

ENVIRONMENTAL CHECKLIST

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. AESTHETICS				
Will the proposal:				
a. Have a substantial adverse effect on a scenic vista?				X
b. Substantially damage scenic resources, including, but not limited to, tree, rock outcroppings, and historic buildings within a scenic state highway?				X
c. Substantially degrade the existing visual character or quality of the site and its surroundings?		X		
d. Create a new source of substantial light or glare which will adversely affect day or nighttime views in this area?				X

Setting

Grass Valley is situated in the heart of Gold Country and is nestled in the foothills of the Sierra Nevada. Grass Valley dates back to over 150 years ago, with many of its brick buildings in the central district well over 100 years old. Victorian houses and trees line the streets of old-town Grass Valley. Oak, cedar, and pine trees cover the outlying areas. Wolf Creek flows through much of town, but is encased in a storm sewer in some locations.

The areas surrounding Grass Valley are primarily rural but are being developed for very low-density housing. To the east is the town of Nevada City and the beginnings of the densely wooded Tahoe National Forest. The northern, western, and southern areas consist primarily of dispersed, low-density residential areas, with some "hobby" farms which support horses and other livestock and agriculture. Wildflower grasslands, Manzanita, brush, oak, and pine trees cover the rolling hills.

There are large residential areas and parks east of State Route (SR) 49 and north of SR 20 near the WWTP. Empire High School lies to the northeast. The Nevada County Fairgrounds are approximately 1,500 feet west of the wastewater treatment plant. North of the wastewater treatment plant is the Pelton Wheel Mining Museum. There are residences on Allison Ranch Road across the street from the museum. A large commercial area along Freeman Lane lies east of the equalization basins. South of the commercial area along Freeman Lane is residential development. Views of the wastewater treatment plant from these areas are often blocked by dense forest and brush and steep topography.

The wastewater treatment plant's equalization basins, clarifiers, and buildings can be seen from Freeman Lane, Allison Ranch Road, and the commercial area to the east, and the police training facility (shooting range) adjacent to Equalization Basin No. 1. Wolf Creek, a small perennial stream bounded by dense riparian vegetation, runs through and adjacent to the wastewater treatment plant.

SR 20 is a State Scenic Highway from Route 49 in the project area, to Route 80 near Emigrant Gap (Caltrans 2005). The intersection of SR 20 and 49 is about 0.33 miles from the wastewater treatment plant; however, the plant is not visible from this intersection.

Discussion of Checklist Answers:

a. The project will not have an adverse effect on a scenic vista. The proposed project will require some wastewater treatment plant modifications, but all modifications will occur on the existing wastewater treatment plant site and will not require new ground disturbance or disturbance of natural areas. The chlorine contact basin that is being transformed into the UV disinfection system area will have a roof installed over the modified contact basins. The roof will be made of standing seam metal (dulled or painted) and will be approximately 13 feet above the existing contact basin. The contact basin is located on the north western side of the wastewater treatment plant site. The new roof, while visible from surrounding areas, will not alter any existing vistas because it will blend in with the appearance of the existing wastewater treatment plant. There will be no impacts.

b. The project will not damage any scenic resources, including but not limited to, trees, rock outcroppings, or historic buildings within a scenic state highway. SR 20 is a scenic highway starting at the intersection of SR 20 and 49, about 0.33 miles from the treatment wastewater treatment plant. The wastewater treatment plant is not visible from the intersection; therefore, the project will not have an effect on the scenic highway.

c. All activities and modifications to the wastewater treatment plant will occur within the footprint of the existing wastewater treatment plant. While some structures may look different after modification, the overall appearance of the wastewater treatment plant as an industrial facility will not change. The visual quality of the surrounding area is high; however, the wastewater treatment plant will not increase in height, disturb any previously undisturbed areas, nor will it obstruct any views. The most visible modification will be the addition of the roof over the modified contact basin. If the coloring of the roof does not blend in with the appearance of the wastewater treatment plant, it could become visually obtrusive. Implementation of the mitigation measure below will avoid the potential for significant visual effects from the addition of the roof. The project will have a less than significant impact on the visual quality of the area with implementation of Aesthetics-1.

d. The project will not introduce any new sources of light or glare. The ultraviolet lamps associated with the new disinfection system will be installed within the existing contact basin and will be covered by a new roof to conceal any light or glare. The metal roof will be painted or dulled and therefore would not cause a substantial source of glare. The project will have no impacts associated with light and/or glare.

Conclusion:

Although the project is located in an area of high scenic quality, the proposed project will occur completely within the existing footprint of the WWTP. The modifications will cause small changes in appearance of the facility, but will not change the overall industrial appearance of the wastewater treatment plant, nor will they obstruct any existing views. Implementation of mitigation measure Aesthetics-1 will minimize any visual obtrusiveness of the new roof to be installed over the contact basin.

Mitigation:

Aesthetics-1: The metal roof shall be a neutral color that blends in with the rest of the facility. No obtrusive or bright colors shall be used or painted on the roof.

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<p>2. AIR QUALITY</p> <p>Where available, the significance criteria established by the applicable air quality management or pollution control district may be relied upon to make the following determinations.</p> <p>Will the project:</p>				
<p>a. Conflict with or obstruct implementation of the applicable air quality plan?</p>			X	
<p>b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?</p>		X		
<p>c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?</p>		X		
<p>d. Expose sensitive receptors to substantial pollutant concentrations?</p>			X	
<p>e. Create objectionable odors affecting a substantial number of people?</p>			X	

Setting

Climate

The climate is typically polarized between summer and winter seasons in the vicinity of the project. The winter season is characterized by overcast days and lengthy periods of rain and some snow. January temperatures in Grass Valley average between 40 and 45 degrees Fahrenheit (°F), with occasional temperatures in the single digits and teens. July temperatures range from the mid 60s °F to the mid 70s °F, with occasional temperatures in excess of 100 °F. Air stagnation due to formation of surface and/or elevated inversions is common in the late summer and fall. Surface inversions are formed when cool air is trapped close to the surface by a layer of warm air above it. Elevated inversions occur when a layer of cool air is suspended between warm air layers above and below it. Stagnation allows for the concentration of contaminants, subjecting persons in the region to elevated pollution levels and consequent increases in hazards to health (Northern Sierra Air Quality Management District 2006).

Air Quality

The overall air quality in Nevada County is good but two known air quality problems exist: suspended particulate matter (PM₁₀ and PM_{2.5}) and ozone. PM₁₀ and PM_{2.5} levels in Grass Valley meet federal ambient particulate standards but exceed more stringent State standards in the winter, primarily due to smoke created from wood stoves and fireplaces. Violations in the summer months have been noted during forest fires. The PM₁₀ and PM_{2.5} generation is also associated with dust from construction.

Ozone is also an issue in Grass Valley. In 2005 there were 20 days in Grass Valley with ozone levels that exceeded the 8-Hour National Ambient Air Quality Standards (NAAQS) for ozone. Nevada County is considered to be “non-attainment” for ozone. There were 53 hours on 15 additional days when the California Air Quality Standards for ozone were exceeded. The primary source of Grass Valley’s ozone pollution is from the broader Sacramento area, and to a small degree the San Francisco Bay Area (Northern Sierra Air Quality Management District 2006).

The site is located within the Northern Sierra Air Quality Management District (NSAQMD), which represents Nevada, Plumas, and Sierra Counties. The District is currently in the process of preparing an Attainment Plan for ozone. The County currently has a draft Reasonably Available Control Technology (RACT) State Implementation Plan (SIP).

The plan focuses on reducing pollutants that generate ozone. The District’s stationary source permitting program requires that any source emitting ½ ton per year of any criteria pollutant, precursor, or toxic air contaminant shall first obtain an Authority to Construct/Permit to Operate for the source. This permit is intended to assure compliance with the rules of the District and all other relevant legislation, and contains specific operating conditions and reporting requirements. The District performs regular inspections of its permitted sources to verify compliance (Northern Sierra Air Quality Management District 1999).

Discussion of Checklist Answers:

a. The proposed project will not increase the capacity of the wastewater treatment plant and will result in minimal ongoing emissions. The operation of the proposed project will not result in emissions of particulate matter or ozone precursors. In fact, the project would not have any stationary emission sources of any kind. The placement of covers on the clarifiers to reduce algal growth would also reduce odors.

The majority of project emissions will occur during the construction phase of the project. Construction activities will affect only a small area of the WWTP (about 0.1 acres). Construction activities will include decommissioning/removal of existing structures, some minor grading, and construction of the project modifications. Primary sources emitting ozone precursor air pollutants will be off-road diesel-powered construction equipment, truck trips, and worker trips. Construction activities are expected to occur over 12 months. During this period, a combination of cranes, backhoes, front-end loaders, dump trucks, pavers, and haul trucks will be used. Construction will occur about 8 hours per day, with equipment operating an average of 7 hours per day. Concrete and some fill will be imported to the site. Decommissioned/removed and excavated materials will be removed by dump truck.

