR BURIAL ARTIFACTS</b></p>	<ul style="list-style-type: none"> <li>• In the event that human remains were discovered, work would cease immediately in the area of the find and the project manager/site supervisor would notify the appropriate CSP personnel. Any human remains and/or funerary objects would be left in place or returned to the point of discovery and covered with soil. The CSP Sector Superintendent (or authorized representative) would notify the County Coroner, in accordance with §7050.5 of the California Health and Safety Code, and the Native American Heritage Commission (or Tribal Representative).</li> <li>• If the coroner determines the remains represent Native American interment, the NAHC in Sacramento to identify the most likely descendants and appropriate disposition of the remains. Work would not resume in the area of the find until proper disposition is complete (PRC §5097.98). No human remains or funerary objects would be cleaned, photographed, analyzed, or removed from the site prior to determination</li> <li>• If it is determined the find indicates a sacred or religious site, the site would be avoided to the maximum extent practicable. Formal consultation with the State Historic Preservation Office and review by the Native American Heritage Commission/Tribal Cultural representatives would also occur as necessary to define additional site mitigation or future restrictions.</li> </ul>
<p><b>SPECIFIC PROJECT REQUIREMENT CULT-4:</b></p> <p><b>VEHICLES, HEAVY EQUIPMENT, STAGING AND STORAGE AREAS</b></p>	<ul style="list-style-type: none"> <li>• Vehicles or heavy equipment are not allowed within cultural resources exclusion zones.</li> <li>• Prior to construction, a CSP cultural resource specialist will review and approve all locations used for staging/storage of vehicles, equipment, and/or materials used during the project.</li> <li>• No staging or storage will be allowed within cultural resources exclusion zones.</li> </ul>
<p><b>SPECIFIC PROJECT REQUIREMENT CULT-5:</b></p> <p><b>HAND CLEARING</b></p>	<ul style="list-style-type: none"> <li>• Manual removal will take place first in areas of identified resources and work outward to fully identify and protect any newly documented and/or extended resources. A CSP cultural resource specialist will determine the extent of the hand clearing only zone.</li> </ul>
<p><b>GEOLOGY AND SOILS</b></p>	
<p><b>SPECIFIC PROJECT REQUIREMENT GEO-1:</b></p> <p><b>REMEDICATION OF DISTURBED AREAS</b></p>	<ul style="list-style-type: none"> <li>• All excavated areas for floodplain creation, haul roads, and landing/staging areas will be revegetated or treated to recover to pre-construction conditions or better as outlined in the project plans or SWPPP.</li> <li>• Excavated slopes will be graded to a stable angle and protected against erosion by track walking, and seeding/mulching bare areas.</li> </ul>

	<ul style="list-style-type: none"> <li>• Where feasible access routes will be limited to previously disturbed areas.</li> <li>• Recontour and/or outslope main routes of travel if necessary to allow sheet flow of water across the landscape and reduce channelization.</li> <li>• All base erosion control measures must be in place, functional, and approved in an initial inspection prior to commencement of construction activities.</li> <li>• Disturbed areas are to be seeded, planted, and mulched per the revegetation plan.</li> <li>• All protective devices to be installed shall be in place at the end of each work day when the five-day rain probability exceeds forty percent (40%).</li> </ul>
<b>HAZARDOUS AND HAZARDOUS MATERIALS</b>	
<b>STANDARD PROJECT REQUIREMENT HAZMAT-1:</b>  <b>SPILL PREVENTION AND RESPONSE</b>	<ul style="list-style-type: none"> <li>• Prior to the start of construction, all equipment will be cleaned before entering the project site. During the project, equipment will be cleaned and repaired (other than emergency repairs) outside the project site boundaries. All contaminated spill residue, or other hazardous compounds will be contained and disposed of outside the boundaries of the site at a lawfully permitted or authorized destination.</li> <li>• Prior to the start of construction, all equipment will be inspected for leaks and regularly inspected thereafter until removed from the project site.</li> <li>• Prior to the start of construction, a Spill Prevention and Response Plan (SPRP) will be prepared to provide protection to on-site workers, the public, and the environment from accidental leaks or spills of vehicle fluids or other potential contaminants. This plan will include but not be limited to the following: <ul style="list-style-type: none"> <li>• A map that delineates construction staging areas, and where refueling, lubrication, and maintenance of equipment will occur.</li> <li>• A list of items required in an on-site spill kit that will be maintained throughout the life of the project.</li> <li>• Procedures for the proper storage, use, and disposal of any solvents or other chemicals used during the project.</li> <li>• Identification of lawfully permitted or authorized disposal destinations.</li> </ul> </li> </ul>
<b>STANDARD PROJECT REQUIREMENT HAZMAT-2:</b> <b>WILDFIRE AVOIDANCE AND RESPONSE</b>	<ul style="list-style-type: none"> <li>• A Fire Safety Plan will be developed by a CSP-approved forester, prior to the start of construction.</li> <li>• Spark arrestors or turbo-charging (which eliminates sparks in exhaust) and fire extinguishers will be required for all heavy equipment.</li> <li>• Construction crews will be required to park vehicles away from flammable material, such as dry grass or brush. At the end of each workday, heavy equipment will be parked on roads or staging areas to reduce the chance of fire.</li> </ul>
<b>Hydrology and Water Quality</b>	

