

**GATEWAY GENERATING STATION (00-AFC-1C)
DATA REQUESTS**

Technical Area: Soil and Water Resources

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BACKGROUND

Although the GGS proposes to eliminate the use of San Joaquin River water for evaporative cooling and all other nonpotable water purposes, the amendment does not specify the new water supplier or the source of the new water supply. The amendment states: *Instead of using water from the San Joaquin River, this water will now be supplied by the City of Antioch or other purveyor. . . . The City or other water purveyor, will provide approximately 154 gpm versus the 5000 gpm . . . from the San Joaquin River for the original CC8 wet cooling system.*

Additional information on the estimated amount of potable water consumption and the availability of other nonpotable sources is required for staff to conduct a complete analysis of potential impacts to water resources and the project's compliance with applicable LORS.

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- 1) Please provide an itemized estimate in tabular format of daily and annual average water consumption for plant construction, equipment wash water, hydrostatic testing of all pipelines, plant operation, and landscape irrigation for the GGS project.
- 2) Please provide the itemized estimates of daily water consumption as an average in gallons per minute and the annual water consumption in acre-feet per year.
- 3) Please specify which plant processes will use potable water and which plant processes will use nonpotable water.
- 4) Please provide a "Will Serve" letter from the City of Antioch and/or other water purveyors, which commits the City and/or other water purveyors to the long-term (30 – 35 years) delivery of potable and/or other water sources, a discussion of the supply reliability including a backup water source for plant operation, and the potential impact from GGS project use to other municipal and industrial users over a 30 – 35 year delivery period.

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Water Code Section 13551 finds the use of potable water for industrial and irrigation uses is a waste or an unreasonable use of potable water within the meaning of Section 2 of Article X of the California Constitution if recycled water is available.

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- 5) If potable water is proposed for industrial or irrigation purposes, please provide a discussion of recycled water availability and an economic analysis comparing the use of secondary/tertiary treated recycled water versus the use of potable water over a 35 year period that encompasses both the construction and operation phases of the GGS project.
- 6) Although the amendment states the GGS project proposes to use an air cooled condenser (ACC), Figure 2-1 (Water Mass Balance) identifies the ACC as a WSAC or wet

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surface air cooler with an evaporative cooling demand of 86 gpm. Please specify which type of cooling system is proposed (ACC or WSAC) and if a WSAC is proposed, whether the makeup water will be potable or nonpotable. **(Data Request rescinded by staff)**

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The GGS project proposes to discharge industrial and sanitary wastewater via a new wastewater pipeline to the Delta Diablo Sanitation District's (DDSD) wastewater treatment facilities east of the project.

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- 7) Please provide a discussion of all DDSD ordinances for the discharge of wastewaters to the DDSD system and identify all discharge permits required by DDSD for acceptance of GGS project wastewaters.

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To determine the additional impacts to water and soil resources from the construction of the GGS project, (which will have a larger footprint than the original project) a Drainage Erosion and Sediment Control Plan (DESCP) will be required as a change to Condition of Certification Soil & Water 2. Although the GGS has submitted a Notice of Intent to comply with the terms of the General Permit to discharge stormwater associated with construction activities, a draft DESCP needs to be submitted and is to be a separate document from the Construction SWPPP.

Additionally, Contra Costa County is a Co-Permittee under an NPDES permit regulating discharges from storm drain systems which specifies measures the County must undertake to prohibit non-stormwater discharges to storm drains and to minimize the quantity of pollutants in stormwater. The San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) adopted Order No. 99-058 on July 21, 1999, reissuing waste discharge requirements under the NPDES permit for the Contra Costa Clean Water Program for the discharge of stormwater into the San Joaquin Delta and its tributaries. In February 2003, the SFBRWQCB revised Order No. 99-058 and issued Order No. 03-0022 which added Provision C.3 to the county's stormwater NPDES permit, which requires more stringent Best Management Practices (BMPs) prior to stormwater discharge from new development or redevelopment.

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- 8) Please provide a draft DESCP containing elements A through I below outlining site management activities and erosion/sediment control BMPs to be implemented during site mobilization, excavation, construction, and post-construction activities. Within the draft DESCP, please provide a discussion of those additional requirements of Order No. 03-0022 as they relate to construction and post-construction BMPs. The level of detail in the draft DESCP should be commensurate with the current level of planning for additional site grading, trenching, paving, and drainage. Please provide all conceptual erosion control

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information for those phases of construction and post-construction that have been developed or provide a statement when such information will be available.

- A. Vicinity Map** – A map(s) at a minimum scale 1"=100' will be provided indicating the location of all project elements with depictions of all significant geographic features including swales, storm drains, and sensitive areas.
- B. Site Delineation** – All areas subject to soil disturbance for the GGS project (project site, lay down area, all linear facilities, landscaping areas, and any other project elements) shall be delineated showing boundary lines of all construction areas and the location of all existing and proposed structures, pipelines, roads, and drainage facilities.
- C. Watercourses and Critical Areas** – The DESCPC shall show the location of all nearby watercourses including swales, storm drains, and drainage ditches. Indicate the proximity of those features to the GGS project construction, lay down, and landscape areas and all transmission and pipeline construction corridors.
- D. Drainage Map** – The DESCPC shall provide a topographic site map(s) at a minimum scale 1"=100' showing all existing, interim and proposed drainage systems and drainage area boundaries. On the map, spot elevations are required where relatively flat conditions exist. The spot elevations and contours shall be extended off-site for a minimum distance of 100 feet in flat terrain.
- E. Drainage of Project Site Narrative** – The DESCPC shall include a narrative of the drainage measures to be taken to protect the site and downstream facilities and shall include a discussion of how the DESCPC complies with Order No. 03-0022 . The narrative should include the summary pages from the hydraulic analysis prepared by a professional engineer/erosion control specialist. The narrative shall state the watershed size(s) in acres that was used in the calculation of drainage measures. The hydraulic analysis should be used to support the selection of BMPs and structural controls to divert off-site and on-site drainage around or through the GGS project construction and laydown areas.
- F. Clearing and Grading Plans** – The DESCPC shall provide a delineation of all areas to be cleared of vegetation and areas to be preserved. The plan shall provide elevations, slopes, locations, and extent of all proposed grading as shown by contours, cross sections or other means. The locations of any disposal areas, fills, or other special features will also be shown. Illustrate existing and proposed topography tying in proposed contours with existing topography.
- G. Clearing and Grading Narrative** – The DESCPC shall include a table with the quantities of material excavated or filled for the site and all project elements of the GGS project (project site, lay down areas, transmission corridors, and pipeline corridors) to include those materials removed from the site due to contamination, whether such excavations or fill is temporary or permanent, and the amount of such material to be imported or exported.

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- H. Best Management Practices Plan** – The DESCOP shall identify on the topographic site map(s) the location of the site specific BMPs to be employed during each phase of construction (initial grading/demolition, project element excavation and construction, and final grading/stabilization). BMPs shall include measures designed to prevent wind and water erosion in areas with existing soil contamination. Treatment control BMPs used during construction should enable testing of groundwater and/or stormwater runoff prior to discharge to the San Joaquin River.
- I. Best Management Practices Narrative** – The DESCOP shall show the location (as identified in H above), timing, and maintenance schedule of all erosion and sediment control BMPs to be used prior to initial grading/demolition, during project element excavation and construction, final grading/stabilization, and post-construction. Separate BMP implementation schedules shall be provided for each project element for each phase of construction. The maintenance schedule should include post-construction maintenance of structural control BMPs, or a statement provided when such information will be available