Some ozone precursor emissions would result from construction equipment; however, amounts would be minor and are already accounted for by ozone plans in general projected construction estimates. The project would not generate any stationary source of ozone precursors. Emissions will only last for one year. Given the size of the project and the minimal emissions, the project will not prevent implementation of the RACT SIP.

b-c. Project construction will emit PM₁₀ and PM_{2.5}. Dust control measures, as specified in mitigation measure Air-1 will be implemented to minimize the particulate matter emissions during project construction. The project would not involve stationary sources of precursor air emissions, for which the project area is in

non-attainment. Mitigation measure Air-1 will reduce any potentially significant impacts of PM₁₀ emissions to less than significant levels.

d. Sensitive receptors near to the WWTP include residences and parks. The project construction will emit PM₁₀ and PM_{2.5} and construction vehicles will emit precursors to ozone. This is a relatively small construction project, located on an existing facility, and involves no new ground disturbance. Concentrations of pollutants will not be great enough to be a hazard to any sensitive receptors. The impact to sensitive receptors would be less than significant.

e. The project construction and post construction operation will not generate any new odors or subject sensitive receptors to new significant odors. The removal of the chlorine gas system will reduce any chlorine odors associated with the wastewater treatment plant. Some of the concrete and equipment removal work and use of heavy equipment may generate some minor odors; however, the construction period will be temporary and odors will be dispersed within a short distance from the active work area. Impacts will be less than significant.

There are some operational odors associated with a wastewater treatment wastewater treatment plant. Because the wastewater treatment plant already exists, these odors are part of the baseline condition. The modifications to the wastewater treatment plant will help increase the wastewater treatment plant's ability to meet water quality standards and therefore purified water should not have any significant odors worse than that which currently exists. The covers placed on the clarifier would minimize algal formation and therefore also reduce odors.

Conclusion

The project will generate some air emissions, primarily limited to the construction phase of the project. The project could also generate some PM₁₀ and PM_{2.5}. These pollutant levels will be minor and will not significantly affect any nearby sensitive receptors. Mitigation measure Air-1 will be implemented to reduce emissions to less than significant levels.

Mitigation:

Air-1: The proponent shall employ the following measures during construction to reduce emissions from construction equipment and wind blown soils.

- 1) The construction contractor shall, where possible, use water or chemicals to control dust during the decommissioning of existing structures and during construction operations.
- 2) The construction contractor shall install and use hoods, fans, and fabric filters where necessary to enclose and vent the handling of dusty materials. Adequate containment methods shall be employed during such handling operations.
- 3) The construction contractor shall use water, chemicals, chuting, venting, or other precautions to prevent particulate matter from becoming airborne in handling dusty materials to open stockpiles and mobile equipment.

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3. BIOLOGICAL RESOURCES Would the proposal:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?			X	
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			X	
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native residents or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		X		
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f. Conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

Setting

Reconnaissance Survey

On May 4, 2007, RMT Biologist, Ty Brookhart, visited the project area to evaluate the habitat occurring at the proposed project site and to record the vegetative communities, habitat types, and habitat quality in the area. The project area was surveyed on foot. All animal species and their signs encountered were recorded. Bird species were identified by sight and by vocalizations when possible.

Habitat Types

Dominant habitat types, as used and described by the California Wildlife Habitat Relationship (WHR) system (Holland 1986), were recorded and primary species were identified. Habitats in the project area are all of low or moderate quality and were subject to previous disturbance. The project area has a history of

mining activity, and the wastewater treatment plant has been operating on site since 1950 (EIP 1995).

The general setting of the project site is typical of wooded slopes of the Sierra Nevada foothills region. The existing wastewater treatment plant facilities comprise the entire project area. The project area has various buildings, wastewater treatment facilities, lined storage ponds, and paved and unpaved compacted surfaces. Herbaceous grasses and forbs make up the ruderal¹ vegetation found in the unpaved areas of the project area.

The area surrounding the wastewater treatment plant is populated by both native and non-native plant species. Three terrestrial habitat types and one aquatic habitat type make up the surrounding vegetation as described by the WHR. The upland slopes consist of Montane Hardwood Conifer habitat. Montane Riparian habitat occurs along Wolf Creek, which runs through the middle of the project area. Riverine habitat describes the aquatic habitat found in Wolf Creek. The intersection of the riverine and riparian habitat supports a very small strip of wetlands. The following is a description of the habitat types occurring in the Project Area.

Montane Hardwood Conifer. Montane Hardwood Conifer habitat supports a diverse spectrum of conifer and hardwood tree species often as a closed canopy forest. Ponderosa pine (*Pinus ponderosa*), digger pine (*P. sabiniana*), incense cedar (*Calocedrus decurrens*), and Douglas fir (*Pseudotsuga menziesii*) are the most common conifer species found adjacent to the wastewater treatment plant. Deciduous and evergreen hardwood species were also observed in the Montane Hardwood Conifer habitat that surrounds the wastewater treatment plant. Five species of oak (*Quercus* spp); black oak (*Q. kelloggii*), blue oak (*Q. douglassii*), valley oak (*Q. lobata*), canyon live oak (*Q. chrysolepis*), and interior live oak (*Q. wislizenii*) were observed. Big leaf maple (*Acer macrophyllum*), Pacific madrone (*Arbutus menziesii*), and black locust (*Robinia pseudoacacia*) were also found adjacent to the wastewater treatment plant.

Understory and ground cover are typically sparse in Montane Hardwood Conifer habitat and consist of annual herbaceous plants and shrubs. Deer brush (*Ceanothus integerrimus*), whiteleaf manzanita (*Arctostaphylos viscida*), California rose (*Rosa californica*), and scotch broom (*Cytisus scoparius*), an invasive species, were observed in the project area.

Montane Riparian Habitat. Wolf Creek runs through the project area and a narrow riparian zone can be found on the steep banks of the creek. The riparian corridor in this section of the creek is denuded. Rip-rap lines the banks and the creek is channelized. The creek bed is approximately 15 feet below the level of the wastewater treatment plant. Several deciduous trees are found on the banks of the creek including alder (*Alnus rhombifolia*), Fremont's cottonwood (*Populus fremontii*), red willow (*Salix leavigata*), black locust, and big leaf maple. Invasive Himalayan blackberry (*Rubus discolor*) dominates the banks, with a few California wild grape (*Vitis californica*) interspersed in the understory.

Riparian habitats are critical areas for many wildlife species and support relatively high species diversity. Wildlife use riparian areas as migration corridors, for foraging and nesting, and for cover from weather and predators. The riparian habitat area found in the project area is not of particularly high quality for wildlife, as there is no abutting habitat on either side of the creek. The banks are covered with low plant species diversity and rip-rap reduces variability in the bank contours. The habitat likely still supports numerous

¹ Growing where the natural vegetational cover has been disturbed by humans

avian and rodent species, and may act as a migration corridor for larger mammals. Reptiles and amphibians are also likely found in the riparian habitat along Wolf Creek, though none were observed during the site visit.

Riverine Habitat. The aquatic component of Wolf Creek is considered riverine habitat. Riverine habitats are critical for proper ecosystem functioning as they transport water and nutrients and provide a continuous habitat corridor between many terrestrial habitats. They also provide water which is particularly important in drier habitats such as those typically found in the Sierra Nevada foothills.

Wolf Creek is classified as an intermittent creek by the USGS, although discharge from the wastewater treatment plant and water supplied to the creek for irrigation purposes by the Nevada Irrigation District (NID) have transformed it to a perennial waterway. Water flow was approximately 6 cubic feet per second (cfs) during the site visit in May. Wolf Creek typically has an average natural flow of around 1 cfs during the late spring and summer months. The wastewater treatment plant discharges and irrigation water can account for an increase of roughly 3 to 10 cubic feet per second into the creek, as the wastewater treatment plant discharges from 2 to 5 cubic feet per second and the NID may increase flows by up to 5 cubic feet per second (Reuter 1992; Dewante and Stowell 1993).

Wolf Creek's substrate material is primarily small rocks, some small boulders and also gravel and sand. Sediment load in the creek was low during the site visit. The in-stream habitat in Wolf Creek provides suitable conditions for aquatic invertebrates, amphibians, and fish. Invertebrates in the creek consist of stonefly (*Plecoptera*), mayfly (*Ephemeroptera*), and caddisfly (*Trichoptera*) larvae, as well as aquatic snails. Riverine habitat in the area typically supports rainbow trout (*Oncorhynchus mykiss*), brown trout (*Salmo trutta*), and riffle sculpin (*Cottus gulosus*) (Holland 1986). Summer water temperatures are higher than optimum for trout growth and reproduction, averaging from 65-70 degrees Fahrenheit during the summer months (Dewante and Stowell 1993). Wolf Creek does not exhibit an abundance of stream features, such as deep pools, large boulders, or submersed trees and lacks pool-riffle complexes. Conditions at the project site are not ideal for trout and no fish were observed during the site visit, however, fish may be present in the project area.

The effluent from the wastewater treatment plant was analyzed as part of the Grass Valley Wastewater Treatment Plant upgrade. The evaluation did not show any significant difference in toxicity between the effluent and the water in Wolf Creek. Aquatic biomass (algae) in the creek resulting from effluent discharge was also not shown to have a detrimental effect on stream biota. The study indicated algal growth in the creek was limited by a lack of sunlight as a result of the dense canopy (Dewante and Stowell 1993).

Wetlands. Wolf Creek and the narrow strip of habitat on the banks supporting wetland plant species may be considered waters of the United States and may fall under the jurisdiction of U.S. Army Corps of Engineers (Corps). No formal wetland delineations were performed to verify jurisdiction. Wetland communities support aquatic and other hydrophytic vegetation. Wetland sites are typically flooded marshy areas that vary in size and proportion to the particular topography and hydrology of the area. These sites are either seasonally or permanently wet and are dominated by perennial, emergent monocots such as the cattail (*Typha* spp.), sedge (*Carex* spp.), and rush (*Juncus* spp.). These species are found along Wolf Creek.

