

DRAFT MITIGATED NEGATIVE DECLARATION / CEQA INITIAL STUDY

DELTA COVES UTILITY PROJECT

Diablo Water District 2107 Main Street Oakley, CA 94561

July 10, 2014

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Diablo Water District

2107 Main Street Oakley, CA 94561

Phone: (925) 625-3798



Mike Yeraka General Manager

Draft - July 10, 2014

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

INITIAL STUDY / DRAFT MITIGATED NEGATIVE DECLARATION (MND)

1. **Project Title**: Delta Coves Utility Project

2. District File Numbers: Sub 6013 Waterline, Sub 6013 Gas-line, Reservoir,

Pump Station and Chemical Feed

3. Lead Agency Name Diablo Water District

and Address: P.O. Box 127 2107 Main Street

Oakley, CA 94561

4. Contact Person and Mike Yeraka, P.E., General Manager

Phone Number: (925) 625-3798

5. Project Location: The Project improvements extend within the Bethel Island Road future right-of-way between East Cypress Road and Sandy Lane, in the City of Oakley and unincorporated Contra Costa County, and within the approved and partially developed Delta Coves development located east of Bethel Island Road on Bethel Island in unincorporated Contra Costa County.

6. Project Sponsor's SunCal / Argent Management

Name and Address: 2392 Morse Avenue Irvine CA 92614

7. General Plan Designation: City of Oakley, East Cypress Corridor Specific Plan

Designation: "Roads" and "Water Main" (portion between East Cypress Road and the Bridge).

Contra Costa County:

"CO Commercial" along Bethel Island Road north of the Bridge, "SLR Single Family Residential – Low" within the Delta Coves development area.

8. Zoning: City of Oakley:

Property along Bethel Island Road between East Cypress Road and Sandmound Road is zoned "East Cypress Corridor Specific Plan".

Contra Costa County:

Property along Bethel Island Road North of the Bridge is zoned "R-B Retail Business". Property within Delta Coves development is zoned "P-1-FH Planned Unit plus Flood Hazard Combining

Planned Unit plus Flood Hazard Combining

District".

- 9. Description of Project: The main objective of the Delta Coves Utility Project (the "Project") is to serve the future residents of Delta Coves with potable water for domestic and fire suppression purposes and natural gas from the PG&E gas pipeline. Additionally the new trunk line will provide water for new fire hydrants to be installed along Bethel Island Road between the Bethel Island Bridge and Sandy Lane. The Delta Coves EIR provided analysis for up to 498 single family dwellings, 110 condominium units, and associated commercial/recreational areas, and is located entirely within the service boundary of the Diablo Water District (DWD). The final map for the Delta Coves community currently includes 494 single-family dwellings, and 66 condominium units. DWD will provide potable water, and Pacific Gas & Electric Company (PG&E) will provide natural gas service to Delta Coves and Bethel Island through completion of the following components of the Delta Coves Utility Project:
 - 1. <u>Delta Coves Off-Site Water Trunkline</u>: Approximately 7,500 feet of 18-inch ductile iron pipe (DIP) and steel pipe are proposed to be installed along Bethel Island Road between 1,850 feet north of East Cypress Road and Sandy Lane, to deliver potable water (for both domestic and fire suppression use) to the Delta Coves development. South of Dutch Slough, the Water Trunkline will be placed within the existing and future 150-foot right-of-way for Bethel Island Road, as identified in the East Cypress Corridor Specific Plan ("Specific Plan") and analyzed as part of the Specific Plan EIR. This section of Bethel Island

Road is presently a two-lane roadway contained within a right-of-way of either 60-feet or 80-feet, depending on location. The roadway is planned to be widened as adjacent development commences pursuant to the Specific Plan to a total of four travel lanes plus a median within an expanded 150-foot right-of-way. North of Dutch Slough, the Water Trunkline will be placed within the existing Bethel Island Road right-of-way, connecting to the internal Delta Coves Loop On-Site Waterline at Sandy Lane. The Delta Coves Off-Site Water Trunkline has been sized to satisfy both the domestic and fire flow needs of the Delta Coves development, and will consequently provide sufficient residual capacity to serve other uses on Bethel Island in the future.

- 2. Delta Coves Off-Site Gas Pipeline: Approximately 8,200 feet of 6-inch Plastic Gas Pressure Pipeline is proposed to be installed along Bethel Island Road between existing PG&E facilities located at a point approximately 1,000 feet north of East Cypress Road and Sandy Lane, in order to deliver natural gas to the Delta Coves development. South of Dutch Slough, the gas pipeline will be placed within the existing and future 150-foot right-of-way for Bethel Island Road. This section of Bethel Island Road is presently a two-lane roadway contained within a right-of-way of either 60-feet or 80-feet, depending on location. The roadway is planned to be widened as adjacent development commences pursuant to the Specific Plan to a total of four travel lanes plus a median within an expanded 150-foot right-of-way. North of Dutch Slough, the Gas Pipeline will be placed within the existing Bethel Island Road right-ofway, connecting to the internal Delta Coves Loop On-Site Gas Pipeline at Sandy Lane. The Delta Coves Off-Site Gas Pipeline has been sized to satisfy maximum needs of the Delta Coves development, and may consequently provide sufficient residual capacity to serve other uses on Bethel Island in the future.
- 3. <u>Chloramination Plant:</u> The Project includes a small building and the associated enclosed equipment to be used for the chloramination of treated water serving future customers within Delta Coves (including two antenna poles at the Chloramination and Pump Station sites). This building and the equipment will be located within the Delta Coves Project area, on the south side of Sandy Lane within parcel M as shown on the approved Delta Coves Tentative Map (and on Exhibit A of this Initial Study).
- 4. Pump Station: The Project includes one Pump Station which will be located within the Delta Coves Project area, adjoining the Delta Coves Storage Reservoir along the east side of Windsweep Road within Parcel "F" as shown on the approved Delta Coves Tentative Map (and on Exhibit A of this Initial Study). The Pump Station will draw water from the reservoir and pressurize the 12" Delta Coves internal Water Line Loop within the Delta Coves development. The Pump Station is sized to satisfy both the domestic and fire flow needs of the Delta Coves development, and will consequently provide de minimis residual capacity to serve other incidental uses immediately adjacent to the Delta Coves Project on Bethel Island in the future.
- 5. <u>Water Reservoir:</u> The proposed Water Reservoir is sized to service the domestic and fire flow needs of the future planned residences and related uses within Delta Coves; however, it may be possible to also serve de minims

- demands from nearby residences and businesses on Bethel Island within the DWD Boundary. The proposed Water Reservoir has been designed as a "concentric" storage facility (with two 0.8 million gallon tanks inside another for a total storage of 1.6 million gallons), with a top elevation of between 28 and 32 feet sitting approximately 8 feet below the natural grade, accommodating ease of service and protection against potential flooding. The Water Reservoir will be located adjoining the Pump Station on the east side of Windsweep Road within the Delta Coves development area on approved Tentative Map Parcel "F" (and on Exhibit A of this Initial Study).
- 6. <u>Bridge Crossing:</u> The Project plans identify existing improvements within the structure of Contra Costa County's recently completed Bethel Island Bridge over Dutch Slough to permit carrying the 18" Delta Coves Off-Site Water Trunkline and the encased 6" Gas Pipeline (as further described herein). This segment of the Water Trunkline and Gas Pipeline are approximately 908 feet in length, extending over Dutch Slough between Wells Lane and Riverview Place. The original design of the bridge anticipated the future inclusion of these utilities and therefore no retrofitting of the Bridge is required to accommodate these suspended segments of the Water Trunkline and Gas Pipeline other than installation brackets.
- 7. Completion of Water Line Loop (on-Site) within Delta Coves: The Project includes a 1,083 foot long pipeline, composed of approximately 320 feet of PVC pipe to connect a 733-foot long tunneling segment of 12-inch fused PVC water line (to be placed inside of a 16" fused PVC casing, using 30 inch steel casing pipe at the entry and exit points), which is proposed to complete the waterline loop within the Delta Coves development. This connecting segment of the Delta Coves Waterline Loop will be placed under the existing levee breach between Delta Coves Drive and Windsweep Road. The line will be installed using either underground "Microtunneling", or underground "Horizontal Directional Drilling" (HDD), as further described herein. The appropriate tunnel methodology will be determined by the Diablo Water District General Manager, based on detailed engineering and geotechnical field investigations. Unlike the Water Line Loop, the Gas Pipeline does not extend under the water between Delta Coves Drive and Windsweep Road.
- 10. Surrounding Land Uses and Setting: Surrounding land uses and conditions include: (a) Undeveloped and developing residential properties along Bethel Island Road south of the bridge; (b) Water within Dutch Slough at the point of the bridge crossing; (c) Commercial land uses along Bethel Island Road north of the bridge; (d) Existing residential and commercial uses adjoining the developing portions of Delta Coves; and (e) Undeveloped residential lots and commercial parcels within the approved and partially developed Dutch Slough community.
- 11. Other Public Agencies whose approval is or may be required (e.g., permits, financing, approval, or participation agreement):

California Department of Public Health Bay Area Air Quality Management District

Contra Costa County
Contra Costa County Public Works Department
City of Oakley
US Army Corps of Engineers
US Coast Guard
US Fish & Wildlife Service
National Marine Fisheries Service
California Department of Fish and Wildlife
Regional Water Quality Control Board
Reclamation District 799
Bethel Island Municipal Improvement District

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics		Agricultural Resources	X	Air Quality
Χ	Biological Resources	X	Cultural resources		Geology / Soils
Χ	Hazards & Hazardous Materials		Hydrology / Water Quality		Land Use / Planning
	Mineral resources	X	Noise		Population Housing
	Public Services		Recreation	X	Transportation / Traffic
	Utilities / Service Systems		Mandatory Findings of Significance	X	Greenhouse Gas Emissions

Introduction

A number of components to this Delta Coves Utility Project have been previously analyzed under CEQA for potential impacts. These components are listed below. This Initial Study has been prepared in conformance with the CEQA Guidelines in order to analyze the remaining Project components which have not been studied at a Project level. This Initial Study includes all components of the proposed Delta Coves Utility Project necessary for DWD to service the Delta Coves community with potable water and with natural gas from PG&E.

Previously Covered Project Components. The following components of the Delta Coves Utility Project have been previously addressed under CEQA:

- 1. Southerly Segment of Water Trunkline within Bethel Island Road: The potential for environmental impacts related to that portion of Water Trunkline running within the existing and future Bethel Island Road right-of-way between East Cypress Road and the Bethel Island Bridge has been previously planned as part of the East Cypress Corridor Specific Plan (ECCSP), and analyzed at a Project level in the certified ECCSP EIR, and the certified ECCSP Supplemental EIR. While portions of the planned land uses within the ECCSP were evaluated programmatically, the backbone infrastructure and major roadway systems were analyzed at a Project level, including the 18-inch Water Trunkline to be placed within the existing and future Bethel Island Road right-of-way between East Cypress Road and Dutch Slough. No further analysis of this segment of the proposed Project is necessary; however some of the original mitigation measures remain applicable to the proposed Project, and are included as mitigation measures in this Initial Study.
- 2. Waterline Loop and Gas Pipeline within Delta Coves Development: The potential for environmental impacts related to the internal waterline loop and that portion of the gas pipeline located within the previously approved Delta Coves development area has previously been analyzed at a Project level in the certified Delta Coves EIR. No further analysis of this segment of the proposed Project is necessary; however some of the original mitigation measures remain applicable to the proposed Project, and are included as mitigation measures in this Initial Study.
- 3. <u>Dutch Slough Bridge Crossing</u>: The potential for environmental impacts related to the segments of Water Trunkline and Gas Pipeline to be suspended from the Bethel Island Bridge have previously been analyzed in the Bethel Island Bridge Replacement Project MND, Addendum #1 and Addendum #2. No further analysis of this segment of the proposed Project is necessary; however some of the original mitigation measures remain applicable to the

proposed Project, and are included as mitigation measures in this Initial Study.

