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Environmental Assessment

Bass Lake Water Company Water Treatment Plant Project

**Bass Lake Ranger District, Sierra National Forest
Madera County, California**

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SUMMARY

The Sierra National Forest (SNF) proposes to issue a Special-Use Permit (SUP) to the Bass Lake Water Company (BLWC) to construct a new water treatment plant (WTP) on National Forest System (NFS) lands. This permit would provide for the decommissioning and removal of the existing WTP located on NFS lands east of County Road 274. The proposed project area for the construction of the new WTP is located at the former site of the Falls Resort, adjacent to County Road 432 and is within the Bass Lake Ranger District, Sierra National Forest, California. This action is needed, because the current BLWC treatment plant is outdated, repairs are becoming increasingly difficult, and the existing WTP discharges are causing erosion of a drainage located behind the treatment building. In addition, the State Water Resources Control Board, Division of Drinking Water and California Department of Public Health (CDPH) regulates the BLWC and is requiring that the BLWC upgrade its treatment facilities to meet current and future state drinking water regulations.

The proposed action (Alternative 2) would provide the BLWC the means to meet the State Water Resources Control Board, Division of Drinking Water and CDPH regulations and to continue to provide water to 1,100 permanent residents and 1,700 seasonal residents. The new microfiltration or conventional filtration WTP will require BLWC to acquire additional surface water rights for a total of approximately 424 acre-feet (138,160,824 gallons) per year. This additional water use would be an annual increase of 2%, and a 14% increase during peak user demand during the summer tourist season.

In addition to the proposed action, the Forest Service also evaluated the following alternatives:

- *No Action Alternative (Alternative 1) - Under this alternative, no new construction would occur and the BLWC would continue to operate out of the existing facility. No rehabilitation would occur at the site.*
- *Alternative 3- This alternative considers construction at the existing site, but due to infeasibility determined by the State Water Resources Control Board, proposes to construct the new water treatment facility in the same general location as the existing WTP and includes the reconstruction and widening of the road to the location.*

Based upon the effects of the alternatives, the responsible official, Forest Supervisor Dean Gould, will decide whether or not the existing WTP will be decommissioned and a new facility constructed. In addition, the location of the potentially new WTP will be decided if one of the two action alternatives is selected.

INTRODUCTION

Document Structure

The Forest Service has prepared this Environmental Assessment in compliance with the National Environmental Policy Act (NEPA) and other relevant Federal and State laws and regulations. This Environmental Assessment discloses the direct, indirect, and cumulative environmental impacts that would result from the proposed action and alternatives. The document is organized into four parts:

- *Introduction:* This section includes information on the history of the project proposal, the purpose of and need for the project, and the agency's proposal for achieving that purpose and need. This section also details how the Forest Service informed the public of the proposal and how the public responded as well as the key issues identified in scoping and how these issues were evaluated in the analysis.
- *Comparison of the Proposed Action, No Action, and additional alternative:* This section provides a more detailed description of the agency's proposed action as well as the alternative method for achieving the stated purpose. This alternative was developed based on key issues raised by the public. Project design criteria are incorporated into the action alternatives and can be found in Appendix 1, pg. A. Finally, this section provides a summary table of the environmental consequences associated with each alternative.
- *Environmental Consequences:* This section describes the environmental effects of implementing the proposed action and alternatives. This analysis is organized by resources.
- Within each section the effects of the no action alternative are described first. These effects provide a baseline for evaluation and comparison of the other alternatives that follow.
- *Agencies and Persons Consulted:* This section provides a list and tribes consulted during the development of the Environmental Assessment as well as of the document preparers.
- *Appendices:* The appendices provide more detailed information to support the analyses presented in the Environmental Assessment.

Additional documentation, including more detailed analyses of project-area resources, may be found in the project planning record located at the Bass Lake Ranger District Office in North Fork, California.

Background

The BLWC's existing facilities are located on NFS lands in portions of the Southeast, Northeast Section 9, Township 7 South, Range 22 East, MDB&M in Madera County. The BLWC obtains a large portion of their water through exercising its State appropriated water rights of 355-acre feet (115,669,224 gallons) per year from the North Fork (NF) Willow Creek. The State Water Resources Control Board, Division of Drinking Water and CDPH regulates the BLWC whose service district includes the Pines Resort and residential areas, Madera County Government Center, the Falls Tract area, and Forest Service recreational facilities at Bass Lake including Crane Valley Group Camp, Recreation Point, the California Land Management (CLM) office, CalFire station, Denver Church and Little Denver Church

Day Use Areas, Forks Resort, and the Forks Campground. The BLWC provides water to approximately 1,100 permanent and 1,700 seasonal residents. The existing BLWC WTP, located on NFS lands east of County Road 274, is outdated, repairs are becoming increasingly difficult, and treatment plant discharges are causing erosion of an ephemeral drainage feeding into NF Willow Creek located behind the treatment building. The State Water Resources Control Board, Division of Drinking Water and CDPH requires that the BLWC upgrade its facilities to meet current and future state drinking water regulations. This additional water use would be an annual increase of 2%, or 14% increase for peak user demand during the summer tourist season.

Purpose and Need for Action

The purpose of this project is to issue BLWC a SUP authorizing the construction of a new water treatment plant in order to continue supply of water to meet community needs and comply with state drinking water regulations. In addition, this action is needed to prevent further erosion in the ephemeral drainage into North Fork (NF) Willow Creek at the current site. This action responds to the goals and objectives outlined in the Sierra National Forest Land and Resource Management Plan, and helps move the project area towards desired conditions described in that plan.

Proposed Action

The Forest Service proposes to issue a Special-Use Permit to BLWC authorizing the construction of a new water treatment plant on a portion of Forest Service land, formerly known as Falls Resort parking lot. The proposed site for construction would be located above County Road 432 at Bass Lake and will include the decommissioning of the existing WTP.

Decision Framework

Given the purpose and need, Forest Supervisor Dean Gould as the deciding official will review the Proposed Action (Alternative 2) and the other alternatives in order to decide:

- If the Proposed Action is accepted.
- If the Proposed Action is not accepted, then acceptance of one of the other alternatives.
- Depending on selection of alternatives, whether or where a SUP would need to be issued.

Public Involvement

The proposal was first listed in the Schedule of Proposed Actions on June 27, 2013. The proposal was provided to the public and other agencies for comment during scoping, June 5th and ending July 9, 2013. During this scoping period, 17 letters of comment were received.

Using the comments from the public the interdisciplinary team developed a list of key issues to address.

The legal notice for the opportunity to comment on the pre-decisional environmental assessment (EA) appeared in the newspaper of record (Fresno Bee) on February 25, 2015.

The 30-day comment period ended on March 27, 2015. In response to the Forest's request for comments, 12 letters were received expressing interest during the comment period (see Table 1). The letters and the comments within each letter were sequentially numbered, and provided a unique comment identification number and a response (see Table 2). (Two of these letters had identical content.) A letter was also received after the end of the comment period. This letter had identical content to a letter that was received during the comment period and therefore the comments were addressed however these commenters may not have standing to object to the Final EA.

Changes to the EA between Draft, Final, and Revised Final

The final EA for the Bass Lake Water Company Water Treatment Plant Project features more detailed design criteria in reference to the traffic and transportation effects that will occur during the proposed construction of Alternative 2. Also, the final draft includes more detailed information about the expected noise effects of Alternative 2 and contains analysis in reference to the amount of noise that is predicted to be produced by Alternative 2. The Recreation analysis in the final EA includes more information about the loss of unauthorized parking under Alternative 2. The first draft of the EA also incorrectly reported that the California Public Utilities Commission was the governing body that dictates the water treatment plant regulation. This has been modified to include the State Water Resources Control Board, Division of Drinking Water and CDPH, in the Revised Final EA.

A number of changes have additionally been made in the EA between the Final and the Revised Final. The means for the changes are supported by rationalization that Alternative 2 is the preferred and other alternatives were considered. Changes made, such as noise, traffic and visual analyses, make up some of the items that were brought forward to improve understanding of the project scope. In order to provide better clarity to the EA Final, the following points are listed and incorporated into the Revised Final:

- Explains in more detail the amount of traffic that would be expected for Alternative 2 during and after construction (EA, pgs 6-7).
- Explains the expected level of noise during and after construction (EA, pgs 4-5).
- Explains noise reduction measures for the new WTP, specifically, the expected noise levels when the plant and AC units are in full operation; immediately adjacent to the facility, and 100 yards from the facility (EA, pgs. 4-5).
- Clarifies the rationale for not using the current location of the existing WTP (EA, pg. 14).
- Explains how adequate visual screening of the new WTP will be ensured from road 432, approaching it from both directions (North and South), within 5 years (EA, pgs. 5-6).
- Explains how site ingress/egress will be ensured and comply with county and forest requirements as the proposed route of access (EA, pg. 9).
- Addition of Alternatives Comparison Chart for differences in issues identified (EA, pg. 12).
- Location of alternatives considered but eliminated changed to be below the alternative comparison chart (EA, pg. 15).

Issues

The Forest Service separated the issues into two groups: key and non-key issues. Key issues were defined as those directly or indirectly caused by implementing the proposed action. Non-key issues were identified as those: 1) outside the scope of the proposed action; 2) already decided by law, regulation, Forest Plan, or other higher level decision; 3) irrelevant to the decision to be made; or 4) conjectural and not supported by scientific or factual evidence. The Council on Environmental Quality NEPA regulations requires this delineation in Sec. 1501.7, "...identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review (Sec. 1506.3)..." A list of non-significant issues and reasons regarding their categorization as non-significant may be found at the Bass Lake Ranger District, North Fork, CA in the project record.

The Forest Service identified the four key issues raised during scoping. These issues include:

Issue #1: The water treatment plant at the previous Falls Resort parking lot site may cause noise impacts to residents living close to the treatment plant.

Operation of the new water treatment plant will not increase levels of ambient noise within the project area. Operational noise generated by the project would be primarily associated with the operation of on-site equipment, such as BLWC trucks, compressors, and pumps. It is anticipated that the water intake and outflow pumps will not substantially increase ambient noise levels within the project area. All operational equipment and functioning pumps will be housed in the building which will prevent any audible impacts to the community. The walls of the building will be insulated with R-19 Type insulation (5 inches of fiberglass material) to help with temperature control and noise reduction. In addition, the building ceiling, windows and doors will also be insulated. A cooling system would consist of either fans or a commercial grade air conditioner that would produce as much sound as a residential grade air conditioner. There will be a back-up generator of hospital grade that will not be housed in the facility that would produce some audible impact when on; however, this generator will only be used in the case of an emergency or for testing purposes. The approximate noise level of the cooling system is 35 decibels (dB) at 50 feet (Reitz, 2015). According to the California Environmental Protection Agency (CalEPA) Air Resources Board in A Report to the California Legislature on the Potential Health and Environmental Impacts of Leaf Blowers, anything at the levels between 30 and 40 dB is considered at the perceived sound level of being quiet or comparable to a quiet conversation and/or a library setting. At 50 feet to the building/air conditioning unit, sound would be detected at approximately 35 dB and as you move further away from the 50 feet, detection of sound would decrease. See figure below from the CalEPA report for a comparison of sound levels in the environment (Air Resources Board, 2000).

| Perceived Sound Level | Sound Level | | Examples | Leaf Blower Reference |
|---------------------------|-------------|-------------------|----------------------------|--|
| | dB | μPa | | |
| PAINFULLY LOUD | 160 | 2x10 ⁹ | fireworks at 3 feet | |
| | 150 | | jet at takeoff | |
| | 140 | 2x10 ⁸ | threshold of pain | OSHA limit for impulse noise |
| UNCOMFORTABLY LOUD | 130 | | power drill | |
| | 120 | 2x10 ⁷ | thunder | |
| | 110 | | auto horn at 1 meter | 90-105 dB leaf blower at operators ear |
| VERY LOUD | 100 | 2x10 ⁶ | snowmobile | 90 dB OSHA permissible exposure limit |
| | 90 | | diesel truck, food blender | |
| | 80 | 2x10 ⁵ | garbage disposal | |
| MODERATELY LOUD | 70 | | vacuum cleaner | 62-75 dB Leaf blower at 50 feet |
| | 60 | 2x10 ⁴ | ordinary conversation | |
| | 50 | | average home | |
| QUIET | 40 | 2x10 ³ | library | |
| | 30 | | quiet conversation | |
| VERY QUIET | 20 | 2x10 ² | soft whisper | |
| BARELY AUDIBLE | 10 | | rustling leaves | |
| | 0 | 2x10 ¹ | threshold of hearing | |

dB= decibels
μPa= micro Pascals

Project-related construction activities are such that they would not expose persons to noticeable ground-borne vibration or noise that would create a substantial periodic and/or permanent increase in ambient noise levels. Disturbance from construction activities would be temporary and of short duration (between the hours of 8am and 5pm) as recommended as a design criteria of the Recreation Report (Appendix 1, pg. G, Recreation). Construction sound levels are expected to produce between 80 and 90 dB for the operators of the equipment, at about 1 meter, according to Mark Reitz, PE, Senior Manager, Project Management of AECOM. The sound levels would drop off considerably at the property line and the road where the public would hear and detect the project related sounds. At 1 meter from the project site, the public would experience the sounds in the 50 to 60 dB levels during construction. The normal car noise from the road would be about the same when cars pass by.

Issue #2: Construction of the water treatment plant at the previous Falls Resort parking lot site may negatively affect the scenic resources of the area impacting recreationists and residents.

The scenic resources of the area have been analyzed and design criteria have been developed to maintain the visual integrity of the area. The analysis and reasoning for the design criteria can be found in the Visual Resources and (Appendix 2, pg. J). In the Visual Resources Analysis, a total of 8 Key Viewing Points (KVPs) are identified and analyzed for effects. Of the 8 KVPs, 2 major viewpoints are identified approaching the project site from both directions, identified as KVP#3 and KVP #5 (Appendix 2, pgs. L and N), see photos. The analysis shows that both KVPs (#3 and #5) have and will have the following characteristics:

- The road leading to the former site of the Falls Resort (proposed project site) would be visible to the casual Forest visitor, but would continue to remain subordinate with the surrounding colors found in the surrounding characteristic landscape.
- The rest of the viewing point would meet the visual quality level of Retention. The Sierra National Forest Land and Resource Management Plan specifies that the visual quality objective of Retention is as described: Provides for management activities, which are not visually evident. Activities may only repeat form, line, color, and texture, which are frequently found in the characteristic landscape. Changes in their qualities size, amount, intensity, direction, pattern, etc. should not be evident.

The closest residence is located ¼ of a mile away from the proposed project site and is not visible from any home in the Pines or Falls Tracts. There are extensive existing native trees and shrubs. Additional screening will be added to further manage the visual quality level of Retention in the proposed project area. The BLWC will work with the Forest Service Landscape Architect to create and approve the appropriate planting plans, placement of structures and irrigations to ensure screening is adequate per design measures established in the Visual Resources Analysis (Appendix 2, pg. J, 2.). These design measures for screening will ensure that the new WTP will not be visible within 5 years off of road 432 while approaching from both directions.

