DONNER SUMMIT PUBLIC UTILITIES DISTRICT WASTEWATER TREATMENT PLANT UPGRADE PROJECT

BACKGROUND

The Donner Summit Public Utilities District (DSPUD) currently operates under a special use permit issued by the U.S. Forest Service, Tahoe National Forest. The U.S. Forest Service, Tahoe National Forest is planning to reissue the authorization for the existing DSPUD facilities once the National Environmental Policy Act (NEPA) and design processes are complete. DSPUD finalized a Wastewater Facilities Plan (the Facilities Plan) for their Wastewater Treatment Plant (WWTP) that includes upgrades to the existing WWTP that would bring the plant into compliance with its National Pollutant Discharge Elimination System (NPDES) Permit No. CA0081621. This document describes the proposed changes to the WWTP.

DSPUD WWTP effluent disposal is regulated under a NPDES permit and waste discharge requirements (WDRs) adopted by the California Regional Water Quality Control Board, Central Valley Region (CVRWQCB) and must be updated every five years. The current regulated flow of effluent from the plant to the South Yuba River is 0.52 million gallons per day (mgd), average dry weather flow (ADWF) and river discharge is prohibited during August and September. DSPUD's WWTP effluent is discharged to the South Yuba River during the wet season when discharges to land are not possible due to snow cover or wet soils. During the dry season, when possible, the effluent is used for irrigation of the Soda Springs Ski Area.

The CVRWQCB adopted new waste discharge requirements for DSPUD's facilities with the adoption of WDRs Order No. R5-2009-0034 (adopted on April 24, 2009). Concurrent with the adoption of new WDRs, the CVRWQCB adopted Cease and Desist Order (CDO) No. R5-2009-0035, which provided a new schedule to achieve compliance with effluent limitations on a number of chemical constituents, including ammonia and nitrate.

The current CDO acknowledges that DSPUD made significant efforts to come into compliance with the ammonia and nitrate effluent limitations, including the installation of an integrated fixed-film activated sludge (IFAS) system in the WWTP Plant 2, one of two biological treatment units in the system. The IFAS system was tested through two years with limited success and mid-course corrections to the WWTP Plant 2 process. In 2005, DSPUD authorized the IFAS equipment vendor to install six additional webs resulting in a complete retro-fit of Plant 2. In 2007, DSPUD authorized the installation of fourteen webs in Plant 1.

During the course of testing and implementing the IFAS system, DSPUD has worked with the vendor in an effort to bring the WWTP into compliance with DSPUD's previous discharge permit. Also during this time additional process upgrades intended to improve the function of the IFAS system relative to ammonia and nitrate removal were identified, including: addition of an ammonia feed system, a soda ash feed system (to control pH), the purchase and installation of a soda ash silo, and other monitoring equipment.

The primary complication for DSPUD in reliably removing ammonia and nitrate is the fact that industry standard processes involving biological removal of these compounds are very sensitive to variations in the quantity, strength, and temperature of influent wastewater coming into the WWTP. DSPUD sees influent wastewater flows and loads during non-peak months (late spring through fall) that are much lower than they can be during the peak period (ski season). Further complicating this is the fact that on a weekly basis, flows and loads vary significantly during ski season. Higher flows and loads occur on the weekends and lower flows and loads occur on the week days.

To effectively remove ammonia and nitrate under circumstances of low ambient influent wastewater temperatures and increased wastewater flows and loads, a sufficient microbiological population must be built up to treat or "consume" and degrade the required wastewater constituents. This is difficult with flows and loads dropping during the week because sewage is the "food" needed to keep a sufficient biological population present and active that will be ready to treat the higher loads on the weekends. Despite recent efforts, the WWTP remains unable to reliably comply with the nitrate and ammonia effluent limitations in their current WDRs.