Project Components Analyzed in this Initial Study. Those components of the Delta Coves Utility Project which have only been evaluated at a programmatic level or not specifically analyzed in a previous environmental document, and therefore have been addressed in this Initial Study include the following:

- 1. Northerly Segment of Waterline within Bethel Island Road: The segment of 18-inch Water Trunkline north of Bethel Island Bridge will be placed within the existing right-of-way, and is anticipated to be installed along the west side of the existing roadway, connecting to the internal Delta Coves on-site water line at Sandy Lane. The MND adopted by Contra Costa County for the Bethel Island Bridge Replacement Project anticipated displacement of business and residences within proximity of the Bridge approaches. The potential for additional displacement and/or disruption of businesses along the route between the Bridge and Sandy Lane was not previously analyzed, and has therefore been addressed in this Initial Study.
- 2. Segment of Gas Pipeline within Bethel Island Road: The 8,200 feet of 6-inch Gas Pipeline along Bethel Island Bridge will be placed within the existing and future street right-of-way south of Dutch Slough, and within the existing street right-of-way north of Dutch Slough, connecting to the existing Delta Coves gas pipeline at Sandy Lane. The portion which crosses the Bethel Island Bridge will be encased in 10 inch steel casing which will be installed by using 6 inch by 10 inch spaces and 10 inch pipe hangers (not to exceed 19 feet between one another).
- 3. <u>Diablo Water District Facilities within Delta Coves Project Boundary:</u> The certified EIR for the Delta Coves development anticipated a common system for the treatment and delivery of potable water to the future residents of Delta Coves. The analysis, however, was not specific as to the physical location and footprint of certain facilities included in the current Project, including the Water Pump Station, Chloramination Plant, and Water Reservoir.
- 4. Internal Loop Connection Proposed Breach Water Line Undercrossing: The proposed Project includes a 1,083 foot long pipeline, composed of approximately 320 feet of pipe to connect a 733 foot horizontal-directional drilled segment of 12 inch fused PVC water line (to be placed inside of a 16 inch fused PVC casing) which will be connected to existing water lines within Delta Coves Drive and Windsweep Road to complete the loop necessary to deliver sustainable water pressure and volume for fire protection purposes. This connecting segment of water line within the Delta Coves community will be extended under the existing levee breach as shown in the Project Improvement Plans. This is an area within which the original levee was previously breached in accordance with the certified Delta Coves Project EIR, and is currently inundated with water. Due to the presence of water, the potential exists for impacts associated with construction methodology and implementation which have been addressed in this Initial Study. The original Delta Coves Project EIR evaluated this connecting segment of water line under conditions where improvements would have been made prior to breach of the levee.

Contra Costa County

Environmental Determination

On the ba	asis of this initial evaluation:
	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
X	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.
	7-9-2014
Mike Yer	aka, P.E. Date
General I	
Diablo W	/ater District

CEQA INITIAL STUDY / ENVIRONMENTAL CHECKLIST

Environmental Issues	Potentially Significant Impact	Less than Significant With Mitigation	Less Than Significant Impact	No Impact
1. Aesthetics – Would the project:				
a) Have a substantial adverse effect on a scenic vista?			✓	
b) Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a State scenic highway?				~
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			>	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			>	

SUMMARY:

a) As shown in the attached Exhibit "A" of this Initial Study, the Proposed Project consists of two types of utility lines, a 6 inch Gas Pipeline and a 18 inch Water Pipeline which are proposed to be installed in Bethel Island Road connecting the Delta Coves community on Bethel Island with these utilities. Approximately 8,200 feet of Gas Pipeline will be installed underground in Bethel Island Road between a point approximately 1,000 feet north of East Cypress Road and Sandy Lane (including passing over Dutch Slough within the Bethel Island Bridge). The Water Trunkline improvements include approximately 7,568 feet of new waterline to be installed underground between a point approximately 1,850 feet north of East Cypress Road and Sandy Lane (including passing over Dutch Slough within the Bethel Island Bridge), a 1,083 foot long water pipeline, composed of approximately 320 feet of pipe to connect a 733 foot long segment of bored waterline to complete the internal waterline loop for Delta Coves (including a portion which crosses below the levee breach), a Pumping Station, a Chloramination Plant, and a Water Reservoir structure.

The Water Reservoir structure would be composed of 2 concentric tanks of approximately 0.8 million gallon (MG) in size, for a total of approximately 1.6 MG. The final grade around the proposed tank site will be at approximately elevation -8 feet, and the top of the tank is expected to be between 28 and 32 feet high. With the exception of the Pumping Station, Chloramination Plant, and Water Reservoir structure, all improvements would be completed underground within the existing and future rights-ofway, and will not have a substantial impact on aesthetics. The Chloramination and Pump Station sites will each have an antenna pole approximately 40 to 50 feet high. The antennas will be round poles approximately 12 inches at the base and approximately 6 inches at the top. Neither of the antenna will have lights. These antennas will not have a substantial adverse effect on aesthetics, as seen by surrounding residents and/or businesses, because of their relatively small scale and narrow profile. and because they would not provide any new source of light or glare. The Gas Pipeline includes a section of encased pipeline which will be hung from the Bethel Island Bridge, including two vent locations at each end of the bridge. The Gas Pipeline will be encased in 10 inch steel casing over a length of approximately 900 feet. The only visible portion of the vent stacks for the Gas Pipeline are the two inch steel tubes which extend approximately 9.5 feet above the ground at each of the two locations.

Bethel Island Road is classified as a scenic route in the Contra Costa County General Plan. The Bethel Island Bridge Replacement Project MND, and Addenda #1 and #2, provide CEQA Project-level coverage for the approximately 908-foot long bridge over Dutch Slough. This environmental document was interpreted by Contra Costa County to provide CEQA coverage for accommodation of those portions of the DWD 18" water line and encased 6" gas pipeline to be suspended from the Bridge, as

evidenced by the specially-integrated facilities built into the bridge for suspending the line. The Specific Plan and EIR also specifically identified accommodation of the Water Trunkline, and identified no potential adverse effects associated with the Water Trunkline crossing of Dutch Slough at the location of the new bridge. The only structures associated with the proposed Delta Coves Utility Project which would be above ground are the Pump Station, Chloramination Building, Water Reservoir, and those portions of Water Trunkline and Gas Pipeline crossing the Bethel Island Bridge (including the two vent stations). These facilities would not create an adverse effect on any scenic vistas because of their relatively small scale and substantial separation from the scenic corridor. *Environmental Impact:* Less than significant.

b) See (a) above. No scenic resources within State designated scenic highways would be affected by this Project.

Environmental Impact: No Impact.

c) See (a) above. The structures proposed by the Project would not degrade the existing visual character or quality of the site or its surroundings. The proposed Project calls for approximately 18 feet of fill at the Pump Station site (currently at -7 feet elevation), 5 feet of fill at the Reservoir Site (currently between -5 to -9 feet elevation), and 2 feet of fill at the Chloramination Building site (currently at -2 to -3 feet elevation). The Delta Coves building pads for the planned homes are currently at approximately 5 to 12 feet elevation. Other homes and businesses surrounding the Chloramination Building site are currently at approximately 0 feet elevation. The structures proposed as part of this project, including the Water Trunkline and Gas Pipeline which will be hung from the Bethel Island Bridge, would have a minimal impact on the existing visual character of the area due to their small size, and placement, either integrated into the Bridge or on sites which are at lower elevations relative to the Delta Coves home sites and other surrounding uses.

Environmental Impact: Less than significant.

d) See (a) above. The Bethel Island Bridge Replacement Project included the installation of two pole lights, one at each end of the bridge, to provide for safety lighting. The Bethel Island Bridge Replacement Project concluded that this safety lighting will not create a significant source of light or glare; this current analysis shows that the water line improvements will not result in any alteration of these existing lights. The proposed Pump Station, Chloramination Building, and Water Reservoir structures will not create any new sources of light or glare; all safety and security lighting will be localized, and placed at a low level on the identified lower pads, thereby avoiding the potential for new sources of substantial glare or night lighting. Consequently, no significant lighting or glare impacts will result from the proposed Project.

Environmental Issues	Potentially Significant Impact	Less than Significant With Mitigation	Less Than Significant Impact	No Impact		
2. Agricultural Resources: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:						
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?			~			
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				>		
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				~		
d) Result in the loss of forest land or conversion of forest land to non-forest use?				✓		
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				~		

a) According to the Contra Costa County Important Farmland 2012 Map, as certified by the California Department of Conservation, the Project site and adjacent lands are identified as Urban and Built-Up Land, Other Land, and Farmland of Local Importance. All improvements are to be placed within existing and future rights-of-way, with the exception of the previously improved facility pads and the water undercrossing. The Project area does not contain Prime or Unique Farmland, or Farmlands of Statewide Importance.

Environmental Impact: Less than significant.

b) According to the Contra Costa General Plan Figure 8-2 Important Agricultural Lands, no portion of the proposed Project is located in or adjacent to any "Important Agricultural Areas". All other improvements will be located within the Delta Coves community, or within existing and future street rights-of-way. No impacts to Williamson Act contracts or agricultural lands will occur from the proposed Project.

Environmental Impact: No impact.

- c) According to data in the Fire and Resource Assessment Program prepared by the California Department of Forestry and Fire Protection (CAL FIRE), most of the subject property is identified as "Other-Agriculture". The Other-Agriculture classification is a designated land cover class that is distinct from "forest land" and "timberland" as defined by Cal Fire. Therefore, the property has not been classified as forest land, timberland, or Timberland Production, and will have no impact to such lands. *Environmental Impact:* No impact.
- **d)** No forest land or timberland producing managed resources will be affected. *Environmental Impact:* No impact.

e) No additional direct or indirect impacts to agricultural interests will result from development of the Delta Coves Utility Project as proposed.

Environmental Impact: No impact.

Environmental Issues	Potentially Significant Impact	Less than Significant With Mitigation	Less Than Significant Impact	No Impact
3. Air Quality: Where available, the significance criteria management or air pollution control district may be relied u Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?		✓		
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			~	
c) Result in a cumulative 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)?		~		
d) Expose sensitive receptors to substantial pollutant concentrations?		✓		
e) Create objectionable odors affecting a substantial number of people?		✓		

a) The Project is located within the San Francisco Bay Area air basin, which is regulated by the Bay Area Air Quality Management District (BAAQMD). The applicable air quality plan for this Project is the 2001 Bay Area Ozone Attainment Plan, which was approved by the United States Environmental Protection Agency (EPA) in 2001, when it also became part of California's State Implementation Plan (SIP). The greatest source of emissions to be generated by the Project would be from the operation of equipment during the construction of the proposed improvements. Short-term emissions and objectionable odors may be generated during construction; however, they will be minor and temporary. In order to minimize impacts due to construction activities consistent with BAAQMD threshold standards, contract specifications have been added as a mitigation measure (see Mitigation Measure #3a-1 below). Temporary, minor impacts to ambient air quality at the construction site will have no adverse long-term impacts to air quality.