Issue #3: Construction of the water treatment plant at the previous Falls Resort parking lot site may negatively affect economic resources by reducing property values of the residences in the nearby area.

It is not predicted that relocation of the water treatment plant to the Falls Beach site would negatively affect property values. However, it is crucial that this area have a water treatment facility that meets all regulations in order to provide safe drinking water and a dependable water source in the event of an emergency.

Issue #4: Operation of the water treatment plant may lead to transportation impacts in the Falls Beach area due to large equipment traffic.

Traffic in the Falls Beach area would not increase due to the location of the water treatment plant because this operation has no plan for expansion of personnel by the Bass Lake Water Company in comparison to the current site. The number of employees planned for the operation of the new WTP will be the same as the number of employees currently servicing the existing WTP. Daily operation will reflect, on average, 5 to 6 visits by company vehicles to the location of the WTP. Occasional servicing and deliveries to the site by use of the emergency access road of Alternative 2 would occur 3 to 5 times monthly (Welch, 2015).

There will be an increase in traffic during the construction of the facility at Falls Beach; however, there will be measures taken to counteract this temporary increase in traffic including flagmen, non-peak times of entry, location of ingress/egress, signage and placement of traffic cones among others. (See the Recreation Design Criteria in Appendix 1 pg. G, 7 & 8 for these specific measures.) Construction period is expected to take approximately 12 months. Construction would be completed utilizing approximately 5 to 6 large items of various types of heavy equipment and 2 to 3 pickups. The number of construction personnel would vary from 10 to 16 depending on the assembly of the buildings and installing mechanical and electrical work. Some equipment, such as a crane, forklift, flatbed and pickups, may stay on site again depending on level of progress. Concrete trucks

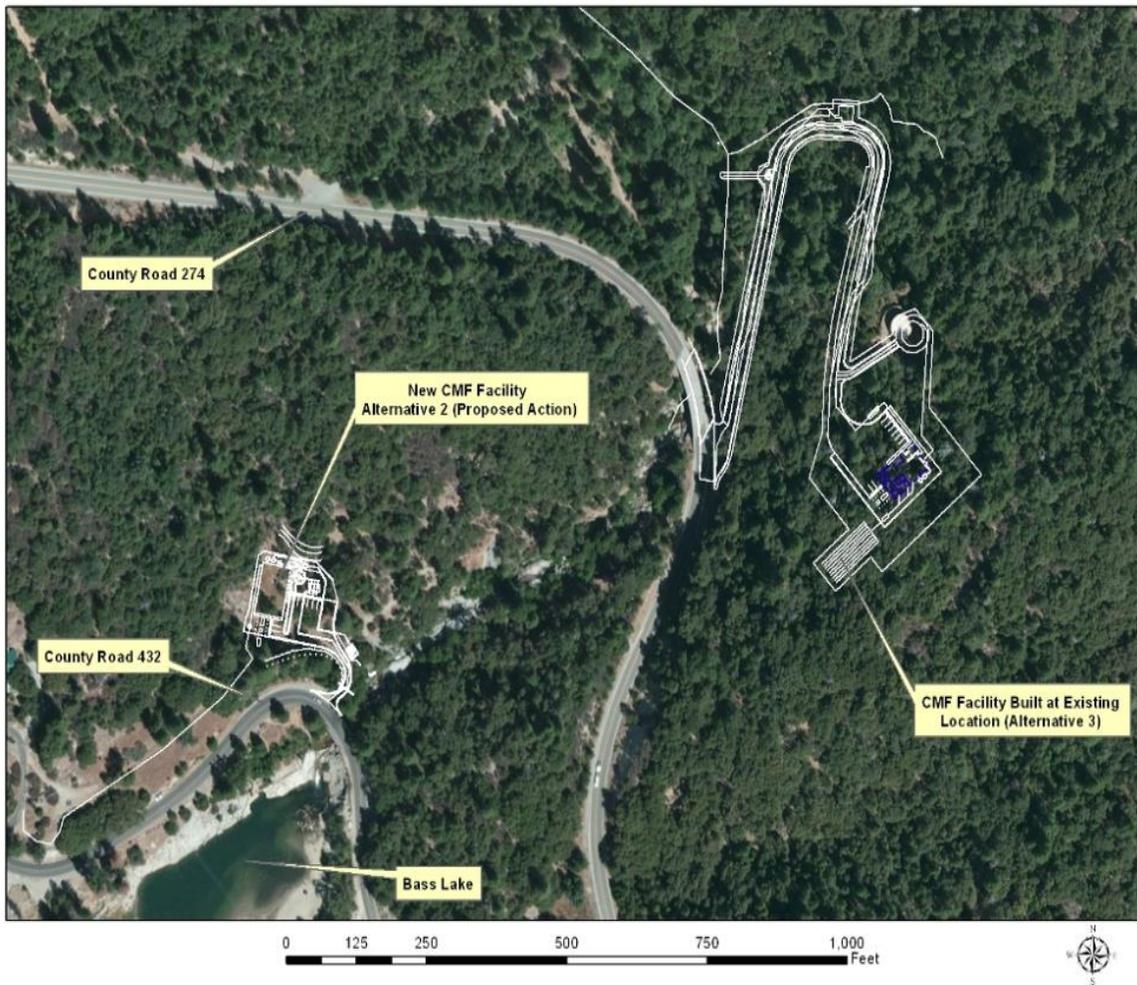
would be delivering concrete for approximately 1 month. Other deliveries would be made periodically depending on construction needs, such as building steel and mechanical and electrical equipment. The construction operation would be comparable to that of a new home being built on any of the vacant lots in the typical area with a similar length of time as well (Reitz, 2015).

ALTERNATIVES, INCLUDING THE PROPOSED ACTION

This section describes and compares the alternatives considered for the New Water Treatment Plant Construction and Decommissioning of Existing Water Treatment Facilities project. It includes a description of each alternative considered and a map. This section also presents the alternatives in comparative form, sharply defining the differences between each alternative and providing a clear basis for choice among options by the decision maker that is clear to the public. Some of the information used to compare the alternatives is based upon the design of the alternative.

Alternatives

Photo 1: Overlooking Alternative 2 and 3 sites.



Alternative 1 (No Action)

Under the No Action alternative, no new construction would occur and the BLWC would continue to operate out of the existing facility. No rehabilitation would occur at the site. No construction or decommissioning would be implemented to accomplish project goals. Discharge of waste backwash water, chlorine, and coagulant chemicals into NF Willow Creek from the current water treatment plant would continue.

Alternative 2 (Proposed Action)

The proposed action is to issue a SUP allowing the construction of the new WTP on 1.5 acres of the former Falls Resort. Decommissioning of the existing WTP is also part of the proposed action.

The new WTP would consist of a 4,000 square-foot metal treatment building, one 47,000 gallon finished water tank, one 600 square foot finished water pump station/storage building, one 250 square foot raw water pump station building, a 31,000 gallon raw water storage tank, approximately 1,000 feet of pipelines (500 feet of water lines and 500 feet of wastewater lines), a generator, a propane tank, and a twelve stall parking lot estimated to be 7,250 square feet. Raw water would be delivered to the new WTP from new under-gravel screened water intake pipes installed in Willow Creek just upstream from the new plant. The intake would be located at the bottom of an existing granite controlled pool, and screened to prevent frogs and fish from being swept into the pump. Installation of the intake would occur during minimum stream flow in the fall, with water diverted around the pool and back into Willow Creek during installation. The 10-inch camouflaged pipeline would be bolted to the rock outcrop and continue into a pump station; a total of 150-feet of pipeline would connect the intake to the plant. From the WTP, 130-feet of 10-inch diameter pipe for treated water outflow would be installed to connect the WTP to the municipal water system; 500-feet of wastewater sewer pipeline would be connected to the municipal wastewater system, a raw water pump station (250 square feet) and a 30 square foot generator with a sound enclosure would be constructed on site. Additional support infrastructure constructed on the permit site would include fencing around the permitted area, reconstructing approximately 500 feet of existing secondary gravel access road to connect the permit area to a paved access road off County Road 432, and installation of a new power pole and transformer.

The existing short access road off Road 432 near Willow Creek Bridge would be paved and used as the main access road for the plant ingress/egress with a gate. The existing access is also along a curve of the road with many tight turns. The road is posted with a speed limit of 25 mph. Current signage in the area of the Project includes: a curve ahead sign just prior to the Willow Creek Bridge, the speed limit changes at the curve at 15 mph when headed northbound, and another speed limit sign posting 15 mph for southbound traffic at this curve. Therefore the traffic is regulated to move at slow speeds passing by the proposed WTP entrance. All improvements will be completed to FS and Madera County building and road standard requirements through plan approvals, monitoring and inspections.

Improvement to the existing entrance would be done by widening it and paving the entrance drive as well as the pull off area that is currently there just north of the entrance to allow a safe distance for vehicles leaving the site. Also being proposed is signage located on the proposed project site to require any large delivery vehicles leaving the site to only make a right turn, thus preventing them from crossing over to the southbound lane as they leave. A

request for the County to install T intersection signs prior to the drive entrance alerting traffic of the entrance would also be made. This has been done at many other sideroad drive entrances along this stretch of road. There are 19 residential driveway entrances along this road north of the site up to the intersection at Road 222, therefore traffic is slow and the road is posted at 25 mph. There are 25 residential driveways and 6 county road entrances going south from the site towards the Pines Resort area which also dictate a 25 mph speed limit. Through traffic for large delivery trucks is restricted on this road which helps to reduce large vehicle traffic. The entrance/exit driveway to the existing WTP off Road 274 is quite dangerous for operations personnel as they enter and exit onto this road that has a 55 mph speed limit. Therefore moving the plant to the Road 432 location would improve traffic safety in comparison.

The building site is already level, has a paved access road leading from Road 432, and a rock retaining wall between the site and Road 432. No discharge of treated or partially treated raw water from the creek would be released from the treatment plant into NF Willow Creek or Bass Lake as BLWC would retain a tank that would be back-fed treated water. A stand of ponderosa pine has regenerated on the site since the Falls Resort was abandoned and removed. Many of these trees and some shrubs would be removed to facilitate construction of the new facility. These trees are small to medium in diameter at breast height (dbh) with each tree averaging approximately 14 inches. The existing trees along the edge of the property behind the rock retaining wall would remain to help shield the new plant from lake view. Construction activities conducted during declared fire season would occur under an approved fire plan. The new treatment plant and facilities would require a maximum of approximately 1.5 acres of ground disturbance and would tie their new facility's utilities into existing phone and power that are located immediately adjacent to the proposed treatment site. The Forest Service would approve all final site designs and construction plans.

This facility would be located on NFS lands in a portion of the NWSWSE Section 9, Township 7 South, Range 22 East, MDB&M in Madera County.

As part of the proposed action the BLWC's existing improvements, authorized under SUP; including water treatment building/facility, water intake pipe, sedimentation filter, and the impoundment located above Angel Falls; and all above ground pipelines would be removed from NFS lands after the new treatment facility goes on-line. Any ground disturbance resulting from the removal of those improvements would be stabilized and re-vegetated with locally native plants approved by the Forest Service (plants or seed used for re-vegetation must originate from on-site or directly adjacent as per FS Native Plant Policy). The existing treatment building would be decommissioned; equipment and building materials removed from NFS lands, and the site would be re-vegetated as described above, where necessary. The eroded ephemeral stream channel adjacent to the treatment building would be stabilized and re-vegetated as recommended by the Forest Service using locally native plants. Road 7S74S would remain authorized under the new SUP issued to BLWC as it provides access to an existing large water storage tank (also included in the new SUP) that would be back-fed treated water from the new plant. In the interim, between the new WTP coming on-line and the decommissioning of the existing treatment facility, the BLWC would need to make improvements to this road to minimize erosion and stabilize the banks of NF Willow Creek that are currently compromised by proximity of the road.

An additional 0.25 acres of mixed –conifer forest would be disturbed as a result of the removal of the existing water treatment plant.

Alternative 2 includes the implementation of the design criteria in Appendix 1, pg. A. These design criteria were developed as part of the project design to minimize effects to Forest Service land and resources and to comply with the SNF Land and Resources Management Plan.



Alternative 3

Alternative 3 considers the construction of the new WTP in the same general location as the existing WTP. This new facility would need to be constructed because the current facility does not meet mandatory requirements set by the California Department of Public Health to upgrade existing inadequate electrical power resources and waste disposal methods. This alternative also includes the decommissioning of the old facility. Road 7S74S is an existing dirt access road that allows entry to the current facility and runs from Road 274 to the WTP

and then steeply uphill to the contact time (CT) tank. This road's current condition makes it only passable for vehicles during the summer months.

The new WTP would require year round access to operators and service trucks. As such a new access road would be constructed to the alternate WTP location. The new access road would require approximately 1,300 linear feet (LF) of asphalt, pavement, curb and gutter along the existing road. Current access to the Alternative 3 site is onto a narrow driveway off Road 274 posted at 55MPH with limited visibility in the northerly direction, therefore widening of the entrance would need to take place in order to meet Madera County standards as well. The alignment would generally follow the existing dirt access road alignment where possible but would need to be extended beyond the existing CT tank to the alternate WTP site and widened to meet Madera County fire standards. It would require approximately 1,750 LF of retaining walls on both the uphill and downhill sides of the road.

Additionally the new WTP would require the construction of an infiltration gallery in the NF Willow Creek. Alteration of the streambed would be required to channel flow over the location of the proposed screened intake during low creek flows. This would require the construction of a small 12 to 18 inch tall concrete dam across the width of the creek and the construction of new caisson-style raw water pumping station. The infiltration gallery would supply water to the new caisson-style raw water pumping station which would pump water through 1,100 LF of 6-inch diameter raw water line to the WTP housed in a 4,000 square foot metal building.

The plan would require a 10 stall, approximately 8,400 square foot parking lot. Additional facilities required for construction of the WTP in this location include a 5,000 gallon raw water storage tank, a diesel powered backup generator with onsite diesel storage, a propane tank, and a septic system capable of discharging 2,000 gallons per day.

Construction at the Alternative 3 site would require extensive grading, dirt and tree removal in very steep terrain and ecological damage to the watershed. It is expected that the construction of the new road and WTP facilities would disturb approximately 4.5 acres including work in the stream bed of the NF Willow Creek, blasting to excavate large granite boulders adjacent to the driveway entrance along Road 274, and removal of 144 trees including 5 pine, 42 cedar, and 97 oak. Of the trees to be removed, 1 pine and 8 cedars are over 24 inches in dbh and 14 oaks over 18 inches in dbh. Additional 3- phase power installation and sewage development planning would need to take place.

Alternative 3 includes the decommissioning of the existing WTP as described under Alternative 2. An additional 0.25 acres of mixed –conifer forest would be disturbed as a result of the removal of the existing water treatment plant.