DSPUD has also faced concerns with nuisance algal growths in the vicinity of their effluent discharge to the South Yuba River. An event in 2008 created significant interest in DSPUD's discharge, but is the only known such nuisance event in the vicinity of the effluent outfall since the commencement of surface discharges in the 1980s. The Facilities Plan identifies potential mitigation measures to reduce the contribution of DSPUD effluent to these nuisance biostimulation events. However, it is currently unclear whether or not the presence of highly treated effluent in the South Yuba River presents an ongoing risk of contributing to nuisance biostimulation events. Subsequent monitoring of the river in the vicinity of the effluent diffuser in the spring and summer of 2009 did not reveal any nuisance biostimulation, although algal growths were observed both above the discharge point and several miles downstream. Follow-up monitoring during spring and summer 2010 has also not revealed any nuisance biostimulation. The general climatic and WWTP effluent conditions at Donner Summit were similar in 2008 and 2009, which makes the correlation between nuisance algal growths and DSPUD's effluent unclear. Climatic conditions in 2008 were also similar to those in 2010, although the peak spring snow melt runoff occurred some weeks later in 2010 due to cooler, wetter conditions.

A further concern with DSPUD's discharge to the South Yuba River includes by-products of the disinfection process. These compounds are formed as a result of reactions between organic compounds found in domestic wastewater and chlorine used by DSPUD to disinfect their effluent prior to discharge. While these compounds can be human carcinogens, there is significant dilution of the effluent in the South Yuba River prior to any subsequent use of the water for potable purposes. The Joint Wastewater Facilities Committee (Joint Committee) formed by the DSPUD and Sierra Lakes County Water District (SLCWD) has elected to implement a new system of disinfection, described in the draft project overview, to deal with disinfection byproduct issues and the potential impact to public safety and aquatic organisms.

DRAFT PROJECT OVERVIEW

The requirements of the CDO and the current WDRs were taken into consideration in the development of DSPUD's Facilities Plan. As a result, DSPUD proposes to implement several improvements to the existing WWTP in order to comply with WDR and CDO requirements. The proposed improvements are expected to bring the WWTP into compliance with final effluent limitations for ammonia, nitrate and disinfection by-products within the ordered time schedule in the CDO and current WDRs. The upgrades would not increase the regulated flow of effluent from the WWTP to the South Yuba River above the 0.52 mgd ADWF limit adopted by the CVRWQCB in the current WDRs.

The proposed wastewater facilities improvements will provide upgraded treatment to meet new discharge requirements and increased capacity to accommodate moderate growth within the service area. Currently, DSPUD serves 818.5 Equivalent Dwelling Units (EDUs), while SLCWD serves 816 EDUs. It is anticipated that as many as 471 and 200 additional EDUs could connect in DSPUD and SLCWD, respectively. The 471 additional EDUs for DSPUD include 109 that have already paid connection fees. The actual number of future EDUs to be served in each District may change depending on the willingness of property owners to participate in the project and fund their fair share of project costs. DSPUD is requesting an amended Special Use Permit for the next 30 years of WWTP operation once the WWTP is upgraded.

The proposed WWTP upgrades would occur on National Forest System (NFS) lands within the existing area permitted to DSPUD under a special-use permit by the U.S. Forest Service, Tahoe National Forest. The project also includes the proposed expansion of the existing effluent irrigation disposal on a parcel owned by Boreal Ridge Corporation, which lies adjacent to the west of the Soda Springs Ski Area.

As part of this project, DSPUD proposes to implement the following:

- Upgrade and reconfigure the existing operations of the WWTP in order to come into compliance with final effluent limitations for ammonia, nitrate and disinfection by-products in their current WDRs.

- Develop the appropriate environmental analyses and evaluations to meet the objectives and requirements of both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

- Submit an updated Special Use Permit Application to the Forest Service that will include the proposed upgrades and reconfiguration of the existing WWTP.

- Expand effluent disposal on the parcel owned by Boreal Ridge Corporation, which lies adjacent to the current effluent disposal parcel (Soda Springs Ski Area).