<p><b>STANDARD PROJECT REQUIREMENT HYDRO-1:</b></p> <p><b>EROSION AND SEDIMENT CONTROL AND POLLUTION PREVENTION</b></p>	<ul style="list-style-type: none"> <li>• Best Management Practices (BMPs) to be used in all construction areas to reduce or eliminate the discharge of soil, surface water runoff, and pollutants during any ground disturbing activities as approved by the Regional Water Quality Control Board.</li> <li>• The CSP Contractor will install long-term erosion control measures for any areas where ground disturbing activities result in bare soil areas. The soil will be properly decompacted and mulched or revegetated with appropriate native grass seed, sterile grass seed, and/or native duff with the final selection made by a CSP-qualified representative.</li> </ul>
<p><b>SPECIFIC PROJECT REQUIREMENT Hydro-2:</b></p> <p><b>PERMIT AND SITE PLAN ADHERENCE AND IMPLEMENTATION</b></p>	<ul style="list-style-type: none"> <li>• Limit disturbance area to the necessary extent as outlined in the engineered project plans.</li> <li>• Design, install, and maintain temporary BMPs for the protection of disturbed areas that may be subjected to erosion or surface run-off with the potential to release sediment, nutrients, or hazardous materials to surface or ground water sources.</li> <li>• Implement a dewatering plan for construction activities that are within the low water or bankfull channel.</li> <li>• Use designated and established staging, refueling, and maintenance areas for equipment that has the required BMPs to prevent the potential for contamination of surface or ground water sources.</li> <li>• Any stockpiled material shall have appropriate BMPs according to the permitting requirements to ensure that wind and water erosion potential is eliminated.</li> <li>• Contractor shall be familiar with the conditions of all required project permits and shall implement all required BMP's prior to commencing grading operations.</li> </ul>
<p><b>Noise</b></p>	
<p><b>STANDARD PROJECT REQUIREMENT NOISE-1: NOISE EXPOSURE</b></p>	<ul style="list-style-type: none"> <li>• Project related activities will generally be limited to the daylight hours, Monday through Friday. However, weekend work will be implemented to accelerate construction or address emergency or unforeseen circumstances. If weekend work is necessary, no work will occur before 8:00 a.m. or after 6:00 p.m.</li> <li>• Internal combustion engines used for any purpose in the project areas will be equipped with a muffler of a type recommended by the manufacturer. Equipment and trucks used for project related activities will utilize the best available noise control techniques (e.g., engine enclosures, acoustically attenuating shields or shrouds, intake silencers, ducts, etc.) whenever feasible and necessary.</li> <li>• Stationary noise sources and staging areas will be located as far from visitors as possible. If they must be located near visitors, stationary noise sources will be muffled to the extent feasible, and/or where practicable, enclosed within temporary sheds.</li> </ul>
<p><b>Traffic</b></p>	

<b>STANDARD PROJECT REQUIREMENT TRAFFIC-1: TRAFFIC CONTROL PLAN</b>	<ul style="list-style-type: none"> <li>• Prior to commencing construction, the Contractor shall prepare a traffic control plan that includes the following components: Exclusionary fencing will be placed along the project limits, as necessary, to exclude non-construction personnel from the construction area.</li> <li>• Speed limits shall be set for heavy equipment traveling to and from the project site by the State’s Representative.</li> <li>• Pedestrian access adjacent trails will be clearly delineated and signed.</li> </ul>
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**Table 3 – Criteria Pollutants**

<i>Pollutant</i>	<i>State Designation</i>	<i>National Designation</i>
<i>Ozone</i>	Attainment	Unclassified/Attainment
<i>PM<sub>10</sub></i>	Nonattainment	Unclassified
<i>PM<sub>2.5</sub></i>	Attainment	Unclassified/Attainment
<i>Carbon Monoxide</i>	Attainment	Unclassified/Attainment
<i>Nitrogen Dioxide</i>	Attainment	Unclassified/Attainment
<i>Sulfur Dioxide</i>	Attainment	Unclassified/Attainment
<i>Sulfates</i>	Attainment	N/A
<i>Lead</i>	Attainment	Unclassified/Attainment
<i>Hydrogen Sulfide</i>	Unclassified	N/A
<i>Visibility Reducing Particles</i>	Unclassified	N/A