Wildlife

The wildlife habitat in the project area has been disturbed several times, and is fragmented by paved surfaces and structures within the wastewater treatment plant, as well as roadways and settling ponds. This results in diminished habitat quality and decreases the likelihood and prevalence of wildlife in the project area. The continual routine maintenance and upkeep of the wastewater treatment plant also reduces the potential for many animals to consistently use the area for foraging, breeding, or permanent cover. However, many large trees in the area provide habitat for birds and arboreal mammals, such as squirrels. The riparian corridor, though not pristine, provides important resources for many animals. This section provides a brief description of wildlife species that were documented or may potentially occur within the project area.

Mammals. Raccoons (*Procyon lotor*), coyotes (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*) could periodically use the area. Coyotes and gray fox are less likely to be found in the area because of its proximity to developed and high traffic urban areas. Raccoons are accustomed to populated areas and require water when feeding. Raccoons often prey on frogs when foraging along creeks. The riparian corridor may serve as a valuable migration corridor. Common rodent species possibly occurring in the area include deer mouse (*Peromyscus maniculatis*), California meadow vole (*Microtis californicus*), and tree squirrels, such as the western gray squirrel (*Sciurus griseus*) and the eastern fox squirrel (*Sciurus niger*). These populations provide a food source for predatory species such as the coyote, gray fox, and raptor species.

Birds. California is located within the Pacific Flyway (the migration route through the western portion of the United States). Various species of waterfowl and other migratory birds routinely pass through the area. Riparian and heavily wooded areas are prime habitat for migrating birds. Common migratory waterfowl that may periodically utilize Wolf Creek include mallard (*Anas platyrhynchos*), cinnamon teal (*Anas cyanoptera*), American wigeon (*Anas americana*), and common merganser (*Mergus merganser*). The creek is not ideal for waterfowl because of its location adjacent to developed areas and high traffic, but the warmer effluent coming from the wastewater treatment plant would provide favorable conditions during the winter. Sharp-shinned hawk (*Accipiter striatus*) and Cooper's Hawk (*Accipiter cooperi*) are the two most likely raptors to be found in the area as the trees provide suitable foraging habitat. No raptor nests were observed in the surrounding trees or within the trees growing in the riparian corridor. There are also many passerine and nonpasserine birds that are expected to be found in the project area. Tree swallows (*Tachycineta bicolor*) were observed foraging on the WWTP site and were nesting in the eaves of several of the buildings associated with the wastewater treatment facilities.

Reptiles and Amphibians. The riparian and riverine habitat of Wolf Creek provides marginal habitat for western pond turtle (*Clemmys marmorata*), California red-legged frog (*Rana aurora draytonii*), and foothill yellow-legged frog (*Rana boylei*). Western pond turtles typically require large pools and sandy banks to lay eggs, of which none exist in the stretch of Wolf Creek running through the project area. Both frog species are usually associated with more pristine and variegated stream habitats, but have a remote chance of being found on site. No reptiles or amphibians were observed in the area and the CNDDDB did not show any occurrences of the three species in the area.

Sensitive Species

The Federal Endangered Species Act (1973) and the California Endangered Species Act (1984) provide legal protection for plant and animal species in danger of becoming extinct. The Federal Endangered Species Act requires the United States Fish and Wildlife Service (USFWS) to provide a findings report on any federally authorized actions that could jeopardize the existence of any federally listed species. The California Department of Fish and Game (CDFG) analyzes projects for possible impacts to species as well as their habitats. The California Native Plant Society (CNPS) helps to determine which plant species and habitats should be listed as special status under the California Endangered Species Act. The Migratory Bird Treaty Act prohibits the take, killing, or possession of migratory birds without a license.

Several migratory birds have the potential to be found in the area. A query of the CDFG’s CNDDDB (CDFG 2007) revealed one species of special concern potentially located within the project area. This was the Follett’s morardella. Attachment 1: Figure 3 shows the extent of the range indicated by the CNDDDB. Special status amphibian and reptile species also have the potential to be found in the project area. A list of sensitive species and their likelihood of occurrence and habitat requirements is included in Table Biology-1 below.

Table Biology-1 lists sensitive species which may occur in the area surrounding the waste water treatment plant.

Table Biology-1: Species of Special Concern with potential to occur in the project area			
Species	Status	Habitat Requirement	Potential to Occur
Plants			
Follett’s morardella (<i>Monardella folletti</i>)	FSLC/--/1B	Open coniferous forest with serpentine soils	Low
Amphibians			
Foothill yellow-legged frog (<i>Rana boylei</i>)	FSC/CSC/--	Breeds in shaded stream habitats with rocky, cobble substrate, usually below 6,000 feet in elevation. Absent or infrequent when introduced predators are present.	Low
California red-legged frog (<i>Rana aurora draytonii</i>)	FSC/CSC/--	Breeds in shaded stream habitats with rocky, cobble substrate. Absent or infrequent when introduced predators are present.	Low
Reptiles			
Western Pond Turtle (<i>Clemmys marmorata</i>)	FSC/CSC/--	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites and suitable upland habitat for egg-laying. Nest sites most often characterized as having gentle slopes (<15%) with little vegetation or sandy banks.	Low
Status Codes: Federal: (USFWS) State: (CDFG) CNPS: (California Native Plant Society) FSC = Federal Species of Special Concern List 1B = Plants rare, threatened, or endangered in California and elsewhere CSC = California Species of Special Concern -- = No listing FSLC = Species of Local Concern -- = No listing			

SOURCES: CNDDDB (2007); CNPS (2006); USFWS (2007)

Follett's Monardella. Follett's Monardella (*Monardella folletti*) grows on open, rocky, serpentine slopes in lower montane coniferous forests at elevations ranging from about 1,800 to 6,500 feet. It is known to occur from Plumas and Nevada Counties, and is on the CNPS List as a 1B species (Plants categorized as Rare, Threatened, or Endangered in California and elsewhere.) Follett's Monardella is highly associated with serpentine soils. No serpentine soils (Figure 3) are present on the project site according to the U.S. Department of Agriculture Soil Service (NRCS 2007). The Follett's Monardella was not observed on the project site or surrounding areas.

Discussion of Checklist Answers

a. No habitat modification will occur as a result of the proposed project. Special status species (as indicated above) have a low potential for occurrence near the project area. The only special status species observed on site and with the potential to be adversely affected by the project is the tree swallow. The tree swallow is a migratory bird and protected under the Migratory Bird Treaty Act (MBTA). The MBTA makes it illegal to kill, take, or possess migratory birds without license. Several tree swallows were observed foraging and nesting on the WWTP site. Mitigation measure Biology-1 should be implemented to protect tree swallows during project construction. This measure requires surveys for swallows prior to construction if work is to occur within the nesting season. Surveys are not necessary and nests can be removed outside the breeding season because the nests would not be occupied during that time (Armstrong et al. 2005). Special status species with potential to occur in the project area would not be affected by construction or operation of the upgrades at the wastewater treatment plant with the implementation of mitigation measure provided.

b-c. The only sensitive natural community near the project site is the riparian habitat found along Wolf Creek, which passes through the middle of the wastewater treatment plant. The activities included as part of the proposed project would occur entirely outside of Wolf Creek on paved and compacted ground within the boundaries of the wastewater treatment plant and would not affect wildlife or plant habitats in the area. No wetlands would be affected and all work would occur entirely outside of the 100-year flood plain (see Figure 7). There would be no temporary or long term impact on terrestrial, riverine, or wetland habitats.

d. The project would not directly affect any wildlife corridors or migration routes. Bird nursery sites could be affected during construction as mentioned above. Mitigation would reduce any potential impacts to less than significant levels.

e. The project would have no effect to wildlife habitats in the area and no trees would be removed during the project construction. The project would not conflict with the Nevada County General Plan or City of Grass Valley General Plan policies for protection of natural habitats and communities, including trees and woodlands.

f. There are no adopted habitat conservation plans, natural conservation community plans, or other approved local, regional, or state habitat conservation plans that encompass the project area. There would be no impact.

Conclusion

The project has very little potential to affect biological resources. The project activities will take place entirely within the WWTP on paved and compacted surfaces. Habitat in the surrounding area peripheral to the project is of low to moderate quality and is not likely to support special status species. The riparian and

riverine habitat along and in Wolf Creek would not be affected by project construction and implementation of the project will increase the water quality of the WWTP effluent being discharged into the creek. The swallows observed on site will be protected through mitigation. The project will have no significant impacts to biological resources.

Mitigation

Biology-1: If construction or dismantling/decommissioning of any facilities is to occur within the nesting period of swallows (March 15 through August 15), surveys shall be performed by a qualified biologist within 30 days of the construction activity. The surveys shall determine which nests, if any, could be impacted by construction activities. Only nests that would be physically removed or damaged by construction would be impacted (ie. Nests in eaves of buildings within which equipment is removed but the building is not being altered would not affect nesting swallows). If nests are in use, construction activity at the facility shall be delayed and a qualified biologist shall continue the surveys until it has been determined that any young have fledged and are no longer using the nest. If construction activities occur outside of the nesting/breeding period, surveys will not be required. Swallows would not be present in nests outside of the breeding season (Armstrong et al. 2005). Nests can be removed outside the nesting period.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
4. CULTURAL RESOURCES Will the proposal:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?				X
b. Cause a substantial adverse change in the significance of an archeological resource pursuant to §15064.5?				X
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
d. Disturb any human remains, including those interred outside of formal cemeteries?				X

Setting

Historic Period

The primary historic use that dominates the Grass Valley area and the project site is mining. Grass Valley was one of the richest and most famous lode and placer mining districts in California. Mining from 1850 to 1957 established the area as the core of the northern gold country mines. The area was home of many improvements in mining and milling, and is associated with a number of prominent mining engineers and geologists.