The Joint Committee recommends a Membrane Bio Reactor (MBR) biological treatment system as the preferred and primary upgrade to bring the WWTP into compliance. The Joint Committee also recommends additional flow equalization and the heating of influent wastewater. These recommendations are consistent with DSPUD's Facilities Plan. Continued use of chlorine (the WWTP currently operates using chlorine as a disinfection agent and this creates disinfection byproducts that are regulated) may not be practical because it may not be possible to maintain compliance with final effluent limitations for continued discharge of disinfection byproducts to the South Yuba River. Consequently, DSPUD proposes to discontinue the use of chlorine and sulfur dioxide during the disinfection process and install an ultraviolet (UV) disinfection system. UV disinfection systems disinfect with ultraviolet light, not chemicals, which will eliminate the discharge of disinfection byproducts to waterways. UV disinfection systems are also proven to sufficiently disinfect wastewater to meet the effluent limitations required by CVRWQCB for DSPUD's WWTP discharges to the South Yuba River.

Specifically the Donner Summit Public Utilities District proposes the following:

I. Influent Flow Equalization – Modification of Existing Equalization Tank

The DSPUD proposes to modify the existing Equalization Storage Tank 1 (EST1) with new mixing and aeration systems. DSPUD proposes to modify the existing 200,000 gallon EST1, which covers approximately 1,500 square feet. The proposed modification will improve mixing to prevent solids settling and will improve aeration to prevent odors without adding excess dissolved oxygen that is detrimental to treatment. As part of the modification, a new building is being proposed to house the new and upgraded mixing and aeration equipment. The new building would be up to approximately 500 square feet and would be located near the existing EST1.

II. Influent Flow Equalization – Development of Additional Equalization Tank

The DSPUD proposes to develop a new 500,000 to 700,000 gallon Equalization Storage Tank 2 (EST2) and an associated Equalization Return Pump Station. Both are currently planned to be located generally north and west of the existing Operations Building (original firehouse), with a new access road included.

The ability to equalize and manage influent flows is a well understood benefit to process control, allowing for improved plant performance and stability. This is of particular importance to DSPUD's plant due to significant fluctuations in flows and loads caused by the areas ski resorts and its transient population. Currently the plant has 200,000 gallons of flow equalization storage capacity.

DSPUD proposes to evaluate 2 options as part of the increase in additional storage for equalization. They include the following:

Option #1

The Facilities Plan estimates a minimum increase of 500,000 gallons of additional equalization storage which would provide up to 700,000 gallons of equalization storage at the DSPUD WWTP. The preliminary design process currently in process will determine the proper amount of storage needed to provide optimal equalization to stabilize plant performance.

Option #2

The Facilities Plan estimates a maximum increase of 700,000 gallons of additional equalization storage which would provide up to 900,000 gallons of total equalization storage at the DSPUD WWTP. The preliminary design process currently in process will determine the proper amount of storage needed to provide optimal equalization to stabilize plant performance.

EST2 would be slightly taller than existing Equalization Storage Tank 1 (EST1). It is proposed that the top water surface elevation in EST2 be slightly lower than in EST1 to allow gravity filling of EST2 from an overflow from EST1 if it is desired to fill the tanks in that order. Alternatively, both tanks could be filled simultaneously through interconnecting piping or independently if either tank is out of service.

Just as the two tanks can be filled simultaneously, they can be drained simultaneously with flow going back from EST2 to EST1 before being metered into the treatment system. However, the lower portion of EST2 that cannot be drained to EST1 or to the headworks (described in Section II below) by gravity would have to be pumped through the proposed new Equalization Return Pump Station to be located near EST2.

Both EST1 and EST2 would be fitted with new jet aeration systems that allow independent control of mixing and aeration. Additionally, both tanks would have overflows that would be routed to the existing Emergency Storage Tank.

The return flow from the Emergency Storage Tank can be connected to EST2 as well as EST1 to allow EST2 to be used for additional emergency storage capacity instead of being used for equalization as desired. For example, in the spring, both the Emergency Storage Tank and EST2 could be used to provide some irrigation storage capacity.

Additionally, DSPUD proposes to construct a new building near the new tank, up to approximately 600 square feet. The proposed new building will house return pumps and possible mixing pumps and aeration blowers near tank.

III. New Headworks Facility

As part of the biological treatment process discussed in Section IV below, a new headworks facility with fine screens needed to protect the MBR treatment process would be constructed just to the north and west of the existing Operations Building. This would require relocating the existing propane tanks that are currently in that location. The new location of the propane tanks

would be determined during preliminary design. Due to excessive head loss concerns, it will probably be necessary to abandon the existing headworks and use only the new headworks.