Additionally, both the Pump Station and Chloramination facility will be equipped with emergency power generators. Consistent with the BAAQMD CEQA Guidelines and the California Code of Regulations, the generators will be required through incorporation of Mitigation Measure #3a-2 below, to comply with the BAAQMD-administrated Statewide Air Toxics Control Measure (ATCM) for Stationary Diesel Engines (if diesel generators are used opposed to natural gas or propane). If either engine is rated at higher than 50 horsepower, they may require a BAAQMD Permit to Operate.

No permanent air quality impacts due to vehicle traffic or land use operations will be generated by the Project, since no additional trips will be generated by the proposed Project, and because all land uses to be supported by these facilities have been previously evaluated as part of a certified EIR. Therefore, the proposed Project would not conflict with or obstruct with the implementation of the 2001 Bay Area Ozone Attainment Plan.

Environmental Impact: Less than significant with mitigation.

Mitigation Measure 3a-1: Construction contract specifications shall stipulate the use of properly tuned and muffled equipment and the elimination of unnecessary idling of equipment when not in use in accordance with Contra Costa County Code (see Mitigation Measure #3d). Implementation of dust control practices including general watering of exposed areas and/or use of chemical stabilizers shall

also be incorporated in order to minimize air quality impacts.

Mitigation Measure 3a-2: Operation of the generators used in both the Pump Station and Chloramination facility must comply with California Code of Regulations Section 93115 (Airborne Toxic Control Measure for Stationary Compression Ignition Engines). If the backup generators are diesel engines rated higher than 50 horsepower and meet the requisite thresholds for stationary engines, or otherwise meet the thresholds for regulation under BAAQMD, a Permit to Operate must be obtained from the Air District prior to installation of the backup generators.

b) The proposed Project will generate temporary air quality impacts associated with construction traffic movements and construction operations. Construction will be subject to compliance with all applicable BAAQMD standards and the additional mitigation measures identified in this Initial Study; no further mitigation is required. Furthermore, the vent stacks used at each end of the gas carrier pipe serve as an extra safety precaution. These vents are intended to vent the casing pipe so that the operator (PG&E) can be alerted to leaks in the carrier pipe. These are emergency vents which under normal operation will have no emissions. See section 7 for further information on greenhouse gas emissions and impacts.

Environmental Impact: Less than significant.

- c) Contra Costa County is classified under the California Clean Air Act as a "nonattainment area" for ozone and PM₁₀. The proposed Project will comply with all applicable Contra Costa County Ordinances and Code requirements applicable to construction related activities, and will only contribute to such criteria pollutants on a short term temporary basis. With the incorporation of Mitigation Measure #3d below, no significant impacts will occur.
 - Environmental Impact: Less than significant with mitigation.
- d) Trenching and drilling operations associated with the proposed Project pipeline and facility improvements will be minor in volume and duration. Based on the dispersed and limited duration of construction activity, implementation of the Project would not result in any locally concentrated emissions that could expose sensitive receptors to unhealthy long-term air pollutant levels. Construction activities will result in localized emissions of dust and diesel exhaust that could result in temporary impacts to businesses and residents located between the Bethel Island Bridge and Sandy Lane, and just south of the Bethel Island Bridge. According to BAAQMD, when appropriate measures, such as those listed below, are implemented to reduce fugitive dust, the residual impact of future development would be considered to be reduced to a less-than-significant level. *Environmental Impact:* Less than significant with mitigation.

Mitigation Measure 3d: In order to minimize potential construction related air quality impacts, the following control measures shall be implemented during Project construction, and shall be recited on all construction plans:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
- Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).
- Limit traffic speeds on unpaved roads to 15 mph.
- Install sandbags or other erosion control measures to prevent silt runoff onto adjoining public roadways.
- Replant vegetation in disturbed areas as quickly as possible.
- Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the Project site.
- Install temporary wind breaks as needed to reduce fugitive dust adjoining current construction areas.
- Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph.
- Limit the area subject to excavation, grading and other construction activity at any one time to the extent feasible.
- e) Although unlikely, it is possible that residents of the neighborhoods located between Bethel Island Bridge and Sandy Lane could be exposed on a short-term basis to localized construction-related odors. Contra Costa County Code Section 716-8.1004 limits works hours for any grading operations where operations under the permit are within five hundred feet (152.4 meters) of residential or commercial occupancies. In addition, except as otherwise provided by conditions of approval for the Project, grading operations are limited by Contra Costa County (applicable to those portions of the Project within the unincorporated area) to weekdays and to the hours, between seven-thirty a.m. and five-thirty p.m., except that maintenance and service work on equipment may be performed at any time. Additionally, Contra Costa Code Section 716-4 details requirements for obtaining County permits related to any grading work which requires conditions imposed by the County including hours of operation (Section 716-4.140). Similarly, the City of Oakley Municipal Code Section 6.9.314 details requirements for obtaining a City permit including hours and days of operation (6.9.314(f)). Limitations on hours of construction in accordance with the above Contra Costa County and City of Oakley Code regulations will help to limit exposure of people during sensitive periods. With the incorporation of Mitigation Measure #3d above, no significant impacts will occur.

Environmental Impact: Less than significant with mitigation.

Environmental Issues	Potentially Significant Impact	Less than Significant With Mitigation	Less Than Significant Impact	No Impact
4. Biological Resources: Would the project:				
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?		~		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		>		
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?		•		
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native nursery sites?		~		
e) Conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		✓		
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?		~		

a) Those portions of Gas Pipeline and Water Trunkline integrated into the Dutch Slough Bridge crossing have already been analyzed under CEQA through adoption of the Bethel Island Replacement Bridge MND. The "Bethel Island Road Widening" Project is listed on page 2-23 of the East Contra Costa County Habitat Conservation Plan (ECCHCP) as a Covered Activity. The Project will not impose any new or elevated habitat impacts which are not already covered under the assumed impacts of the ECCCHCP. In addition, the localized impacts of the pipelines within the boundaries of the ESCSP have been analyzed in the certified EIR and certified Supplemental EIR. That portion of the Gas Pipeline and Water Trunkline north of Dutch Slough, together with the related water facilities within the Delta Coves development area, is addressed in the analysis which follows.

Environmental Habitat: There are three main types of habitat located within the Project area:

1. The first habitat type is classified as urban or ruderal. This habitat type occurs along Bethel Island Road, on the facility pads, and on the banks adjoining the proposed levee undercrossing. It includes the disturbed, developed areas behind the levees, and where the Water Pump Station, Chloramination Building, and Water Reservoir would be located. Along the banks of waterways, this area is covered primarily in riprap and the majority of the associated vegetation is weedy and sparsely scattered. Vegetation in the area consists of turkey mullen (Eremocarpus setiferum), pampas grass (Cotaderia selloana), yellow star thistle (Centuarea solstitialis), and sea fig (Carpobrotus occidentalis). Beyond the top of bank the vegetation is a blend of horticultural plants and weeds including black mustard (Brassica nigra),

wild radish (Raphanus sativus), and palm (Washingtonia filifera). Much of this area is also covered by concrete, asphalt, bare or graveled ground and structures. Typical animal species expected in this habitat type include raccoon (Procyon lotor), opossum (Didelphis marsupialis), scrub jay (Aphelocoma californica), American crow (Corvus brachyrhynchos), and rock dove (Columbia livia). Based on the previous level of disturbance associated with this habitat type and the lack of sensitive species, no significant impacts are expected as a result of the Project.

- 2. The second habitat type consists of small drainage ditches and associated fringe wetlands which occur along Bethel Island Road south of the Bethel Island Bridge. The drainage ditches are generally highly disturbed areas containing garbage and concrete pieces, as well as limited vegetation including duckweed (Lemna sp.) and cattails (Typha latifolia). The banks of these drainage ditches support hoary nettle (Urtica diocia), Bermuda grass (Cynodon dactylon), and Himalayan blackberry (Rubus discolor). A jurisdictional delineation shall be conducted for the Project by the Project Sponsor in order to determine that such drainages are not subject to U.S. Army Corps of Engineers jurisdiction since the Corps. Mitigation Measure #4a-2 below requires that the Project Sponsor submit a delineation for verification by the U.S. Army Corps of Engineers to confirm this determination. The largest patch of emergent wetland vegetation occurs along a drainage ditch on the east bank of Bethel Island Road. This wetlands area is approximately 1,200 feet long, starting approximately 900 feet north of the intersection of East Cypress road and Bethel Island Road. The Project has been designed to avoid placement of improvements within or otherwise to disturb these wetlands. A mitigation measure has been added (#4e-2) to ensure there are no significant impacts to the habitat through the use of orange construction netting to delineate and protect this area.
- 3. The third habitat type consists of the Delta itself, including Dutch Slough and the area above the proposed levee undercrossing. This habitat type is defined as the portion of the waterways that occurs below the mean high tide line and that area surrounding the proposed levee undercrossing. The slough below the mean high tide line is subject to U.S. Army Corps of Engineers' jurisdiction and a Corps permit will be obtained pursuant to Section 404 of the Clean Water Act for all work within the slough below the mean high tide line. Conditions of the Corps permit will be established by the Corps in consultation with other affected agencies, and will be strictly adhered to during construction, as required by Mitigation Measure #4a-5.

This project may qualify under Section 404 for a Nationwide Permit from the Corps, with predetermined mitigation, based on its limited scope and the absence of fill discharge. A Nationwide Permit (NWP) is a form of the Corps' 404 general permit, which authorizes a category of activities under the Nationwide Permit Program. A Section 401 water quality certification may be necessary for all of the Corps' NWPs whether a project proponent must report its activity to the Corps or not. The State Water Board has certified a number of NWPs for all of California, subject to specified conditions and notification requirements. The regional boards are responsible for issuing 401 certification for all NWPs not certified by the State Board (see Mitigation Measure #4a-5).

The proposed levee undercrossing will occur within an area which could affect waters of the State of California. The need for a Streambed Alteration Agreement will be evaluated through consultation with the California Department of Fish and Wildlife, and in consultation with the RWQCB prior to initiating work (see Mitigation Measure #4a-6).

Within this habitat type, the area between the high tide line and the low tide line of the slough consists primarily of riprap and sparse cover (less than 10%) of weedy species such as dock (Rumex sp.), thistle (Circium sp.), willow weed (Epilobium sp.), and crab grass (Digitaria sanguinalis). Typical animal species expected to occur between the low and high tide line of the slough include western toad (Bufo boreas), western fence lizard (Sceloporus occidentalis), and great egret (Casmerodius albus). In the area from the low tide line to the bottom of the slough there is no visible vegetation. Typical animal species expected to occur below the low tide line include crayfish, catfish, delta smelt, sturgeon, salmon, splittail, steelhead, goby, flounder, lamprey and mosquito fish.