Placer gold was first found in Wolf Creek in 1848. The gold was exhausted fairly quickly, leading to lode or hard rock mining which peaked in the late 1860s. The North Star and Empire mines were the only mines to

remain active and/or be reopened through the turn of the century. Newmont Mining Corporation purchased the Empire and North Star Mines in 1929. Mining continued until World War II, when operations were shut down. The mines reopened after the war and continued to be productive until 1957, when they were closed due to decreased productivity (EIP 1995).

The project site falls within the historic operation area of the North Star Mine. One of the mines that was consolidated into the North Star Mine was the Granite Hill Mine, which was located within the project site. Remains of the Granite Hill Mine mill are located south of equalization basin Number 1. Portions of the mill have been incorporated into the city's police department shooting range, south and adjacent to the wastewater treatment plant. The Granite Hill Mine is thought to have commenced operations sometime between 1884 and 1897, and was listed as dormant by 1919. Structures include two houses, one barn, one shed, and several shafts on the west side of Wolf Creek. Facilities on the east bank of Wolf Creek included a hoist works, a shaft, and two ditches.

Native American period

The project site and surrounding area lie within the traditional territories of the Hill Nisenan, or Southern Maidu, a Penutian speaking central California group. The Grass Valley area may have been more specifically within the territory of the Oustomah Maidu group. The village of Hi'e reportedly was located north of the project area at the headwaters of Wolf Creek. The Nisenan territory held the foothill and mountainous portions of the drainages of the Yuba, Bear, and American Rivers and the lower drainages of the Feather River. The Sacramento Valley formed the western border and the Sierra Crest the eastern limit.

The Nisenan subsisted primarily on vegetable food resources, using a wide range of floral and faunal species. Throughout the summer and into the fall, acorns, nuts, and seeds were gathered. Hunting and gathering expeditions occurred in the mountains during the fall with the winter being the least productive time. Salmon runs in the late spring provided additional food. Temporary camps were usually located along creeks, consisting of lean-to structures with some mud covering at the base.

Discussion of Checklist Answers

a. The project will have no impact on historic resources. There are no historic resources within the wastewater treatment plant that could be impacted by the proposed activities. Resources associated with Granite Mill mine are not within the footprint of proposed activities. The project will not impact any of the historic mining structures in the area.

The project includes decommissioning/removal of equipment associated with chlorine gas disinfection; however, none of this equipment is considered a historic resource because it is less than 45 years old and as equipment does not have historic value. The project will have no impact on historic resources.

b-c. The project will not impact any archaeological or paleontological resources. The project will include some excavation; however, the excavation will occur exclusively in previously disturbed soils. Previous construction of the chlorine contact basins in 1979 had an excavation depth of 12 feet. New piping and concrete pads (as proposed in this project) will be excavated to a depth of approximately 3 feet in areas that have been previously excavated. Other construction activities requiring excavation include modifications to blower piping and electrical duct banks. This excavation will occur in areas that are currently paved and will not extend beyond a depth of 3 feet. There are no known archaeological or

paleontological resources within the project site. There will be no impact to archaeological or paleontological resources from project activities.

d. The project will not disturb any human remains. The project will only include minor excavation into previously excavated areas. There are no known burials in the project area. Given the limited excavation that will occur on the existing site, there will be no likelihood of disturbing human remains. The project will have no impact.

Conclusion

The project will have no impacts to historic, archaeological, or paleontological resources, or human remains. The project will have limited excavation (less than 0.1 acre) and the excavation will occur in previously disturbed areas to a maximum depth of 3 feet. There are no known resources within the area of project activities. There will be no impacts to cultural resources from project activities.

Mitigation

No mitigation is required.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
5. GEOLOGY AND SOILS Will the project:				
a. Expose people or structure to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated in the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X
ii. Strong seismic ground shaking?			X	
iii. Seismic-related ground failure, including liquefaction?				X
iv. Landslides?				X
b. Result in substantial soil erosion or loss of topsoil?		X		
c. Be located on a geologic unit or soil that is unstable, or that will become unstable because of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				X

5. GEOLOGY AND SOILS (Continued)

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X

Setting

Regional Geology

The project site is located in the Foothill Region of the central Sierra Nevada Geomorphic Province, which is bounded on the west by the Great Valley Geomorphic Province, on the north by the Cascade Range Geomorphic Province, and on the south and southeast by the Mojave Desert and the Great Basin Geomorphic Provinces. The Sierra Nevada is a mountain range extending more than 400 miles along the eastern edge of California and is approximately 50 to 80 miles wide. During the last 65 million years, the area has been the site of uplift, tilting, faulting, and volcanism (CDMG 1966).

Local Geology

The project site is located in central Nevada County, south of the City of Grass Valley. The area consists of strongly deformed, but weakly metamorphosed, sedimentary and volcanic rocks of Paleozoic and Mesozoic age. Overlying the bedrock in many locations are mantles of river gravel, volcanic debris, and crushed mill sand from mining operations. The metamorphic rocks of the Calaveras Formation are sea sediments which were uplifted and folded. The volcanic rocks in the area form the Amador Group (CDMG 1966; USDA 1975).

The project site lies on top of a plutonic intrusion of quartz diorite, tonalite, trondhjemite, and quartz monzonite (CGS 1992) as shown in Attachment 1: Figure 4.

Topography

The area immediately surrounding the project site consists of rolling hills, which are the foothills of the Sierra Nevada range. The range gains elevation as it moves eastward. Rounded granitic domes and volcanic plateaus become the prominent topographic features. The project lies in a topographic depression west of Highway 49.

Soils

The soils that were found on the project site are of the Hoda-Chaix-Musick and Boomer-Sites-Sobrante Associations, which consist of well-drained loams found over metasedimentary and metabasic rocks. These associations occur most often in the mountainous uplands of the Sierra Nevada region. These soils exhibit moderate to high erosion hazards. Some of the soils on the site are also expansive in nature. The Hoda sandy loam, the Musick-Rock outcrop complex, the Mariposa component of the Josephine-Mariposa

complex, and the Sites very stony loam exhibit a moderate shrink-swell potential. Attachment 1: Figure 5 shows the soils of the project area (USDA 1975).

Seismicity

There are a number of mapped faults within fifty miles of the project site as shown in Attachment 1: Figure 6. The project site is located among various alignments of the Foothills Fault Zone, which is a Mesozoic fault system reactivated in Cenozoic time (Jennings et al 1999). In 1975 an earthquake measuring 5.7 on the Richter² scale occurred near the City of Oroville along the Cleveland Hills fault, which is approximately 24 miles northwest of Grass Valley.

The Grass Valley area is rated as a low-intensity earthquake zone. A low-intensity zone is defined by the US Geological Survey (USGS) as an area that is likely to experience an earthquake measuring 5.0-5.9 in magnitude on the Richter scale, and a maximum intensity of VI or VII on the modified Mercalli³ scale (City of Grass Valley 1999).

Discussion of Checklist Answers

a. Alquist-Priolo Fault Rupture Zone

The project site is located outside of any identified Alquist-Priolo Fault Rupture zones. There are no Alquist-Priolo Fault Rupture Zones within the City of Grass Valley or Nevada County (Hart et al. 1997). There will be no impact.

Strong Seismic Shaking

The project site could be subject to seismic ground shaking due to its proximity to nearby fault systems. New structures that are installed, such as the roof over the modified contact basin and lids on tanks, will be designed and/or installed according to the Uniform Building Code (UBC) standards to withstand the maximum credible earthquake shake potential at the project site, as required by the California Code of Regulations (CCR). Impacts from seismic ground shaking will be less than significant.

Ground Failure and Liquefaction

The proposed project includes performing modifications to already existing facilities. The modifications will not increase any susceptibility to liquefaction and ground failure. There will be no impacts associated with liquefaction and ground failure.

Landslides

The proposed project will occur entirely within the existing facility, on the concrete pad/footprint of the existing wastewater treatment plant. The wastewater treatment plant is on level ground. The project will not be susceptible to nor increase risk of damage from landslides because none are located nearby. There will be no impacts.

b. The project could increase erosion through ground disturbance during construction. All ground excavation will occur in previously disturbed areas; however, there is a very small likelihood of soil erosion and sedimentation of the nearby creek from construction activities that remove concrete and earth (such as

² The Richter scale measures the amplitude of seismic waves recorded by a seismograph.

³ The modified Mercalli scale measures the intensity of an earthquake by the way it is felt and responded to by humans, and by the amount of damage it does to buildings and structures.

to install new piping, new concrete pads, and new duct bank). Sedimentation of the creek would be a potentially significant impact. Straw waddle currently exists between the wastewater treatment plant and the creek; however, the waddle may need to be repaired/maintained by the time of construction. Mitigation measure Geology-1 requires upkeep of the existing straw waddle and installation of silt fencing between construction areas and the creek. Implementation of mitigation measure Geology-1 will minimize erosion during construction. The impact would be less than significant.

