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NOVATO SANITARY DISTRICT WASTEWATER FACILITY PLAN PROJECT

Environmental Impact Report
SCH 200407203

January 20, 2005

Prepared for:
Novato Sanitary District

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202537

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SUMMARY

S.1 INTRODUCTION

This Environmental Impact Report (EIR) assesses the potential environmental impacts of the Novato Sanitary District (District) Wastewater Treatment Master Plan Project. This document has been prepared in accordance with the California Environmental Quality Act (CEQA) statute and guidelines. The District is the lead agency for this CEQA process. Inquiries about the project and the CEQA process should be directed to:

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S.2 PROJECT DESCRIPTION

The District proposes improvements to and expansion of the existing Novato and Ignacio treatment facilities (Project). The aging treatment facilities and lack of redundancy affect the District's ability to meet discharge requirements with the degree of reliability currently required by their NPDES permit. In order to comply with regulatory requirements, the District will need to upgrade its treatment facilities. The District also needs to slightly expand its facilities to provide for buildout conditions, which are estimated to occur in 2025. The proposed project would make improvements to bring the treatment facilities into compliance with permit requirements for continued discharge into San Pablo Bay.

The treatment process would include: headworks, wet weather equalization, primary treatment; secondary treatment, wet weather filtration; disinfection; solids handling and cogeneration. Treatment would also consider the implementation of future recycled water facilities. Treatment improvements would include a new activated sludge secondary treatment process that would combine biochemical oxygen demand reduction with nitrification for ammonia reduction. The activated sludge tanks are followed by secondary clarifiers. The activated sludge process is highly reliable and is used at most treatment plants.

A pump station and force main between the two treatment plant sites would be constructed to convey flows to the site identified for upgrade implementation. The preferred force main alternative is shown in **Figure 2-5** and **Figure 2-6**, and extends between the two treatment plants

along existing District easements, existing bike trails, an undeveloped parcel, and the City of Novato roadways of: Frosty Lane; Rowland Boulevard; Rowland Way; and, Franklin Avenue.

S.3 PROJECT OBJECTIVES

The proposed project would make improvements to bring the treatment facilities into compliance with NPDES permit requirements for continued discharge to San Pablo Bay. The project also provides capacity for growth anticipated by City and County General Plans. Within this context, the project objectives include:

- Implement treatment facilities that will meet applicable current and future regulatory requirements, including NPDES, California Toxics Rule (CTR), and reliability criteria;
- Provide sufficient treatment and disposal capacity to meet projected flows associated with buildout of the General Plans within the District Service Area;
- Implement facilities in the most cost effective manner feasible; and,
- Minimize or mitigate environmental effects to the degree feasible.

S.4 ROLE OF THE EIR

This EIR is intended to be used by the District when considering approval of the Proposed Project. To support its decision on the Project, the District must prepare written findings of fact for each significant environmental impact identified in the EIR and must also adopt a mitigation monitoring and reporting program to ensure compliance with mitigation measures during Project implementation. The EIR is also intended to be used by responsible agencies that have review and permit authority over the Project. These agencies may include Regional Water Quality Control Board, Marin County Public Works, Department of Health and Safety, California Department of Transportation (Caltrans), and the City of Novato.

The District would also use the analysis contained within this EIR to support the acquisition of the following regulatory permits or approvals:

- USACOE: 404 Clean Water Act – Individual Permit
- United States Fish and Wildlife Service: Section 7 Consultation
- California Department of Fish and Game: 1603 Stream Bed Alteration Agreement
- Regional Water Quality Control Board: 401 Water Quality Certification; NPDES Permit
- Caltrans, District 4 – Roadway Encroachment Permit; Temporary or Permanent Easements
- Marin County Public Works – Roadway Encroachment Permit; Temporary or Permanent Easements

S.5 SUMMARY OF IMPACTS AND MITIGATIONS

Table S-1, at the end of this chapter, presents a complete list of the impacts and mitigation measures identified for the Novato Sanitary District Wastewater Treatment Facility Master Plan Project. Impacts are related to the construction or operation of the proposed improvements. The discussion associated with these impacts is presented in **Chapter 3, Environmental Setting, Impacts, and Mitigation Measures**. The level of significance for each impact was determined using significance criteria (thresholds) developed for each category of impacts; these criteria are also presented in the appropriate sections of Chapter 3. Significant impacts are those adverse environmental impacts that meet or exceed the significance thresholds; less-than-significant impacts would not exceed the thresholds. **Table S-1** indicates the measures to avoid, minimize, or otherwise reduce significant impacts to less-than-significant levels.

As indicated in **Table S-1**, implementation of the Proposed Project would not result in any significant unavoidable impacts.

S.6 ANALYSIS OF ALTERNATIVES

The CEQA Guidelines require Environmental Impact Reports (EIRs) to describe and evaluate a range of reasonable alternatives to a project, or to the location of a project, which would feasibly attain most of the basic project objectives and avoid or substantially lessen significant project impacts. **Chapter 6, Analysis of Alternatives**, evaluates the potential alternatives to the Proposed Project. Potential alternatives examined for the Proposed Project include:

Novato Combined WWTP Alternative. Under this alternative, improvements would be made at the Novato Wastewater Treatment Plant (WWTP) to consolidate treatment processes at this facility. The Ignacio WWTP would be converted to a pumping facility with flows into the Ignacio facility pumped to the Novato WWTP via a new force main approximately 24 inches in diameter. All new treatment facilities would be constructed within the fenceline of the existing Novato facility.

Ignacio Combined WWTP Alternative. Under this alternative, improvements would be made at the Ignacio WWTP to consolidate treatment processes at this facility. The Novato WWTP would be converted to a pumping facility. Flows to the Novato facility would then be pumped to the Ignacio WWTP via a new force main approximately 42 to 48 inches in diameter. All new treatment facilities would be constructed within the fenceline of the existing Ignacio facility.

Separate WWTP Alternative. This alternative would maintain and upgrade the District's existing systems, with the both Ignacio WWTP and the Novato WWTP kept in service for long-term use. The facilities at both treatment plants would be upgraded to meet regulatory and permit requirements for long-term operation. All facility upgrades would occur within the fenceline at both plants. The existing outfalls from the plants would also be maintained and no force main line would be constructed.

No Project Alternative. No improvements would be implemented at the Novato and Ignacio WWTPs. No force main would be constructed.