The Delta is considered critical habitat for Delta smelt (Hypomesus transpacificus), a state and federally listed endangered fish. In addition, Dutch Slough and the levee undercrossing area provide potential habitat for state threatened and federally proposed endangered spring run salmon (Onocorhynchus tshawytscha), state endangered and federally endangered winter run salmon (Onocorhynchus tshawytscha), federally threatened Sacramento splittail (Pogonichthys macrolepidotus), federally threatened steelhead (Onocorhynchus mykiss), and federally endangered tidewater goby (Eucyclogobius newberryi). These waters are also potential habitat for several fish species that are federal species of concern including green sturgeon (Acispenser medirgstris), longfin smelt (Spirinchus thaleichthys), river lamprey (Lampetra ayresi), and Pacific lamprey (Lampetra tridentate). These waterways also fall within an area categorized as Essential Fish Habitat (EFH) for starry flounder (Platichthys stellatus). Consultation with the resource agencies having jurisdiction over these listed species (U.S. Fish and Wildlife Service – USFWS, and National Marine Fisheries Service - NMFS), will be formally conducted by the Corps of Engineers.

Tunneling Methodology Using Horizontal Directional Drilling (HDD) for Water Pipeline:

Horizontal Directional Drilling (or HDD) is a method of installing underground pipes along a prescribed bore path originating at the surface. It is a steerable system that can install pipes in a shallow arc using a drill rig at the ground surface. All construction is controlled from the surface; workers do not enter the tunnel.

Exhibit "B" of this Initial Study provides an illustrative cross-section of the HDD method proposed. First a small diameter pilot hole is drilled along the selected alignment. Then a reamer is used to enlarge the pilot hole to the required diameter. After reaming, a 16-inch flexible pipeline is pulled through the bore from one side to the other.

The proposed methodology for locating and controlling the bore head employs what is referred to as a "walk-over" locating system. A transmitter placed behind the bore head registers angle, rotation, direction and temperature data. This data is encoded into an electro-magnetic signal and transmitted through the ground to the surface. At the surface a receiver is manually positioned over the transmitter, and the signal is then decoded and steering directions are relayed to the bore machine operator.

There is some risk of "frac-out" using the proposed HDD methodology, because the working face is not closed and pressurized, as with other methodologies such as microtunneling. To avoid frac-out, two steel casings are rammed at each end, and a packer is used to keep control of the water pressure within 5 psi at all times (see Mitigation Measures #4a-8 & #4a-9).

The Project includes a 1,083 foot long HDD undercrossing connection, composed of approximately 320 feet of pipe to connect a 733-foot long bored segment of 12 inch fused PVC water line (to be placed inside of a 16" fused PVC casing), to complete the waterline loop within the Delta Coves community. A 30 inch steel casing is used for approximately 80 feet from the entry point, and for approximately 50 feet at the exit point. This connecting segment of the Delta Coves Waterline Loop will be placed under the existing levee breach between Delta Coves Drive and Windsweep Road. The final horizontal and vertical alignment for the tunnel will be determined based on the right-of-way considerations (i.e., land ownership and uses above the tunnel), the location of existing utilities and other structures and abutments, levee sheet piles, future access for repair or rehabilitation, coordination with other agencies, and geotechnical field investigations.

It is anticipated that the tunnel will be approximately 45 feet below the bottom of the Levee at all points, which is at about minus 10 feet elevation at the bottom. The existing ground outside the levees is approximately 0 to 10 feet elevation. The final tunnel depth will be determined during design to avoid conflicts with existing and future structures and utilities, and to be at adequate depth under the slough. The pipe must be deep enough to avoid any

structures or sheet piling at the levees above the alignment.

During design, DWD will conduct additional geotechnical field investigation at the proposed shaft locations and along the proposed tunnel alignment. Field investigations will be performed to confirm the locations of the existing and future rights-of-way, as well as potential utility, structure foundation, and levee sheet pilings, in order to avoid conflicts (see Mitigation Measure #4a-7). This field information will be used to determine the final horizontal and vertical alignment of the pipe, appropriate tunneling method, and design criteria.

Potential Impacts from Waterline Undercrossing:

Construction Activities and Duration – Potential for Impacts: Excavation and construction activities will occur at the start and end points of the tunnel (at the pit locations where the boring machine enters and exits). Along the waterline route between the pits, all construction will be below the ground surface. Adequate space must be provided at the pits for staging construction operations. Most of the equipment and support facilities will be located at the jacking pit with the HDD pipe stored at the receiving pit location. A Geotechnical Field Investigation at the proposed shaft locations and along the proposed HDD alignment will be performed to serve as a baseline for identifying potential settlement or damages. This survey will be conducted prior to any construction activities occurring at the site (Mitigation Measure #4a-7).

The duration of active construction activities at the levee location is estimated to be about 3 to 4 months. This does not include activities conducted off-site such as mobilization, submittals, and material ordering. Construction of the jacking and receiving pits is anticipated to take about 30 days. The jacking pit would be constructed first; then tunneling would begin. The receiving shaft would not be constructed until just before the tunnel is completed. After completion of the jacking pit, the tunneling process is anticipated to take about 3 months, assuming time for machine set-up at the start and retrieval at the end.

Levee Undercrossing - Potential for Impacts: The hydro fracture potential of the levee undercrossing pipeline was analyzed by SHN Consulting Engineers & Geologists on March 17, 2014. The Frac-out Analysis prepared by SHN Consulting concluded that the "hydro-fracturing potential is considered to be very small for the pre-reaming and final reaming passes", and that the "analysis indicates there is a low potential for hydro-fracturing in the subsurface material that would result in inadvertent fluid returns. There appears to be a potential at the entry point, however the entry will be cased through the stone column zone effectively mitigating the risk. A small potential also exists for inadvertent fluid returns for the last 35 to 40 feet as the bore exits the ground surface in both cases." The levee crossing portion of the proposed waterline, which is to be constructed using the above described "tunneling" method, has the potential for impacts to occur without mitigation. Potential impacts include oil from equipment used in constructing the underground pipeline breaching into the Delta waters, breach of the pipeline into the Delta waters resulting in water escaping through the bore tunnel, and related disturbance from construction of the underground pipeline. Mitigation has been added, consistent with the recommendations of the SHN Consulting Frac-out Analysis report, which will ensure that no significant impacts occur with installation of this levee undercrossing (see Mitigation Measures #4a-8 and #4a-9).

No impact to biological resources is expected with mitigation included, since the crossing of the levee will take place beneath the channel bottom, and the jacking and receiving pits will be located well outside any riparian area associated with the waterway, and will be adjacent to existing development and roads. As discussed in the detailed Project description, the potential for "frac-out" (which is the term used to describe the need for pressure balancing so as to avoid water flowing into or out of the drilling operation) will be controlled during the drilling operation. A formal frac-out plan will be prepared and submitted to the appropriate regulatory agencies for review and approval prior to construction (see Mitigation Measures #4a-8 and #4a-9).

Special-Status Plants & Animals – Potential for Impacts: The site through which the waterline is to be installed may provide suitable habitat for special-status plant and animal species. Suitability does not infer presence; rather only that conditions are present onsite which could support these special-status species. To prove absence of special-status species formal surveys will be conducted at appropriate times of the year as called for under Mitigation Measure #4a-1 and #4a-3. In the absence of formal surveys, the proposed Project could result in the loss of these species and possibly other special-status species with similar habitat requirements.

Additionally, passerine birds (perching birds) and raptors (birds of prey), their nests, eggs, and young are protected under California Fish and Game Code (§3503, 3503.5, 3800). Many passerine bird species and raptors are also protected from direct "take" under the federal Migratory Bird Treaty Act. Furthermore, the red-tailed hawk, white-tailed kite, Cooper's hawk, sharp-shinned hawk, and red shouldered hawk are protected pursuant to CEQA. If tree removal or earth-moving would occur during the nesting season, March 1 through August 31, nesting birds could be disturbed. A mitigation measure has been added (see Mitigation Measure #4a-1) to ensure that formal surveys are conducted which prove absence of special-status species and nesting birds.

Environmental Impact: Less than significant with mitigation.

Mitigation Measure 4a: In order to avoid or reduce all potentially significant plant, animal and habitat impacts to a less-than-significant level, this Initial Study has identified a series of mitigation measures to be implemented before, during and after development occurs. The following measures would be effective in reducing species and habitat impacts, while compatible with accommodation of the proposed Water Pipeline Project. These measures shall therefore be implemented as part of the proposed Project, as follows:

- 1. Nesting Raptors & Passerine Birds: Implementation of this measure is required to mitigate the potential for disturbance to nesting raptors and passerine birds adjacent to construction activities. Prior to any site disturbance activities, a focused survey shall be conducted in accordance with CDFW and USFWS protocol to determine the presence of any nesting raptors or passerines. A 150-foot buffer shall be maintained surrounding any trees found to contain active nests, until August 15th or such time as follow-up surveys have confirmed that the young have fledged.
- 2. Potentially Jurisdictional Wetlands: Prior to any disturbance activities within the segment of the Project south of Dutch Slough, a formal wetlands delineation shall be completed in accordance with published State and Federal guidelines in order to determine the presence and extent of waters subject to USACE, CDFW and/or RWQCB jurisdiction which may occur within the drainage ditches along Bethel Island Road. If project improvements are found to impact areas within the wetland delineation, the Project Sponsor shall obtain permits from the appropriate agencies, and carry out all required measures to avoid significant impacts associated with Project construction.
- 3. Special Status Plants: Prior to any site disturbance activities, a focused survey shall be conducted in accordance with CDFW and CNPS guidelines by a qualified botanist, at a time(s) recommended by the botanist for occurrence of any special status plants including the Diablo helianthella plant, bent flowered fiddleneck and any other special status plant species that could be present. The timing and number of visits shall be determined by the botanist, based on geographic location, the natural communities present, and the weather patterns of the year(s) in which the surveys are conducted. Surveys shall be less than 2 years old at the commencement of Project construction in any areas found to have special status plants. Any plants found shall be staked and protected by orange construction barrier fencing, and additional avoidance and mitigation measures taken pursuant to consultation with CDFW and USFWS to reduce potential impacts to a less-than-significant level. If the report documents that there are no special-status plants within the Project site then there would be no further requirements for rare plants and the Project may proceed without regard for rare plants,

provided all other applicable permits and authorizations are obtained for the Project.