After construction there will be no increased erosion beyond current conditions that exist from discharge to Wolf Creek.

c. The project is not located on an unstable geologic unit susceptible to on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. The project will be constructed entirely within the footprint of the existing facility. Project activities include removing tanks and equipment, modifying existing structures such as the contact basin, and installing lids on equipment and a roof over the contact basin. None of these activities increase any existing risks from or to the underlying bedrock. The project will have no impacts related to unstable geologic units.

d. The soils underlying the project have some potential for shrinking and swelling. The project; however, will require minimal disturbance to underlying soils for new piping and duct bank. The greatest depth of excavation will only be about 3 feet into the ground. All structures will meet the standards of the Uniform Building Code as it pertains to soil constraints. Impacts will be less than significant.

e. The project will not require the use of septic tanks or alternative wastewater disposal systems. There will be no impacts.

Conclusion

The project area has some seismic and soil hazards. Project components will be designed to meet the requirements of the Uniform Building Code so as not to cause a threat to life or property. The project would not increase soil erosion with implementation of mitigation measure Geology-1.

Mitigation

Geology-1: The project proponent shall ensure that the existing straw waddle located between the wastewater treatment plant and Wolf Creek is in good condition and shall install silt fencing between the plant and the creek within the areas of construction. Silt fencing and straw waddle shall be maintained during construction. The silt fencing shall be removed after completion of construction.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
6. HAZARDS AND HAZARDOUS MATERIAL Will the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		X		
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, will it create a significant hazard to the public or the environment?		X		
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project result in a safety hazard for people residing or working in the project area?				X
f. For a project within the vicinity of a private airstrip, will the project result in a safety hazard for people residing or working in the project area?				X
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

Setting

Hazardous Sites

The project is located near former gold mines. The RWQCB found in 1993 that the location of equalization basins (see Attachment 1: Figure 2) at the WWTP was on top of old mill sands from the former North Star Mine. Sampling of these sands determined that the sands contained soluble lead (DTSC 2007). The RWQCB required mitigative measures be taken. Further development of the WWTP found elemental

mercury north of the equalization basins and the City determined that human health issues may need to be evaluated and requested the Department of Toxic Substance Control's (DTSC) input. As a result of meetings between DTSC, the Central Valley Regional Quality Control Board, the Nevada County Health Department, and the City of Grass Valley, the City of Grass Valley entered DTSC's Voluntary Cleanup Program. An agreement was implemented between the City of Grass Valley and DTSC December 1, 1993.

Approximately 105 to 135 cubic yards of mercury-contaminated soil were discovered during excavation of a clarifier basin at the City of Grass Valley Waste Treatment Plan in 1994 (see Figure 2 in Attachment 1). The contaminated soil was encapsulated at an isolated section of the site. All possible exposure pathways were eliminated by the encapsulation. An Operations and Maintenance (O&M) agreement and Land Covenant Agreement were prepared to restrict the use of the parcel. The deed restriction was recorded on December 5, 1995 by Nevada County. The deed restriction states that no excavation or activities which disturb the soil at any depth can occur at the WWTP without approval by the Department of Toxic Substance Control (DTSC 2007).

Some clean-up has occurred at the site since enactment of the deed restriction. DTSC provided oversight for the removal of approximately 550 tons of mercury contaminated soil in 2001. The soil was excavated during the construction of a clarifying basin (DTSC 2007).

Hazardous Materials

Hazardous materials currently used at the WWTP include chlorine gas, sulfur dioxide gas, and caustic soda. The facility also maintains one or more 55 gallon drums of lubricating oil for equipment maintenance. A diesel generator is also located on site, with a supply of diesel fuel. Following construction of the project, the chlorine gas and sulfur dioxide gas will be removed from the site.

Discussion of Checklist Answers

a. The use, storage, and handling of minor amounts of hazardous materials is anticipated with refueling or equipment cleaning activities during project construction. The amount of hazardous materials necessary for each phase of construction will not be enough to create a significant hazard. Post-construction project activities will not involve routine transport, use, or disposal of hazardous materials. The project will have less than significant impacts associated with routine storage, handling, and use of hazardous materials.

b. Small amounts of hazardous materials (e.g., diesel fuel, oil, gasoline) will be used in construction equipment. There is some potential for a significant impact to humans from exposure to construction materials containing hazardous materials or from potential hazardous material spills.

The proposed project also includes removing the six chlorine gas cylinders, six sulfur dioxide cylinders, the sulfur dioxide scrubber, and electrical systems and piping. Chlorine gas and sulfur dioxide gas are hazardous materials. The City will attempt to use all of the gas prior to removal of the gas systems. Even if the gas is not all used, the cylinders containing the gas will be removed by the gas supplier. Chlorine gas is supplied in one-ton reusable metal cylinders (designed according to existing vessel codes). The vessels are delivered by a licensed hauler, stored on site during use, and then picked up for reuse by the hauler when the cylinders are empty. The proposed project will result in the discontinuation of the delivery of the chlorine gas cylinders, a beneficial impact. All equipment associated with the chlorine gas system will be removed and properly disposed of by the contractor. The impact would be beneficial.

The project includes some excavation work, which may have the potential to expose workers to mercury and potentially lead. The project will include some excavation under paved areas that have not been remediated. The current deed restrictions on the project site require contacting DTSC prior to any excavation work. The City will contact DTSC to oversee excavation work and for requirements for treating any contaminated soils.

Mitigation measure Hazards-1 will be implemented to minimize risks of exposure to contaminated soils to less than significant levels.

c. The project will have no effects related to exposure of hazardous materials to schools. There are no schools within one-quarter mile of the project site.

d. The project is located on a site listed in the DTSC EnviroStor database because of high mercury content in underlying soils, which is associated with previous mining activities. DTSC will be contacted prior to excavation and mitigation measure Hazards-1 will be implemented to reduce health and safety risks to less than significant levels.

e-f. The project is not located within an airport land use plan or private airstrips. The project will have no safety risks related to air traffic.

g. Project construction equipment will be staged and stored at the project site, in the paved areas. The storage of equipment and construction on the site will not block any emergency access. The project will not conflict with emergency response plans or evacuation routes. No roads or trails will be blocked during construction. The project will not impact emergency access.

h. The project area is surrounded by trees and open space; however, all project activities will occur on paved surfaces within the existing wastewater treatment plant. The risk of igniting fires is minimal and less than significant. The project may require some manipulation of electrical equipment, but these activities will follow the rules of the Occupational Safety and Health Administration and the Uniform Building Code so as to minimize risks of electric shock or electrical fires. The project will have less than significant impacts.

Conclusion

Impacts associated with hazards and hazardous materials are considered less than significant. The project will involve the use of some hazardous materials during construction, which could present potential spill and exposure hazards. The project will also include excavation into soils potentially contaminated with mercury and/or lead. Mitigation measure Hazards-1 will be implemented to reduce the potential effects of exposure to hazardous substances to less than significant levels.

Mitigation

Hazards-1: The City shall consult with DTSC prior to construction, in compliance with deed restrictions, for any precautions and measures that are required during excavation. The City shall provide the contractor with the measures required by DTSC and the measures shall be included in a Health and Safety Plan.

The City shall require project contractors to prepare a Health and Safety Plan prior to project construction. The City shall review and accept the plan prior to construction. The plan shall identify methods and techniques to minimize exposure of onsite workers to potentially hazardous materials during construction

and operation (including measures identified by DTSC). The plan shall require implementation of appropriate control methods and approved containment and spill-control practices (i.e., spill control plan) for construction. The plan shall remain onsite along with spill clean-up kits at all times during construction.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
7. HYDROLOGY AND WATER QUALITY Will the project:				
a. Violate any water quality standards or waste discharge requirements?			X	
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there will be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells will drop to a level which will not support existing land uses or planned uses for which permits have been granted)?				X
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which will result in substantial erosion or siltation on- or off-site?		X		
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which will result in flooding on- or off-site?				X
e. Create or contribute runoff water which will exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?				X
f. Otherwise substantially degrade water quality?			X	
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h. Place within a 100-year flood hazard area structures which will impede or redirect flood flows?				X
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X

Setting

Surface Water

The proposed project site is located adjacent to Wolf Creek. Wolf Creek flows through Grass Valley and discharges into the Bear River approximately 14 miles from the proposed project site. The Bear River is a tributary to the Feather River, which in turn is a tributary to the Sacramento River (City of Grass Valley 1999).

Wolf Creek typically has an average natural flow of around 1 cubic foot per second (cfs) during the late spring and summer months. Additional flows are contributed to the creek by the wastewater treatment plant and irrigation water transported by the Nevada Irrigation District (NID). The wastewater treatment plant discharge and irrigation water can account for an increase of roughly 3-10 cubic feet per second into the creek, as the wastewater treatment plant discharges from 2 to 5 cubic feet per second and the NID increase flows by up to 5 cubic feet per second (Reuter 1992, Dewante and Stowell 1993).

100-Year Flood Areas

As indicated by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM), the City of Grass Valley is relatively well drained. Flooding during the 100-year flood event is limited to relatively narrow areas along Wolf Creek and its tributaries as shown in Attachment 1: Figure 7.