IV. Biological Treatment Process Improvements

The current WWTP biological process is unreliable and at present there is no way of judging its ability to treat existing and future flows and loads. DSPUD proposes that this process be abandoned in favor of a more reliable and upgradeable system.

A number of different biological treatment processes were evaluated in DSPUD's Facilities Plan, including a Membrane Bioreactor (MBR) system of which there are many proven installations and an Integrated Fixed Film Activated Sludge (IFAS) system. There are two types of IFAS systems: fixed and suspended media. Both IFAS system types are similar in concept to DSPUD's current system but have longer track records and have proven to be successful. The Joint Committee recommends the installation of an MBR system.

There are also other advantages to the MBR process beyond reliability, including:

1. Current plant clarifiers will no longer be needed thus allowing those areas to be used as increased aerobic and anaerobic zones, which allows for more effective ammonia and nitrate removal.
2. Currently an aluminum based polymer has to be fed at the clarifiers to ensure good quality secondary effluent. With the use of the MBR system this would no longer be necessary. This could have a positive effect on the plant's current discharge of aluminum and help it to meet its new permit limitations. This would eliminate the need for costly studies and other treatment processes.
3. The current filtration system would no longer be needed, which would free up space to be used for shop space.

DSPUD proposes to develop a new MBR system that would be configured using the existing treatment system (Plant 1 and Plant 2) for biological reactor basins. The new MBR system would require approximately 5,000 square feet of space and will be housed within a new Membrane and Equipment Building, which is described below. The proposed biological treatment upgrades would require supplemental ammonia to be fed during low-load periods (late summer) to develop and maintain an adequate population of nitrifying bacteria (which convert ammonia in the influent to nitrate and nitrite). The population needs to be maintained at a sufficient level to handle peak loads during the winter ski season. Supplemental carbon source (Methanol or Micro-C) addition will also be required to assure adequate denitrification (nitrogen removal). Alkalinity addition would be required to maintain a stable pH.

The biological process of nitrification consumes alkalinity, which if not replaced, can result in pH depression which would inhibit proper treatment and cause potential violation of effluent limitations. At the present time, the plant includes an alkalinity storage and feed system based on the use of soda ash. The system includes a bulk chemical storage silo together with a slurry batch and feed system. It should be noted that a switch from soda ash to hydrated lime may be

desirable in the future to maintain hardness within the process as well as alkalinity. Minor modifications to the existing soda ash system would be required to convert it to feed hydrated lime.

DSPUD proposes to evaluate 2 options as part of the biological process of denitrification, including the use of Methanol or Micro-C, an alternative carbon source. The options include:

Option #1

Methanol, a non-toxic, but flammable carbon source, will be selected as the carbon source to support denitrification during this biological process option. The methanol storage tanks and feed pumps would be located within a separate facility at the existing WWTP site. Therefore, an additional building would be constructed to house the Methanol storage tanks and feed pumps. The building would follow federal, state, local, and fire safety regulations for housing this type of flammable, non-toxic chemical to mitigate for any potential safety hazard and concern.

Methanol is no more of a safety hazard than propane or diesel, which is already stored onsite; therefore, the storage of Methanol within a building constructed for its safety would mitigate any potential hazard or safety concern. All Methanol fed during the denitrification process is consumed during the process and is not discharged to the South Yuba River. The final size and layout of the Membrane and Equipment Building will be determined during preliminary design.

Option #2

An alternative non-toxic, non-flammable carbon source called Micro-C will be selected as a carbon source to support denitrification during this biological process option. The chemical feed pumps for this could also be located in the same building and potential bulk storage tanks could be located outside the building since Micro-C is a non-toxic, non-flammable, and non-combustible carbon source. All Micro-C fed during the denitrification process is consumed during the process and is not discharged to the South Yuba River. The final size and layout of the Membrane and Equipment Building will be determined during preliminary design.