- 4. <u>Urban/Ruderal Habitat:</u> Prior to any site disturbance activities, a focused survey shall be conducted by a qualified arborist to document any trees which may be potentially impacted by the Project. Loss of oak trees shall be mitigated for in accordance with Public Resource Code Section 21083.4, and in accordance with the Contra Costa County Code in order to reduce potential impacts to a less-than-significant level. See Mitigation Measure #4e-1 and #4e-2 below.
- 5. <u>U.S. Army Corps of Engineers Permit:</u> Prior to initiation of any work within, above or under Dutch Slough, or within any portion of the project site along Bethel Island Road south of Dutch Slough found to be subject to Federal jurisdiction pursuant to Mitigation Measure #4a-2 above, the Project Sponsor shall obtain a U.S. Army Corps of Engineers Section 404 Permit (which may consist of a Nationwide Permit). The Project Sponsor shall incorporate all requirements as established under the Corps permit as part of the Project, and shall concurrently obtain a Section 401 Water Quality Certification (if deemed applicable by the RWQCB).
- 6. <u>Streambed Alteration Agreement</u>: Prior to initiation of any work within, above or under Dutch Slough, or within any portion of the project site along Bethel Island Road south of Dutch Slough found to be subject to State jurisdiction pursuant to Measure #4a-2 above, the Project Sponsor shall obtain a Streambed Alteration Agreement (SAA) through the California Department of Fish & Wildlife. The Project Sponsor shall incorporate all requirements as established under the SAA as part of the Project, and shall concurrently obtain a Section 401 Water Quality Certification (if deemed applicable by the RWQCB).
- 7. Levee Undercrossing Geotechnical Field Investigation: During design, the Project Sponsor shall conduct a geotechnical field investigation at the proposed shaft locations and along the proposed HDD alignment to serve as a baseline for identifying potential settlement or damages. Field investigations shall be performed, and summarized in a report by a qualified engineer, to confirm the locations of the existing and future rights-of-way, as well as potential utility, structure foundation, or sheet pile conflicts. All recommendations from the geotechnical investigation report shall be incorporated into the Project design. If any additional potentially significant impacts are identified, these shall be addressed in a separate environmental document.
- 8. <u>Levee Undercrossing Frac-out Plan:</u> A detailed plan to address potential frac-out must be developed as part of the design and permitting. This frac-out plan must be reviewed by a licensed geotechnical engineer. A formal frac-out plan will be prepared and submitted to the U.S. Army Corp of Engineers, California Regional Water Quality Control Board, and California Department of Fish & Game for review and approval prior to construction. If any additional potentially significant impacts are identified, these shall be addressed in a separate environmental document.
- 9. <u>Frac-out Procedure:</u> To mitigate the potential for significant impacts related to the Frac-out Plan, the following measures shall be incorporated into construction plans:
 - a. Pressure in the borehole shall be controlled to avoid exceeding the strength of the overlying soil. The use of a pressure sonde shall be implemented to allow down hole pressure monitoring during drilling and static activities, consistent with the specific recommendations of the Project engineer.
 - b. The entry point for the bore hold shall be cased in order to mitigating inadvertent fluid release, consistent with the specific recommendations of the Project engineer.
 - c. During pilot hole drilling, risk of hydraulic fracturing at the exit point shall be minimized, consistent with the specific recommendations of the Project engineer, by slowing the drilling rate to reduce mud pressure just short of the exit point. This will thereby reduce drill fluid pressures for the final ascent of the pilot hole to the exit point and limit the risk of hydraulic fracture while plugging off the hole as the pilot bit is advanced to the surface.

b) See above, including Mitigation Measure #4a.

Environmental Impact: Less than significant with mitigation.

c) See above, including Mitigation Measure #4a. *Environmental Impact:* Less than significant with mitigation.

d) See above, including Mitigation Measure #4a. *Environmental Impact:* Less than significant with mitigation.

e) No trees are expected to be impacted north or south of the Bethel Island Bridge, as all improvements will occur within the existing and future right-of-way. While no trees are anticipated to be removed through implementation of the Project, as required by Mitigation Measure #4e-1 below, any trees which are impacted through implementation of the Project south of the Bethel Island Bridge will be replaced in accordance with City of Oakley Code regulations (trees north of Bethel Island Bridge are subject to all applicable County Ordinances, however, all work will be completed within the existing right-of-way north of the bridge). Orange construction fencing will be installed in accordance with Mitigation Measure #4e-2 below to delineate the limits of construction impact in areas that are considered sensitive (primarily surrounding the slough and the nearby freshwater marsh). The fencing will serve to isolate environmentally sensitive areas (ESAs) from construction activities, in addition to the trees themselves. *Environmental Impact:* Less than significant with mitigation.

Mitigation Measure 4e-1: In accordance with the City of Oakley Code Section 9.1.1112 any trees which meet the classification for heritage and protected trees which are removed as part of the Project shall be replaced in accordance with Code Section 9.1.1112(g)(11). In accordance with Code Section 9.1.1112(f), no trees shall be removed unless a permit has been obtained pursuant to the requirements of City Code Section 9.1.1.1112.

Mitigation Measure 4e-2: Any tree proposed to be saved in the work area shall be fenced with orange construction fencing at the dripline of those trees (that is, outer edge of the canopy) prior to conducting any earth-moving or earth-disturbance work on the site. Additionally, orange construction fencing will be installed to delineate the limits of construction impact in areas that are considered sensitive (primarily surrounding the slough, nearby freshwater marsh, the patch of wetlands north of the intersection of East Cypress Road Bethel Island Road, and trees, wetlands, and other vegetation).

f) The portion of pipeline between East Cypress Road and the Bethel Island Bridge is within the coverage area of the East Contra Costa County Habitat Conservation Plan (ECCCHCP) / Natural Community Conservation Plan (NCCP). This portion of pipeline is shown as a "Lower Acquisition Effort" area in the Acquisition Priorities Map in the ECCCHCP. The ECCCHCP states that the HCP/NCCP will provide streamlined permits from the U.S. Fish and Wildlife Service and California Department of Fish and Game that will allow projects to get their endangered species approvals at the local planning counter. The same permits can also be used for public infrastructure projects throughout eastern Contra Costa County. Public and private utilities are considered a "covered" activity as detailed in section 2.3.1 of the ECCHCP. The Project will not impose any new significant impacts which are not covered under the assumed impacts of the ECCCHCP.

Environmental Impact: Less than significant with mitigation.

Mitigation Measure 4f: In accordance with the requirements of the East Contra Costa County Habitat Conservation Plan, the Project Sponsor will be required to submit an application in order to obtain a permit from Contra Costa County for Habitat Conservation Plan consistency approval.

Environmental Issues	Potentially Significant Impact	Less than Significant With Mitigation	Less Than Significant Impact	No Impact
5. Cultural Resources: Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?				✓
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?				~
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		✓		
d) Disturb any human remains, including those interred outside of formal cemeteries?		✓		

a) The Project area does not contain any known historical or archeological resources. There are no resources listed by the NRHP (National Register of Historical Places), or in local registries as provided for by Public Resource Code (PRC) 5020.1(k) or 5024.1(g).

Environmental Impact: No impact.

b) See above. This site is not known to contain any archaeological resources, and does not meet the definition of a unique archaeological resource as provided for by Public Resources Code Section 21083.2(q).

Environmental Impact: No impact.

c) While no recorded paleontological resources have been identified in the Project area, there is potential to encounter unknown paleontological resources on the Project site during grading and construction; this potential impact is mitigated to a less-than-significant level through implementation of Measure #5c below.

Environmental Impact: Less than significant with mitigation.

Mitigation Measure 5c-1: In the event that buried paleontological resources are encountered during Project trenching, grading, site preparation, and/or construction; construction and/or grading activities within 100 feet of the find shall be temporarily halted until a qualified paleontologist can assess the significance of the find and provide proper management recommendations. Paleontological resources include, but are not limited to, fossils and material remains.

Mitigation Measure 5c-2: Prior to Project construction, the Project Sponsor shall perform a California Historical Resources Information System (CHRIS) records search from the Northwest Information Center located at Sonoma State University. If any cultural resources are found to be within the Project area, all recommendations from the CHRIS report shall be incorporated into the Project.

d) No known human remains have been previously identified and no formal cemeteries are located within the Project site which is mostly disturbed and/or developed from prior installation of roadways. If grading and/or construction activity were to unearth human remains, all activities would be halted, and either the City of Oakley or Contra Costa County would be contacted, depending on location and jurisdiction, and all applicable laws would be followed. Should human remains of Native American origin be discovered on the Project site during grading and/or construction, it would be necessary to comply with regulations governing the disposition of Native American remains, set forth by the State of California and administered by the NAHC (Public Resources Code Section 5097). These potential effects of the Project are mitigated to a less-than-significant level through implementation of Mitigation Measure #5d below.

Environmental Impact: Less than significant with mitigation.

Mitigation Measure 5d: If human remains are encountered during ground-disturbing activities within the Project area, the County Health Services Department shall require that work within 25 feet of the discovery shall be stopped and the Project contractor shall immediately notify the Contra Costa County Coroner. At the same time, a qualified archaeologist meeting federal criteria under 36 CFR 61 shall be contacted by the County Health Services Department to assess the situation and consult with the appropriate agencies. If the human remains are of Native American origin, the Coroner shall notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and any associated grave goods.

Upon completion of the assessment, the qualified archaeologist shall prepare a report documenting the background to the finds, and provide recommendations for the treatment of the human remains and any associated cultural materials, as appropriate and coordination with the recommendations of the MLD. The report shall be submitted to the County Department of Conservation and Development, County Health Services Department, and the Northwest Information Center. Once the report is reviewed and approved by the agencies identified above, and any appropriate treatment completed, Project construction activity within the area of the find may resume.

Prior to the issuance of grading permits, the City of Oakley and/or County Department of Conservation and Development shall require that the County Health Services Department and the Project Sponsor provide documentation that all construction crews that will work on the Project have undergone a training session to inform them of the presence and nature of federal or state-eligible cultural resources and the potential for previously undiscovered archaeological resources and human remains within the Project area, of the laws protecting these resources and associated penalties, and of the procedures to follow should they discover cultural resources during Project-related work.

Environmental Issues	Potentially Significant Impact	Less than Significant With Mitigation	Less Than Significant Impact	No Impact
6. Geology and soils: Would the project:				
a) Expose people or structures to potential substantial adverse involving:	effects, inclu	iding the risk	of loss, inju	ry, or death
 i) Rupture of a known earthquake fault, as defined on 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 Div. of Mines & Geology Special Pub. 42. 			~	
ii) Strong seismic ground shaking?			✓	
iii) Seismic-related ground failure, including liquefaction?			✓	
iv) Landslides?			✓	
b) Result in substantial soil erosion or loss of topsoil?			✓	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			~	
d) Be located on expansive soil, as defined in Table 18-1-B of the UBC (1994), creating substantial risks to life or property?			✓	
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?				~

a) The City of Oakley and unincorporated community of Bethel Island are not listed as being affected by the Alquist-Priolo Fault Zone as listed by the state Department of Conservation. The proposed utility pipelines and related improvements are subject to compliance with applicable current Building Codes and grading Ordinance standards. Therefore no additional mitigation is required.

Environmental Impact: Less than significant.

b) Grading of the construction site will result in a minor change in topography and temporarily increase the exposure of soils to wind erosion. Standard dust control and erosion control practices, including, but not limited to, general watering of exposed areas and/or use of chemical stabilizers will be adhered to. These control measures will minimize the potential for wind erosion as a result of exposure due to grading and associated construction activities. These measures will be incorporated into the construction contract. Construction of the utility pipelines will not expose people to adverse impacts due to seismic activity.

Environmental Impact: Less than significant.

c) The proposed Project calls for approximately 18 feet of fill at the Pump Station site (currently at -5 to -9 feet elevation), 5 feet of fill at the Reservoir Site (currently at -5 to -9 feet elevation), and 2 feet of fill at the Chloramination Building site (currently at -2 to -3 feet elevation). The Gas Pipeline running along

Bethel Island Bridge will remain in a 10 inch steel casing until the pipe has reached a depth of at least 30 inches. There is no fill associated with the installation of the Gas Pipeline.