Discussion of Checklist Answers

a. Project construction will occur entirely on the existing WWTP site, within the currently paved area. Some pavement breaking and some excavation are necessary to remove old pipes and install new pipes and equipment. All work and spoils piles will be stored on the existing facility. The project would have a less than significant impact on Wolf Creek in terms of sedimentation, because the project construction would occur on the paved surfaces within the plant, and permanent erosion control BMPs are already installed between the plant and the creek. The entire area that will be disturbed for earthmoving is paved and less than 0.1 acre. The project will not require enrollment under the General Construction National Pollutant Discharge Elimination Permit (NPDES) program because the total disturbed area is less than 1 acre.

The project will not otherwise violate any water quality standards or waste discharge requirements. The project is being implemented to meet waste discharge requirements for the wastewater treatment plant. The project will have no impacts related to water quality standards and will have a beneficial effect related to waste discharge requirements.

b. The project will not deplete groundwater supplies. The project will not involve groundwater pumping and will not cause any increases in impervious surface. The project will have no effect on groundwater resources or recharge.

c. The project will occur entirely on the existing project site and will not occur within the riparian corridor around Wolf Creek. There remains a small potential for siltation of the creek from spoils piles during construction. Straw waddle currently exists between the creek and the plant; however, this waddle may need to be maintained to be protective. To minimize siltation, mitigation measure Geology-1 will be implemented. This measure requires the upkeep of existing straw waddle and installation of silt fencing. With this measure, impacts will be less than significant.

d. The project will not substantially alter the existing drainage pattern of the site or Wolf Creek. The project will occur entirely on the existing facility. The project will have no impact on drainage patterns.

e. The project will not generate any new runoff water. The project will not increase any impervious surfaces because it will occur on the existing wastewater treatment plant site, which is currently all impervious. The project will include a new roof over the chlorine contact basin. Runoff water will be collected in a drainage gutter and routed similarly to current conditions. The project will have no impacts on stormwater drainage.

f. The project will not otherwise degrade water quality. The project will have a beneficial effect on water quality discharged to Wolf Creek after construction.

g-i. The project is located outside of the 100-year flood hazard zone around Wolf Creek (as shown in Attachment 1: Figure 7). The project does not include housing. The project will have no effects related to flooding, flood hazards, or tsunamis.

Conclusion

The project will have a less than significant impact on hydrologic resources. The project will occur entirely on the existing project site. The project would not cause erosion or sedimentation of Wolf Creek. The project will not otherwise impact drainage or groundwater recharge, and will improve the quality of the water discharged from the wastewater treatment plant after construction.

Mitigation

Geology-1 (as previously listed).

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
8. LAND USE PLANNING Will the project:				
a. Physically divide an established community?				X
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or Land Use Code) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?				X
d. Affect agricultural resources or operations (e.g. impacts to soils or farmland from incompatible uses)?				X

Setting

The City of Grass Valley is located in Nevada County, in the western reaches of the Sierra Nevada at the

fringe of the rapidly growing Sacramento Metropolitan Area. The City encompasses the intersections of California State Highway 20, 49, and 174.

The City's current Planning Area contains approximately 9,894 acres. The City of Grass Valley currently occupies approximately 25 percent of the total Planning Area. The predominant land uses in the City include Single Family homes (33%) and vacant land (33%) (City of Grass Valley 1999).

The wastewater treatment plant is located on a 29-acre site adjacent to Wolf Creek and Highway 49 at 556 Freeman Lane. The project site is bounded on the east by Freeman Lane and the Highway 49 freeway corridor. The Pine Creek Shopping Center is located just southeast of the wastewater treatment plant site. North of the project along Wolf Creek are the Pelton Wheel Mining Museum and Highway 20. To the west and south, beyond City Limits are rural developed parcels interspersed with undeveloped North Star Mine properties, in unincorporated Nevada County that are zoned for residential, commercial, and industrial uses.

The project is designated for public land uses in the General Plan (City of Grass Valley 1999).

A deed restriction was recorded on December 5, 1995 by Nevada County for the project site. The deed restriction states that no excavation or activities which disturb the soil at any depth can occur at the WWTP without approval by the Department of Toxic Substance Control (DTSC 2007), due to potential soil contamination. The land use restrictions also prohibit day care centers, hospitals or elder care at the site. Residence at the site is prohibited as are public or private schools for any persons under 21 years of age. The deed restriction also states that the only allowable uses at the site are commercial and industrial (DTSC 2007).

Discussion of Checklist Answers

a. The proposed project includes modifications to the existing wastewater treatment plant, occurring fully on the existing 29 acre site. The project will not physically divide an established community. The project will have no impact on any established communities.

b. The proposed project will not conflict with any applicable land use pattern, policy, or regulation of an agency with jurisdiction over the project. The WWTP has occupied its current location for many years and is an existing component of the land use setting. The approval of the proposed project will not result in a change in the existing land use. The proposed modifications will occur entirely within the existing facility and would not change the function or use of the site. The project will therefore have no impact on existing land uses, codes, zoning, or other plans adopted for the purpose of avoiding or mitigating an environmental effect. The City would contact the DTSC prior to ground disturbance for approval of project activities (see mitigation measure Hazards-1).

c. There are no habitat conservation plans for the project area. The General Plan includes a Conservation and Open Space Element that identifies several areas of open space and undeveloped land that should be preserved. The Open Space Opportunity overlay map within the General Plan includes preservation of the floodplains/riparian corridors along Wolf Creek and South Fork Wolf Creek. The project improvements will not affect the creek or encroach on the riparian corridors, and will therefore have no impact on any conservation plans.

d. The project will not affect any agricultural resources or operations. The project activities will occur entirely on the existing WWTP facility.

Conclusion

There will be no impacts to land use and planning from the proposed project because the project includes modifications entirely within the existing facility that will not impact any other land uses or policies.

Mitigation

No mitigation is required.

Issues	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
9. MINERAL RESOURCES Will the project:				
a. Result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state?				X
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

Setting

History

Mineral resources, particularly gold, have played a major role in the history of Nevada County and Grass Valley. Gold was first discovered in the area in 1849 and mining continued through the years preceding World War II. Most of the County’s population was economically supported by the local gold mining industry. Many of the mines were consolidated under Empire Star Mines Company Limited by 1929, which was created and controlled by Newmont. Newmont owned and operated the mines in Grass Valley beginning in 1929. In the 1950’s, the Newmont entity that owned and operated the Empire Star Mines decided to stop mining, and to allow the mines to fill with water. The mines shut down in 1956 or 1957 (YubaNet 2007).

Classification

In order to promote the conservation of the state’s mineral resources, and ensure adequate reclamation of mined lands, the Surface Mining and Reclamation Act of 1975 (SMARA) was enacted. SMARA requires that the State Geologist classify land in California for its mineral resource potential. Local governments are required to incorporate the mineral and classification reports and maps into their general plans and consider the information when making land use decisions.

Areas subject to mineral land classification studies are divided into various Mineral Resource Zone (MRZ) categories that reflect varying degrees of mineral potential. Areas classified MRZ-2 are those containing

potentially significant mining deposits. All areas within Grass Valley and the Planning Area are classified by the State Division of Mines and Geology as MRZ-2. Metals produced in the Grass Valley area since 1850 include lode gold, chromite, crushed stone, and placer gold (City of Grass Valley 1999).

Discussion of Checklist Answers

a-b. Former gold mines exist under and near the project site. The project; however, will not impact these mines or result in the loss of a known mineral resource that is of local or statewide importance. The project will occur entirely on existing developed land and would not cause any land use changes at the WWTP. The project will not inhibit any future mineral extraction.

Conclusions

The project will result in no impacts to mineral resources.

Mitigation

No mitigation is required.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
10. NOISE Will the project result in:				
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b. Exposure of persons to or generation of excessive groundbourne vibration or groundbourne noise levels?				X
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project expose people residing or working in the project area to excessive noise levels?				X
f. For a project within the vicinity of a private airstrip, will the project expose people residing or working in the project area to excessive noise levels?				X

Setting

Existing Noise

Several noise sources exist within the vicinity of the WWTP, in addition to the wastewater treatment plant itself. These include vehicular traffic, commercial uses, and to a much smaller extent aircraft noise sources. The project is near State Route 20 and State Route 49. Trucks make up 5 percent of the traffic on these roads, which is considered a medium level (Caltrans 2006). The noise contour around Freeman Lane by the wastewater treatment plant is 57.8 CNEL at 100 feet (City of Grass Valley 1999).

There are several commercial areas along Freeman Lane. The nearest commercial area is approximately 600 feet east and 100 feet above (in elevation) the equalization basins. The commercial area has restaurants and various stores. Noise generated at this commercial area is created by truck deliveries, idling cars, air conditioning systems, and other minor sources. Aircraft noise is a minor contributor in the area. The nearest airport is the Nevada County Airport located 3.2 miles east-northeast of the project.

Wastewater treatment plant noise is generated by the blowers, pumps, and other equipment. The wastewater treatment plant-generated noise is not loud enough to be considered a nuisance at nearby residences. There is also a police shooting range adjacent to the WWTP that generates noise (City of Grass Valley 1998).