New membrane basins and associated pumps, blowers, electrical and other equipment would be located in a new Membrane and Equipment Building. The specific layout of the building would depend on the requirements of the membrane equipment supplier to be selected for this project; however, the total building area is estimated to be approximately 8,000 square feet. In addition to the equipment specifically associated with the MBR system, the new Membrane and Equipment Building would be used to house a new boiler and heat exchanger system recommended to maintain a minimum temperature of 7 °C in the reactor basins. Recirculation pumps would be used to circulate mixed liquor through the heat exchangers. Two 1.0 million Btu/hr systems are proposed. It has been documented that the wastewater coming to the treatment plant is very cold with influent temperatures between 4 and 5 °C. This is mainly due to two factors: ambient cold weather conditions and the fact that DSPUD's fresh water source is surface water. As previously stated, this complicates maintaining a good biological process during the winter months. Warming of the biological process increases process activity and overall plant performance.

The specific layout of the building would depend on the requirements of the membrane equipment supplier to be selected for this project. The building size will also depend on the ancillary facilities associated with supplemental carbon source storage and feed, the boiler/heat exchanger, UV disinfection equipment selected (section V) and chemical storage and feed for alkalinity adjustment. At this time, if all of these ancillary facilities are located in a new building along with the MBR equipment, the total building area is estimated to be approximately 8,000 square feet.

V. Disinfection System Improvements

Currently the plant uses chlorine to disinfect its effluent and sulfur dioxide to react with and remove the chlorine before release to the receiving waters (South Yuba River). Chlorine disinfection causes the production of byproducts that are known to be potential human carcinogens. DSPUD's current WDRs restrict the amount of disinfection byproducts as discussed previously. Currently there are two ways of addressing this compliance problem: 1) receiving dilution credits from the CVRWQCB or 2) the use of alternative disinfection processes. Due to the sensitivity of the area, including the South Yuba River, DSPUD is not currently seeking dilution credits for aquatic life criteria. Therefore, DSPUD will apply an approach to compliance that has been proven effective at meeting current WDRs while also eliminating the need to use chlorine and sulfur dioxide during the disinfection process. Discontinuing the use of chlorine and sulfur dioxide during the disinfection process would allow for the current space used to store gaseous chlorine, sulfur dioxide, and monitoring equipment to be converted to laboratory and/or office space. Though not flammable, both chlorine and sulfur dioxide are toxic chemicals that would no longer be stored on site or used during the disinfection treatment process.

DSPUD proposes to discontinue the use of chlorine and sulfur dioxide during the disinfection process and install an ultraviolet (UV) disinfection system. UV disinfection systems are proven to end the discharge of disinfection byproducts to waterways and are proven to disinfect water sufficient to meet the effluent limitations required by CVRWQCB for DSPUD's WWTP discharges to the South Yuba River. The UV system will require approximately 500 square feet of space and will be located within the Membrane and Equipment Building identified in Section IV above.

VI. Solids Handling Process Improvements

DSPUD proposes to modify the existing sludge storage tank with a new mixing and aeration system and a new decanter. It is possible that the pumps and blowers associated with this system could be located in the new Membrane and Equipment Building. Alternatively, a small building (approximately 500 s.f.) could be provided adjacent to the sludge storage tank. The most cost-effective configuration will be selected during preliminary design.

VII. Expansion of Existing Effluent Disposal to Land

DSPUD currently operates a 45-acre irrigation disposal system at the Soda Springs Ski Area, which is a parcel of land not owned or managed by NFS. This property is owned by Boreal

Ridge Corporation. Portions of the area typically have moist soils even without irrigation utilized for sprinkler application of effluent. The net effective existing irrigation area is estimated to be about 36 acres. DSPUD proposes to modify and/or expand the spray irrigation disposal system to accommodate additional effluent generated by growth within DSPUD and SLCWD. This additional land disposal area is needed because the proposed WWTP expansion will generate more effluent, if that proposed additional growth is included in the project's final design. DSPUD intends to include spray irrigation disposal system expansion in its environmental analysis to determine if it is feasible to expand the system within the 36-acre parcel directly owned by the Boreal Ridge Corporation.