S.7 PROJECT ALTERNATIVES

The CEQA Guidelines require EIRs to describe and evaluate a range of reasonable alternatives to a project, or to the location of a project, which would feasibly attain most of the basic project objectives and avoid or substantially lessen significant project impacts. **Chapter 6, Analysis of Alternatives**, evaluates the potential alternatives to the Proposed Project. This analysis includes consideration of alternatives *to* the project that are other projects entirely, or other approaches to achieving the project objectives rather than the project or modified project. Additionally, alternatives of the project that include modified project components, such as alternative project sites or processes and/or modified facilities, layout, size, and scale, that could avoid potential impacts are considered. Potential alternatives examined for the Proposed Project include:

NO PROJECT ALTERNATIVE

Under the No Project Alternative, the District would not implement construction of facilities identified under the Proposed Project. This would maintain the current combined permitted treatment plant dry-weather flow of 6.55 million-gallons-per-day (mgd) and would not provide the additional capacity for anticipated growth, offset existing system inadequacies and future equipment failures, implement facilities that meet current and future regulatory requirements, or provide the means to eliminate or minimize potential adverse environmental effects expected to result from the lack of adequate wastewater treatment.

NOVATO COMBINED WWTP ALTERNATIVE

Project implementation would include approximately 51,126 cubic yards of excavation within the existing fenceline of the facility site. Construction at the Novato WWTP would also add an additional 148,000 square feet to the existing facility. The construction area would be approximately 9.5 acres and would be contained within the existing facility fenceline. Impacts associated with the Novato Combined WWTP Alternative include short-term construction related impacts to geology and soils, water quality, dust generation, traffic, noise, and visual resources. These impacts would be reduced to a less than significant level by implementation of measures established in Section 3.0.

Impacts associated with force main construction would include short-term impacts to geology and soils, water quality, wetland areas and Waters of the U.S., disturbance of habitat, dust generation, traffic, construction noise, temporary disruption of recreational trails and visual resources. These impacts would be reduced to a less than significant level by implementation of mitigation measures established in Section 3.0.

Implementation of the Novato Combined WWTP Alternative would result in no permanent loss of wetland associated with construction of the force main. Force main construction may also

potentially affect a known cultural site. Implementation of measures established in Section 3.0 would ensure impacts are reduced to a less than significant level. Project long-term impacts to water quality and hydrology would be mitigated to a less than significant level as well.

IGNACIO COMBINED WWTP ALTERNATIVE

Project implementation would include approximately 55,409 cubic yards of excavation within the existing fenceline of the facility site. Construction at the Ignacio WWTP would add an additional 148,000 square feet to the existing facility. The construction area would be approximately 8.4 acres and would be contained within the existing facility fenceline. Impacts associated with the Ignacio Combined WWTP Alternative include short-term construction related impacts to geology and soils, water quality, dust generation, traffic, noise, and visual resources. These impacts would be reduced to a less than significant level by implementation of measures established in Section 3.0.

Impacts associated with force main construction would include short-term impacts to geology and soils, water quality, wetland areas and Waters of the U.S., disturbance of habitat, dust generation, traffic, construction noise, temporary disruption of recreational trails and visual resources. These impacts would be reduced to a less than significant level by implementation of mitigation measures established in Section 3.0.

Alteration of the existing Ignacio facility as well as force main construction may also potentially affect a known cultural site. Implementation of measures established in Section 3.0 would ensure impacts are reduced to a less than significant level. Project long-term impacts to water quality and hydrology would be mitigated to a less than significant level as well.

SEPARATE WWTP ALTERNATIVE

Project implementation would include approximately 55,631 cubic yards of excavation within the existing fenceline of the two facilities. The Separate WWTP Alternative would add an additional 110,000 square feet to the existing Novato facility and 43,000 square feet to the Ignacio plant. The construction area would be approximately seven acres at the Novato facility and 2.4 acres at the Ignacio plant. All project improvements would be contained within the existing facility fencelines at both locations. No force main would be constructed with this alternative. Impacts associated with the Separate WWTP Alternative include short-term construction related impacts to geology and soils, water quality, dust generation, traffic, noise, and visual resources. These impacts would be reduced to a less than significant level by implementation of measures established in Section 3.0.

Long-term effects associated with this Separate WWTP Alternative may also potentially affect a known cultural site. Implementation of measures established in Section 3.0 would ensure impacts are reduced to a less than significant level. Project long-term impacts to water quality and hydrology would be mitigated to a less than significant level as well.

ALTERNATIVES TO THE PROJECT

Based upon the analysis outlined above, an activated sludge process with the consolidation of operation at the Novato WWTP site was the most advantageous scenario. The least advantageous scenario was to consolidate operation at the Ignacio plant. This was due to the higher cost of conveying the larger Novato flows to Ignacio, and difficulties of fitting the combined facilities at the smaller Ignacio site. Combining operation at the Novato site was less expensive than maintaining operation at two separate plants due to economies of scale. The duplicate process facilities required for maintaining separate plants was found to be greater than the cost of conveying the Ignacio flow to a combined operation at the Novato WWTP site.

S.8 SECONDARY EFFECTS OF GROWTH

The CEQA *Guidelines* require that an EIR evaluate the growth-inducing impact of a proposed action. **Chapter 4, Growth Inducement Potential and Secondary Effects of Growth**, evaluates the secondary effects of growth associated with the implementation of this project.

The District's determination of the level of increased capacity needed to serve the projected 2025 population was based on ABAG population projections (RMC, 2004). Consequently, it can be concluded that the District's 0.45 mgd projected increase in permitted capacity, or 1.8 mgd increase in average dry weather flow (ADWF) is consistent with projected growth under the *Novato General Plan* which also based its analysis on ABAG population projections. Following analysis of projections for population and wastewater flows in buildout year 2025, it is determined that the project is consistent with regional and local growth forecasts and *Novato General Plan* projections. The proposed project would therefore not significantly contribute to growth beyond anticipated levels.

S.9 CUMULATIVE IMPACTS

The CEQA Guidelines require that the cumulative impacts of a project are discussed in an EIR when the project's incremental effect is "cumulatively considerable," meaning that the project's incremental effects are considerable when viewed in connection with the effects of past, current, and probable future projects.

Chapter 5, Cumulative Impacts, evaluates the significant cumulative impacts resulting from implementation of the Project in combination with other projects or conditions, and indicates the severity of the impacts and their likelihood of occurrence. If implemented at the same time as other construction projects, construction of facilities could contribute to potential short-term cumulative effects associated with erosion, land uses, construction noise, air quality, traffic, hazardous materials, public services and utilities, and visual resources disturbance. Due to their short-term duration and the incorporation of appropriate mitigation measures, construction of facilities would not result in a considerable contribution to cumulative impacts.