The Delta Coves building pads for proposed homes are currently at approximately 5 to 12 feet elevation. Other homes and businesses surrounding the Chloramination Building site are currently at approximately 0 feet elevation. A grading permit will be required from Contra Costa County for this work, and will be subject to compliance with County Code and State Uniform Building Code requirements. Seismically-induced ground failure and liquefaction are recognized potential risks to all existing and future buildings and improvements within the area, according to ABAG liquefaction susceptibility maps (the area on Bethel Island itself is shown as having a 'moderate' level of potential liquefaction susceptibility, and the portion along Bethel Island Road south of Dutch Slough is shown as generally having a 'high' level of potential liquefaction susceptibility). Risk of damage to the proposed water pipeline and structures on Bethel Island will be minimized through compliance with all as current County Building Codes and grading Ordinance standards.

Superficial trenching, grading at the jacking and receiving pits for the water pipeline tunnel construction, installation of the Gas Pipeline, installation of the Water Trunkline, and/or related structures for the Pump Station, Water Reservoir and Chloramination Building, are not expected to result in unstable earth conditions or change geologic substructures. Exposure of people or property to geologic hazards is not expected to increase as a result of the Project. No significant impacts are expected to occur; therefore no additional mitigation is required.

Environmental Impact: Less than significant.

d) All proposed site and building improvements are therefore subject to compliance with applicable City and County Building Codes and Grading Ordinance requirements. Environmental Impact: Less than significant.

e) No septic tanks or wastewater disposal systems are proposed or included in the Project. *Environmental Impact:* No impact.

Environmental Issues	Potentially Significant Impact	Less than Significant With Mitigation	Less Than Significant Impact	No Impact
7. Greenhouse Gas Emissions: Would the pro	oject:			
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?		~		
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			>	

a) The total annual amount of greenhouse gas emissions resulting from the operation of the proposed Project will not generate enough greenhouse gases to result in a significant impact to the environment. This determination has been made using the recommended thresholds of significance for greenhouse gases, as identified in the Revised Draft Options and Justification Report. CEQA Thresholds of Significance, prepared by the Bay Area Air Quality Management District (BAAQMD) in October 2009. According to the report, the "bright-line" threshold for land use Projects in an area where a qualified Climate Action Plan has not been adopted is 1,100 metric tons of carbon dioxide equivalent per year (C02e/yr.).

The Project would result in negligible operational emissions from the Water Reservoir, Chloramination Plant, and Pump Station. Emissions from construction emissions are not subject to the "bright-line" threshold referenced above. Additionally, both the Pump Station and Chloramination facility will be equipped with emergency power generators. Consistent with the BAAQMD CEQA Guidelines and the California Code of Regulations, the generators will be required through incorporation of Mitigation Measure #3a-2 to comply with the BAAQMD-administrated Statewide Air Toxics Control Measure (ATCM) for Stationary Diesel Engines (if stationary diesel engines are used). If either engine is rather higher than 50 horsepower, they will require a BAAQMD Permit to Operate as conditioned through Mitigation Measure #3a-2. The amount of total amount greenhouse gases to be generated by the proposed utility pipelines and related facilities (Water Reservoir, Chloramination Plant, and Pump Station) would be significantly below the thresholds as identified by the BAAQMD's October 2009 report. Furthermore, emissions related to the production of natural gas are regulated under BAAQMD through their permitting process, which is not applicable to this Project since it does not include the production of natural gas. Therefore, it has been determined that the Project would not result in a significant environmental impact for greenhouse gas emissions with inclusion of Mitigation Measure #3a-2.

Environmental Impact: Less than significant with mitigation.

b) As described above, using BAAQMD thresholds, it has been determined that the proposed Project will not generate a significant amount of greenhouse gasses as to have a significant impact on the environment. It has therefore, also been determined that the Project will not conflict with the Bay Area Air Quality Management District's (BAAQMD) Bay Area 2010 Clean Air Plan or with the BAAQMD's 2001 San Francisco Bay Area Ozone Attainment Plan for the 1-Hour National Ozone Standard. Environmental Impact: Less than significant.

Environmental Issues	Potentially Significant Impact	Less than Significant With Mitigation	Less Than Significant Impact	No Impact
8. Hazards and Hazardous Materials: Would	d the projec	t:		
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		✓		
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?			~	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			~	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?				~
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, would the project result in a safety hazard for people residing or working in the project area?				~
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				✓
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			~	
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?			~	

a) All construction work shall be in compliance with City and County Ordinances, which will address construction-related hazards, materials usage and disposal. The proposed supporting structures for the Water Trunkline (Water Reservoir, Chloramination Plant, and Pump Station) will not result in the use of any new or increased quantities of materials or substances regulated under Contra Costa County or City of Oakley ordinances. While the materials used for construction of the Gas Pipeline are not considered "hazardous", the natural gas to be transported is a flammable gas. Therefore, the Project will be required to comply with all applicable California Code (including Public Utilities Commission Orders), County Code, and City Codes which are applicable to the installation, maintenance, and operation of natural gas pipelines.

Additionally, the proposed 6 inch Gas Pipeline intersects with an existing gas pipeline just South of Sandmound Boulevard. In order to reduce the potential for pipe failure and construction related damage to this existing gas pipeline and other utilities (including the risk of explosion) to a less-than-significant level, the Project Sponsor shall ensure that all required State and Federal safety regulations related to installation of the natural gas pipeline system are implemented, including but not limited to the US Department of Transportation Title 49, Part 192 of the Code of Federal Regulations which prescribed minimum safety requirements for transport of gas, and the Federal Office of Pipeline Safety

responsible for environmentally sound operation of natural gas systems. With inclusion of Mitigation Measures #8a-1 and #8a-2 below, the Project will not result in any significant impacts.

Environmental Impact: Less than significant with mitigation.

Mitigation Measure 8a-1: In any location where the proposed Gas Pipeline is to be placed in the same joint trench as any other gas lines or other utilities, the proposed Gas Pipeline shall maintain a minimum of 12 inches separation, along with 24 inches of fill minimum (30 inches minimum in streets).

Mitigation Measure 8a-2: Prior to construction, the Project Sponsor shall conduct an engineering survey to mark the limits of the approved work area and to flag locations of approved access roads and foreign utility lines. Before the pipeline trench is excavated, a survey crew shall stake the centerline of the proposed trench. No blasting shall occur as part of the trench excavation process. Before the pipeline is lowered into the trench, an environmental inspector shall inspect the trench to be sure it is free of livestock or wildlife that may have become trapped in the trench, as well as free of rocks and other debris that could damage the pipe or protective coating.

b) The Project will not involve the handling, storage or use of any hazardous materials except in the normal course of the construction activities. Use of such construction materials will be controlled by the Project specifications, as required by the appropriate regulations, and therefore will not expose people or structures to any hazards or hazardous materials. As analyzed in Section 4 (Biological Resources) of this Initial Study, a "frac-out" plan has been required as a mitigation measure. Consequently, no additional mitigation is required.

Environmental Impact: Less than significant.

c) The Project is located within a quarter mile of a proposed middle school as shown on the City of Oakley East Cypress Corridor Specific Plan. The closest existing schools are Delta Vista Middle School located approximately 2.75 miles to the west, and Knightsen Elementary School located approximately 2 miles to the south west. Subject to mitigation as identified herein, the proposed Delta Coves Utility Project would not result in any safety hazards, and would be completed prior to construction of the planned middle school.

Environmental Impact: Less than significant.

- d) The Project site is not located on a known or listed hazardous materials site, according to the Cal/EPA Cortese List as provided by the CA EPA Department of Toxic Substances.
 Environmental Impact: No impact.
- e) No public airport is located within 2 miles of the Project site; the closest private airport is the Funny Farm Airport (4CA2) in Brentwood, which has a single runway, located approximately 3 miles to the south. No impacts will result.

Environmental Impact: No impact.

- **f)** See above. No private airport is located within the vicinity of the Project site; no impacts will result. *Environmental Impact: No impact.*
- g) The proposed Project will not result in any direct conflicts with emergency plans; there is a small potential for traffic disruption which may have a minimal effect on local roadways all of which have ample capacity. All construction work shall be in compliance with County Ordinances, which address traffic direction in the case of temporary work. No separate mitigation measures are needed. Environmental Impact: Less than significant.
- **h)** Equipment used for construction on site shall be properly licensed and operated in accordance with County ordinances. The Project site is located adjacent to public streets with adequate access for fire protection.

Environmental Issues	Potentially Significant Impact	Less than Significant With Mitigation	Less Than Significant Impact	No Impact
9. Hydrology and Water Quality: Would the pr	oject:			
a) Violate water quality standards or waste requirements?			✓	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would 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 would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			•	
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 would result in substantial erosion or siltation on- or off-site?			~	
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 would result in flooding onor off-site?			~	
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted water?			✓	
f) Otherwise substantially degrade water quality?			✓	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				~
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				✓
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?			~	
j) Inundation by seiche, tsunami, or mudflow?			✓	

a) There will be no impact on ground water or drainage patterns. The only above-ground structures will be the Water Reservoir, Pump Station, and Chloramination Plant. The Project will serve residents of the Delta Coves development and portions of Bethel Island with natural gas and potable water, which will provide an adequate drinking water supply, where the existing well water quality appears inadequate (see Delta Coves EIR). The runoff from the structures associated with the water and gas pipelines will not result in a substantial amount of impervious surface. The actual water and gas pipelines will not result in any significant effects related to water quality, waste, groundwater supplies, drainage patterns, water runoff, and does not include housing.

Environmental Impact: Less than significant.

b) See above.

c) See above.

Environmental Impact: Less than significant.

d) See above.

Environmental Impact: Less than significant.

e) See above.

Environmental Impact: Less than significant.

f) See above.

Environmental Impact: Less than significant.

g) The proposed Project does not include any housing.

Environmental Impact: No impact.

h) According to FEMA Firm Map (Panel 0170F & 0360F), the areas surrounding Project improvements are classified as "Zone AE" which is designated as the special flood hazard area subject to inundation by the 1% annual chance flood. As discussed above, the only above-ground structures will be the Water Reservoir, Pump Station, and Chloramination Plant; none of which will have any significant impact on impeding or redirecting flows, as these would be small structures.

Environmental Impact: No impact.

i) As discussed in Section 4 (Biological Resources) of this Initial Study, the potential for "frac-out" (which is the term used to describe the need for pressure balancing so as to avoid water flowing into or out of the drilling operation) will be controlled during the drilling operation. A formal frac-out plan will be prepared as required by the mitigation measures in Section 4.

Environmental Impact: Less than significant.

j) The Project is not subject to seiches, tsunamis or mudflows and no impacts are anticipated.