Sensitive Receptors

There are several sensitive receptors located within 0.5 miles from the wastewater treatment plant, including residences and parks. The Nevada County Fairgrounds are located about 1,500 feet to the west of the wastewater treatment plant. Most noise is attenuated from the wastewater treatment plant by surrounding hills. There are a few uses sensitive to noise that do not have hills blocking wastewater treatment plant noise. The Pelton Wheel Mining Museum is approximately 0.15 miles north of the WWTP's headworks. There are residences on Allison Ranch Road across from the museum. South of the commercial area along Freeman Lane is a residential development, approximately 1,600 feet south of the southern most equalization basin at the wastewater treatment plant.

Noise Ordinance

The General Plan establishes maximum allowable noise levels for different land uses. The Noise Element of the General Plan (City of Grass Valley 1999) states the following noise sensitive land uses:

- Residential development, except temporary dwellings
- Schools: preschool to secondary, college and university, and specialized education and training
- Hospitals, nursing and personal care
- Churches
- Hotels, motels, and bed and breakfast lodging

The noise level standards for fixed sources of noise in the City are shown in the table below.

Table Noise-1: Noise Level Performance Standards Fixed Noise Sources		
Noise Level Descriptor	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Hourly L_{eq} dB	55	50
Maximum Level dB	75	65
Each of the noise levels specified above shall be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises (e.g., humming sounds, outdoor speaker systems, shooting ranges). These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).		

SOURCE: CITY OF GRASS VALLEY 1998

Discussion of Checklist Answers

a. The project will require the use of construction equipment, which is identified in the City of Grass Valley's General Plan as a source of fixed noise. The table below lists the typical noise levels from construction equipment.

Table Noise-2: Construction Equipment Noise	
Type of Equipment	Maximum Level dB at 50 feet
Heavy Trucks	88
Backhoe	85
Pneumatic tools	85

SOURCE: CUNNIFF 1977

The closest sensitive receptors are houses located about 800 feet from the edge of the wastewater treatment plant. Noise attenuates at a rate of 6 dB for every doubling of distance. The construction noise at the nearest residences will be a maximum of 64dB, which is within the maximum allowable noise levels. Construction noise will persist for up to 1 year, and will be intermittent depending on the type of work being performed. Work will only be performed during allowable daytime hours. These noise levels are within the acceptable level for commercial uses. No significant impact associated with noise is anticipated with this project. The project will not generate any new permanent noise.

b. The project will require some ground breaking and pavement breaking to install new pipes and equipment within the existing wastewater treatment plant. Jackhammers may be necessary to remove existing pavement. The vibration from this equipment will attenuate to safe levels (less than 0.033 feet per second) within 16.5 feet (Flanagan 1993). There will be no vibration effects on nearby residences or existing susceptible structures. There will be no post-construction vibration impacts associated with the wastewater treatment plant modifications.

c. The project will not generate a substantial permanent increase in noise. The proposed modifications, including new covers on equipment, and transformation of the contact basin to a UV system will not generate any new noise. There will be no impact.

d. Project construction will generate some temporary noise from construction as discussed above. The noise will attenuate over distance and will not be great enough to significantly impact sensitive receptors. The project will have less than significant impacts related to temporary noise generation.

e-f. The project is not located within any airport land use plans. The nearest airport is located 3.2 miles away. There are no private air strips within 2 miles of the project.

Conclusion

Noise generation from the proposed project will be limited to construction noise and will be temporary. All work will occur on the existing wastewater treatment plant site and noise will attenuate to acceptable levels before reaching sensitive receptors (residences located about 800 feet away) Impacts associated with noise are considered less than significant.

Mitigation

No mitigation is required.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
11. POPULATION AND HOUSING Will the project:				
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

Setting

According to the California Department of Finance (DOF), the population of Grass Valley was 12,958 at the beginning of 2007 (DOF 2007a). The population has increased from 9,048 in 1990, which represents a 43 percent increase (DOF 1990; DOF 2007a).

Housing in the project area is mostly single family residential. There were 3,219 single family units and 3,099 multi-family units for a total of 6,318 total units in the City as of January 1, 2007. The vacancy rate was 4.75 percent. The average number of individuals per household is 2.1(DOF 2007b).

Discussion of Checklist Answers

a. The project is not growth inducing. The project includes modifications to the existing facility; however, the modifications are to meet new water quality regulations in the City’s NPDES and report of waste discharge permits. The project will not result in increased wastewater treatment capacity. The project will not directly or indirectly induce population growth.

b-c. The project will not displace any housing or people. All activities proposed will occur on the existing WWTP.

Conclusion

The project will have no impact on population and housing because the project is located entirely on the existing facility and will not disrupt any existing housing. The project will not increase wastewater treatment capacity that could cause growth.

Mitigation

No mitigation is required.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
12. PUBLIC SERVICES				
a. Will the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?				X
ii. Police protection?				X
iii. Schools?				X
iv. Parks?				X
v. Other Public Facilities?				X

Setting

Fire protection is provided by the Grass Valley Fire Department. The nearest station is located at 472 Brighton Street, approximately 0.6 miles from the project site. This station is the only station with full time staffing.

Police protection services for the City of Grass Valley are provided by the city of Grass Valley Police Department. The department provides a full range of law enforcement services, including education, training, prevention, detection, patrol, enforcement, and apprehension.

The Grass Valley Elementary School District, Nevada Joint Union High School District, and the Sierra Community College District provide educational services for Grass Valley. The Grass Valley Elementary School District consists of the following schools with a total 1998 enrollment of 2,080 students:

- Bell Hill Elementary, 342 South School Street
- Gilmore Intermediate, 10837 Rough and Ready Highway
- Hennessy Elementary, 225 South Auburn Street
- Scotten Elementary, 10821 Squirrel Creek Road

The Nevada Joint Union High School District includes Nevada Union High School located at 11761 Ridge Road which serves the entire Planning Area.

No schools are located within a quarter mile of the project site (City of Grass Valley 1999).

The nearest public park to the project site is Glenn Jones Park, which is a 2-acre pocket park with picnic tables located next to the Pelton Wheel Mining Museum along Wolf Creek (City of Grass Valley 2004). The park is north of the project site. A police shooting range is located adjacent to the WWTP (EIP 1995).

Discussion of Checklist Answers

a. i. The project will not increase the need for fire protection during construction or operation. Heavy machinery will be used to make project modifications; however, all equipment and work will occur in the existing wastewater treatment plant footprint, on paved surfaces. There will be no increased risk of fire as a result of the project. The project will include installation of new equipment that will be properly wired and installed according to the Uniform Building Code to minimize potential for fires. The project will have no impact on fire prevention services.

ii. The project will not require increased police protection. The improvements will be made within the existing WWTP facility and will not require additional protection services during construction or operation.

ii. The project will not have any effects on schools. The project will not cause growth nor will it be in proximity to any schools.

iv. The project will not impact any parks or open space. Work will be contained entirely within the existing site.

v. The project will not impact any other public facilities.

Conclusion

There will be no impacts associated with public services from the proposed project.

Mitigation

No mitigation is required.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
13. RECREATION Will the Project:				
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated?				X
b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

Setting

Park and recreational facilities in the City of Grass Valley are under the jurisdiction of the Grass Valley Parks and Recreation Division. In 2001 the Parks and Recreation Commission prepared the Grass Valley Parks and Recreation Master Plan. The purpose of the Master Plan is to establish policies, set standards, and identify and prioritize capital investments (City of Grass Valley 2001).

Grass Valley’s current parks system is comprised of approximately 108 acres of park land consisting of 7 developed park sites and one un-developed park site. Facilities contained within these parks include 2 baseball fields, 1 softball field, 1 soccer field, 1 skatepark, 1 disc golf course, 2 outdoor basketball courts, 4 tennis courts, 1 volleyball court, 4 playgrounds, several picnic areas, a museum and a swimming pool (City of Grass Valley 2004).

The Wolf Creek Parkway, a streamside linear park of approximately 25 acres, is proposed to run along Wolf Creek within the city limits (City of Grass Valley 1999). This plan does not include provisions for trails along Wolf Creek in the project area because the creek is so channelized near the wastewater treatment plant a trail would not be feasible.

The closest existing park to the project area is Glenn Jones Park, which is a 2-acre pocket park with picnic tables located next to the Pelton Wheel Mining Museum along Wolf Creek (City of Grass Valley 2004). The park is north of the project site.

Discussion of Checklist Answers

a-b. The proposed project will not impact on the recreational opportunities or demand for new recreational facilities in the City of Grass Valley. The project will involve some modifications to the existing equipment at the WWTP, occurring over a 1 year period. The upgrades will occur entirely on the existing paved facility. The project will not affect any recreational trails or parks or require the expansion of recreational facilities. Worker use of surrounding parks is expected to be minimal. The project will have no impacts on recreation.

Conclusion

The project will not occur on or in the immediate vicinity of any existing parks or recreational facilities. The project will have no impacts on recreational facilities.

Mitigation

No mitigation measures will be required for the recreation section.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
14. TRANSPORTATION/TRAFFIC Will the proposal:				
a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?			X	
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				X
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d. Substantially increase hazards due to a design feature (e.g., sharp curves of dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e. Result in inadequate emergency access?				X
f. Result in inadequate parking capacity?				X
g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X

Setting

Roads

The WWTP is located adjacent to Wolf Creek on Freeman Lane, just south of State Highway 20. State Route (SR) 49 and SR 20 provide regional access to the project site, while direct access is provided by Freeman Lane and Allison Ranch Road, via McCourtney Road and Mill Street. Attachment 1: Figure 8 shows wastewater treatment plant access routes.