Long-term impacts from ground shaking, surface fault rupture and damage from corrosive soils, as well as potential impacts to cultural resources, air quality to toxic air contaminants releases,

and visual disturbance. Modeling results for copper and nickel, as well as assessments for other pollutants, indicate that the project would not have a significant effect on San Pablo Bay water quality. Implementation of the mitigation measures recommended in **Section 3.0** would assure impacts of the Project are not cumulatively considerable.

REFERENCES – Summary

Novato Sanitary District, *Wastewater Treatment Plant Facility Plan,* RMC, Inc., March 2004.

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
Geology, Soils and Seismicity		
3.1-1: Ground motion generated during an earthquake on an active local or Bay Area regional fault system could cause structural damage to project-related structures resulting in localized pipeline leakage, temporary service disruptions, or other structural damage. (Less than Significant)	None required.	Less than Significant
3.1-2: Portions of the proposed treatment plant facilities and force main would be located in areas susceptible to liquefaction and could be damaged in the event of a major earthquake. (Less than Significant with EIR Identified Mitigation)	**3.1.2:** Prior to the approval of construction plans for the proposed force main, a design-level geotechnical investigation, including collection of subsurface data shall be completed. The geotechnical evaluation should include identification of density profiles, determination of maximum shallow groundwater levels, characterization of the vertical and lateral extent of saturated sand/silt layers that could undergo liquefaction during strong ground shaking and develop site-specific design criteria to mitigate potential risks.	Less than Significant
3.1-3: The proposed force main would extend through areas comprised of potentially corrosive soil materials that could damage the proposed force main. (Less than Significant with EIR Identified Mitigation)	**3.1-3:** A site-specific soil corrosion survey would be conducted by an engineer certified to evaluate soils conditions along the proposed force main. The investigation would define the need for, and the location of corrosion protection / prevention devices. All buried structures including the forcemain, should be designed and constructed to withstand corrosive subsurface conditions.	Less than Significant
3.1-4: Construction of proposed force main and treatment plant upgrades could increase soil erosion and result in subsequent sedimentation of local waterways (e.g., Novato Creek). (Less than Significant with EIR Identified Mitigation)	**3.1-4:** For all project construction components, a Storm Water Pollution Prevention Plan (SWPPP) will be developed for construction activities as required by the State Water Resources Control Board for construction of projects exceeding one acre. The objectives of the SWPPP are to identify pollutant sources that may affect the quality of stormwater discharge and to implement control practices to reduce pollutants in stormwater discharges. The SWPPP for this project will meet the requirements specified by the State Water Resources Control Board.	Less than Significant

TABLE S-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
Hydrology and Water Resources		
3.2-1: Construction of the proposed force main and treatment plant upgrades would require vegetation removal, open trench excavation, and soil stockpiling. Unmanaged stormwater runoff could entrain the fine-grained fraction of the soil disturbed by these activities and could transport the sediment to receiving water sources that would increase sediment load in surface water runoff. Construction activities could also generate certain chemical wastes that if improperly managed, could enter surface water sources. Eroded soils and construction wastes could degrade quality of surface water runoff or the quality of local surface water sources such as streams (receiving water). (Less than Significant with EIR Identified Mitigation)	**3.2-1:** In order to reduce the potential for erosion and sedimentation at any nearby sloughs, creeks or waterways, it is recommended that the District incorporate into contract specifications the requirements outlined in the SWPPP that construction directly adjacent to or across waterways be limited to the dry season to the extent feasible, annually from May 1st to November 15th, to the degree feasible, subject to agreement with the appropriate regulatory agencies. Construction during the dry season minimizes impacts of storm water runoff to the waterways' water quality. In the event of drought or an extended dry season in autumn, the construction permit may be extended at until the first rain event of over one inch total precipitation, subject to agreement by regulatory agencies.	Less than Significant
3.2-2: Discharge of shallow groundwater during the dewatering activities required for pipelines, jack and bore excavations, and WWTP upgrades could result in adverse surface and groundwater quality impacts, depletion of local groundwater supplies, and localized surface flooding. (Less than Significant with EIR Identified Mitigation)	**3.2-2a:** Where possible, water generated by dewatering activities would be used for construction activities, such as compaction and dust control. If used for these applications, appropriate measures would be applied to ensure that the water infiltrates and does not runoff from the land to storm drain systems, to creek beds (even if dry) or to receiving waters. **3.2-2b:** Non-contaminated water is recommended to be discharged to land for infiltration, when 1) the water contains sediment, but is not contaminated with other pollutants, 2) the water does not runoff from the land to storm drain systems, to creek beds (even if dry), or other surface waters, 3) permission for infiltration is acquired from the property owner, 4) the San Francisco Bay RWQCB, City of Novato and/or Marin County have been contacted as applicable, and discharge is authorized or permitted and 5) if a permit were required, temporary onsite storage of water removed from trenches, excavations, etc. and water will be discharged according to the permit conditions.	Less than Significant

TABLE S-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
Hydrology and Water Resources (cont.)		
3.2-2 (cont.)	**3.2-2c:** Disposal of groundwater from trenching would be performed in accordance with RWQCB requirements. At stream and channel crossings, a dewatering collection and disposal method shall be identified. Water from dewatering would be discharged or collected and disposed of off-site in accordance with all applicable laws and regulations. If dewatered water is to be discharged to adjacent surface waterways, the District would obtain a permit as required from the appropriate regulatory agencies. **3.2-2d:** It is recommended that samples of dewatering flows be decanted and tested by a California-certified analytical laboratory to determine the presence or absence of pollutant constituents. The results of the chemical analysis would be used to determine the appropriate method for disposal. Disposal discharge areas include roadside drainage and ditches or conveying the groundwater to the WWTP for treatment as part of its influent flows. Management of dewatering flows and mitigation measures will be discussed in the SWPPP required by the RWQCB for construction activities. **3.2-2e:** The excavation subcontractor would be required to prepare a dewatering management plan to ensure that dewatering operations will be completed according to the applicable regulations. The plan would include emergency contingency plans if unanticipated contaminants are observed in the discharge or flooding occurs resulting in cessation of water pumping. Then subcontractor will be required submit the plan to the District and to keep a copy of the plan at an accessible location at the job site. **3.2-2f:** As required by the State Water Code, all dewatering wells shall be constructed in accordance with the California Well Standards and must be permitted and inspected in accordance with the Marin County Department of Environmental Health Services. After use, each dewatering well shall be properly destroyed in accordance with the California Well Standards and permitted and inspected, as required by the Marin County Department of Environmental Health Services.	