Alternative 3 includes the implementation of the design criteria in Appendix 1, pg. A.



Comparison of Alternatives

This section provides 2 summary charts, one of the comparisons based on issues that were identified through scoping and the other of the effects of implementing each alternative. Information in the table is focused on activities and effects where different levels of effects can be distinguished qualitatively among alternatives.

Issues Comparison Chart

| Issues | | | |
|---------------------|----------------------------------|--|---|
| Alternatives | Existing 3 Phase Power Available | Type/Level of Disturbance | Facilities/Features Affected Nearby |
| (1) No Action | None | -Continued ephemeral drainage erosion into Willow Creek -Continued production of drinking water not to standard | -Willow Creek Trail Crossing -Angel Falls |
| (2) Proposed Action | Yes | -1.5 acres of leveled terrain total -Tree removal and paving | -Nearest resident .25 miles from project site -Willow Creek TH & Falls Beach Picnic approx. .25 miles away |

| | | | |
|---|------|---|--|
| - Construction at existing WTP location | None | -Grading, soil and tree removal on steep terrain - replacement of sedimentation tanks in creek at Angel Falls -or work in streambed with construction of small dam across creek to pond water and construction of new caisson-style raw water pumping station | -Willow Creek Trail Crossing -Angel Falls |
| (3) Construction at same general location as existing WTP | None | -4.5 acres of steep terrain total -Work in streambed -Grading, soil and tree removal -Work in streambed with construction of small dam across creek to pond water and construction of new caisson-style raw water pumping station -1,750 LF of retaining walls on uphill and downhill sides of road | -Willow Creek Trail Crossing -Angel Falls |

Effects Comparison Chart

| | Alternative 1 | Alternative 2 | Alternative 3 |
|---------------------------------|---------------|----------------------------|-----------------|
| Effects to Hydrology | None | Low | Low to Moderate |
| Effects to Wildlife | None | Low | Low |
| Effects to Cultural Resources | None | None | None |
| Effects to Visual Resources | None | Low to Short Term | Moderate |
| Effects to MIS | None | Low | Low |
| Effects to Recreation | None | Low to Moderate/Short Term | Low to Moderate |
| Effects to Botany/noxious weeds | Low | Low | Low to Moderate |

Alternatives Considered But Eliminated

Alternative 3 was developed when the existing WTP site was considered for new construction, but rejected when determined infeasible not only by the California Department of Public Health (CDPH), (a copy of CDPH Notice of Proposed Action is available in the Project Record upon request), but also for the following reasons:

- The location of the existing WTP is closer to the seasonal drainage area and would continue to provide additional challenges in reducing erosion and controlling runoff into the drainage area that discharges into Willow Creek. Further disturbance would cause greater levels of erosion.
- In order to provide the raw water source for a treatment plant at the current site, it would require either 1) the replacement of the current intake pipe along the Willow Creek Trail, which is along very steep and rugged country, and replacement of the sedimentation tanks in the creek at Angel Falls; or 2) constructing a new intake facility near the current plant site. This would require the alteration of the Willow Creek streambed including the construction of a small 12- to 18-inch-high dam across the width of the creek to pond the water and the construction of a new caisson-style raw water pumping station (Reitz, 2015).
- The existing WTP location does not have access to a sewer for disposal of the backwash water nor does it have 3-phase power required for a treatment facility that complies with current health regulations.
- Construction at the current WTP site would require extensive grading, soil and tree removal in very steep terrain and ecological damage to the watershed.
- Access to the existing WTP location is onto a narrow driveway off of County Road 274 at 55 mph with limited visibility in the northerly direction.

Environmental Consequences

Terrestrial Wildlife Species

California spotted owl, bald eagle, northern goshawk, Pacific fisher, pallid bat, & fringed myotis bat: These species are considered threatened, endangered, proposed, candidate and/or as a Forest Service Sensitive species (TES).

Other Terrestrial Wildlife Species: All other terrestrial wildlife species populations are not expected to be adversely affected by the alternatives because they either do not occur or have habitat within nor adjacent to this project.

Direct and Indirect Effects

Alternative 1: This alternative would have no direct effect on the California spotted owl, bald eagle, Northern goshawk, Pacific fisher, pallid bat, or fringed myotis bat because no new construction or ongoing activity would occur at this project site.

Alternative 2: The proposed action would have no direct effects on these species as there is no suitable nesting, denning or roosting habitat at the proposed site. However, there is suitable foraging habitat present for these species, therefore, project construction activities may cause these species to avoid the area and rely on other locations for foraging. The

proposed action would result in the loss of 1 acre of available foraging habitat for these species.

Alternative 3: This alternative could result in direct effects to these particular species because there is suitable nesting/denning/roosting habitat at the proposed construction location for Alternative 3. This potential habitat area totals 4.5 acres. This alternative could result in disturbance to nesting California spotted owls, bald eagles, or Northern goshawks if construction activities were performed during the nesting and fledging season for these species (generally February 1 through September 15).

Cumulative Effects

Other uses within and adjacent to the project area include private in-holdings, permanent roads, nearby dispersed camping, occasional off-highway vehicle use, and day-use and camping areas. Road maintenance, culvert maintenance, hazard tree removal, pre-commercial and commercial thinning, conifer planting and release operations, brush removal, and timber harvest all occur at various times. On private property, there has been homebuilding, maintenance of access roads, and brush removal (hazard reduction).

Aquatic Species

Foothill yellow-legged frog, western pond turtle, California red-legged frog: These species are TES within the project area.

Other Aquatic Species: All other aquatic species populations are not expected to be adversely affected by the proposed alternatives because they either do not occur, have habitat within nor adjacent to, nor are affected directly, indirectly, or cumulatively by this project.

Foothill Yellow-Legged Frog:

Alternative 1: Direct effects to this species would include the continued production of noise and ground-disturbing impacts from ongoing operations and maintenance activities in the area. Indirect effects of this alternative include the marginal reduction in water quality in NF Willow Creek due to the continued discharge of waste backwash water, chlorine, and coagulant chemicals into NF Willow Creek from the current water treatment plant.

Alternative 2: Direct effects to this species may occur if individuals are present within the project area during construction activities. Foothill yellow-legged frogs are generally closely associated with water and are unlikely to be found beyond a streamside management zone, although their habitat is being evaluated as 165 feet from either shore. Direct impacts of the proposed project include the permanent loss of habitat resulting from the construction of the new WTP. The loss of habitat for this particular species would equal 0.4 acres. The proposed WTP would increase water removal from NF Willow Creek by 69 acre-ft/year or 424 acre-ft per year total (current baseline flow averages 20,647 acre-ft per year). This water removal may reduce the quality or quantity of breeding and foraging habitat for aquatic species such as the foothill yellow-legged frog. The proposed action may affect, but is not likely to result in federal listing or loss of viability for the foothill yellow-legged frog. This is due to the fact that there is suitable habitat for this species within the project area and direct effects to individuals could occur. However, these direct effects would be minimized through adherence to the design criteria which establishes exact protocol if any individual of

this species is found. (See design criteria in the Appendix 1, pg. A for a list of these protocols.)

Alternative 3: This alternative would result in the loss of habitat for the foothill yellow-legged frog equaling 1.3 acres. The water removal rate would be the same increase as it would with Alternative 2.

Western Pond Turtle:

Alternative 1: The effects of this alternative on the western pond turtle are the same effects that it would have on the foothill yellow-legged frog if individuals are present in the area.

Alternative 2: This particular species has not been detected upstream from Bass Lake in the NF Willow Creek, and their presence within the project area is unlikely. Application of streamside management zones and implementation of Best Management Practices required as part of the project design (See design criteria Appendix 1, pg. A) reduces the risk of compaction or project-associated erosion being transported to stream channels. The proposed project could also result in loss of habitat for the western pond turtle equaling 1 acre in the project area. The project area does provide suitable habitat for this species, and direct effects could occur, but would be minimized through adherence to the design criteria. The water removal rate would be the same increase as it would for Alternative 2 and 3 as described in the foothill yellow-legged frog section above. The same potential effects to the quality or quantity of breeding and foraging may also result in impacts to the western pond turtle.

Alternative 3: This alternative would result in the loss of habitat for the western pond turtle equaling 3.6 acres. The water removal rate would be the same increase as it would with Alternative 2.

Cumulative Effects for the Yellow-Legged Frog and Western Pond Turtle

Other uses within and adjacent to the project area include private in-holdings, permanent roads, nearby dispersed camping, occasional off-highway vehicle use, and day-use and camping areas. Road maintenance, culvert maintenance, hazard tree removal, pre-commercial and commercial thinning, conifer planting and release operations, brush removal, and timber harvest all occur at various times. On private property, there has been homebuilding, maintenance of access roads, and brush removal (hazard reduction).

No foreseeable future Forest Service projects are planned for this project area. Any future Forest Service planned, funded, executed, or permitted programs and activities will be assessed for possible effects on Forest Service sensitive and management indicator species as well as Federally listed threatened, endangered and proposed species.

This project's action alternatives are not expected to add to the cumulative effects for these species. California Red-Legged Frog:

Alternative 1: This alternative may affect but is not likely to adversely affect this particular species. There is marginally suitable habitat present in this project area; however, no current or historic observations of this species or designated "Core Areas" or proposed "Critical Habitats" are present within the project area or within five miles surrounding the project site. This alternative would allow for the continued discharge of waste backwash water, chlorine, and coagulant chemicals into NF Willow Creek from the current WTP.

Alternatives 2-3: These alternatives may affect but are not likely to adversely affect this particular species. There is marginally suitable habitat present within the project area; however, no current or historic observations of this species or designated “Core Areas” or proposed “Critical Habitats” are present within the project area or within five miles surrounding the project site. Direct effects to this species may occur if individuals are present within the project area during construction; however, this species has not been detected on the SNF and their presence within the project area is unlikely. Direct impacts of the proposed project include the permanent loss of habitat resulting from the construction of the new surface water treatment plant.

Cumulative Effects

Other uses within and adjacent to the project area include private in-holdings, permanent roads, nearby dispersed camping, occasional off-highway vehicle use, and day-use and camping areas. Road maintenance, culvert maintenance, hazard tree removal, pre-commercial and commercial thinning, conifer planting and release operations, brush removal, and timber harvest all occur at various times. On private property, there has been homebuilding, maintenance of access roads, and brush removal (hazard reduction). The potential for additional construction of homes on the private in-holdings within the project area is very low within the foreseeable future.

No foreseeable future Forest Service projects are planned for this project area. Any future Forest Service planned, funded, executed, or permitted programs and activities will be assessed for possible effects on Forest Service sensitive and management indicator species as well as Federally listed threatened, endangered and proposed species.

This projects proposed actions are not expected to add to the cumulative effects for these species.

Management Indicator Species (MIS)

The MIS are animal species identified in the SNF MIS Amendment Record of Decision which was developed under the 1982 National Forest System Land and Resource Management Planning Rule (36 CFR 219.9(a)(2)). The following analysis discusses the MIS habitats that were studied around the areas of the different project alternatives. This analysis describes the impacts of the proposed project alternatives on MIS habitat by discussing how direct, indirect, and cumulative effects will change the habitat in the analysis area. The three potentially affected habitat types are Oak-Associated Hardwoods and Hardwood/Conifer Habitat; Early and Mid-Seral Coniferous Forest Habitat and Snags in Green Forest Ecosystem Component.

For the following MIS habitats, only Alternative 2 and Alternative 3 will be analyzed because no new construction would occur under Alternative 1 and the BLWC would continue to operate out of the existing facility therefore there would be no change in the habitat in the project area under this alternative.

Oak-Associated Hardwoods and Hardwood/Conifer Habitat (Mule deer)

Alternative 2: There is no oak-associated hardwood or hardwood-conifer present at the Alternative 2 site, therefore no direct or indirect effects to this habitat are expected from this alternative.

Alternative 3: There are a total of 3.5 acres of oak-associated hardwood and hardwood/conifer habitat present at the Alternative 3 site (0.5 acres of montane hardwood and 3 acres of montane hardwood-conifer). Alternative 3 would result in a permanent loss of 3.5 acres of suitable oak associate habitat for mule deer at the site. The effects of this loss of 3.5 acres would constitute a 0.4% loss of oak-woodland habitat within the sub-drainage. This small loss of habitat would not alter the existing trend in this habitat type.

Early and Mid-Seral Coniferous Forest Habitat (Mountain quail)

Alternative 2: This alternative would result in the permanent loss of 1 acre of early seral forest habitat (1 acre of ponderosa pine). The effect of this alternative would be the reduction of 9.8% of the early seral coniferous forest area for the sub-drainage area.

Alternative 3: This alternative would result in the permanent loss of 1 acre of ponderosa pine. The effects for this alternative would result in a reduction of 0.3% of the mid-seral coniferous forest area within the sub-drainage. This small loss of habitat would not alter the existing trend in this habitat type.

Snags in Green Forest Ecosystem Component (Hairy woodpecker)

Alternative 2: There are no snags present at the Alternative 2 site therefore no direct, indirect, or cumulative effects to this habitat are expected to this alternative.

Alternative 3: There is an estimated total of nine snags present at the Alternative 3 site. These snags would be removed if this alternative is selected to allow for construction of the WTF. There are an estimated 7,000 snags present within the sub-drainage for this project. Alternative 3 would result in the permanent loss of an estimated nine snags. This would result in a loss of 0.1% of the snags within the sub-drainage. This small loss of habitat would not alter the existing trend in this habitat type.

Visual Resources

The key viewing points (KVPs) are the unit of spatial analysis (points of reference) from where the effects on visual resources are analyzed. There are eight KVPs from which the visual resources for the different alternatives for this project will be analyzed. The main travelways and use areas that connect or attract Forest visitors to the community of Bass Lake serve as the basis for identifying KVPs. For many of the travelways and use areas there may be more than one viewing point. Depending on the distances or the viewing angle there may be a different visual effect from one viewing point to the next viewing point. Ultimately, the most critical viewing points with the most critical visual effect are used as KVPs. These KVPs are: Developed Recreation Sites (KVP #1), Bass Lake (KVP #2), three sites along County Road 432 (KVP #3, KVP #4, KVP #5), Willow Creek (KVP #6), Willow Creek Trail (KVP #7), and Angel Falls (KVP #8). Photographs and a more detailed description of the KVPs and their specific reference points and effects can be found in Appendix 2.

Alternative 1:

KVP#1, KVP#2, KVP #3, KVP #4, KVP #5, KVP #6 & KVP #8

KVP #1 thru KVP# 6 and KVP #8 would have no direct, indirect, and cumulative effects. KVP #7 would have no direct effects and potential indirect effects that would not be associated with the Project activities so there would be no cumulative effects. All the key

viewing points would be compliance with the Forest Plan VQO of Retention. The details and rationales of these viewing points can be found in Appendix 2.