Level of Service

"Level of Service" (LOS) is a qualitative measure of traffic operating conditions whereby a letter grade "A" through "F", corresponding to progressively worsening operating conditions, is assigned to an intersection or roadway segment (see Table Traffic-1). The City of Grass Valley currently utilizes LOS "D" as the threshold below which mitigation measures must be implemented.

Table Traffic-1: Evaluation Criteria for Two-Way Urban Roadways Level of Service			
Facility Type	Level of Service “C” ADT Volumes	Level of Service “D” ADT Volumes	Level of Service “E” ADT Volumes
	V/C 0.71-0.80	V/C 0.81-0.90	V/C 0.91-1.00
Urban Street			
Two-lane	10,700-12,000	12,000-13,500	13,500-15,000
Four-lane	21,300-24,000	24,000-27,000	27,000-30,000
Six-lane	32,000-36,000	36,000-40,500	40,500-45,000
Freeway			
Four-lane	25,500-38,300	38,300-49,900	49,900-58,500

SOURCE: TRANSPORTATION RESEARCH BOARD 1994A; 1994B.

The Average Daily Traffic (ADT) on Highway 49, which is a 4 lane freeway at the junction with SR 20 in Grass Valley, is 32,000. The level of Service on Route 49 is C. The ADT on SR 20 at Mill Street is 17,600 (west) and 23,800 to the east. The LOS on SR 20 is a B-C near the WWTP (Caltrans 2007).

Two-lane collectors in the City of Grass Valley typically carry less than 9,000 ADT (City of Grass Valley 1999). Mill Street and Allison Ranch Road have a good LOS of A to B.

Discussion of Checklist Answers

a. Project related traffic will include trips for product delivery (concrete, UV equipment, removal of demolished items). Major equipment at the project site in the first eight months will include one 6 cubic yard dump truck, one 2 cubic yard backhoe, and one 10 ton crane. Major equipment that will be used for the last 4 months will include one front-end loader, one 2 cubic yard backhoe, two 6 cubic yard dump trucks, and one 130 horse power (hp) paver with tandem rollers. Regular traffic will be associated with construction crew travel to the site, which will require less than 10 vehicles, and dump truck trips. Other equipment will remain on-site during construction.

The freeways and collector streets in the project area have a LOS of C or better. Addition of a few vehicles associated with the project construction will not change the LOS in the project area. No additional vehicle trips will be associated with the project after construction. The project will have a less than significant impact on the existing traffic load and capacity of the street systems.

b. The project construction will add only a few vehicles to the roadway system. The project will not exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways. No additional vehicle trips will be associated with the project after construction.

c. The project will not change any air traffic patterns. A crane will be used but the project is not located within any airport management plan areas where there are height restrictions.

d. Transport of equipment to the site will require large trucks. The project site is located off of Freeman Lane, accessed by Mill Street and/or Allison Ranch Road. The transport of equipment will follow standard

delivery procedures and any oversized loads will be properly handled by the trucking contractors. There are no incompatible traffic uses associated with the project.

e. Project construction equipment will be staged and stored at the project site, in the paved areas. The storage of equipment and construction on the site will not block any emergency access. No roads or trails will be blocked during construction. The project will not impact emergency access.

f. The project will have no impact on parking. Equipment will be staged at the facility, which will not impact any public parking.

g. The project will not impact any public transportation or bike racks or conflict with policies on alternative transportation. The project will occur entirely on the existing facility and will not interfere or interrupt any alternative transportation.

Conclusion

The project will generate a minimal amount of traffic associated with construction on SR 49, SR 20, and local collector streets including Allison Ranch Road, Mill Street, McCourtney Road and Freeman Lane. Traffic contribution from project construction will be less than significant and will not change the existing acceptable LOS on the roadways in the project area. The project will not impact emergency access, parking, or alternative transportation.

Mitigation

No mitigation is required.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
15. UTILITIES AND SERVICE SYSTEMS Will the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could have significant environmental effects?				X
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements necessary?				X

15. UTILITIES AND SERVICE SYSTEMS (Continued)

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g. Comply with federal, state, and local statutes and regulations related to solid waste?				X

Setting

Water

The City's water system's service area is 1,357 acres (approximately 2.1 square miles) with a service area population of approximately 5,855 (City of Grass Valley 1999).

Wastewater

The City treats wastewater at the Grass Valley Wastewater Treatment Plant. The City provides wastewater collection, treatment, and disposal service to an area of 2,884 acres, approximately 4.5 square miles. The wastewater treatment plant services approximately 3,500 connections, an estimated population of 12,145. The collection system consists of 54.4 miles of sewer pipe ranging in size from 4-inch to 30-inch diameters (City of Grass Valley 1999).

Storm Drains

The City maintains a storm drainage system within the portion of the City lying within the Wolf Creek watershed. A Storm Drainage Master Plan (SDMP) completed in 1999 is the basis for drainage evaluation, planning, and facility programming. The drainage system consists of storm drains, modified channels, and natural channels. The City provides storm drainage facilities that prevent ponding of local stormwater and carry flood waters to downstream areas (City of Grass Valley 1999).

Solid Waste

The collection and disposal of solid waste in the City of Grass Valley is provided by a private firm, Waste Management, Inc., which is under a franchise agreement with the City of Grass Valley. Solid waste collected by the disposal company is transported to the McCourtney Road Transfer Station. It is then hauled outside the County to the prevailing landfill under contract with Nevada County. Since there is an ability to change solid waste destinations, there is no issue with capacity, however, there is a general need for reduction in solid waste generation (City of Grass Valley 1999; Waste Management Inc. 2007).

Discussion of Checklist Answers

a. The project will not exceed wastewater treatment requirements from the Central Valley Regional Water Quality Control Board. The project will, in fact, allow the WWTP to meet new standards for metals, cyanide, and trihalomethanes (THMs).. The project will not result in new wastewater generation and will not exceed

wastewater standards. The project will have no negative impact and will actually have a beneficial impact.

b. The project is modification of an existing wastewater facility. The project includes modifications to the existing chlorine contact basin to transform it into a UV disinfection system, and several other modifications to equipment to improve the denitrification processes. These activities will not alter the capacity or the processing rate of the wastewater treatment plant, or result in the need for additional upgrades or modifications to the wastewater treatment plant, the construction of which could have environmental effects. The facility will not be turned off or any processes stopped during construction. The project will have no effects.

c. The project will not involve any stormdrains and will not increase impervious surfaces that could increase stormwater runoff. The project will have no impacts on stormdrains.

d. The project will not result in or require significant use of potable or non-potable water resources. Some potable drinking water for construction workers may be necessary. The project site is currently paved so very limited, if any construction water will be needed (such as for dust suppression). The project will not require new or expanded water entitlements.

e. The project is for the existing wastewater provider and will have no impact on capacity or demand. The facility will not be turned off or any processes stopped during construction. Contact basins will be taken off-line one at a time. There are several basins such that removing one will have minimal effect on treatment and capacity. Impacts would be less than significant.

f-g. Waste generated by the proposed project includes construction debris and old equipment that is being removed. The chlorine gas system will be removed. Chlorine gas is supplied in one-ton reusable metal cylinders (designed per existing vessel codes). The vessels are delivered by a licensed hauler, stored on site during use, and then picked up for reuse by the hauler when the cylinders are empty. These vessels will not be disposed of, but will be picked up by the licensed hauler. All of the other equipment used in the delivery of chlorine gas during WWTP operations will be disposed of by the contractor according to the appropriate regulations. The project will have no impacts associated with solid waste removal.

Conclusion

The project will not generate additional need for wastewater treatment, or have water requirements in excess of existing entitlements. Debris and old equipment removed from the project site will be disposed of properly by the construction contractor. The project will have no impacts associated with utilities and services.

Mitigation

No mitigation is required.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
16. MANDATORY FINDINGS OF SIGNIFICANCE				
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife species population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			X	
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, and the effects of probable future projects)			X	
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				X

Discussion of Checklist Answers

a. The project will occur entirely within the existing WWTP facility, with ground disturbance limited to the existing paved areas of the wastewater treatment plant. The project construction will generate some noise; however, noise will attenuate with distance as the east and west is largely blocked by ground topography. Some wildlife exists within the Wolf Creek corridor; however, the project will not intrude on this corridor. The project will have a beneficial effect on plant and animal life within the corridor by improving water quality. The project includes mitigation measure Biology-1 to protect and prevent impacts to any individual swallows (protected under the Migratory Bird Treaty Act of 1912) that could be located on the wastewater treatment plant site and could be impacted by construction. With implementation of the mitigation measure, the project will have less than significant effects. The project will improve water quality in Wolf Creek, having an overall positive effect on the natural environment.

b. The project does not have any cumulative effects that will be significant or considerable. The project will have minimal environmental effects because of the limited scope of work and the lack of new ground disturbance. The construction phase is the most impacting phase, and will last only 1 year. The impacts are confined to the project site and will therefore not have a temporal or spatial cumulative effect with any other projects that could occur in Grass Valley.

c. The project will not cause adverse effects to human beings. Equipment will be removed by licensed contractors (i.e., the chlorine gas cylinders), and disposed of properly. Any spills or other incidental hazardous spills will be cleaned up as required by spill prevention and countermeasure plans. The project will have no impacts on humans.

Conclusion

The project will have less than significant impacts on the environment, will not result in cumulative environmental effects, and will not have adverse impacts on humans.

Mitigation

No mitigation is required