TABLE S-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
Hydrology and Water Resources (cont.)		
3.2-3: Construction of the force main and WWTP upgrades would have the potential to alter drainage patterns, runoff rates, and flow volumes. (Less than Significant with EIR Identified Mitigation)	**3.2-3:** Upgrades at the existing WWTPs shall be designed to include appropriate drainage infrastructure to convey flows into storm drains leading into the treatment plant headworks. No drainage from the WWTP will leave the plant site.	Less than Significant with Mitigation Measures
Water Quality		
3.3-1: Possible degradation of ambient water quality could result from increased effluent discharge via the District's existing outfall. (Less than Significant)	None required.	Less than Significant
3.3-2: The increased District effluent discharge would comply with existing NPDES effluent water quality limitations. (Less than Significant)	None required.	Less than Significant
3.3-3: Increased discharge to San Pablo Bay through the existing discharge would result in significant impacts to temperature. (Less than Significant)	None required.	Less than Significant
3.3-4: An increase in effluent discharge from the District may result in increased mass loadings to the Bay, with subsequent impacts to water quality. (Less than Significant)	None required.	Less than Significant

TABLE S-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
Biological Resources		
3.4-1: Construction of the Proposed Project could result in impacts to potentially jurisdictional wetlands or Waters of the U.S. under the jurisdiction of the USACOE and waters of the state under the jurisdiction of the SWRCB or Regional Water Quality Control Board (RWQCB). The Proposed Project could also result in impacts to the streambed and banks under jurisdiction of CDFG. Potential impacts include sedimentation of channels downstream of the construction areas during trenching and excavating activities and loss of riparian and instream wetland vegetation. (Less than Significant with EIR Identified Mitigation)	**3.4-1a: Conduct wetland delineation of proposed project area and alternative pipeline alignment routes.** Potentially jurisdictional Waters of the U.S., including wetlands have only been preliminarily identified. A wetland delineation, identifying and mapping potentially jurisdictional features subject to Clean Water Act Section 404 jurisdiction. The wetland delineation map and report will be submitted to the Corps for field verification of jurisdiction. The wetland delineation report and verified map will be submitted to RWQCB and CDFG, and other appropriate regulatory agencies. **3.4-1b: Wetland Avoidance.** To the extent feasible, final project design will minimize effects to wetlands and other waters. Areas that are avoided will be subject to Best Management Practices (BMPs), as described in Measure 3.4.1b below. **3.4-1c: Obtain Regulatory Permits.** Temporary Impacts to Waters of the U.S. from project construction will be mitigated by the implementation of measures listed below. Construction within jurisdictional features would require permit approval from the USACOE for fill in wetlands and other waters of the U.S. pursuant to Section 404 of the Clean Water Act. Water quality certification from the RWQCB will also be required pursuant to Section 401 of the CWA. In addition, the CDFG has jurisdiction pursuant to Sections 1601-1603 of the Fish and Game Code, and trenchless technology of the pipeline construction under Novato Creek may require a Streambed Alteration Agreement from CDFG. Terms and conditions of the permits will include measures to protect and maintain water quality, restoration of work sites, and mitigation to offset permanent and temporary wetland impacts. **3.4-1d: Implement Standard BMPs to Maintain Water Quality and Control Erosion and Sedimentation.** Standard measures to maintain water quality and to control erosion and sedimentation shall be implemented in canals, ditches, and in wetland areas along the pipeline alignments, as required by compliance with the General National Pollution Discharge Elimination System (NPDES) Permit for Construction Activities and established by **Measure 3.2-1a**.	Less than Significant

TABLE S-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
Biological Resources (cont.)		
3.4-2: Construction of the Proposed Project would result in temporary construction disturbance to pond turtle habitat. (Less than Significant with EIR Identified Mitigation)	**3.4-2:** Prior to the start of construction activities, a qualified biologist shall perform pond turtle surveys within Novato Creek and in other ponds and channels affected by the project. Surveys may include nests as well as for individual turtles. The project biologist will be responsible for the survey and for the relocation of adult turtles. Construction will not proceed until the District project corridor can be deemed free of turtles and nests. If nests are observed, a biologist with the appropriate permits from CDFG may move the eggs to a suitable facility for incubation, and release hatchlings into the creek system in the following fall.	Less than Significant
3.4-3: Construction of the Proposed Project would result in disturbance to nesting habitat for breeding raptors and passerine birds including nesting white-tailed kite and saltmarsh common yellow throat. (Less than Significant with EIR Identified Mitigation)	**3.4-3: Protection to nesting and breeding birds and raptors.** The following mitigation measures address potential impacts to nesting and breeding birds and raptors in the vicinity of the construction sites. ▪ To the extent feasible, construction activities shall avoid the nesting season between March 15 and August 15. If construction must occur during this period, all sites shall be surveyed by a qualified biologist to verify the presence or absence of nesting birds or raptors. If the survey indicates that potential presences of nesting birds or raptors, the results would be coordinated with CDFG and suitable avoidance measures would be developed and implemented. Construction shall observe the CDFG avoidance guidelines which are a minimum 500-foot buffer zone surrounding active raptor nests and a 250-foot buffer zone surrounding nests of other birds, as agreed to with CDFG. Buffer zones shall remain until young have fledged.	Less than Significant
3.4-4: Construction of facilities could result in impacts to common plant and animal species. (Less than Significant With EIR Identified Mitigation)	**3.4-4:** For construction occurring within all project components, either cover all open trench areas at the end of work days, have escape ramps provided, or have the biological monitor check trenches daily.	Less than Significant

TABLE S-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
Land Use, Planning and Recreation		
3.5-1: Project construction would result in short-term disturbance to some adjacent land uses adjacent to the WWTP sites and along the force main alignment construction corridor. (Less than Significant with EIR Identified Mitigation)	**3.5-1:** The District would require its contractor to prepare a Traffic Control Plan specifying measures for maintaining access to the Sutter Community Health Hospital, residences and businesses in the vicinity of the WWTPs and along the force main construction route, including Davidson Street, Bel Marin Keys Boulevard, Rowland Boulevard, Rowland Way, and Hamilton Drive (see Section 3.8, Traffic and Circulation). Additional mitigation measures for construction disturbance to residential receptors and other sensitive land uses are identified in **Sections 3.7, Air Quality, and 3.8, Noise**.	Less than Significant with EIR-Identified Mitigation
3.5-2: Project construction could result in short-term disturbance of recreational facility uses. (Less than Significant with EIR Identified Mitigation)	**3.5-2:** The District shall coordinate with the City of Novato to identify recreational trail detour routes during construction, as part of the Traffic Control/Traffic Management Plan (see **Measure 3.5-1**). The District shall require its contractor to maintain access during construction through inclusion of such provisions in the construction contract.	Less than Significant with Mitigation
Cultural Resources		
3.6-1: Construction of proposed facilities would have the potential to impact known archaeological resources. (Less than Significant with EIR Identified Mitigation)	**3.6-1a:** All construction personnel would be trained regarding the recognition of possible buried cultural remains, including prehistoric and historic resources during construction, prior to the initiation of construction or ground-disturbing activities. The construction contract will require all construction personnel complete the training. Training would inform all construction personnel of the procedures to be followed upon the discovery of archaeological materials, including Native American burials. The following issues are recommended to be addressed in training or in preparation for construction: ▪ Any excavation contract (or contracts for other activities that may have subsurface soil impacts) would include clauses that require construction personnel to attend training so they are aware of the potential for inadvertently exposing buried archaeological deposits.	Less than Significant with EIR-Identified Mitigation