Alternative 2:

There would be no direct, indirect or cumulative effects to KVP #1, KVP #2, KVP #3 or KVP #5. Short term direct effects would occur to KVP #4 and KVP #6 which means that mitigations would be required but they would be compliant with the Forest Plan in 1-5 years after project completion. KVP #7 would have beneficial direct effects and potential indirect effects. This KVP would not require mitigations and would be compliant with the Forest Plan. KVP #8 has beneficial direct and indirect effects and is compliant with the Forest Plan.

Alternative #3

There would be no direct, indirect or cumulative effects to KVP #1, KVP #2, KVP #3, KVP #4, KVP #5, KVP #6, and KVP #8. There would be long term adverse direct and indirect effects to KVP #7. This KVP is non-compliant with the Forest Plan and there are no applicable mitigations for this KVP.

Recreation

A visitor's recreation experience on the Forest is influenced by the location in which the experience is occurring, facilities that are provided and features that exist at the site and the visitor's anticipation. The basis for determining expectations of future conditions of recreation areas relies on the Recreation Opportunity Spectrum (ROS). An ROS setting is defined as the combination of physical, biological, social and managerial conditions that give value to a place.

The ROS classification described by the Forest Plan within the project area is Rural. The ROS Guide characterizes a Rural Setting as a "substantially modified natural environment. Resource modification and utilization practices are to enhance specific recreation activities and to maintain vegetative cover and soil. Sights and sounds of humans are readily evident, and the interaction between users is often moderate to high. A considerable number of facilities are designed for use by a large number of people. Facilities are often provided for special activities. Moderate densities are provided far away from developed sites. Facilities for intensified motorized use and parking are available." (FS ROS Users Guide, Setting Characterization, Table 1)

Effects will be identified by:

- 1) Recreation experience
- 2) ROS compatibility
- 3) Recreational Access

Alternative 1

Under the no action alternative, all current activities would most likely continue in the project area. If no action is no short term disturbance to the recreational resources would take place. Roads and non-system tracks would continue to exist in the project area.

Recreation Experience

The recreation experience would continue as described in the current condition. There are no direct, indirect, or cumulative effects to the recreation experience.

ROS Compatibility

The areas currently that are being used for recreation within this operating area are considered Rural ROS and are compatible with the SNF Land and Resource Management Plan. There are no direct, indirect, or cumulative effects to ROS compatibility for Rural ROS settings.

Recreation Access

Recreation access would not change in this alternative. All roads, trails and unauthorized tracks would continue to be available for use by the recreating public. There are no direct, indirect, or cumulative effects to recreation access.

Cumulative Effects

Unauthorized use of the access road to the existing facility by visitors of Angel Falls would continue.

Alternative 2

Under the proposed action, direct impacts to the recreation resources would occur during implementation of the project. The use of heavy equipment in both the existing WTP and the new WTP sites would likely cause an increase in traffic along County Roads 274 and 432. Areas where equipment staging may need to occur may be temporarily closed from public access.

Recreation Experience

Visitors would continue to use areas of developed recreation sites, including the nearby Willow Creek Trail and Falls Beach Day Use area. There may be short term impacts to the recreation experience with the noise and sights of heavy equipment use, flagging, work crews, and building materials. County Roads 432 and 274 are single-lane roadways in each direction. These roads pose difficulty for large delivery trucks to negotiate given the terrain (e.g., switchbacks, 25 mph curves). Furthermore, Bass Lake Elementary School is located approximately 0.5 mi northeast of the project site at the intersections of County Road 331 with County Roads 432 and 274. Due to these conditions, construction truck traffic carrying loads could impose a safety issue to themselves as well as local traffic. However, traffic and transportation impacts will be counteracted with several measures including the establishment of operational hours and the use of traffic direction. (See Recreation Design Criteria in Appendix 1, pg. G for specific measures.) There are short-term direct and indirect effects to the recreation experience in which visitors would not enjoy their experience and would not desire to continue recreating.

ROS Compatibility

The areas currently that are being used for recreation within this operating area are considered Rural ROS and are compatible with the SNF Land and Resource Management Plan. There are no direct, indirect, or cumulative effects to ROS compatibility for Rural ROS settings.

Recreation Access

Recreation access would change in this alternative. There are temporary direct and indirect effects to recreation access once visitors are restricted from entering various recreation sites

All roads, trails and areas identified as developed recreation sites would be available for use by the recreating public contingent upon their health and safety. There would be a short term impact of increased vehicle use for construction and hauling operations which in turn may delay access to a favorite site for developed or dispersed recreation activities. There would be short term impact for those roads, trails, and areas that may be closed from access for health and safety reasons due to construction. Any unauthorized use of non-designated areas would be discontinued and unavailable for use once the WTP is completed. There would no longer be unauthorized use and/or parking available at the lot that was once known as the Falls Resort parking lot.

Cumulative Effects

The use of the proposed project site as a parking lot is currently an unauthorized use and the development of this project site would disallow parking in the proposed project area.

Alternative 3

Under the Alternative 3, direct impacts to the recreation resources would occur during implementation of the project. The use of heavy equipment at the project site would likely cause an increase in traffic along County Road 274 and delay the general public from reaching their destination. Areas where equipment staging may need to occur may be temporarily closed from public access. Access to the Willow Creek Trail Bridge crossing would not be available during construction, which could last for several weeks. Availability of the bridge could potentially continue to be affected following the conclusion of construction.

Over time there may be an increase or decrease of visitor use on and after the bridge crossing section of the Willow Creek Trail. As part of the alternative, a paved road would be constructed where the trail crosses over County Road 274 and over a bridge; this in turn could attract visitors to want to park their vehicles on the pavement as well as deter visitors because it may appear as though the trail does not continue on. Increased use of the trail by visitors could lead to an increase in degradation and future needs for extensive trail maintenance. A decrease in trail usage could lead to nonuse of the trail and eventually decommissioning in the future.

Recreation Experience

Visitors would continue to use areas of developed recreation sites, including the nearby Willow Creek Trail. There may be short term impacts to the recreation experience with the noise and sights of heavy equipment use, flagging, work crews, and building materials. There are short term direct and indirect effects to the recreation experience. Pavement of the entrance to the service road where visitors, in the past, parked their vehicles would most likely be a deterrent and/ or attraction for the nearby Willow Creek Trail Bridge crossing. Therefore there is a potential for long term indirect effects on the recreation experience following the conclusion of construction.

ROS Compatibility

Areas located in Rural ROS are compatible with the SNF Land and Resource Management Plan. There are no cumulative effects to ROS compatibility for Rural ROS settings.

Recreation Access

Recreation access would change in this alternative. All roads, trails and areas identified as developed recreation sites are available for use by the recreating public. There would be a short term impact of increased vehicle use for construction and hauling operations which in turn may delay access to a favorite site for developed or dispersed recreation activities. There would be short term impact for those roads, trails, and areas that may be closed to make sure the visiting public is aware what is available for access. There are short term direct and indirect effects to recreation access.

Hydrology

Alternative 1: Direct effects of this alternative would be the continued degradation of the ephemeral channel that runs adjacent to the current site discharges to NF Willow Creek. The existing condition of the ephemeral channel is not a threat to water quality downstream of its discharge point in NF Willow Creek or Bass Lake. However, there is a localized effect of erosion and sediment delivery to NF Willow Creek due to the denuded nature of the area around the existing facility, poor road conditions, and the unstable nature of the ephemeral stream channel.

Alternative 2: Alternatives would not cause major impacts to stream courses or Bass Lake because of the minor degree of ground disturbance (1.5 acres), construction on relatively level ground, and the implementation of water quality Best Management Practices which are designed to minimize erosion and prevent, or reduce, sediments from the leaving the construction site.

Alternative 3: Alternative 3 could affect watershed and aquatic resources, primarily as a result of construction, deforestation, grading on steep terrain, soil disturbance and blasting adjacent to and within NF Willow Creek as well as the intermittent/ephemeral channel in the vicinity of the existing facility even though design criteria include mitigation measures.

Botany / Invasive Weeds

The vegetation within the general area of the BLWC WTP project is primarily ponderosa pine-mixed conifer forest typical of forests on the west slope of the central Sierra Nevada between 3,000 and 4,000 feet in elevation. Dominant trees are ponderosa pine (*Pinus ponderosa*), incense cedar (*Calocedrus decurrens*), and canyon live oak (*Quercus chrysolepis*); with the most common shrubs being mariposa manzanita (*Arctostaphylos viscida* ssp. *mariposa*), buckbrush (*Ceanothus cuneatus*), and poison oak (*Toxicodendron diversilobum*).

Riparian areas along ephemeral and perennial streams have white alder (*Alnus rhombifolia*), Oregon ash (*Fraxinus latifolia*), black cottonwood (*Populus trichocarpa*), and willow (*Salix* spp.). Riparian shrubs present at the existing WTP site are ninebark (*Physocarpus capitata*), hazelnut (*Corylus cornuta*), western azalea (*Rhododendron occidentale*). The site of the existing WTP has higher forest canopy cover and more native species in the shrub and herbaceous layer than the highly disturbed former Falls Resort site.

Surveys were conducted by botanists from H.T. Harvey & Associates in December 2007 and April 2008, and spring 2009. Forest Service botanists also surveyed the project area for TES

plants in 2008, 2014, and 2015. 2014 and 2015 focused on the activities proposed under Alternative. 3. No TES plants were found.

Invasive weeds present at the proposed site are Himalayan blackberry (*Rubus armeniacus*) in scattered clumps along NF Willow Creek and five to ten Scotch broom (*Cytisus scoparius*) shrubs between NF Willow Creek and the road into the proposed WTP site at the old Falls Resort. Bull thistle (*Cirsium vulgare*) is present in scattered patches upslope from the exiting WTP and in and adjacent to the road to the storage tank.

Alternative 1: Direct effects of this alternative would be removal of native riparian vegetation along the degraded ephemeral channel and elsewhere in the subwatershed as the channel deepens and further erodes. There would be no direct effects to TES plants as none are present. Additional effects would be less recruitment of seedlings of native riparian plants because of the continued delivery of sediment into the streambed. Excessive sediment presence in a streambed beyond the natural levels can impair germination and recruitment of native riparian plants. Noxious weeds and invasive non-native plants would not be introduced by construction activities as none would occur, but the Scotch broom, Himalayan blackberry, and bull thistle may continue to spread. Cumulative effects would not occur as the project would not be implemented.

Alternative 2: Direct effects to native vegetation would be minimal, but would occur where vegetation is removed for construction at the proposed WTP site as well as during decommissioning of the existing site. No TES plants would be directly affected as none are present. Indirect effects to native vegetation from the introduction and spread of invasive weeds would be possible but are mitigated by project design measures including removal of Scotch broom plants (see Design Criteria Appendix 1). Decommissioning and rehabilitation of the existing facility would improve conditions for native riparian vegetation over the long term once the pipe and building situated on the banks of the ephemeral channel are gone and the site has been remediated to facilitate the recovery of native terrestrial and riparian vegetation.

Alternative 3: Alternative 3 would directly affect a much larger amount of native vegetation than Alternative 2. Terrestrial vegetation would be removed and the soil disturbance and blasting adjacent to and within NF Willow Creek would remove riparian vegetation. Indirect effects would result during and after construction when steep slopes that are currently densely forested become vulnerable to erosion, affecting native vegetation recovery on those slopes as well as downslope where the sediment ends up. Indirect effects to soils and native flora from the introduction of noxious / invasive weeds is more likely under Alternative 3 because of the greater amount of soil movement and heavy equipment. Design measures are designed to minimize such impacts, but the scale, type, and location of the construction (i.e., within the streambed of NF Willow Creek, on steep currently forested slopes) would pose the highest risk of the three alternatives for severe soil loss and unfavorable changes in growing conditions for native plants. No TES plants would be directly or indirectly affected as none are present. Decommissioning and rehabilitation of the area around the existing facility is also part of this alternative and would reduce or eliminate sediment delivery to NF Willow Creek thereby improving water quality in NF Willow Creek and Bass Lake, which offsets the risks described above to some degree. Cumulative effects to native vegetation and for risk of weed spread are not likely if project design criteria are adhered to.

Cultural Resources

It was determined that there would be no adverse effects to proposed project areas, therefore, the following analysis has been presented in its cumulative form without organizing the information by alternative.

The Bass Lake Ranger District Archaeologist conducted archival research and field inventory to determine if any historic properties were present within the Area of Potential Effect (APE) of the alternatives. At the conclusion of the research and field inventory, it was determined that two cultural resources, the Falls Resort and the BLWC itself, are of sufficient age to qualify as historic resources, and both are located within the APE. Both historic resources have been evaluated for inclusion on the National Register of Historic Places and found to lack sufficient qualifying characteristics and integrity for inclusion. The Falls Resort has been previously determined to be ineligible for listing on the NRHP with the concurrence of the California Office of Historic Preservation. The BLWC was formally evaluated for NRHP eligibility by the Bass Lake Ranger District Archaeologist and found to lack qualifying characteristics and integrity of design and materials to qualify. No prehistoric resources were identified within the APE. Additionally, consultation with Native California Indigenous Tribes (Tribes) indicated that there are no known sacred sites, or cultural resources of traditional religious or cultural significance to the Tribes within the APE. Therefore, due to the lack of historic properties and significant tribal cultural resources within the APE of this project, it is determined that the action alternatives would not adversely affect any significant cultural or historic resources.

CONSULTATION AND COORDINATION

The Forest Service consulted the following tribes during the development of this EA:

North Fork Rancheria of Mono Indians
North Fork Mono Tribe
Picayune Rancheria of the Chukchansi Indians

INTERDISCIPLINARY TEAM MEMBERS:

Dave Martin, District Ranger (retired January 2, 2015)
Keith Stone, Hydrologist
Jody Nickerson, Writer/Editor
Carter Deems, Writer/Editor
Cesar Sanchez, Landscape Architect
Alex Wilkens, Aquatic Biologist
Joanna Clines, Botany
Erin Potter, Archeology
Anaé Otto, Terrestrial Wildlife Biologist
Leak Pen, Recreation
Judi Tapia, Environmental Coordinator/NEPA reviewer

References

FS ROS Users Guide, Setting Characterization, Table 1

36 CFR 219.9(a)(2)

Appendix 1

Design Criteria

1. Terrestrial and Aquatic Wildlife

Sierra National Forest aquatic species and riparian habitat related land management standards and guidelines, as stated in the 1991 Sierra National Forest – Land and Resource Management Plan (as amended and updated), that may apply to this project are:

- Report any discovery of amphibians or reptiles (e.g. frogs, toads, salamanders, and turtles) during project preparation and implementation to the District Aquatic biologist immediately. (ROD 2004 Goal; Species Viability, Plant and Animal Community Diversity)
- Report any discovery of special status avian or mammalian wildlife (e.g. owls, eagles, fishers, bats) during project preparation and implementation to the District Terrestrial biologist immediately. (ROD 2004 Goal; Species Viability, Plant and Animal Community Diversity)
- If newly listed or unknown occurrences of federally listed threatened, endangered, proposed, candidate or Forest Service sensitive terrestrial or aquatic species are found within the affected project area during sale preparation and implementation, additional species protection measures may be needed. (ESA LRMP and ROD compliance)
- Give primary management emphasis in riparian areas to protect and enhance the riparian ecosystem, riparian vegetation, water quality, soils, fish, and wildlife resources.
- Streamside Management Zone determination would be based on methods described in FSH 2509.22, Sierra Supplement 1 which gives specific direction for width determinations. For this project: Class III streams have a 50 foot SMZ (distances are each side). Fuels and other toxic materials would not be stored in RCAs unless the location is agreed to in advance by the District hydrologist or aquatic biologist. (S&G #99, BMP 2.11)

Refueling of chainsaws or other equipment within RCAs (LRMP S&G 69, 75, ROD S&G 92, 99, ROD desired conditions, species viability (minimizing impacts):

- Do not refuel heavy equipment within an RCA. Refueling of all equipment is to occur outside SMZ's (BMP 2-12) and at least 100 feet from any riparian area.
- Any spills (regardless of amount) must be cleaned up immediately. As much as possible, refuel chainsaws over spill pads to avoid soil and water contamination.
- Ensure that spill plans are reviewed and up-to-date. (ROD S&G 99, BMP 7.4)
- Storage of heavy machinery would occur only at approved areas such as existing landings, existing roads, or turnout areas, and should be outside of RCA and RMAs (refer to BMP 2.11 for additional measures).

