Attachment A
ADDITIONAL INFORMATION REQUIREMENTS
FOR REPORT OF WASTE DISCHARGE
(LAND DISCHARGE PERMITS)

Please provide a technical report prepared by a California registered Civil Engineer that presents the following information:

1. A narrative description of the existing and planned development that will generate wastewater, and all existing and proposed wastewater conveyance, treatment, and disposal systems.

2. A process flow diagram, scaled treatment plant site plan, and a scaled map showing the limits of all existing and proposed wastewater treatment and effluent storage and reclamation or disposal areas.

3. Chemical characterization of the public water supply, including total dissolved solids; standard minerals (boron, bromide, calcium, chloride, fluoride, magnesium, phosphate, potassium, sodium, sulfate, alkalinity series, and hardness), and metals (aluminum, arsenic, cadmium, copper, lead, iron, manganese, nickel, and zinc). Include supporting analytical data.

4. Chemical characterization of current and future influent and effluent wastewater quality supported by tabulated monitoring data for at least the last five years, including biochemical oxygen demand, total suspended solids, total dissolved solids, and nitrogenous compounds. Include a discussion of seasonal variations, if any, and supporting analytical data. This must be based on water supply and wastewater analytical data.

5. A description of the current and future sources and types of wastewater flowing into the system, design flow rates, and the design capacity of the system. Include an analysis of current and projected infiltration/inflow rates and peaking factors used in design calculations.

6. A description of the following (current and future) supported by tabulated monthly flows for at least the last five years:
   a. Average dry weather flow;
   b. Peak wet weather flow (or other reasonable peak day flow rate); and
   c. Effluent quality at the point of discharge to the disposal system (BOD, total suspended solids, settleable matter, total dissolved solids, sodium, chloride, nitrogenous compounds, electrical conductivity, pH, and total coliform organisms).

7. A description of the existing and proposed sewer system: materials, infiltration/inflow estimate, and lift station details (type, location, capacity, backup systems, and alarm features). Provide a scaled plan of all existing and proposed major conveyance system elements (lift stations, force mains, large gravity mains, etc.) and alarm features.

8. A description of existing and proposed emergency wastewater storage facilities or other means of preventing system bypass or failure during reasonably foreseeable overload

conditions (e.g., power failure, sewer blockage, and illicit sewer discharges). Consider both potential problems at the plant and within the sewer system.

9. Narrative description of expected solids generation rates and handling/storage procedures:
   a. Debris;
   b. Grit and screenings; and
   c. Biosolids.

10. Narrative description of proposed solids disposal practices for debris, grit, screenings, and biosolids:
   a. Method of disposal;
   b. Frequency of disposal;
   c. Disposal site/area name(s) and location(s); and

11. For each pond and other waste containment structure, provide the following information. Discuss both existing and proposed ponds:
   a. Identification (name) and function of the pond;
   b. Surface area, depth, and volumetric capacity at two feet of freeboard;
   c. Height (relative to surrounding grade), crest width, interior slope, and exterior slope of each berm or levee;
   d. Materials used to construct each berm or levee;
   e. Description of engineered liner, if any;
   f. Estimated steady state percolation rate for each unlined pond;
   g. Depth to shallow groundwater below the planned base of the ponds;
   h. Overfilling/overflow prevention features; and
   i. Operation and maintenance procedures.

12. A description of emergency wastewater storage facilities or other means of preventing system bypass or failure during reasonably foreseeable overload conditions (e.g., power failure, sewer blockage, and illicit sewer discharges). Consider both potential problems at the plant and within the sewer system.

13. If treated effluent will be recycled, provide a complete description the proposed discharge including:
   a. Effluent disinfection system;
   b. Reclaimed water conveyance systems;
   c. Water reclamation areas;
   d. Cropping plans;

e. Planned reclamation operations (planting and harvest, irrigation method, irrigation frequency, irrigation amounts);

f. Expected nutrient loadings (pounds per acre per year total nitrogen);

g. Expected salt loadings (pounds per acre per year total dissolved solids);

h. Tailwater management methods; and

i. Storm water runoff management methods.

To the extent this information is already presented in the Title 22 Engineering Report, the RWD may incorporate that report by reference.

14. A description of neighboring land uses.

15. A flood hazard assessment (Is the site located in the 100-year flood zone? How are waste containment structures and disposal areas protected from washout or inundation?)

16. A description of the types of soil underlying the existing and proposed ponds and effluent disposal areas (include a copy of the geotechnical report).