TABLE S-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
Cultural Resources (cont.)		
3.6-1 (cont.)	▪ The contractor will be required to provide a background briefing for supervisory construction personnel describing the potential for exposing cultural resources, the location of any potential ESA and anticipated procedures to treat unexpected discoveries. ▪ Upon discovery of potential buried cultural materials, work in the immediate area of the find would be halted and a qualified archaeologist notified. Once the find has been identified, the archaeologist would make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the finds are found to be significant according to CEQA. **3.6-1b:** Prior to construction, the District would develop a Cultural Resources Management Plan that includes procedures for the protection and avoidance of sensitive areas, and Archaeological High-Probability Areas, evaluation and treatment of the unexpected discovery of cultural resources including Native American burials; detailed reporting requirements by the Project archaeologist; curation of any cultural materials collected during the Project; and requirements to specify that archaeologists and other discipline specialists meet the Professional Qualifications Standards mandated by the California Office of Historic Preservation. Specific protective measures would be defined in the Cultural Resources Management Plan to reduce the potential adverse impacts on any presently undetected cultural resources to a less-than-significant level. **3.6-1c:** The Cultural Resources Management Plan would define construction procedures for areas near known/recorded cultural sites. Wherever trenches, access roads, equipment, etc., must be placed or accessed within 100 feet of a recorded, reported, or known archaeological site eligible or potentially eligible for the CRHR, the site will be flagged on the ground as an Environmentally Sensitive Area (without disclosure of the exact nature of the environmental sensitivity. Archaeological monitoring of Project construction would be focused in the immediate vicinity of the designated Environmentally Sensitive Areas.	

TABLE S-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
Cultural Resources (cont.)		
3.6-1 (cont.)	**3.6-1d:** All construction disturbance areas will be monitored, including the Ignacio WWTP site and Force Main Alignment Segment Option A. Archaeological monitoring would be conducted by a qualified archaeologist familiar with the types of historic and prehistoric resources that could be encountered at the WWTP sites and along the force main alignment corridor. Specific monitoring locations would be determined at the discretion of the principle archaeologist. The qualifications of the project archaeologist shall be approved by the District. **3.6-1e:** Should unanticipated finds be uncovered during construction, work in the immediate vicinity must cease until an archaeologist is informed and an assessment of the historic or prehistoric resources is conducted. In the event that Native American human remains or funerary objects are discovered, the provisions of the California Health and Safety Code should be followed. Section 7050.5(b) of the California Health and Safety Code should be implemented in the event that human remains or possible human remains are located. The County Coroner, upon recognizing the remains as being of Native American origin, is responsible to contact the Native American Heritage Commission within 24 hours. The Commission has various powers and duties to provide for the ultimate disposition of any Native American remains, as does the assigned Most Likely Descendant. Sections 5097.98 and 5097.99 of the Public Resources Code also call for "protection to Native American human burials and skeletal remains from vandalism and inadvertent destruction." A combination of preconstruction worker training and intermittent construction monitoring by a qualified archaeologist will serve to achieve compliance with this requirement for protection of human remains. Worker training typically instructs workers as to the potential for discovery of cultural or human remains, and both the need for proper and timely reporting of such finds, and the consequences of failure thereof.	

TABLE S-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
Air Quality		
3.7-1: Construction and demolition activities associated with facility construction would generate short-term emissions of criteria pollutants, including suspended and inhalable particulate matter and equipment exhaust emissions. (Less than Significant with EIR Identified Mitigation)	**3.7-1:** Project approval would be conditioned upon inclusion of a Dust Abatement Program in the project specifications that would require contractors to reduce fugitive dust generation. The Dust Abatement Program would be compiled according to the applicable local, BAAQMD and state air quality criteria and included in the construction documents. In addition, the following CEQA mitigation measures (BAAQMD, 1999) should be implemented to reduce air quality impacts from construction activities. ▪ Construction areas, unpaved access roads, and staging areas shall be watered at least twice daily during dry weather, or soil stabilizers shall be applied during active work. ▪ Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard. ▪ Pave, apply water three times daily, or apply non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites. ▪ Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites. ▪ Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets. ▪ Enclose, cover, water twice daily, or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.). ▪ Limit the speed of all construction vehicles to 15 miles per hour while on unpaved roads at the project site. ▪ Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).	Less than Significant

TABLE S-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
Air Quality (cont.)		
3.7-2: Operation of Proposed Project components would result in operational air emissions from pumps, testing and potential use of emergency generators. Emissions from these sources would not be substantial and would not exceed significance criteria of the BAAQMD. (Less than Significant)	None required.	Less than Significant
3.7-3: Project operation would result in odor emissions. (Less than Significant with EIR Identified Mitigation)	**3.7-3:** Consistent with the District's existing covered facilities, measures to eliminate odor from facility sources would be implemented in the design and operation of new equipment. As appropriate, this would include covering of facilities and filtering of air from odor sources prior to release. Additionally, emission points would be located as far as possible from the fresh air intake of adjacent buildings and other sensitive receptors.	Less than Significant
3.7-4: Project operation could result in operational toxic air contaminant (TAC) emissions. (Less than Significant with EIR Identified Mitigation)	**3.7-4:** Design and operation elements would be used to decrease TAC emissions as required to meet permit requirements. Emissions sources would be located as far from any sensitive receptors as much as possible.	Less than Significant
Noise		
3.8-1: Construction activities would intermittently and temporarily generate noise levels above existing ambient levels in the project vicinity. (Less than Significant with EIR Identified Mitigation)	**3.8-1a:** ▪ Construction hours would be generally limited to between the hours of 7:00 a.m. and 7:00 p.m. on weekdays and 8:00 a.m. and 5:00 p.m. on Saturdays and Sundays, unless the construction needs to occur during low sewage flow periods for the plant tie-ins; and, ▪ All equipment used on the project would be muffled and maintained in good operating condition. All internal combustion engine-driven equipment would be fitted with intake and exhaust mufflers which are in good condition. **3.8-1b:** Construction contractors would locate fixed construction equipment such as compressors as far as possible from noise-sensitive receptors during construction.	Less than significant with EIR identified Mitigation