Additional aquatic species mitigation measures to limit disturbance to foothill yellow-legged frogs and western pond turtles:

Additional Design Measure 1. If construction is to begin between 15 March and 31 October, a qualified biologist shall conduct a daytime pre-construction survey at the

project site for pond turtles and yellow-legged frogs during the day prior to the initiation of construction activities. If construction is to begin outside this period, a pre-construction survey is not required. If, after construction has begun, a lapse in construction of 7 or more days occurs between 15 March and 31 October, a daytime pre-construction survey shall be conducted the day prior to the resumption of construction. All individual foothill yellow-legged frogs and western pond turtles encountered within the construction area shall be relocated in Willow Creek safely away from the affected area. The precise location in which the individuals are to be released depends on the availability of suitable habitat and shall be determined by the biologist. The released animals shall be monitored until it is determined that they are not imperiled by predators or other dangers.

Additional Design Measure 2. A qualified biologist shall be on-call during all construction-related activities, including groundbreaking, earthmoving, and any other activities that could result in the mortality or injury of western pond turtles and foothill yellow-legged frogs.

To exclude western pond turtles and foothill yellow-legged frogs from the project site and prevent construction equipment and personnel from entering the North Fork Willow Creek, exclusionary fencing shall be installed along the west side of North Fork Willow Creek. The fencing shall extend at least 25 ft beyond the limits of grading and construction at the north and south ends. Fencing shall be installed prior to the initiation of construction and shall be constructed of a material such as wood, sheet metal, or tightly woven fabric. No mesh or loosely woven materials shall be used. The base of the fencing shall be flush to the ground surface to prevent animals from entering under the exclusion fence. Fence height shall be a minimum 30 inches measured from ground level to the top of the fence. Thus, a material with a width of at least 36 inches is required. Signs placed at 50-ft intervals shall be attached to the exclusionary fencing informing construction personnel to not enter the excluded creek area. Fencing and signage shall remain in place for the duration of construction activities and shall be inspected weekly or as needed and repaired as needed by the qualified biologist.

Project-related vehicles would observe a 15 mph speed limit in all project areas, except on City and County roads and State highways. To the maximum extent practicable, nighttime construction would be minimized.

If, at any time, a pond turtle or yellow-legged frog is discovered in the construction area by the on-call biologist or anyone else, the on-call biologist shall move the animal to a safe location in suitable habitat within North Fork Willow Creek. The biologist would monitor any translocated animal until it is determined that the animal is safe from the increased predation risk resulting from translocation. Here forward, these procedures would be referred to as the “translocation procedures.”

Because pond turtles and yellow-legged frogs may take refuge within and under cavity-like and den-like structures such as pipes and may enter stored pipes and become trapped, all construction pipes, culverts, or similar structures that are stored at the construction site for one or more overnight periods shall be either securely capped prior to storage or thoroughly inspected by the on-call biologist and/or the construction foreman/manager for these animals before the pipe is subsequently buried, capped, or otherwise used or

moved in any way. If a pond turtle or yellow-legged frog is discovered inside or under a pipe, the on-call biologist shall move the animal to a nearby, safe location per the translocation procedures.

To prevent inadvertent entrapment of pond turtles and yellow-legged frogs during construction, the on-call biologist and/or construction foreman/manager shall ensure that all excavated, steep-walled holes or trenches more than 1 ft. deep are completely covered at the close of each working day by plywood or similar materials or provided with one or more escape ramps constructed of earth fill or wooden planks. Escape ramps are to be spaced at no more than 25 ft. intervals in order to reduce the risk of desiccation or predation. Before such holes or trenches are filled, they would be thoroughly inspected for trapped animals by the on-call biologist and/or construction foreman/manager. If at any time, a trapped turtle or frog is observed, the on-call biologist shall move the animal to a safe nearby location per the translocation procedures.

To avoid attracting known predators of western pond turtles and yellow-legged frogs to the project site, all food-related trash items such as wrappers, cans, bottles, and food scraps would be disposed of in solid, closed containers (trash cans) and removed from the entire construction site at the end of each working day.

An employee education program would be conducted for contractors and their employees involved in the project prior to the initiation of construction activities. The program would consist of a brief presentation by persons knowledgeable about pond turtles and yellow-legged frogs. The program would include the following: a description of the species and their habitat needs, photographs, an explanation of the legal status of the species, and a list of measures being taken to reduce effects to these species during project construction. A fact sheet conveying this information shall be prepared for distribution to contractors and their employees and anyone else who may enter the construction site. Upon completion of training, employees shall sign a form stating that they attended the training and understand all the conservation and protection measures. The original form(s) shall be submitted to the CDFG.

A representative shall be appointed by the proponent of the Proposed Action who would be the contact source for any employee, contractor, or agency personnel who might inadvertently kill or injure a pond turtle or yellow-legged frog, or who finds a dead, injured, or entrapped individual. The representative would be identified during the employee education program. The representative's name and telephone number shall be provided to the CDFG.

If a pond turtle or yellow-legged frog, or any animal that construction personnel believes may be either of these species, is encountered during project construction, the following protocol shall be followed:

- All work that could result in direct injury, disturbance, or harassment of the individual animal shall immediately cease.
- The foreman and on-call biologist shall be immediately notified.
- The on-call biologist shall move the turtle or frog to a safe nearby location per the translocation procedures. In the case of trapped animals (e.g., in a ditch or trench), the on-call biologist shall be immediately contacted and the

construction foreman shall monitor the disposition of the animal until the on-call biologist relocates the animal.

Tightly woven fiber netting or similar material shall be used for erosion control or other purposes at the project to ensure that foothill yellow-legged frogs or juvenile western pond turtles do not get trapped. This limitation would be communicated to the contractor through use of Special Provisions included in the bid solicitation package. Plastic monofilament netting (erosion control matting) or similar material shall not be used in construction areas because turtles or frogs may become entangled or trapped in it.

The use of pesticides, rodenticides, and herbicides in construction areas shall be utilized in such a manner to prevent primary or secondary poisoning of pond turtles or yellow-legged frogs and the depletion of prey populations on which they depend within the project area. All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other appropriate State and Federal regulations, as well as additional project-related restrictions deemed necessary by the California Department of Fish and Wildlife.

During all construction in the vicinity of pond, stream, and its tributaries, BMPs shall be used to minimize erosion and impacts to water quality to protect water quality in downstream areas used by pond turtles and yellow-legged frogs.

Additional terrestrial species mitigation measures to limit disturbance to California spotted owls, fisher, and FSS bat species:

Any hardwood or conifer trees greater than 20 inches in dbh selected for removal should be inspected by a qualified wildlife biologist for potential nests or dens (cavities, entrance holes) suitable for California spotted owl or Pacific fisher. Cavities suitable for these species would be examined with portable camera probes to determine if they are occupied. If California spotted owls or fishers are present, nests/dens would be flagged and construction-activities would be avoided within a minimum of ¼ mile surrounding each occupied nest/den. If California spotted owls/fishers are not detected, potential nest/den trees may be removed under the direction of the qualified biologist.

1. Botany and Invasive Non-native Weeds

- The 5-10 Spanish broom shrubs growing between North Fork Willow Creek and the road / driveway off of Road 432 to the old Falls Resort site (Alt 2) would be removed prior to the start of project activities using a weed wrench (contact Forest Botanist for assistance). The area where the broom is now growing would be flagged clearly for avoidance during all stages of project implementation, as the soil is contaminated with broom seeds. BLWC assumes responsibility for controlling broom in this small area for at least 5 years (hand-pulling seedlings) until the Forest Service agrees that this infestation is eradicated.
- All off road equipment would be cleaned/washed prior to being mobilized to the project site. Equipment may be inspected by the Forest Service to verify that it is free of soil, seeds, vegetative material, or other debris that may hold or contain invasive weed seeds.

- Project activities would remain on established roads as much as practicable and soil disturbance would be minimized to the extent practicable.
- Any seeding or mulching for erosion control must be approved by the Forest Service prior to purchasing or applying. Any material used for erosion control or restoration would be from certified weed free sources (i.e. mulch, straw wattles, etc.). USFS Policy on locally native plant materials would need to be adhered to for seeding or planting; and as it can be difficult to obtain certified weed free mulch on the open market, conferring with the Forest Botanist to minimize the chance of weed introduction is necessary.
- A revegetation plan would be prepared in coordination with the Forest Botanist as soon as possible after the Decision is signed and the Alternative to be implemented is known. The objectives of restoring decommissioned sites to a natural state as rapidly as possible may involve planting or seeding combined with allowing natural revegetation to proceed. **Seed and/or plantings must be collected from or directly adjacent to the site and a year or more lead time for a native plant revegetation contractor is typically needed.**
- Should Forest Service Sensitive or listed T&E plant species be discovered in the project area, BLWC would work with the Forest Service on specific design measures to protect and conserve the population(s).

2. Hydrology

- *Roads*

All existing roads under Special Use Permit (e.g., at the existing facility) would be brought to and maintained at Forest Service standards for the road type (i.e., Maintenance Level 2, 3, 4, or 5). Construction and maintenance activities of new and existing roads under Special Use Permit to the BLWC must follow water quality protection BMP's 2.1-2.12 as applicable.

The road at the existing facility would need to be brought up to Forest Service standards along its entire length, from the junction with Road 274 to the water tank. The PVC "culvert" (Figure 9c, d) near the entrance would need to be replaced with a properly sized and armored culvert. Since excessive erosion has occurred immediately adjacent to NF Willow Creek, slope stabilization would have to be implemented at the culvert outlet. Moreover, the segment of road that parallels NF Willow Creek (from the 274 junction to the base of the hill where the road ascends to the water tank) should be rocked or paved to minimize sediment delivery to NF Willow Creek and the seasonal channel.

If left as a native surface road (i.e., Maintenance Level 2) the segment of road that ascends to the water tank would need grading and the installation of rolling dips. The initial leg (Figure 7a) would need at least 3 rolling dips installed at the top of the hill and two more at the appropriate spacing along the segment. The rutted switchback and final leg that ascends to the water tank (Figures 7b) would also need grading. At least two rolling dips should be installed on the final leg to the water tank (Figure 7d).

- *Timber Removal*
If timber removal by mechanized equipment would be required (e.g., Alternative 3), then all timber harvest operations must follow water quality protection BMP's 1.1-1.25 as applicable.
- *Stream Channel Rehabilitation*
Incision caused by discharge from the facility can be mitigated by preventing any additional discharge from occurring. It is assumed that the existing facility would be decommissioned and removed from the property, so further discharge shouldn't continue to impact the channel; however, if any discharge into the channel is still planned, then a mitigation design would need to be devised to prevent any further impact to the channel.
Remediation of the headcut in the ephemeral channel next to the existing facility would require brushing and ground disturbance that would likely cause the channel banks to become less stable until the area re-vegetates. Propagation of the headcut would continue until it reaches the break in slope, approximately 25 meters from its current location. At that point, the headcut would encounter a dominantly boulder-controlled A2-3 channel and cease headward migration. Since the channel is ephemeral and fed by a relatively small subwatershed (0.85 mi²), vertical deepening of the headcut is not likely, but would continue headward migration at the same incision depth until its headward migration is checked by the boulder-controlled segment of the channel. Since it does not have far to travel until headward erosion ceases, this would rank this as a lower priority, and it is recommend that it be monitored.
- *Water Tank Discharge:*
Discharge from the water tank at the existing facility is causing erosion and sediment delivery to the seasonal channel and damage to the access road. It would be preferred that no water be released in an unregulated fashion from the water tank. If, however, this is a necessary part of the facility's operation, then at a minimum, the discharge water needs to be rerouted so as not to damage the road or the channel. If the discharge can be routed to the headward part of the seasonal channel (in the boulder-controlled segment), this may help dissipate much of the erosive energy.

3. Recreation

- To avoid conflicts with Forest visitors, a quarter-mile limited operating period (LOP) on construction activities would be established around the designated recreation sites during peak season months from May 1st through September 30th for the affected areas. In addition, construction would only take place during normal business operation hours; no earlier than 8AM and no later than 5PM.
- Outside the LOP and contingent upon the safety of the public, the designated recreation sites would be fully accessible to the public on weekends.

- Any damage to recreation site structures such as tables, signs and site barriers as a result of project activities shall be repaired or replaced immediately, to pre-project condition.
- The location of landings and staging areas for project equipment within developed recreation sites shall be in coordination with District Recreation Officer.
- During project activities, access to dispersed recreation on or near NFTS roads, trails and areas would continue contingent upon the safety of the Forest visitor.
- All construction equipment and materials for the new treatment plant site will enter the property from the south via County Road 432. No equipment, supplies, or construction traffic would access the site from the west via the unpaved access road with the exception of minor construction traffic associated with the installation of the sewer line. Demolition and removal equipment for the existing water treatment plant will enter the site through County Road 274 and the unpaved access road leading to the current facilities.
- BLWC shall minimize safety issues caused by construction truck traffic activities by restricting truck deliveries to off-peak hours (8:00 a.m. until 5:00 p.m., Monday through Friday, no restriction on weekends). Cones and signs shall be used to warn motorists of the construction activities near the project entrance. Flagmen shall be utilized as necessary to control construction truck traffic entering and exiting the project site at County Roads 432 and 274 and whenever children are present at the Bass Lake

4. Visual Resources

The visual resources design features and mitigation measures would aid in achieving the Forest Plan VQO of Retention. These visual resources design features and mitigation measures include:

- Plants shall be planted in the locations shown on Figures 21 and 22 for screening. BLWC's engineer shall work with the Forest Landscape Architect and District Botanist to identify the specific planting locations on the site.
- All Planting Plans and corresponding Irrigation Plans, including plant species and sizes shall be approved by Forest Landscape Architect and District Botanist.
- The selection of paint colors for buildings, water tanks, and any other built-structure shall be reviewed and approved by the Forest Landscape Architect.
- Construction drawings shall be reviewed by the Forest Landscape Architect for identification of tree removal and placement of built-structures to ensure screening.
- BLWC's engineer shall work with the Forest Landscape Architect on the construction specifications to ensure Forest Service procedures and protocols are implemented on Forest Service land.