The acreage needed to accommodate growth will be determined during preliminary design. However, DSPUD will evaluate the potential to use up to 15 acres of the parcel for irrigation expansion to ensure that the environmental analysis does not underestimate the number of acres that will be required for land disposal As mitigation incorporated into the project design, the location of the sprinkler expansion will be based on findings of resource surveys conducted as part of the CEQA/NEPA process (to minimize impacts). These surveys will require a soils evaluation by scientists and geohydrologists to ensure the most suitable area for new sprinkler irrigation.

VIII. Conversion of Existing Effluent Filtration and Disinfection Systems to Shop Space

At the WWTP DSPUD proposes to modify building space within the existing Advanced Treatment Building (currently housing the effluent filtration system) to shop space. The filtration system would have to be removed and improved ventilation, lighting, and other features added to meet its new intended function (to be determined during preliminary design). Demolition of existing facilities may be required, which would be followed by upgrades needed for the intended use.

IX. Conversion of Existing Chlorine and Sulfur Dioxide Storage and Feeding Systems to DSPUD Office Space

DSPUD proposes to convert 430 square feet of Advanced Treatment Building to new office space. The 430 square feet of new DSPUD office space is currently used for chlorine and sulfur dioxide storage and feeding.

X. Modification to Existing Equipment Building

As part of the project, DSPUD may modify the existing equipment building located between Plants 1 and 2. The equipment building houses the DSPUD laboratory. It has been suggested that the preliminary design consider relocating the lab to a mechanical room on the second floor of the equipment building and retrofitting the existing lab to office space. Miscellaneous mechanical improvements related to equipment needed to support upgrades to Plants 1 and 2 may require modifications in the lower level mechanical (blower) room in the equipment building as well.

XI. Installation of Access Roads to Upgraded and Newly Constructed Facilities

As part of the project, DSPUD proposes to install up to 7,500 square feet of new access roads to the upgraded and newly constructed facilities within the DSPUD WWTP upgrade area. These roads would be used during construction and then for future operation and maintenance of the upgraded facilities and new facilities. Access roads will be paved and made permanent for operation and maintenance of all facilities on the site.

XII. Upgrade of WWTP Electrical Service and Emergency Backup Power

As part of the project, DSPUD will evaluate the need to upgrade the existing electrical service at the WWTP. Several pieces of equipment included in the proposed process improvements may increase the electrical load at the WWTP. It is also possible the decommissioning of older equipment and installation of newer, more efficient equipment will mitigate the need for any service upgrade. As a safety feature, the WWTP currently has standby generators to provide power in the event of an outage, or other emergency. The need for additional or upgraded emergency power will be evaluated during preliminary design.

Table 1. Summary of Proposed Donner Summit Public Utilities District WWTP Upgrades

Type of Upgrade	Approximate Size	Functions
Modify existing influent equalization tank with new mixing and aeration systems.	200,000 gallons, covering approximately 1,500 square feet. New building up to approximately 500 square feet near tank.	Improved mixing to prevent solids settling and improved aeration to prevent odors without adding excess dissolved oxygen that is detrimental to treatment. Possible new building to house mixing and aeration equipment.
Additional Influent Equalization Storage Tank and Access to Tank	700,000 gallons size covers up to 5,000 square feet. Building near tank, up to approximately 600 square feet.	Improved plant performance and stability by significantly reducing fluctuations in flows and loads. Building to house return pumps and possible mixing pumps and aeration blowers near tank.
New Headworks Facility	Up to 1,500 square foot facility to house new screening system	New headworks facility with fine screens is needed to protect the MBR process.
Installation of a Membrane Bioreactor (MBR) system	Up to 5,000 square feet in Membrane and Equipment Building.	Improved biological treatment and nutrient removal to meet new discharge requirements.