17. Projected monthly water balance demonstrating adequate containment capacity for both the average rainfall year and the 100-year return period total annual precipitation, including consideration of at least the following.

    a. A minimum of two feet of freeboard in each pond at all times;

    b. Historical local evaporation data (monthly average values);

    c. Local precipitation data with the 100-year return period annual total distributed monthly in accordance with mean monthly precipitation patterns;

    d. Proposed reclamation area/disposal system loading rates distributed monthly in accordance with expected seasonal variations based on crop evapotranspiration rates; and

    e. Projected long-term I/I rates;

    f. Projected long-term percolation rates (including consideration of percolation from unlined ponds and the effects of solids plugging on all ponds).

18. Proposed flow limits and basis for the limit. Consider dry weather flows vs. peak flows and seasonal variations. Include the technical basis for the proposed flow limit (e.g., design treatment capacity; hydraulic capacity of a main lift station, headworks, or other system element; and demonstrated effluent disposal capacity).

19. A narrative description of plant operation and maintenance procedures to be employed, including those associated with effluent storage and disposal.

Title 27 Exemption and Antidegradation Analysis

The State Water Resources Control Board Resolution No. 68-16 (the Antidegradation Policy) requires that the Regional Water Board, in regulating the discharge of waste, must maintain the high quality of water of the state until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the state, will not unreasonable affect beneficial uses, and will not result in water quality less than that described in the Regional Water Board's policies (e.g. quality that exceeds water quality objectives). Additionally, the WDRs must include detailed findings to justify exempting the facility and discharge from the prescriptive requirements of CCR Title 27.

20. A detailed discussion of the basis for exemption from the prescriptive requirements of CCR Title 27. For each containment structure or other structure through which waste will be conveyed, state the specific subsection(s) of CCR Title 27, section 20090 that apply and describe in detail why the exemption(s) apply.

21. A description of any policies or facility design features that reduce the potential for groundwater degradation (best practicable treatment and control or BPTC measures). Such features might include advanced treatment, disinfection, non-chemical disinfection, concrete treatment structures, and engineered pond lining systems.

22. Discuss the costs and benefits of alternatives for maintaining existing water quality and/or limited degradation of groundwater quality (if limited degradation is consistent with the Antidegradation Policy). Alternatives may include an increase in the usage of the reclamation, advanced treatment, regionalization, pollutant source minimization, and change in source water supply. Discuss environmental and socio-economical benefits for limited degradation of groundwater.

23. Provide a technical report prepared by a Registered Geologist or Certified Hydrogeologist that provides an assessment of existing groundwater degradation caused by the discharge and the potential for the proposed facility to degrade groundwater quality in the future. The assessment must be made based on site-specific data and must provide technically-based answers to the following questions based on historical data and supplemental data to be collected for the purpose of this study:

    a. What is the groundwater elevation and gradient at the existing facility?

    b. What is background shallow groundwater quality for typical municipal waste constituents and naturally occurring constituents that may be released to groundwater as a result of the discharge (e.g., iron and manganese)? Compare to established water quality objectives. [1]

[1] At a minimum, include analyses for the following: BOD, total coliform organisms, electrical conductivity, total dissolved solids, ammonia (as N), total Kjeldahl nitrogen, nitrate (as N), nitrite (as N), sodium and chloride. Total coliform organisms shall be determined using the 15- or 25-tube method.

c. What are subsurface conditions at the proposed new disposal site? [2]

d. What is the character of groundwater quality at the proposed new disposal site? [2]

e. Based on site hydrogeology, the nature of the waste, and the proposed disposal method, what level of additional degradation is expected to result from the expansion (if any)?

f. If the proposed expansion will cause additional degradation, how will the degradation be confined or controlled?

g. At a minimum, the report shall include the following:

- Rationale for field investigation approach.
- Description and documentation of all proposed investigational methods and activities.
- Description of the site hydrogeology including stratigraphy, groundwater elevation and gradient, transmissivity, and influence of all recharge and pumping sources (i.e., a site conceptual model).
- Description of fate and transport mechanisms for all monitored constituents.
- Description of data reduction/analysis techniques and results.
- Presentation of historical and supplemental site-specific soil and groundwater data.
- Comparison of groundwater quality data to background groundwater quality and water quality objectives for each constituent.
- An analysis of all data and conclusions regarding each of the above questions.

24. Discuss the costs and benefits of alternatives for maintaining existing water quality and/or limited degradation of groundwater quality (if limited degradation is consistent with the Antidegradation Policy). Alternatives may include an increase in the usage of the reclamation, advanced treatment, regionalization, pollutant source minimization, and change in source water supply. Discuss environmental and socio-economical benefits for limited degradation of groundwater.

[2] This must be based on at least three groundwater monitoring events at least two months apart. If new monitoring wells will be installed, a workplan must first be approved. Use all available historical monitoring data.