- Contractor to protect existing retaining wall from damage during construction and to reconstruct the existing retaining wall, where needed, to maintain soil retention, avoid erosion and protect trees.
- All cut trees and shrubs shall be removed off Forest Service land and not piled on-site.
- A tree protection zone shall be created extending to the dripline or a distance of 1.5 feet (radius) for every inch in tree dbh, whichever is greater. This area shall be designated with a removable fence. No ripping shall be done. Mechanical treatments within the tree protection zone/dripline shall be avoided. (Dripline is defined as the area directly below the branch ends of the tree to the trunk. Reference: Protecting Trees from Construction Damage; Minnesota Extension Service; NR_FO_6135-S, 1993, pg. 1.)
- Place project equipment in locations where they are not visually evident to the casual Forest visitor from the key viewing points.

APPENDIX 2

Visual Resources Analysis

The environmental consequences are described using photo simulations and the visual resources indicator of visual quality levels to determine compliance with the Forest Plan visual quality objectives (VQOs) and visual resources management direction. At the end of each photo simulation, a description using the visual quality levels is presented to discuss the effects on visual resources.

a) *Alternative 1:*

KVP#1: There would be no direct or indirect effects to visual resources from KVP#1 under Alternative 1. The viewing point towards Alternative 2 location would continue to consist of a largely undisturbed and continuous covered forest-canopy that overall meets the visual quality level of Retention. The Alternative 3 location would not be seen from this viewing point because views are screened by existing vegetation and landform. An undisturbed forest-canopy dominates the views towards the Alternative 3 location that overall meets the visual quality level of Retention. The visual quality level of Retention is in compliance with the Forest Plan VQO of Retention. Because there would be no direct and indirect effects, there would be no cumulative effects to visual resources when combining the actions in the No Action alternative with the past, present, and reasonably foreseeable activities.



KVP#1 Developed Recreation Sites (Little Denver Church Picnic Site) – Alt. 1



KVP#2 Bass Lake – Alt. 1

KVP #2 Bass Lake:

There would be no direct or indirect effects to visual resources from KVP#2 under Alternative 1. The viewing point towards Alternative 2 location would continue to consist of a largely undisturbed forest-canopy in the foreground with rock outcroppings that overall meets the visual quality level of Retention. There are some minor or unnoticed contrasts such as existing roads, bridges, and utilities such as power lines, but the natural setting still remains dominant. The Alternative 3 location would not be seen from this viewing point because views are screened by existing vegetation and landform. An undisturbed forest-canopy dominates the views towards the Alternative 3 location that overall meets the visual quality level of Retention. The visual quality level of Retention is in compliance with the Forest Plan VQO of Retention.

Because there would be no direct and indirect effects, there would be no cumulative effects to visual resources when combining the actions in the No Action alternative with the past, present, and reasonably foreseeable activities.

KVP #3 County Road 432 (Direction towards Falls Beach Picnic Site): There would be no direct or indirect effects to visual resources from KVP#3 under Alternative 1. From this viewing point, the existing dirt road leading to the former site of the Falls Beach Resort would be visible to the casual Forest visitor, but would continue to remain subordinate with the surrounding colors found in the characteristic landscape. The rest of the viewing point towards Alternative 2 location consists of a natural-evolving setting screened by existing vegetation that overall meets the visual quality level of Retention. There are some minor or unnoticed contrasts such as existing roads, bridges, gates, signage, and utilities, but the natural setting still remains dominant. The Alternative 3

location would not be seen from this viewing point because views are screened by existing vegetation and landform. An undisturbed forest-canopy dominates the views towards the Alternative 3 location that overall meets the visual quality level of Retention. The visual quality level of Retention is in compliance with the Forest Plan VQO of Retention.

Because there would be no direct and indirect effects, there would be no cumulative effects to visual resources when combining the actions in the No Action alternative with the past, present, and reasonably foreseeable activities.



KVP#3 County Road 432 (The direction towards Falls Beach Picnic Site) – Alt. 1

KVP#4 County Road 432 (Direct view towards Alternative 2 location): There would be no direct or indirect effects to visual resources from KVP#4 under Alternative 1. The viewing point towards Alternative 2 location would consist of views where there is no existing vegetation in the foreground that provides any screening towards Alternative 2 location, including towards the proposed emergency delivery access road location. Although there is no screening, there is existing vegetation at the former site of the Falls Beach Resort that makes the viewing point consist of an undisturbed forest-canopy in the foreground. The existing road that would be used for the delivery access road would remain in the same overgrown conditions and would not be visually evident. The rest of the viewing point towards Alternative 2 location would continue to be screened by existing vegetation that overall meets the visual quality level of Retention. There are some minor or unnoticed contrasts such as existing roads, signage, and retaining wall, but

the natural setting still remains dominant. The Alternative 3 location is not seen from this viewing point because views are screened by existing vegetation and landform. An undisturbed forest-canopy dominates the views towards the Alternative 3 location that overall meets the visual quality level of Retention. The visual quality level of Retention is in compliance with the Forest Plan VQO of Retention. Because there would be no direct and indirect effects, there would be no cumulative effects to visual resources when combining the actions in the No Action alternative with the past, present, and reasonably foreseeable activities.



KVP#4 County Road 432 (Direct view towards Alternative 2 location) – Alt. 1

KVP#5 County Road 432 (Direction towards County Road 222): There would be no direct or indirect effects to visual resources from KVP#5 under Alternative 1. The viewing point towards Alternative 2 location would continue to be screened by existing vegetation that overall meets the visual quality level of Retention. Similar to KVP#3, the existing dirt road leading to the former site of the Falls Beach Resort would be visible but continue to remain subordinate with the surrounding colors found in the characteristic landscape. There are some minor or unnoticed contrasts such as existing roads, bridges, gates, and signage, but the natural setting still remains dominant. The Alternative 3 location would not be seen from this viewing point because views are screened by existing vegetation and landform. An undisturbed forest-canopy dominates the views towards the Alternative 3 location that overall meets the visual quality level of Retention. The visual quality level of Retention is in compliance with the Forest Plan VQO of Retention. Because there would be no direct and indirect effects, there would be no cumulative effects to visual resources when combining the actions in the No Action alternative with the past, present, and reasonably foreseeable activities.



KVP#5 County Road 432 (Direction towards County Road 222) – Alt. 1

KVP#6 Willow Creek: There would be no direct or indirect effects to visual resources from KVP#6 under Alternative 1. The viewing point towards Alternative 2 location would consist of views where there is no existing vegetation in the foreground that provides any screening towards Alternative 2 location. The dirt road and parking area leading to the former site of the Falls Beach Resort would be visible but continue to remain subordinate with the surrounding colors found in the characteristic landscape. The rest of the viewing point towards Alternative 2 location would continue to be screened by existing vegetation that overall meets the visual quality level of Retention. There are some minor or unnoticed contrasts such as the existing intake pipe, but the natural setting still remains dominant. The Alternative 3 location is not seen from this viewing point because views are screened by existing vegetation and landform. An undisturbed forest-canopy dominates the views towards the Alternative 3 location that overall meets the visual quality level of Retention. The visual quality level of Retention is in compliance with the Forest Plan VQO of Retention. Because there would be no direct and indirect effects, there would be no cumulative effects to visual resources when combining the actions in the No Action alternative with the past, present, and reasonably foreseeable activities.



KVP#6 Willow Creek – Alt. 1

KVP#7 Willow Creek Trail (Bridge Crossing and FS Road 7S74S)

There would be no direct effects to visual resources from KVP#7 under Alternative 1 as no Project activities would be proposed. The existing water treatment plant would continue to be visible to the casual Forest visitor, but only for a short period of time while visitors walk on FS road 7S74S and cross the foot bridge going to the Willow Creek Trail. Once passed the bridge, there is existing vegetation in the immediate foreground (0ft. to 300ft.) that screens the existing water treatment plant from the Willow Creek Trail. The structure is well-sited among the trees and repeats much of the line, color, and texture of the timbered site. The dirt road would continue to remain subordinate with the surrounding colors found in the characteristic landscape and be in compliance with the Forest Plan visual resources management direction of designing and constructing roads to be subordinate to the landscape's natural characteristics. Overall, the existing water treatment plant would meet the visual quality level of Partial Retention, a one level decrease from the Forest Plan VQO of Retention. However, the structure would be in compliance with the Forest Plan VQO of Retention because it was constructed in the 1960s before the 1991 Forest Plan was created and was incorporated into the identification of the Forest Plan VQO of Retention for this area.

There would be potential indirect long-term effects to visual resources. Forest visitors would continue to park in the small and narrow opened dirt areas to hike the Willow Creek Trail and can indirectly damage the trees and shrubs that make up the valued characteristic landscape. Because there would be no direct effects as no Project activities would occur, and the indirect long-term adverse effects are not associated with Project activities, there would be no cumulative effects to visual resources when combining the actions in the No Action alternative with the past, present, and reasonably foreseeable activities.



KVP#7 Willow Creek Trail (Bridge Crossing and FS Road 7S74S) – Alt. 1

KVP#8 Angel Falls (Swimming Holes)

There would be no direct and indirect effects to visual resources from KVP#8 under Alternative 1 as no Project activities would be proposed. The existing infrastructure at Angel Falls would continue to be visible to the casual Forest visitor. The rustic color of the existing infrastructure contrasts with the light gray color of the surrounding rocks and would not borrow from the naturally established form, line, color, or texture. Under Alternative 1, this viewing point would meet the visual quality level of Maximum Modification, a three level decrease from the Forest Plan VQO of Retention. However, the infrastructure would be in compliance with the Forest Plan VQO of Retention because it was constructed in the 1960s before the 1991 Forest Plan was created and was incorporated into the identification of the Forest Plan VQO of Retention for this area.

Because there would be no direct and indirect effects, there would be no cumulative effects to visual resources when combining the actions in the No Action alternative with the past, present, and reasonably foreseeable activities.



KVP#8 Angel Falls (Swimming Holes) – Alt. 1

Summary of Effects for Alternative #1

Based on the effects evaluated by the visual resources indicator, seven of the eight key observation points would have no direct, indirect, and cumulative effects. The remaining key observation point would have potential indirect effects but would not be associated with the Project activities so there would be no cumulative effects. All of the eight key observation points would not be in compliance with the Forest Plan VQO of Retention. Overall, Alternative 1 would have negative effects to visual resources.

b) Alternative 2:

KVP #1 Developed Recreation Sites (Little Denver Church Picnic Site): There would be no direct or indirect effects to visual resources from KVP#1 under Alternative 2. The proposed water treatment plant would be visually screened by the existing vegetation and not be visually evident to the casual forest visitor from this viewing point. The viewing point would remain the same as described under Alternative 1. The visual quality level of Retention would be in compliance with the Forest Plan VQO of Retention. Because there would be no direct and indirect effects, there would be no cumulative effects to visual resources when combining the actions in the No Action alternative with the past, present, and reasonably foreseeable activities.

KVP#2 Bass Lake: There would be no direct or indirect effects to visual resources from KVP#2 under Alternative 2. The proposed water treatment plant would be visually screened by the existing vegetation and not be visually evident to the casual forest visitor. The emergency delivery access road would be left in a natural condition with a natural-appearing surface such as decomposed granite or gravel. (Welch, 2015) From this viewing point, the delivery access road would remain subordinate with the colors found in the characteristic landscape. The vehicles such as service or delivery trucks on the delivery access road would be visible from this viewing point but would have temporary effects only when vehicles are on the access road a few times per month. (Welch, 2015) The rest of the viewing point would remain the same as described under Alternative 1. The visual quality level of Retention would be in compliance with the Forest Plan VQO of Retention. Because there would be no direct and indirect effects, there would be

no cumulative effects to visual resources when combining the actions in the Alternative 2 with the past, present, and reasonably foreseeable activities.



KVP#2 Bass Lake – Alt. 2

KVP #3 County Road 432 (The direction towards Falls Beach Picnic Site): There would be no direct or indirect effects to visual resources from KVP#3 under Alternative 2. The proposed paved road leading to the former site of the Falls Beach Resort would be evident to the casual forest visitor from this viewing point, but would remain visually subordinate to the gray colors found in the surrounding characteristic landscape. The rest of the viewing point would remain the same as described under Alternative 1. The proposed paved road would meet the visual quality level of Partial Retention, a one level decrease from the Forest Plan VQO of Retention. However, the paved road would be in compliance with the Forest Plan visual resources management direction of designing and constructing roads to be subordinate to the landscape's natural characteristics. Because there would be no direct and indirect effects, there would be no cumulative effects to visual resources when combining the actions in the No Action alternative with the past, present, and reasonably foreseeable activities.



KVP#3 County Road 432 (The direction towards Falls Beach Picnic Site) – Alt. 2

KVP#4 County Road 432 (Direct view towards Alternative 2 location): There would be short-term direct effects and no indirect effects to visual resources from KVP#4 under Alternative 2 with the implementation of design features and mitigation measures. The proposed water treatment plant and sections of the proposed emergency delivery access road location would be evident to the causal Forest visitor since there is no existing vegetation that provides any screening from this viewing point. The proposed water treatment plant would introduce form, line, and texture with its metal exterior that is found infrequently in the characteristic landscape, but would remain subordinate to the surrounding green color found in the characteristic landscape. With the implementation of the visual resources design features and mitigation measures, the proposed water treatment plant would meet the visual quality level of Retention in 1-5 years after project completion as vegetation growth occurs. The visual quality level of Retention would comply with the Forest Plan VQO of Retention and be consistent with the Forest Plan visual resources management direction of managing activities affecting vegetative cover type or structure to be visually buffered (i.e., screened) after completion. Until vegetation growth occurs, the proposed water treatment plant would meet the visual quality level of Partial Retention, a one level decrease from the Forest Plan VQO of Retention.

Because there would be short-term direct effects (1-5 years) and no indirect effects, there would be no cumulative effects to visual resources when combining the actions in the Alternative 2 with the past, present, and reasonably foreseeable activities.



KVP#4 County Road 432 (Direct view towards Alternative 2 location) – Alt. 2

KVP#5 County Road 432 (The direction towards County Road 222): There would be no direct or indirect effects to visual resources from KVP#5 under Alternative 2. The proposed paved road leading to the former site of the Falls Beach Resort would be evident to the casual forest visitor from this viewing point, but would remain visually subordinate to the gray colors found in the surrounding characteristic landscape. The rest of the viewing point would remain the same as described for KVP#3 under Alternative 1 (Figure 11). The proposed paved road would meet the visual quality level of Partial Retention, a one level decrease from the Forest Plan VQO of Retention. However, the paved road would be in compliance with the Forest Plan visual resources management direction of designing and constructing roads to be subordinate to the landscape's natural characteristics. Because there would be no direct and indirect effects, there would be no cumulative effects to visual resources when combining the actions in the Alternative 2 with the past, present, and reasonably foreseeable activities.