TABLE S-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
Noise (cont.)		
3.8-2: Operational activities would generate noise levels above existing ambient levels in the project vicinity. (Less than Significant)	No mitigation measures are required.	
3.8-3: Shoring of portions of segment trench, bore pits, thrust-block pits, and jack-and-bore operations, could result in vibration impacts which could affect adjacent structures and create human annoyance. (Less than Significant with EIR Identified Mitigation)	**3.8-3:** ▪ Vibratory drivers instead of conventional pile drivers would be used where feasible and effective in reducing impact noise from shoring of jack-pit and thrust-block excavations in close proximity to sensitive receptors. ▪ It is recommended to equip pavement breakers and jack hammerers with acoustically attenuated shields or shrouds as recommended by the manufacturers. ▪ When high levels of construction vibration (such as demolition, and pavement breaking) are expected at residences or other buildings, It is recommended that the applicant undertake a detailed "crack survey" prior to the start of construction activities. Such surveys shall occur when extreme vibration is expected to occur within 25 feet of any building and within 50-100 feet of a historical building or building in poor condition. The survey may be done by photographs, video tape, or visual inventory, and shall include inside as well as outside locations. All existing cracks in walls, floors, driveways, etc. would be documented with sufficient detail for comparison after construction to determine whether actual vibration damage has occurred.	Less than significant with EIR identified Mitigation
Traffic and Circulation		
3.9-1: Construction of the proposed new pipelines would reduce the number of, or the available width of, travel lanes on roads, resulting in short-term traffic delays for vehicles traveling past the construction zone on the affected roadways. (Less than Significant with Mitigation)	**3.9-1a:** The District would require the contractor to arrange for a detailed Traffic Control/Traffic Management Plan to be prepared by a licensed traffic engineer, for all project-affected roadways and intersections. The Traffic Control/Traffic Management Plan would comply with requirements in encroachment permits issued by the City of Novato, and may include, but not be limited to, the following measures:	Less than Significant with Mitigation

TABLE S-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
Traffic and Circulation (cont.)		
3.9-1 (cont.)	▪ Limit the construction work zone in each block to a width that, at a minimum, maintains alternate one-way traffic flow past the construction zone. ▪ Restrict construction to non-peak traffic periods as required for specific work sites in encroachment permits. Weekend and night work shifts may be considered in non-residential areas only. ▪ Maintain the maximum amount of travel lane capacity during non-construction periods, with all trenches covered with steel plates. ▪ Provide flagger-control at all construction sites to manage traffic control and flows. ▪ Coordinate pipeline installation with other construction that could overlap with project construction. ▪ Coordinate construction activities (time of year and duration) to minimize traffic disturbances adjacent to commercial areas (e.g., avoid peak of Christmas holiday shopping period). ▪ Post advanced warning of construction activities (e.g., signs, articles in newspapers, notices on radio/TV, etc.) to allow motorists to select alternative routes in advance. **3.9-1b:** In consultation with the City of Novato, the District would identify areas where night construction may be appropriate. Candidate locations are areas are non-residential zones where there are no or few sensitive noise receptors. **3.9-1c:** The District would apply for, and comply with the requirements of necessary encroachment permits for pipeline construction including but not limited to, within or across railroad and Caltrans right-of-ways (ROWs).	

TABLE S-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
Traffic and Circulation (cont.)		
3.9-2: Construction of the proposed pipelines and treatment plant(s) would generate short-term increases in vehicle trips by construction workers and construction vehicles. (Less than Significant with EIR Identified Mitigation)	**3.9-2a:** As part of the Traffic Control/Traffic Management Plan for roadway segments and intersections (see **Measure 3.9-1a**), the District (and the construction contractor) would specify designated haul routes for the project after consultation with agencies with local roadway jurisdiction. **3.9-2b:** To the extent possible, the District would require the contractor schedule project work to avoid construction worker and truck trips during peak traffic periods.	Less than Significant with Mitigation
3.9-3: Construction of the proposed pipelines would affect access to adjacent land uses and streets for both general traffic and emergency vehicles. (Less than Significant with EIR Identified Mitigation)	**3.9-3a:** As part of the Traffic Control/Traffic Management Plan for roadway segments and intersections (see **Measure 3.9-1a**), the City of Novato, the District, and the construction contractor would develop comprehensive strategies for maintaining emergency access for sensitive land uses, such as the hospital, in consultation with the facility owner or administrator. Strategies may include, but not be limited to, maintaining steel trench plates at the construction sites to restore access across open trenches and identification of alternate routing around construction zones. Also, police, fire, and other emergency service providers would be notified of the timing, location, and duration of construction activities throughout the project, and the location of detours and lane closures. **3.9-3b:** In consultation with City of Novato, the District and the contractor would identify areas where night construction may be appropriate (areas where there are no sensitive noise receptors). **3.9-3c:** The contractor would use detour signing on alternate access streets established when temporary full street closure is required. **3.9-3d:** The City of Novato would require a minimum 72-hour advance notice of access restrictions for residents and businesses. Affected residents and businesses would be advised of requirement for moving motor vehicles out of the area to be closed.	Less than Significant with Mitigation

TABLE S-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
Traffic and Circulation (cont.)		
3.9-4: Construction of the proposed pipelines would generate a temporary demand for parking spaces for construction worker vehicles, and construction activity could temporarily displace existing on-street parking on pipeline alignment routes. (Less than Significant with EIR Identified Mitigation)	**3.9-4:** The District would require the contractor(s) to provide off-street parking for construction worker's vehicles in the vicinity of the work zone, and as needed, workers would be shuttled to the work site from an off-site location.	Less than Significant with Mitigation
3.9-5: Construction of the proposed pipeline would increase potential traffic safety hazards for vehicles, bicyclists, transit, and pedestrians on public roadways. (Less than Significant with EIR Identified Mitigation)	**3.9-5a:** As part of the Traffic Control/Traffic Management Plan for roadway segments and intersections (see **Measure 3.9-1a**), the District would require the contractor to ensure that such plans stress advance "Road Work Ahead" warning signs and speed control (including signs informing drivers of recent State-legislated double fines for speed infractions in a construction zone) to achieve required speed reductions for safe traffic flow through the work zone. **3.9-5b:** The District would incorporate into contract specifications for all project components the requirement that traffic control/traffic management plan (see **Measure 3.9-1a**) include detours for bicyclists, transit service, and pedestrians in all areas potentially affected by project construction.	Less than Significant with Mitigation
3.9-6: Construction of the proposed conveyance pipeline, and treatment plant upgrade(s) would increase wear-and-tear on the designated haul routes used by construction vehicles to access the project work site. (Less than Significant with EIR Identified Mitigation)	**3.9-6:** The District and the City of Novato shall enter into an agreement prior to construction that will detail the pre-construction conditions and the post-construction requirements of the rehabilitation program. Roads damaged by construction would be repaired to a structural condition equal to that which existed prior to construction activity.	Less than Significant with Mitigation
3.9-7: Construction of the proposed pipeline would disrupt travel on the Novato Multi-Use Trail and connecting informal trails. (Less than Significant with EIR Identified Mitigation)	**3.9-7a:** The District would coordinate with the City of Novato to identify trail detour routes during construction where feasible, as part of the Traffic Control/Traffic Management Plan (see **Measure 3.9-1a**). With the exception of force main Segment A and Segment D, the District would require its contractor to maintain access during construction through inclusion of such provisions in the construction contract.	Less than Significant.