Environmental Issues	Potentially Significant Impact	Less than Significant With Mitigation	Less Than Significant Impact	No Impact		
10. Land Use and Planning: Would the project:						
a) Physically divide an established community?				>		
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 zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			~			
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?			~			

- **a)** The water and gas pipelines, and related improvements, will not divide any established communities. *Environmental Impact: No impact.*
- b) The proposed Project is located in portions of Oakley, Contra Costa County (Unincorporated area of Bethel Island). The Project is also partially located within the City of Oakley's adopted East Cypress Corridor Specific Plan (ECCCSP) area. The General Plan and Zoning designations surrounding the pipeline alignments and related improvements are the following:

General Plan Designation:

City of Oakley:

East Cypress Corridor Specific Plan Designation: "Roads" and "Water Main" (portion between East Cypress Road and Sandmound Road).

Contra Costa County:

CO Commercial along Bethel Island Road north of the Bridge, SLR Single Family Residential – Low within the Delta Coves development area.

Zoning:

City of Oakley:

Properties along Bethel Island Road between East Cypress Road and Sandmound Road are zoned "East Cypress Corridor Specific Plan".

Contra Costa County:

Property along Bethel Island Road North of the Bridge is zoned "R-B Retail Business". Property within Delta Coves development is zoned "P-1-FH Planned Unit plus Flood Hazard Combining District".

The proposed Project is consistent with the goals and policies set forth by the Contra Costa County and Oakley General Plans, and the City of Oakley ECCCSP. For example, principle goals of the Contra Costa County General Plan include 3-47 which states "this plan directs most of the residential and commercial growth that is anticipated to occur in the unincorporated East County area during the planning period into the Oakley community, with smaller amounts of recreation-oriented development allowed on Bethel Island" and 5-k which states "to provide basic accessibility to all residents, which includes access to ... utilities" and 7-88 which states solid waste disposal capacity shall be considered in County and city land use planning and permitting activities, along with other utility requirements, such as water, natural gas, and sewer service. Additionally, principle goals of the Oakley General Plan include 4.7.5 which states that the City shall "consider solid waste disposal capacity in land use

planning and permitting activities, along with other utility requirements, such as water and sewer service." The Oakley General Plan also states that "Because substantial future development areas are located to the east of this Area, facilities installed along East Cypress Road must be properly sized to support development in both the Cypress Corridor Area and the Cypress Corridor Expansion Area. Such facilities include, but are not limited to, roads, water service, and wastewater collection facilities."

Additionally, the proposed Project is consistent with the goals and policies set forth by the East Cypress Corridor Specific Plan. Figure 3.12.2 shows an 18-inch water main on the Existing Water System Map which is noted as to be "planned by others." Additionally, figure 3.12.3 shows the same 18 inch water main along Bethel Island Road north of East Cypress Road, continuing north onto Bethel Island.

The proposed Project is also consistent with all Zoning Ordinances related to City of Oakley and Contra Costa County. The proposed Project would not create any significant impacts related to Zoning Ordinances, and will be required to be consistent with all County Code and City Municipal Code regulations. There are no rezoning or General Plan amendments proposed as part of this Project.

The Contra Costa Local Agency Formation Commission (LAFCO) considered land use and related policies in connection with the proposed delivery of raw water from CCWD and treated water from DWD at the time of annexation in February 2004. Relying upon the certified project EIR for the Delta Coves Development, LAFCO approved Resolution 03-29 consisting of annexation of the Delta Coves subdivision to the Diablo Water District and also the Contra Costa Water District, and amendment to the Sphere of Influence boundaries for the Diablo Water District and Contra Costa Water District to be consistent with the annexation.

Environmental Impact: Less than significant.

c) The portion of pipeline between East Cypress Road and the Bethel Island Bridge is within the East Contra Costa County Habitat Conservation Plan (ECCCHCP) / Natural Community Conservation Plan (NCCP). See Section 4 (Biological Resources), items 4a and 4f.

Environmental Issues	Potentially Significant Impact	Less than Significant With Mitigation	Less Than Significant Impact	No Impact
11. Mineral Resources: Would the project:				
a) Result in a loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				~
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?				~

- a) According to the Contra Costa County General Plan Mineral Resources Map, Figure 8-4 of the General Plan (as well as the ECCSP EIR), the Project site is not located in an area known to have mineral resources. No mineral resource would be affected by the proposed Project. Environmental Impact: No impact.
- **b)** The Project site area is not used or planned for mineral resource recovery purposes. No mineral resource would be affected by this Project *Environmental Impact:* No impact.

Environmental Issues	Potentially Significant Impact	Less than Significant With Mitigation	Less Than Significant Impact	No Impact
12. Noise: Would the project:				
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?		~		
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?		✓		
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				\
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			✓	
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, would the project expose people residing or working in the project area to excessive noise levels?				•
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working on the project area to excessive noise levels?				~

a) During construction activities some groundborne vibration and noise may occur. Temporary construction noise and vibration will be addressed through the permit process, and will be subject to control according to existing County Ordinances. The installation of the jacking pits, and steel casing at the ends of both jacking pits, as well as installation of the steel casing ends connecting to the hanging gas pipeline at the Bethel Island Bridge ends, will result in some temporary vibration and increased noise levels. The southern jacking pit location is approximately 150 feet from the closest residence. The northern jacking pit location is approximately 350 feet from the closest residence. The length of jacking operations is estimated to be approximately 3 days per jacking pit. With inclusion of Mitigation Measure #12a, this temporary construction activity will not result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

Environmental Impact: Less than significant with mitigation.

Mitigation Measure 12a: Work hours for the jacking pits, and installation of steel casing lines related to both the Gas and Water Pipelines, shall be limited to weekdays, and to the hours between seventhirty a.m. and five-thirty p.m., except that maintenance and service work on equipment may be performed at any time, consistent with Contra County Municipal Code section 716-8.1004. Additionally, the Project Sponsor shall provide mailed notice to all residents within 500 feet of the jacking pit location at least 72 hours in advance of work at these locations.

b) See above.

Environmental Impact: Less than significant with mitigation.

c) The Project will not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project. The potential for a permanent increase in ambient noise levels from the proposed Project is negligible.

Environmental Impact: No impact.

d) See above.

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Environmental Impact: Less than significant.

e) The Project is not located near a public or private airport or airstrip, and does not include a residential component.

Environmental Impact: No impact.

f) The Project is not located near a public or private airport or airstrip, and does not include a residential component.

Environmental Issues	Potentially Significant Impact	Less than Significant With Mitigation	Less Than Significant Impact	No Impact
13. Population and Housing: Would the proje	ct:			
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)?			~	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?			~	
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?			✓	

a) The Bethel Island community includes a collection of residential and commercial properties located along Dutch Slough in the Delta area of eastern Contra Costa County. The Contra Costa County General Plan concept for the Bethel Island area is to preserve and enhance the rural and recreational quality of this unique area, while providing opportunities for additional residential and commercial growth tied to water-oriented recreation. Most of the local businesses cater to the recreational boating clientele, although there are several general businesses in the area including liquor stores and real estate offices. Bethel Island also has a number of residential areas that consist of both primary residences and vacation homes.

Prior Analysis:

As explained in the Introduction to this Initial Study, the following components of the Delta Coves Utility Project have been previously addressed under CEQA: 1) The portion of waterline running between East Cypress Road and the Bethel Island Bridge; 2) The internal waterline loop within the Delta Coves development; and 3) The Bethel Island Bridge portion of the proposed Project. The growth inducing impacts of development for the waterline have previously been analyzed in the Delta Coves EIR, which was certified and relied upon by Contra Costa County and LAFCO to facilitate development of the site. As explained in the Project Description, this waterline would serve to deliver potable water (for both domestic and fire suppression use) to the Delta Coves development. The Delta Coves Gas Pipeline and Water Trunklines have been sized to satisfy both the domestic and fire flow needs of the Delta Coves development, and will consequently provide sufficient residual capacity to serve other uses inside the DWD Boundary on Bethel Island in the future. Such future development which may rely on these utility pipelines to deliver potable water and/or natural gas will require their own subsequent analysis. No new residential homes are proposed as part of the Project.

Delta Coves:

The County of Contra Costa originally assumed responsibility in the 1970's as "lead agency" under CEQA for preparation of an EIR for the Delta Covers development, which included analysis for up to 498 single-family homes, 110 condominium units, and commercial and recreational facilities on 310 acres within unincorporated Bethel Island (the final map reflects 494 single-family dwellings and 66 condominium units. In 2002 the City of Oakley updated its General Plan establishing a guide for future development in the Cypress Corridor Expansion Area. In 2003, LAFCO amended the DWD and CCWD Spheres of Influence and approved a Boundary Reorganization to annex the Delta Coves development into the DWD and CCWD Service Boundaries to accommodate delivery of treated water. In 2006 the City of Oakley certified the Final EIR for the East Cypress Corridor Specific Plan (ECCSP), and certified a Supplemental EIR in 2009. The EIR for the ECCSP (Figure 3.12-3 of the 2006 DEIR) shows the proposed 18-inch water main running from East Cypress road across Dutch Slough onto Bethel Island, and provides analysis for inclusion of all utilities in associated roadways. Growth associated with the

Delta Coves Development was previously analyzed in the environmental review prepared by Contra Costa County (Delta Coves EIR).

East Cypress Corridor Specific Plan:

The 2006 East Cypress Corridor Specific Plan proposed, and EIR analyzed, the delivery of utilities including water via an 18-inch DWD trunk line located within the ultimate Bethel Island Road right-of-way to satisfy both domestic and fire suppression needs for the residents of the ECCSP Area and the Delta Coves Project on Bethel Island. This documentation provides CEQA coverage for that portion of the Delta Coves Gas Pipeline and Water Trunkline within Bethel Island Road between Cypress Road and Dutch Slough. Mitigation Measures adopted as part of the FEIR for the ECCSP Project are applicable to the District's Utility Project. The Diablo Water District has already provided a will-serve letter for the Delta Coves community, consistent with Mitigation Measure #3.12-3 of the East Cypress Corridor Specific Plan EIR.

Urban Water Management Plan:

In 2010 the Diablo Water District prepared an Urban Water Management Plan (UWMP) to address the District's long term plans for providing services to properties within its boundaries. While the preparation of such an UWMP is specifically exempted by statute from CEQA under Section 15282 of the Guidelines, this study did provide verification of the District's ability to serve Bethel Island with treated water, provided from sources including a combination of surface water supplied by Contra Costa Water District, groundwater from the Glen Park municipal well, and water from a number of small community wells.

LAFCO Annexation:

LAFCO Resolution 2003-11 states that "the purpose of the proposed annexations is to enable DWD and CCWD to provide potable water service to the land proposed to be annexed." This action relied on the County's certified FEIR for the Delta Coves Project as the basis under CEQA for consideration of potential growth-inducing and other service-related impacts associated with delivering treated water to Delta Coves (and other portions of Bethel Island). In addition, LAFCO concurrently adopted a Statement of Determinations with respect to factors identified in the Government Code (Cortese-Knox-Hertzberg Act) related to the extension of public water service in lieu of using local well water. This documentation provides program-level CEQA coverage for the extension of water service onto Bethel Island and to serve Delta Coves, but does not provide Project-level analysis of the specific on-island routes.

While serving to complete the utility pipeline connections to the previously approved Delta Coves community, the remaining components of the Project (Water Loop Line Levee Undercrossing, Gas Pipeline extension, Water Trunkline extension, Bridge Crossing, Water Reservoir, Pump Station, and Chloramination Plant) will not have any other potentially significant impacts to population growth. As previously discussed, any future development which may rely on this Project's utility pipelines to receive potable water and/or natural gas will require their own subsequent analysis. No new residential homes are proposed as part of the Project.