KVP#5 County Road 432 (The direction towards County Road 222) – Alt. 2

KVP#6 Willow Creek: There would be short-term direct effects and no indirect effects to visual resources from KVP#6 under Alternative 2 with the implementation of design features and mitigation measures. The proposed water treatment plant would be evident to the causal Forest visitor since there is no existing vegetation that provides any screening from this viewing point. The proposed water treatment plant would introduce form, line, and texture with its metal exterior that is found infrequently in the characteristic landscape, but would remain subordinate to the surrounding green color found in the characteristic landscape. With the implementation of the visual resources design features and mitigation measures, the proposed water treatment plant would meet the visual quality level of Retention in 1-5 years after project completion as vegetation growth occurs. The visual quality level of Retention would comply with the Forest Plan VQO of Retention and be consistent with the Forest Plan visual resources management direction of managing activities affecting vegetative cover type or structure to be visually buffered (i.e., screened) after completion. Until vegetation growth occurs, the proposed water treatment plant would meet the visual quality level of Partial Retention, a one level decrease from the Forest Plan VQO of Retention.

Because there would be short-term direct effects (1-5 years) and no indirect effects, there would be no cumulative effects to visual resources when combining the actions in the Alternative 2 with the past, present, and reasonably foreseeable activities.

**KVP#6 Willow Creek – Alt. 2**

KVP#7 Willow Creek Trail (Bridge Crossing and FS Road 7S74S): There would be beneficial direct effects to visual resources from KVP#7 for Alternative 2. Under the Alternative 2, the Project scope would include decommissioning the existing water treatment plant and rehabilitation of NFS lands impacted by the existing facility. The existing FS road 7S74S would remain as a dirt road with some water bars to access the water storage tank. (Welch, 2015) With the removal of the existing water treatment plant and maintaining the dirt road, this viewing

point would meet the visual quality level of Retention as built-structures would not be visually evident to the casual Forest visitor. The visual quality level of Retention would be in compliance with the Forest Plan VQO of Retention and Forest Plan visual resources management direction. There would be potential indirect long-term effects to visual resources similar to Alternative 1 from this viewing point.

Because there would be beneficial direct effects and the indirect long-term adverse effects are not associated with Project activities, there would be no cumulative effects to visual resources when combining the actions in the Alternative 2 with the past, present, and reasonably foreseeable activities.



KVP#7 Willow Creek Trail (Bridge Crossing and FS Road 7S74S) – Alt. 2

KVP#8 Angel Falls (Swimming Holes): There would be beneficial direct and indirect effects to visual resources from KVP#8 for Alternative 2. Under the Alternative 2, the Project scope would include decommissioning the existing water treatment plant and rehabilitation of NFS lands impacted by the existing facility. Decommissioning would include the removal of all above ground related facilities, including the infrastructure at Angel Falls. With the removal of the infrastructure, this viewing point would meet the visual quality level of Retention as built-structures would not be visually evident to the casual Forest visitor. The visual quality level of Retention would be in compliance with the Forest Plan VQO of Retention and Forest Plan visual resources management direction.

Because there would be beneficial direct and indirect effects, there would be no cumulative effects to visual resources when combining the actions in the Alternative 2 with the past, present, and reasonably foreseeable activities.



KVP#8 Angel Falls (Swimming Holes) – Alt. 2

Summary of Effects for Alternative #2

Based on the effects evaluated by the visual resources indicator, KVP#1 thru KVP#3 and KVP#5 would have no direct, indirect, and cumulative effects. Two key viewing points would have short-term effects (1-5 years) with no indirect and cumulative effects. The last two remaining key viewing points would have beneficial effects. All the key viewing points would be compliance with the Forest Plan VQO of Retention immediately after project completion, except the two key viewing points with short-term effects that would comply with the Forest Plan VQO of Retention in 1-5 years. Overall, Alternative 2 would have beneficial effects to visual resources.

c) Alternative #3

KVP #1 Developed Recreation Sites, KVP#2 Bass Lake, KVP#3 County Road 432 (Direction towards Beach Picnic Site), KVP#4 County Road 432 (Direct views towards Alternative 2 location), KVP #5 County Road 432 (Direction towards County Road 222), and KVP#6 Willow Creek: There would be no direct or indirect effects to visual resources from KVP#1, KVP#2, KVP#3, KVP#4, KVP#5, and KVP#6 under Alternative 3. These viewing points do not apply to Alternative 3 as the Alternative 3 location would not be seen from these viewing points because views are screened by existing vegetation and landform. The viewing points would remain the same as described under Alternative 1 (see pictures above). The visual quality level of Retention would be in compliance with the Forest Plan VQO of Retention. Because there would be no direct and indirect effects, there would be no cumulative effects to visual resources when combining the actions in the Alternative 2 with the past, present, and reasonably foreseeable activities.

KVP#7 Willow Creek Trail (Bridge Crossing and FS Road 7S74S): There would be long-term adverse direct and indirect effects to visual resources from KVP#7 for Alternative 3. Under the Alternative 3, the Project scope would remove the existing water treatment plant and include 1300-linear feet of road construction including asphalt pavement, curb, and gutter with 1750-linear feet of retaining wall up and down slope of the road, including FS road 7S74S. Since the area around the existing facility is too small to accommodate the footprint of the new facility, a

new road would need to be constructed off of FS road 7S74S leading to a suitably large area. The proposed paved road and retaining walls and the removal of approximately 150 trees would dominate the characteristic landscape from this viewing point as the proposed built-structures would not borrow from naturally established form, line, color, or texture. Under Alternative 3, this viewing point would meet the visual quality level of Maximum Modification, a three level decrease from the Forest Plan VQO of Retention and would not be in compliance with the Forest Plan visual resources management direction.

There would be potential indirect long-term effects to visual resources similar to Alternative 1 from this viewing point. In addition, additional vegetation could result in a later mortality due to the soil disturbance caused by the construction of the proposed paved road and retaining walls. There would be no design features and mitigation measures applicable to Alternative 3 to minimize and screen the visible disturbances and aid in meeting the Forest Plan VQOs of Retention from the Willow Creek Trail, bridge, and FS Road 7S74S. Because there would be long-term adverse direct effects and potential indirect effects, there would be cumulative effects to visual resources when combining the actions in the Alternative 2 with the past, present, and reasonably foreseeable activities.

KVP#8 Angel Falls (Swimming Holes): There would be no direct and indirect effects to visual resources from KVP#8 for Alternative 3 as no Project activities would be proposed at the Angel Falls. Similar to Alternative 1, the existing infrastructure would continue to remain in their current conditions and continue to be visible to the casual Forest visitor. The rustic color of the existing infrastructure would continue to contrast with the light gray color of the surrounding rocks and would not borrow from the naturally established form, line, color, or texture. Under Alternative 3, this viewing point would meet the visual quality level of Maximum Modification, a three level decrease from the Forest Plan VQO of Retention. However, the infrastructure would be in compliance with the Forest Plan VQO of Retention because it was constructed in the 1960s before the 1991 Forest Plan was created and was incorporated into the identification of the Forest Plan VQO of Retention for this area. Because there would be no direct and indirect effects, there would be no cumulative effects to visual resources when combining the actions in the No Action alternative with the past, present, and reasonably foreseeable activities.

Summary of Effects

Based on the effects evaluated by the visual resources indicator, seven of the eight key viewing points would have no direct, indirect, and cumulative effects. The remaining key viewing point would have long-term adverse direct and indirect effects. One of the eight key viewing points would not be in compliance with the Forest Plan VQO of Retention. Overall, Alternative 3 would have negative effects to visual resources.

Appendix 3

Bass Lake Water District Project Response to Comments

The legal notice for the opportunity to comment on the pre-decisional environmental assessment (EA) appeared in the newspaper of record (*Fresno Bee*) on February 25, 2015. The 30-day comment period ended on March 27, 2015. In response to the Forest's request for comments, 12 letters were received expressing interest during the comment period (see Table 1). The letters and the comments within each letter were sequentially numbered, and provided a unique comment identification number and a response (see Table 2). (Two of these letters had identical content.) A letter was also received after the end of the comment period. This letter had identical content to a letter that was received during the comment period and therefore the comments were addressed however these commenters may not have standing to object to the proposed decision.)

Each of the comments were reviewed and analyzed. They were identified as either being substantive or non-substantive. Substantive comments are: within the scope of the proposed action; specific to the proposed action; have a direct relationship with the proposed action; and, include supporting reasons for the Responsible Official to consider (36 CFR 215.2).

Copies of the letters are in the Bass Lake Water Company Water Treatment Plant Project planning record located at the Sierra National Forest, Supervisor's Office in Clovis, CA.

Table 1. Bass Lake Water Company Water Treatment Plant Project 30-Day Comment Period Commenters

| Letter | Name | Received |
|--------|---|--|
| 1 | Marc Sobel | 03.07.2015 |
| 2.1 | Nita Kiehlmeier, William K. Valner, | 03.13.2015 |
| 2.2 | William Mossman, Rosalee Mossman | 03.19.2015 Letter identical to #2.1 |
| 3 | Peter and Helen Ferbrache | 03.13.2015 |
| 4 | Stephen R. Welch | 03.19.2015 |
| 5 | Beverly Fleming | 03.21.2015 |
| 6 | Anjes Morris | 03.24.2015 |
| 7 | Terri Anderson | 03.25.2015 |
| 8 | Toodie and Henry Brendle | 03.26.2015 |
| 9 | Peggy Briscoe | 03.26.2015 |
| 10 | State Water Resources Control Board | 03.26.2015 |
| 11.1 | Nancy and Robert Cadenazzi | 3.25.2015 |
| 11.2 | Marilyn Harrington, Ralph Fagundes, Philip Fagundes, Michael Fagundes, Jamie Lacy | 3.28.2015 |
| 12 | Diane Marks | 3.25.2015 |

Table 2. Response to Comments

| Comment Number | Comment | General Response |
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| 1-1 | I support the alternate #2 because it makes the most sense. The new facility is far enough away from the street and other homes. Screening will provide isolation from the road. Access for construction and continued use minimizes impact on the Forest. This is more cost effective as well. It puts the new facility near the boundary of the Forest so there is less impact on the Forest. This proposal is the best for both community and the forest. | The decision maker will consider your opinion while making his decision. |
| 2-1 | Why do we need to move this plant near homes and ruin a pristine recreation area? | <p>The commenter expresses concerns about the relocation of the WTP near homes and the potential impacts on recreation.</p> <p>The SNF took a hard look at these concerns of moving the WTP location. The new WTP location will be 0.25 miles away from the nearest residence (EA pg. 3). The analysis in the Project EA showed that there would be no impact on property values due to the change in location (EA pg. 3); there would be no impacts to area residents due to noise (EA pg. 4) since noise would be contained inside buildings except for short-term emergencies when a generator may be needed.</p> <p>There would be no long-term impacts due to traffic (EA pg. 4) because the level of traffic, once the construction is over, would remain at the same level as the current situation as the number of employees operating the treatment facility would not change. However there would be short-term impacts to transportation in the local area. Due to conditions, construction truck traffic carrying loads could impose a safety issue to themselves as well as local traffic. However, traffic</p> |

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| | | <p>and transportation impacts will be counteracted with several measures including the establishment of operational hours and the use of traffic direction. (See Recreation Design Criteria in Appendix 1 pg. G for specific measures.) There will be an increase in traffic during the construction of the facility at Falls Beach; however, there will be measures taken to counteract this temporary increase in traffic including flagmen, non-peak times of entry, entry location, signage and coning among others.</p> <p>The SNF evaluated all the potential impacts to residents raised during scoping or the comment period and based on the analysis did not find any potential impacts to local residents. There are some short-term impacts on the recreation experience. (EA pg. 16). Visitors would continue to use areas of developed recreation sites, including the nearby Willow Creek Trail and Falls Beach Day Use area. There may be short term impacts to the recreation experience with the noise and sights of heavy equipment use, flagging, work crews, and building materials. The EA describes the effects on scenery from eight sensitive viewing locations around Bass Lake. At the Little Denver Church Picnic Site and from Bass Lake there would be no direct or indirect effects to visual resources. The proposed water treatment plant would be visually screened by the existing vegetation and not be visually evident to the casual forest visitor from this viewing point. Looking toward the Falls Beach Picnic Site there would be no direct or</p> |
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| | | <p>indirect effects to visual resources. The proposed paved road leading to the former site of the Falls Beach Resort would be evident to the casual forest visitor from this viewing point, but would remain visually subordinate to the gray colors found in the surrounding characteristic landscape. There may be some short-term visual effects from County Road 432 and Willow Creek with the implementation of design criteria. The project would have beneficial effects on visual resources from the Willow Creek Trail (Bridge Crossing and FS Road 7S74S) and from the Angel Falls swimming holes as the project includes decommissioning the existing water treatment plant and rehabilitation of NFS lands impacted by the existing facility. (EA Appendix 2)</p> |
| <p>2-2</p> | <p>Leaving the plant upstream would insure safe drinking water without affecting nearby homes and recreation.</p> | <p>The commenter states that safe drinking water would be insured at the upstream location and prefers the plant is sited in that location so residents near the new site would not be affected. The SNF agrees that water could be treated to safe drinking water levels at either location. For affects to nearby residents and recreation see the response to comment 2-1.</p> |
| <p>2-3</p> | <p>Moving parts make noise. What protects home owners and vacationers from noise should that be an issue after the fact?</p> | <p>The commenter expressed concerns that the WTP will produce noise that will disturb homeowners and vacationers. The EA analyzed the effect of the WTP on noise receptors. The EA states that noise will not be able to be heard from receptors outside of the WTP grounds as the mechanical sound generating equipment will be housed inside the</p> |

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| | | building. The building will dampen the noise to the extent that it will not be perceptible outside of the WTP compound (EA pg. 3). The WTP may need to use a generator during short term emergencies. This generator is located outside of buildings and may cause short-term noise disturbance. (EA pg. 3). |
| 2-4 | The bridge and curve in this area makes traffic hazardous. Trucks in and out would add to the noise and congestion. | The commenter expressed concerns that moving the Project will make traffic conditions hazardous and create noise and congestion. An analysis was completed on the potential for increased traffic in the project area indicating that although location will change, the number of personnel required for daily operation of the plant will not change. (EA pg. 4). |
| 2-5 | Visitors take pictures of this area often. Having an unsightly processing plant does not fit here. | The commenter expressed concerns about the visual impacts of the new WTP location. Please see the response to comment 2-1 which addressed the impacts to scenery and visual character to the Falls location. |
| 2-6 | Protect our beautiful falls area and build this plant upstream. | The commenter asks that the beauty of the area be preserved and that the WRP be sited at the original site upstream. Please see comment 2-1 which addresses the potential visual or scenery impacts to the Falls location. The decision maker will consider your opinion that the preferred WTP location would be at the original site while making his decision. |
| 3-1 | We feel the proposed location would be very good and easily accessed by the water company, while screened from the street. We all in this area need the water they provide, plus the fire protection. This new plant would be a greatly needed upgrade. | The decision maker will consider your opinion while making his decision. |
| 4-1 | Based on these and other factors, we | The decision maker will consider your |