TABLE S-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
Traffic and Circulation (cont.)		
3.9-7 (cont.)	**3.9-7b:** The City of Novato would require a two week advance notice of access restrictions for trail users. Detailed information of closure dates and detour information would be visibly posted at locations along the recreational trail at least two weeks in advance. **3.9-7c:** Where no readily accessible detour is available, the District would require its contractor to maintain access through the construction zone during one hour of each commute period (to be determined in consolation with the City). The terms of the accessibility would be posted a minimum of two weeks in advance.	
Hazardous Materials		
3.10-1: Construction excavation could encounter contaminated materials, causing an increase in risk of exposure of hazardous materials to humans and the environment. (Less than Significant with EIR Identified Mitigation)	**3.10-1a:** If identified as appropriate, the District would collect soil samples at the Novato WWTP site (Site N) (Novato Combined WWTP Alternative and Separate WWTP Alternative) and/or along force main Segment F (Ignacio Combined WWTP Alternative) in order to determine the potential extent of contaminated soil that would be disturbed during construction activities. Soil sampling plans and activities would be overseen by a trained health and safety professional equipped with an organic vapor analyzer to screen excavated materials and ensure worker safety. Should contribution activities intersect contaminated soil, removal and disposal of contaminated soil shall occur in accordance with all applicable regulatory requirements. **3.10-1b:** In the event that previously unidentified hazardous substances are encountered during construction, the District would ensure that the contractor(s) has a contingency plan for sampling and analysis of potentially hazardous substances and would coordinate with the appropriate regulatory agencies, if necessary. Evidence of potential hazardous contamination includes soil discoloration, noxious odors, presence of underground storage tanks, or buried building material. The required disposal method would depend on the types and concentrations of chemicals identified in the soil. Any site investigations or remediation shall comply with applicable laws.	Less than Significant

TABLE S-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
Hazardous Materials (cont.)		
3.10-1 (cont.)	**3.10-1c:** If unknown USTs are discovered during construction, the UST, associated piping, and impacted soil shall be removed under the supervision of a licensed and experienced UST removal contractor. The UST and contaminated soil shall be removed in compliance with applicable county and state requirements governing UST removal.	
3.10-2: Construction activities requiring the use of hazardous materials may increase the risk of exposure to hazardous materials. (Less than Significant with EIR Identified Mitigation)	**3.10-2a:** To minimize the potential negative effects on groundwater and soils, the District would ensure that contractors use best management practices typically implemented as part of construction. These could include the following: ▪ Follow manufacturers' recommendations and regulatory requirements for use, storage and disposal of chemical products and hazardous materials used in construction; ▪ Avoid overtopping construction equipment fuel gas tanks; ▪ During routine maintenance of construction equipment, properly contain and remove grease and oils. ▪ Properly dispose of discarded containers of fuels and other chemicals. **3.10-2b:** In the event of an inadvertent release of hazardous materials during project operations, the District shall ensure that containment and cleanup of such a release occurs in accordance with all applicable regulatory requirements. **3.10-2c:** The District shall ensure that spent oil and other solvents used during maintenance of construction equipment is recycled or disposed of in accordance with all applicable regulatory requirements. The District shall also ensure that all hazardous materials shall transported, handled, and disposed of in accordance with all applicable regulatory requirements. **3.10-2d:** The District shall ensure that abrasive blasting, or water blasting and metal work including weldings, cutting, and torch burning that involves removal of lead-based paints or primers is completed in strict compliance with worker safety regulations outlined in OSHA's Lead in Construction Standard, Title 8 CCR 1532.1,	Less than Significant

TABLE S-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
Hazardous Materials (cont.)		
3.10-2 (cont.)	as applicable. The District shall also ensure that vapors, fumes, and dust that is generated from the painted metal work is captured and does not leave the site by using appropriate BMPs including, but not limited to, constant light water spray, structure tenting, or fume hoods. The District would ensure that water, soil, or other media contaminated by lead dusts and fumes is removed from the site and disposed. The District would ensure that excavations to capture spray or high-pressure stripping water are lined with impermeable materials (i.e. 10-mil plastic) and constructed to direct water to lined sumps. Water in sumps would be removed and disposed of in an appropriate treatment, storage and disposal facility. Verification soil sampled would be collected in fall-out area following project completion to document the presence or absence of residual lead. **3.10-2e:** The District and/or its contractors shall prepare a construction health and safety plan as required by the California Occupational Safety and Health Administration. This health and safety plan shall describe the hazardous materials that would be used during construction and their associated health hazards.	
3.10-3: Increased quantities of hazardous materials stored onsite at the Novato and/or Ignacio treatment plants could impact public health in the event of a catastrophic spill or explosion. Adoption of updated Business Plans and compliance with applicable regulations would minimize potential risks. (Less than Significant)	None required.	
3.10-4: Construction activities in grassland areas would have the potential to expose people or equipment to risk of loss, injury, or death involving wildland fires. (Less than Significant with EIR Identified Mitigation)	**3.10-4a:** The District shall work closely with the Novato Fire Department to develop a wildland fire safety plan which shall describe various potential scenarios and action plans in the event of a fire. This fire safety plan shall be submitted to the Novato Fire Department for review and approval. **3.10-4b:** During construction, all staging areas, welding areas, or areas slated for development using spark producing equipment would be cleared of dried vegetation or other materials that could serve as fuel. Any construction equipment that would normally include a spark arrestor will be equipped with an arrestor in good working order.	Less than Significant