Type of Upgrade	Approximate Size	Functions
Construction of a new multi-function Membrane and Equipment Building or combination of two buildings.	Total building area up to about 8,000 square feet.	Building to house membrane basins and ancillary facilities, including pumps, blowers, compressors, chemical clean systems, electrical switchgear and instrumentation equipment. Additional equipment may include UV disinfection facilities, boilers, heat exchangers, chemical storage tanks and feed pumps.
Installation of UV disinfection system	Up to 500 square feet in Membrane and Equipment Building.	Effluent disinfection without production of disinfection byproducts.
Modify existing sludge storage tank with new mixing and aeration system and a new decanter	600,000 gallon tank, approximately 3,000 square feet in size. Possible new building up to approximately 500 square feet near tank.	Store residual solids during the winter for dewatering and disposal during the summer. Mixing and aeration functions needed to promote sludge digestion. Decanter needed to remove excess water from tank. Possible new building for mixing and aeration equipment.
Expansion of effluent disposal to land	Up to 15 acres on a non-NFS parcel	Disposal of stored effluent when no discharge occurs to the South Yuba River.
Modify approximately 1,250 square feet of Advanced Treatment Building space	1,250 square feet of building space	Space currently occupied by the effluent filtration system would be converted to a new shop space.
Convert 430 square feet of Advanced Treatment Building to new DSPUD office space	Minimum of 430 square feet of new DSPUD office space	Space currently used for chlorine and sulfur dioxide storage and feeding would no longer be needed with UV disinfection system and that space could be converted to new DSPUD office space
Modifications to the existing Equipment Building	Unknown at this time	Relocate, upgrade and expand laboratory. Convert existing laboratory to office space. Provide necessary modifications to blower room to accommodate upgraded equipment.
Installation of access roads to the upgraded and newly constructed facilities	7,500 square feet of new access roads.	Roads to access facilities to be upgraded and new facilities to be constructed. Access roads will be paved and will be made permanent in order to have access to all facilities on the site.
Upgrade electrical service and/or emergency power	Unknown at this time	Upgrade electrical service and/or emergency power as needed based on findings of the preliminary design.

SITE PREPARATION AND SITE PREPARATION MITIGATION INCORPORATED IN THE PROJECT DESIGN: In order to commence development and construction, existing vegetation needs to be removed and graded for new building sites. All trees and vegetation would be cut within and directly adjacent to improvement boundaries (new buildings, access roads, etc.). Heavy equipment will be restricted from sensitive habitats and areas (determined by biological, archaeological, and historical resource surveys during summer of 2010) and no cutting of trees would occur within any 100 foot riparian conservation area except to remove hazard trees or trees with signs of insect infestation. All slash generated from the tree harvesting would be treated by piling and burning or chipping and removing from the site. Root wads created by removing stumps would be removed from the project area. Any burn piles would be free of dirt and would be no larger than 6 feet x 6 feet and would be burned in conditions that promote good smoke dispersal.

CEQA and NEPA Compliance

DSPUD will assume the lead agency role for the California Environmental Quality Act (CEQA) and the Forest Service will assume the lead agency role for the National Environmental Policy Act (NEPA). Currently DSPUD intends to develop a joint Initial Study and Mitigated Negative Declaration/Environmental Assessment (ISMND/EA) to fulfill CEQA and NEPA compliance requirements. Additional supporting analyses may be needed to make construction and development decisions for DSPUD facilities described herein. The proposed schedule for the development and approval of CEQA and NEPA documentation is listed below in Table 2.

As part of the CEQA/NEPA compliance process, DSPUD and the Forest Service will hold a Joint Public Scoping Meeting with all rate payers, concerned citizens, and environmental groups to integrate their concerns into the CEQA/NEPA joint compliance document. Public review and comment, including review by state and federal agencies, will occur when a Public Draft ISMND/EA is made available for a 30-day public review period.

Table 2. Proposed Environmental Compliance Schedule

Start Date	Start Date	Completion Date
Field Surveys	Late June 2010	October 2010
CEQA and NEPA Public Meetings	September 2010	October 2010
Administrative Draft MND/EA	October 18, 2010	January 31, 2011
Public Draft MND/EA	January 31, 2011	March 7, 2011
CEQA/NEPA Public Review	March 7, 2011	April 22, 2011
Final Draft MND/EA	April 22, 2011	June 3, 2011
Findings Statement, Notice of Determination (NOD)	June 6, 2011	June 24, 2011
Complete Environmental Project Timeline	Late June 2010	June 30, 2011