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| | <p>urge your approval of the replacement of our existing facility and its relocation to the proposed site as described in Alternative 2 and the issuance of a new Special Use Permit to accommodate this much needed project.</p> | <p>opinion while making his decision.</p> |
| 4-2 | <p>One minor matter in the Draft EA is a clarification regarding our regulatory agency. In the first paragraph of the Summary Section, it states the California Public Utilities Commission (CPUC) regulates our company. While the CPUC regulates matters relating to our rates and service policy, it is the CDPH and State Water Resources Control Board, Division of Drinking Water that oversees and regulates all matters relating to the treatment and delivery of safe drinking water including this project. In prior Forest Service documents, including the Notice of Proposed Action, reference was made to the California Department of Public Health (CDPH) which previously was our regulatory agency. The duties of that agency were absorbed by the Resources Control Board last year.</p> | <p>In response to your comment that the EA contains inaccurate information a change was made in the Final EA reflecting that the State Water Resources Control Board as the governing body over all matters related to the treatment and delivery of safe drinking water.</p> |
| 5-1 | <p>I strongly favor Alternative 3 for the construction of the new WTP. There are advantages to using a location that has already been disturbed and or damaged by the previous activity at this location.</p> | <p>The commenter prefers Alternative 3 and feels that there are advantages to leaving the WTP at the original location. The decision maker will consider your opinion that the preferred WTP location would be at the original site while making his decision. The Responsible Official will evaluate the relative impacts and benefits of the alternatives when he makes his decision. The Project’s EA compares the effects of all the alternatives (EA pp. summary table 9 & 10 with amplified analysis 10 - 20).</p> |
| 5-2 | <p>The water at this site is more pristine than the water at the Alternative 2 site. Pristine mountain water is the ultimate</p> | <p>The commenter expresses concern about potential water quality degradation in the source water at the</p> |

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| | <p>for drinking water.</p> <p>At the Alternative 2 location the water has passed under two road bridges with road pollution landing in it, and has been exposed to numerous people bathing (and some urinating) in it. This doesn't make it a good source for drinking water.</p> | <p>Alternative 2 site which could result in impacts to drinking water quality. Although the EA does not discuss water quality in the source water of either location, the purpose of the WTP is to treat source water to meet drinking water standards in compliance with State Water Resources Control Board requirements. The purpose of the project is to expand the treatment facility to meet these standards which is required even if the plant was left at the original location. Water Plant treatment will be able to purify the source water to drinking water standards. There is no evidence that Alternative 2 is not a good source for the WTP.</p> |
| 5-3 | <p>Alternative 2 depiction shown on page 11, appendix 2, shows the plant clearly visible from Road 432. That means it is clearly visible from the north end of the lake, and probably visible from some of the USFS side of the lake. Mr. Welch has told people that the plant would be placed to the back of this property and would not be publicly visible.</p> | <p>The commenter expresses concern about the visibility of the Alternative 2 location.</p> <p>The Project's EA analyzes the Visual Resources of the project area and with the implementation of the visual resource's design features and mitigation measures the propose water treatment plant would meet the visual quality level of retention in 1 to 5 years after project completion as vegetation growth occurs. Please see page 10 of Appendix 2 of the EA for Visual Resources specialist report. The Responsible Official will weigh and balance the various environmental effects with other social and economic considerations.</p> |
| 6-1 | <p>After learning of the Bass Lake Water Company's plans to install a water treatment plant at the Willow Creek Falls area, I am appalled that the Forest Service would approve such an industrial structure on a pristine spot that is a very popular tourist attraction. I have witnessed many tourists over the years enjoying this beautiful spot as well</p> | <p>The commenter expresses concern about potential effects to recreation and to scenery in the Willow Creek Falls area. Please see Response to comment 2-1 and 5-3.</p> |

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| | as the sound of the waterfalls. | |
| 6-2 | It appears to me that a better environmental solution would be to improve the facility in the same locale that it is now. This would allow the Falls to continue attracting the many visiting tourists who have enjoyed this spot for so many years. | <p>The commenter expresses the opinion that the facility should remain in the existing location which would allow continued recreation and visual benefits.</p> <p>Alternative 1 analyzes the effects of leaving the WTP at the current location however improving the facility at this location has been determined not to be feasible from an engineering standpoint and the WTP would need to be moved to the location in Alternative 3. (See response to comment 2-1 for the impacts of moving the WTP to the new location. The EA also analyzes the effects of the WTP nearest to the existing location as is feasible.</p> |
| 7-1 | I feel quite strongly that alternative 2 the propose action would in actual fact be an eyesore and has absolutely no place in the Falls Beach area. I do not believe nor accept the EA contention that the building itself and the conifer forest would mitigate the disturbance of scenic natural beauty around our beautiful Bass Lake. The proposed site is most inappropriate so close to a major beach and picnic area. | <p>The commenter expresses concerns about the visual impacts of Alternative 2 and the validity of the analysis. The Project’s EA includes an analysis on visual resources completed by the forest’s Landscape Architect. The Visual resources analysis uses photo simulations and the visual resources indicator of visual quality levels to determine compliance with the Forest Plan visual quality objectives (VQOs) and visual resources management direction. This methodology is the standard analytic process used by professionals. See Appendix 2 for full Visual Resources Analysis.</p> |
| 7-2 | I see no legitimate reason that alternative 3 would not be a far more desirable choice. I, therefore, feel strongly that using the same general location as the existing WTP is the best solution. I have studied all the ramifications listed in the Environmental Assessment, and still believe this alternative to be the best | <p>This commenter expresses the opinion that Alternative 3 would be their preferred choice. The decision maker will consider your opinion that the preferred WTP location would be Alternative 3 while making his decision. The Responsible Official will evaluate the relative impacts and benefits of the</p> |

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| | choice for our resort area. | alternatives among other considerations when he makes his decision. |
| 7-3 | The failure to make clear Alternative 3 will most likely be a major impediment on the public realizing what their choices actually are and in providing motivation to make any comment. | The commenter seems to feel that Alternative 3 has not been clearly explained which may impact the public being motivated to continue to participate in the NEPA process for this project. Unfortunately no information was provided that articulates what was not clear about Alternative 3 and therefore the description of Alternative 3 was not clarified in the final EA. The SNF has allowed and encouraged the public to participate in the NEPA process (see EA pp. 2 7 3). The Project's EA describes and compares all alternatives on pages 4-8. In addition, analysis on the Project's effects on resources are also identified on pages 10-20 |
| 8-1 | My wife and I do not understand the lower location for the water plant. The further water travels, trees and vegetation drains water from the creek. Would it be possible to move the location up river across road 274 where there will be less likely people and kids can pee and poop in our drinking water. | The commenter expresses concern about potential water quality degradation in the source water at the Alternative 2 site which could result in impacts to drinking water quality. Please see response to comment 5-2. |
| 9-1 | These people wanted more parking with access to the lake. | The commenter is concerned about adequate lake access parking. Currently the location of Alternative 2 may inappropriately be used for parking. Parking at this location is not compliant with Forest regulations and should not be occurring and therefore this project is not affecting compliant recreation access parking. (EA pg. 18). Although additional lake access parking may be a desire of recreators and people in the community, providing additional lake access parking is not a purpose of this project. Additional projects may be developed to address this need. |

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| <p>9-2</p> | <p>This site does not have a retaining wall as listed and it does not have a paved road to the site.</p> | <p>The commenter believes that the description of the retaining wall and the paved road has been misrepresented. The SNF reviewed the description of the site and believe that the EA is accurate as written related to these items. The retaining wall will be strengthened so even if we are perceiving this differently than the commenter the retaining wall will exist if this alternative is selected. Roads will be developed to be in compliance with the forest plan and will be paved if required even if they are not currently paved. The Project's EA describes and compares all alternatives on pages 4-8.</p> |
| <p>9-3</p> | <p>It should stay where it is or closed to its current location.</p> | <p>This comment supports the same opinion as comment 5-1. Please refer to response to comment 5-1. Also see response to comment 6 – 2.</p> |
| <p>10-1</p> | <p>The DDW urges the SNF to issue the Special use Permit to the BLWC to proceed with Alternative No. 2 which includes the construction of a new water treatment plant. The DDW will work with the BLWC to ensure the implementation of the public education program (activities that include combination of signage, fencing and patrols) to mitigate and minimize contamination of Willow Creek from human Recreational activities.</p> | <p>The decision maker will consider your opinion while making his decision. Thank you for offering your assistance should this alternative been selected.</p> |
| <p>11-1</p> | <p>This is one of the best pristine spots left at Bass Lake. Many cars slow down, stop on the bridge to look at the water coming down the falls into the lake and take a picture. A building with a spigot into the water would definitely be an eyesore when looking at the falls.</p> | <p>The commenter expresses concerns about the visual effects of some of the alternatives. Please see response to comment # 2-1; 5-3; & 7-1</p> |
| <p>11-2</p> | <p>Also, the entry road to this project crosses a small portion of PGE land and is paved and maintained by the private homeowners of the rest of the</p> | <p>The commenter expresses concerns about potential noise impacts. Please see response to comment # 2-1;</p> |

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| | road. At the present time, the homeowners adjacent to the falls can hear the falls running in the quiet of the evening. Will there be a noise of the water treatment plant? Noise does not just stop at the property line but spreads out over the entire area. | |
| 11-3 | In my opinion, a new water treatment plant should be rebuilt in the same location where it is now. It is not within sight of the main tourist area, yet services the Bass Lake community very well. It is not in an area of immediate residential housing and is not an eyesore for picture taking tourists. | The commenter prefers the WTP to be located where is currently is sited so that there are not visual impacts to residents or tourists. Please see response to comments 2-1; 5-1; 5-3; & 6-2. |
| 12-1 | As I stated in my scoping letter to you (attached), the most serious problem with this proposal is that an <u>industrial water treatment plant is planned to be built right in the middle of scenic, recreational, and residential areas.</u> Industrial facilities and processes are inappropriate in these environments. Please see 1.B. for reasons why the BLWC should build its new treatment plant on its own land. | The decision maker will consider your opinion while making his decision. |
| 12-2 | The Alternative Site Location of the BLWC's own land (submitted in my comment letter of July 8, 2013) has not received an analysis in the EA. It is my understanding that all comments submitted in the scoping procedure should be identified and investigated in the EA. It appears that the USFS has failed to do (at least) one of its mandated procedures and failed to provide the information to the public for their comments. | Due to a clerical error, the comment regarding the use of BLWC private land for the project was not initially analyzed. However, it has now been taken into consideration and it was determined that the private location proposed by the commenter was not suitable for this project due to the size and topography of the property. |
| 12-3 | The summary contains two major errors. It states that it was the CA PUC who ordered the BLWC to upgrade its treatment facilities. The other summary error is that it does not include an Alternative #4: siting the new BLWC treatment plant on its own | In response to the CA PUC portion of this comment, please see response to comment 4-2 above. The proposed alternative site by the commenter was determined to not be a suitable alternative as detailed in response to comment 12-2 above. |

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| | private land. | |
| 12-4 | The Introductin/Background (page 1) states “The BLWC obtains their water through exercising its State appropriated water rights ...” This EA statement seems to promote the conclusion that the Willow Creek water is its only source. This is not true. The BLWC also obtains lots of water from its already existing wells, some of which have uranium filters and some of which do not. | It is true that BLWC uses other water sources in addition to Willow Creek. However, according to a Consumer Confidence Report, Willow Creek is the main source for the BLWC. Also, the project is mainly concerned with Willow Creek. Language was changed in the EA to prevent any further confusion. |
| 12-5 | Many colorful photos and many words are given to promote the finding that there would be no direct or indirect effects to visual resources. However, from the photos themselves, one can see the superimposed industrial buildings and tanks showing blatantly and clearly in the following photos: KVP #2, Bass Lake, Alt. 2; KVP #4, County Road 432, Alt. 2; KVP #6, Willow Creek, Alt. 2. Any resident who uses that road routinely will be seeing those industrial building every time s/he goes by, as will also all the tourists who use Road 432. The Visual Resources analysis needs to be redone to more truthfully reflect what the visual effects will be from this project. | According to Appendix 2 of this document, KVP #2 would have an effect of visibility of vehicles on the delivery access road; however, this KVP still meets the Forest Plan VQO of Retention. This appendix also outlines that KVP #2 and KVP #4 will have short term effects of visibility for 1-5 years until the vegetation grows, but these KVP’s still meet the Forest Plan VQO of Retention. |
| 12-6 | There are several inadequacies in this EA which was given to the public. For instance, there are no expert consultants’ reports in the EA on possible and/or probable noise resulting from industrial water plant processes... Another example of inadequate information for decision making is that there is no Soils Engineer Report on the proposed Alt. 2 site. The picturesque stone wall that is presently holding up that hillside is not a “retaining wall”; it has no concrete or rebar infrastructure... | In response to the commenter’s concern with the noise produced by the water plant, page four of the EA addresses the possible scenario of noise disturbance. The section on noise disturbance in the EA states, “Considering the worst case scenario, if the operational or construction noise was at the level of a jack hammer (which has 110 decibels at 1 meter distance) then the noise level at the residences 0.25 miles away would be 57 decibels which is the level of normal conversation or the noise from an air conditioner unit (based on decibel distance equations). It is highly |

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| | | <p>unlikely based on the operational equipment being housed within a building that the long term effects of noise outside the building would be at the decibel level of a jack hammer.”</p> <p>The concern with the soils/retaining wall is addressed in the Visual Resources Design Criteria (Appendix 1) which states, “Contractor to protect existing retaining wall from damage during construction and to reconstruct the existing retaining wall, where needed, to maintain soil retention, avoid erosion and protect trees.”</p> |
| <p>12-7</p> | <p>Decision Framework (page 2 of Introduction) states that one part of the decision is “If the SUP will be issued.” This clause clearly indicates that it is <u>not mandatory</u> that the SUP be issued for this industrial water treatment plant on the shores of Willow Creek on FS land. Therefore, it is possible for the Project to be denied for FS lands, thus requiring the BLWC to find other sites for its new treatment plant, which could indeed be the BLWC/Shult Trust’s own private land.</p> | <p>The decision maker will take into consideration the effects of each alternative when making his decision. A “No Action” alternative does exist in which the current plant would continue to operate. The private land that is owned by BLWC has been determined to be unsuitable for this particular project.</p> |