*CARB – 2018 Area Designation State and National and 2017 PCAPCD Significance Thresholds for Criteria Pollutants*

**Table 4 - TRPA threshold standards**

Indicator Category	Adopted TRPA Threshold Standard (TRPA Resolution 82-11)	TRPA Indicator	Unit of Measure
Carbon Monoxide	For 8-hour carbon monoxide, maintain concentrations at or below 6 parts per million averaged over 8 hours	First and second highest carbon monoxide concentrations measured at Stateline, NV monitoring station	Parts per million (ppm)
Ozone	Maintain ozone concentrations at or below 0.08 parts per million averaged over 1 hour	Highest 1- hour average ozone concentration measured within a year at any monitoring station	Parts per million (ppm)
Visibility	Achieve an extinction coefficient of 125Mm <sup>-1</sup> at least 90 percent of the time as calculated from aerosol	Extinction coefficient and distance of visibility. 3-year	Light extinction



	species concentrations measured at the South Lake Tahoe monitoring site (visual range of 19 miles)	running average of extinction coefficient	(Mm <sup>-1</sup> ) and Miles or Kilometers
PM <sub>10</sub>	Maintain PM <sub>10</sub> at or below annual arithmetic average of 20 µg/m <sup>3</sup> in the portion of the Region within CA, and maintain PM <sub>10</sub> at or below annual arithmetic average of 50 µg/m <sup>3</sup> in the portion of the region within NV	Annual average PM <sub>10</sub> concentrations at any permanent monitoring station (µg/m <sup>3</sup> )	Micrograms per cubic meter (µg/m <sup>3</sup> )
PM <sub>2.5</sub>	Maintain PM <sub>2.5</sub> at or below 35 µg/m <sup>3</sup> measured over a 24-hour period using gravimetric or beta attenuation methods or any equivalent procedure which can be shown to provide equivalent results at or near the level of air quality standard	Number of 24-hr periods exceeding the applicable federal or state standards at any monitoring station	Micrograms per cubic meter (µg/m <sup>3</sup> )
Nitrate deposition	Reduce the transport of nitrates into bin and reduce oxides of nitrogen produced in the basin consistent with the water quality thresholds.	Implementation of management standard into Regional Plan	N/A
Odor	Reduce fumes from diesel engine to extent possible	Policy statement in Regional Plan	N/A

**Table 5 - PCAPCD Air Quality Rules and Regulations**

<b>RULE NUMBER</b>	<b>DESCRIPTION</b>
RULE 202 VISIBLE EMISSIONS	A person shall not discharge into the atmosphere from any single source of emissions whatsoever any air containment for a period or periods aggregating more than three days in any one hour.
RULE 205 NUISANCES	A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such person or the public, or which cause to have a natural tendency to cause injury or damage to business or property.
RULE 214 TRANSFER OF GASOLINE INTO VEHICLE FUEL TANK	The provisions of this rule apply to the transfer of gasoline from any stationary storage tank into any motor vehicle fuel tank.
RULE 228 FUGITIVE DUST	To reduce the amount of particulate matter entrained in the ambient air, or discharged into the ambient air, as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions.
RULE 242 STATIONARY INTERNAL COMBUSTION ENGINES	To limit the emission of nitrogen oxides and carbon monoxide from stationary internal combustion engines.

Source: PCAPCD CEQA Handbook, 2017 <https://www.placer.ca.gov/1801/CEQA-Handbook>

**Table 6 – Estimated Construction Emissions (lbs./day) and PCAPCD Significance Threshold**

PROJECT PHASES	ROG LBS./DAY	NO <sub>x</sub> LBS./DAY	PM <sub>10</sub> LBS./DAY	PM <sub>2.5</sub> LBS./Day
DEMOLITION	2.2678	21.0589	1.3339	1.1240
SITE PREPARATION	1.7165	18.3987	6.7236	3.7369
GRADING	1.4364	15.1376	5.7017	3.1832
CONSTRUCTION	2.2588	15.6757	1.0742	0.8473
PAVING	0.9808	8.5363	0.6371	0.4782
DAILY TOTAL	8.6603	63.1315	15.4705	9.3696
PCAPCD SIGNIFICANCE	82	82	82	N/A
EXCEED SIGNIFICANCE	No	No	No	N/A

**Table 7 - Peak Flow Estimates by Regional Regression Equations**

Recurrence Interval	Estimated Peak Flow
<i>years</i>	<i>cfs</i>
2	102
5	206
10	307
25	447
50	604
100	746