Environmental Impact: Less than significant.

b) The Mitigated Negative Declaration for the Bethel Island Bridge Replacement Project anticipated displacement of business and residences just north of the Dutch Slough crossing. Because the impact area of these utility pipelines are not as wide as the Bethel Island Bridge Replacement Project, and because all Project improvements will occur within the existing and future right-of-way south of Dutch Slough and within the existing right-of-way north of Dutch Slough, there will not be impacts related to displacement of businesses and/or residences.

Environmental Impact: Less than significant.

c) See above.

Environmental Impact: Less than significant.

Environmental Issues	Potentially Significant Impact	Less than Significant With Mitigation	Less Than Significant Impact	No Impact	
14. Public Services: Would 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 would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:					
a) Fire Protection?			✓		
b) Police Protection?			✓		
c) Schools?			✓		
d) Parks?			✓		
e) Other Public Facilities?			✓		

- a) The proposed Project would provide potable water for the Bethel Island area. The proposed Project includes providing pressurized water for use in fire hydrants to be installed located along Bethel Island Road between the Bethel Island Bridge and Sandy Lane. The proposed Project would not result in a significant impact to public safety or any increase in the need for fire protection.
 Environmental Impact: Less than significant.
- **b)** The proposed Project would not result in a significant impact to public safety or the need for police protection.

Environmental Impact: Less than significant.

- **c)** The proposed Project would not result in a significant impact to the school system. *Environmental Impact:* Less than significant.
- **d)** The proposed Project would not result in a significant impact to the park system. *Environmental Impact:* Less than significant.
- **e)** The proposed Project would not result in a significant impact to any other public facilities. *Environmental Impact:* Less than significant.

Environmental Issues	Potentially Significant Impact	Less than Significant With Mitigation	Less Than Significant Impact	No Impact
15. Recreation:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			~	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				>

a) The proposed Project would not result in a significant impact to the park system. There are no residential units included in the proposed Project. *Environmental Impact:* Less than significant.

b) The proposed Project does not include recreational facilities. *Environmental Impact:* No impact.

Environmental Issues	Potentially Significant Impact	Less than Significant With Mitigation	Less Than Significant Impact	No Impact
16. Transportation / Traffic: Would the project	:			
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)?		~		
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?			~	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?				>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				>
e) Result in inadequate emergency access?				✓
f) Result in inadequate parking capacity?				✓
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				>

a) No increase in traffic will result from the Project except for temporary construction traffic during the construction period. The proposed Project does not include any road widening, or other changes to transportation routes. No residential homes are included in the proposed Project. Traffic generated from the Delta Coves community has been previously analyzed in the Delta Coves EIR. No new increase in traffic will occur with implementation of the proposed Project.

In order to ensure adequate emergency access during construction, a mitigation measure has been added requiring implementation of the construction will be designed with phasing to accommodate one lane open in each direction continually during construction. There is a limited potential for infrequent and brief lane closures for short distances on a sporadic and as-needed basis; however, these closures would only occur on one lane at a time, on weekdays, and during the middle portion of the day. These potential closures would be similar to any temporary closures due to a general construction project and are not expected to cause significant traffic delays. Regardless of Project phasing and current construction stage, one lane in each direction will always be open at the end of every construction day as well as on weekends and holidays.

Environmental Impact: Less than significant with mitigation.

Mitigation Measure 16a: Construction shall be phased to accommodate one lane open in each direction continually during construction. Any closures of these open lanes shall only occur on one lane at a time, on weekdays, and during the middle portion of the day. One lane in each direction shall always be open at the end of every construction day as well as on all weekends and holidays.

b) See above. Environmental Impact: Less than significant.

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c) The Project will not have any impacts on air traffic patterns.

Environmental Impact: No impact.

d) The proposed Project does not include any road widening, or other changes to transportation routes. *Environmental Impact: No impact.*

e) See above.

Environmental Impact: No impact.

f) The proposed Project would not result in any changes to parking capacity. *Environmental Impact:* No impact.

g) See above.

Environmental Issues	Potentially Significant Impact	Less than Significant With Mitigation	Less Than Significant Impact	No Impact
17. Utilities and Service Systems: Would th	e project:			
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				>
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?			~	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				<
d) Have significant water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				<
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?				>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				<
g) Comply with federal, state, and local statutes and regulations related to solid waste?				>

- a) The proposed Project does not include any wastewater treatment or discharge. Environmental Impact: No impact.
- b) In 2010 the Diablo Water District prepared an Urban Water Management Plan (UWMP) to address the District's long term plans for providing services to properties within its boundaries. While the preparation of such an UWMP is specifically exempted by statute from CEQA under Section 15282 of the Guidelines, this study did provide verification of the District's ability to serve Bethel Island with treated water, provided from sources including a combination of surface water supplied by Contra Costa Water District, groundwater from the Glen Park municipal well, and water from a number of small community wells. Water from these sources is currently treated at the Randall-Bold Water Treatment Plant. The UWMP also states that the District also owns and operates a back-up emergency well within the Summer Lake subdivision east of Bethel Island Road (within Oakley's ECCSP Area). The proposed Project would not require any new facilities, or the expansion of any existing facilities, other than those utility related improvements included in the Project itself. Environmental Impact: Less than significant.

c) See above.

Environmental Impact: No impact.

d) See above.

Environmental Impact: No impact.

e) See above.

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f) See above.

Environmental Impact: No impact.

g) See above.

Environmental Issues	Potentially Significant Impact	Less than Significant With Mitigation	Less Than Significant Impact	No Impact
18. 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 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?			~	
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, the effects of other current projects, and the effects of probable future projects.)			>	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			~	

- a) Impacts to the natural environment from the proposed Project are limited, and impacts which could potentially be significant will be mitigated as provided for herein; additional controls and standards of City of Oakley and Contra Costa County Ordinances (depending on location) govern the Project and will be enforced. Project impacts will therefore, as mitigated, be less-than-significant. Environmental Impact: Less than significant.
- b) No; the proposed Project will provide a beneficial effect by providing potable water and natural gas to the Delta Coves community, which has already been approved for development. Any future residential growth will require its own subsequent CEQA analysis. This Project is fully consistent with the City of Oakley General Plan and East Cypress Corridor Specific Plan, as well as the Contra Costa County General Plan. While the Proposed Project provides potable water and natural gas in an area where these were not previously accessible (other than water by well use), future development Projects will still require consistency with the above mentioned documents. Therefore, there are not any impacts which will be cumulatively considerable when viewed in connection with past, current, and future Projects.

Environmental Impact: Less than significant.

c) No conflicts would result from approval of the Project. *Environmental Impact:* Less than significant.

SOURCES

In the process of preparing the Initial Study Checklist and conduction of the evaluation, the following references were consulted and are available for review at the Diablo Water District, 2107 Main Street, Oakley, CA 94561. Phone: (925) 625-3798.

- 1. Contra Costa County. 2005-2020 Contra Costa County General Plan. 2nd Reprint, July 2010.
- 2. State of California. Department of Conservation. Contra Costa County Important Farmland 2010.
- 3. Contra Costa Resource Mapping System Quad Sheet Panels for Jersey Island Quadrangle, California
- 4. Federal Emergency Management Agency, FEMA Mapping System
- 5. California Department of Toxic Substances Control, *Hazardous Waste and Substances* Site List
- 6. Contra Costa County, Bethel Island Bridge Replacement Project Mitigated Negative Declaration, November 5, 2003
- 7. Contra Costa County, Delta Coves EIR, April 1974
- 8. Diablo Water District, *Diablo Water District Water Line Under Crossing of Dutch Slough at the Bethel Island Bridge,* August 2007
- 9. Contra Costa Water District / Oakley Water District, *Joint Water Treatment Plant*, January 1989
- 10. Contra Costa County LAFCO, *Delta Coves Boundary Reorganization (LAFC 03-29)*, February 19, 2004
- 11. Olberding Environmental, Inc., *Permitting Requirements Summary for the Delta Coves Waterline Project*, March 17, 2014
- 12. BKF Engineers, Delta Coves Off-Site Water Line Subdivision 6013, April 11, 2014
- 13. BKF Engineers, Breach Water Line Subdivision 6013, March 28, 2014
- 14. SHN Consulting Engineers & Geologists, Inc., *Hydro Fracture Potential, Breach Water Line, Delta Coves Subdivision, Contra Costa County, California,* March 17, 2014
- 15. Giacalone Design Services, *Delta Coves Gas Line Bridge Crossing Details*, June 25, 2014
- 16. Giacalone Design Services, Delta Coves Gas Main Line Extension, June 25, 2014

EXHIBIT "A"

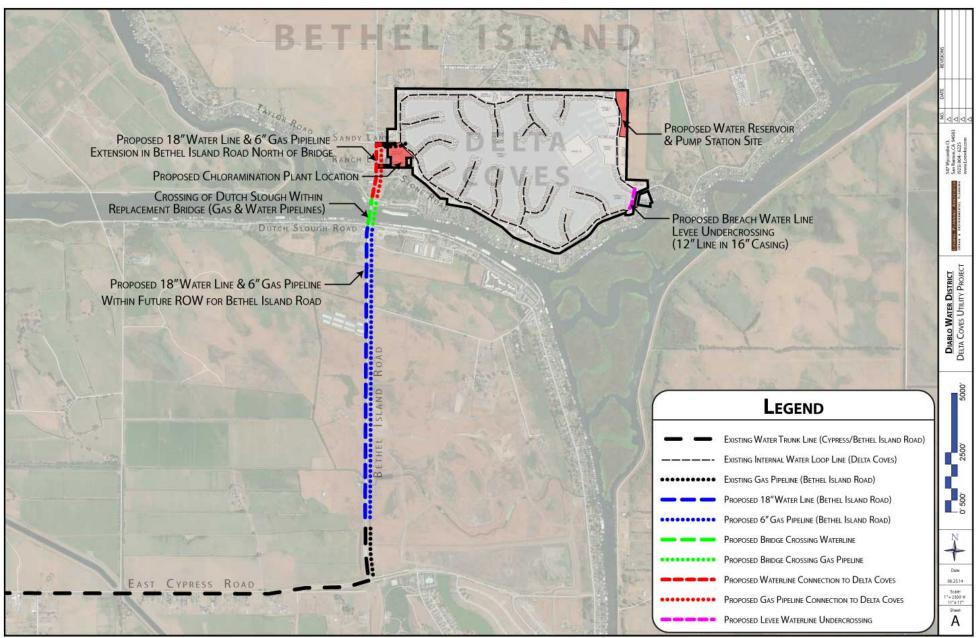
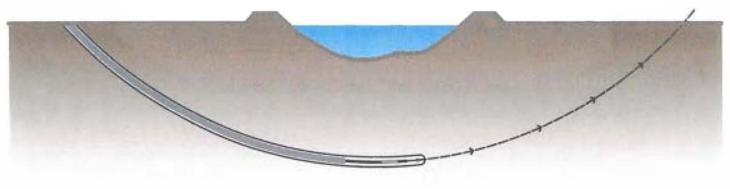


EXHIBIT "B"

Horizontal Directional Drilling (HDD)



Pilot Home