TABLE S-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
Public Services and Utilities		
3.11-1: Pipeline construction could result in temporary, planned or accidental disruption to utility services. (Less than Significant with Mitigation)	**3.11-1:** A detailed study identifying utilities along the affected portions of the project alignment shall be conducted during the pre-design stages of the project to complement the existing utilities study for the disturbed portions of the project alignment. For locations with adverse impacts, the following mitigations are identified. a. Utility excavation or encroachment permits shall be required from the appropriate agencies. These permits include measures to minimize utility disruption. The District and its contractors shall comply with permit conditions, and such conditions shall be included in construction contract specifications. b. Utility locations shall be verified through field survey (potholing) and use of the Underground Service Alert services. c. Detailed specifications shall be prepared as part of the design plans to include procedures for the excavation, support, and fill of areas around utility cables and pipes. All affected utility services shall be notified of the District's construction plans and schedule. Arrangements should be made with these entities regarding protection, relocation, or temporary disconnection of services. d. The District shall employ appropriate construction techniques in areas where the pipeline would parallel underground utility lines. These measures, which would be included in the engineering specifications, should include trench wall-support measures to guard against trench wall failure and possible resulting loss of structural support for the excavated areas. e. Residents and businesses in the project area shall be notified of any planned utility service disruption in advance, in conformance with county and State standards.	Less than Significant

TABLE S-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
Public Services and Utilities (cont.)		
3.11-2: Construction activities for all facilities could require short-term police and fire protection services to assist in traffic management or in the event of an accident. (Less than Significant With Mitigation)	**3.11-2:** The District would provide, upon request, a copy of the Traffic Control Plan to the relevant police and fire departments for their review prior to construction. The District will provide adequate notice to the local service providers prior to construction of individual pipeline segments. Discussion of the Traffic Control Plan is provided in **Section 3.8, Traffic and Circulation**, under **Measure 3.8-1a**. Implementation of Measure 3.11-2, above, would reduce potential impacts to a less than significant level. No additional measures would be required.	Less than Significant with Mitigation
3.11-3: Project implementation would increase power usage associated with proposed facilities. (Less than Significant with Mitigation)	**3.11-3:** The District would coordinate facility design and anticipated energy demands with PG&E, including submittal of facility design for plan review, as appropriate.	Less than Significant
Visual Resources		
3.12-1: Proposed WWTP upgrades could diminish the visual aesthetics at certain proposed sites. (Less than Significant with EIR Identified Mitigation)	**3.12-1a:** Following construction activities, the District would restore disturbed areas by reestablishing existing topography or pavement and reseeding with a native seed mix typical of the immediately surrounding area. **3.12-1b:** The District would use design elements to enhance visual integration of the proposed above-ground facilities with their surroundings. Proposed facilities would be of natural color concrete that would be integrative with the existing facility.	Less than Significant
3.12-2: Construction of the project components would introduce new sources of light and potential glare onto the project WWTP sites and increase ambient light in the project areas. (Less than Significant with EIR Identified Mitigation)	**3.12-2a:** The District would ensure that all exterior lighting is directed downward and oriented to insure that no light source is directly visible from neighboring residential areas. If necessary, landscaping would be provided around proposed facilities. The vegetation would be selected, placed, and maintained to minimize off-site light and glare onto surrounding areas. In addition, the designs for proposed structures would be of a low-glare earthtone and the use of highly reflective building materials and/or finishes would be avoided. **3.12-2b:** Construction crews would focus and direct construction-related night lighting away from sensitive uses such as residential areas.	Less than Significant with Mitigation

TABLE S-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
Growth Inducement and Secondary Effects		
4.1: By removing adequate wastewater treatment capacity as one potential barrier to growth, implementation of the District's Wastewater Facility Plan could have the potential for indirect, growth-inducement within the projections of the planned development within the District's service area. Growth inducement itself is not necessarily an impact. However, the project is consistent with and within the levels of development approved in the adopted *Novato General Plan and Marin Countywide Plan.* Therefore, no direct adverse impacts would be anticipated. (Less than Significant)	No mitigation measures are required.	Less than Significant
4.2: The Proposed Project would accommodate only a level of growth planned for under the *Novato General Plan* and *Marin Countywide Plan.* No appreciable growth in population or employment would occur as a direct result of construction or operation of the proposed facilities. However, the growth accommodated by the project would result in secondary environmental effects. The majority of these effects can be mitigated to a less than significant level. Effects which have been identified as significant and unavoidable are impacts to traffic, biological resources (Novato General Plan) and traffic and air quality (Marin County General Plan). No additional impacts are anticipated beyond those identified in the *Novato General Plan EIR* and *Marin Countywide Plan EIR.*	No mitigation measures are required.	Potentially significant secondary effects of growth have been addressed by the City of Novato *General Plan EIR and Marin Countywide Plan EIR*. These documents identified impacts for traffic, biological resources and air quality as remaining significant and unavoidable.

TABLE S-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
Cumulative Impacts		
5.1: Concurrent construction of capital improvement and development projects within the Novato Area, could result in cumulative short-term impacts associated with construction activities. These include short-term impacts to water quality, land use, biological resources, air quality, noise, traffic, hazardous materials, public services and utilities, and visual resources. (Less than Significant)	Implement the following Mitigation Measures identified in Chapter 3:	Significant, Cumulative, Unavoidable. Short-Term, partially reduced with EIR-Identified Mitigation.
5.2: Concurrent construction of capital improvement and development projects within the Novato Area could result in cumulative long-term risk of geologic impacts. (Less than Significant with EIR Identified Mitigation)	Implement the following Mitigation Measures identified in Section 3.1, Geology and Seismicity:	Less than Significant with EIR Identified Mitigation
5.3: Project implementation would include increased effluent discharges, thereby increasing mass loadings to the Bay, with subsequent impacts to water quality. (Less than Significant).	No Mitigation Measures required.	Less than Significant
5.4: Concurrent construction of capital improvement and development projects within the Novato Area, could result in cumulative impacts to known archaeological resources. (Less than Significant with EIR Identified Mitigation)	Implement Mitigation Measures 3.6-1.a and 3.6-1b.	Less than Significant with EIR Identified Mitigation
5.5: Concurrent construction of capital improvement and development projects within the Novato Area, could result in cumulative long-term impacts to air quality due to odor emissions or air toxics emissions. (Less than Significant with EIR Identified Mitigation)	Implement Mitigation Measures 3.7-2 and 3.7-3.	Less than Significant with EIR Identified Mitigation
5.6: Concurrent construction of capital improvement and development projects within the Novato Area, could result in cumulative long-term impacts to visual resources. (Less than Significant with EIR Identified Mitigation)	Implementation of Mitigation Measures Section 3.12.	Less than Significant with EIR Identified Mitigation