



Waste and Unreasonable Use Analysis

Background

"[B]ecause of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare." Cal. Const., Art. X, § 2. This "reasonable use" doctrine applies to all uses of water in California. Specific to recycled water, the State Water Resources Control Board states:

The State Water Board hereby declares that, pursuant to Water Code sections 13550 *et seq.*, it is a waste and unreasonable use of water for water agencies not to use recycled water when recycled water of adequate quality is available and is not being put to beneficial use, subject to the conditions established in sections 13550 *et seq.* The State Water Board shall exercise its authority pursuant to Water Code section 275 to the fullest extent possible to enforce the mandates of this subparagraph.

Recycled Water Policy, p. 4. Further, the California Legislature has declared:

the people of the state have a primary interest in the development of facilities to recycle water to supplement existing surface and underground water supplies and to assist in meeting the future water requirements of the state.

Cal. Water Code §13510. "Utilization of recycled water by local communities for domestic, agricultural, industrial, recreational, and fish and wildlife purposes will contribute to the peace, health, and safety and welfare of the people of the state." Cal. Water Code § 13511.

Proposed Elements of Waste & Unreasonable Use Analysis for Hyperion NPDES Permit

- 1) Description of the current water reuse taking place at Hyperion Treatment Plant (Hyperion), including a list of current potable and non-potable recycled water uses, type and amount of reuse, and a map of existing pipelines and use sites;
- 2) Amount of water currently treated and discharged from Hyperion into the Pacific ocean that could potentially be treated and available for potable and non-potable reuse (either at Hyperion or by scalping sewage upstream for reuse), including potential treatment location(s) and

technology, and where and for what uses recycled water could be reused. In assessing the amount potentially available for reuse, Hyperion would include a discussion of cost considerations and the estimated volume needed for brine discharge;

- 3) Assessment of whether additional wastewater that could be recycled from Hyperion currently serves a reasonable and beneficial purpose by being discharged to the ocean;
- 4) Analysis of whether increasing the amount of recycled water from Hyperion would result in: (a) reduction, postponement, or elimination of development of new or expanded water supplies from other sources; (b) reduction or elimination of the use of existing diversions from natural watercourses, or withdrawals from aquifers; (c) reduction of demand on existing water supply facilities; and (d) reduction, postponement, or elimination of new or expanded wastewater facilities;
- 5) Document and describe qualitatively as completely as possible the benefits of an increased amount of reclaimed water from Hyperion, including increased local self-reliance, availability of a drought-tolerant water supply, reduced water importation, and other social or environmental benefits, and consider these benefits as part of the justification for the cost of increased water reclamation;
- 6) Estimated capital and O&M costs of recycling additional wastewater from Hyperion for potable and non-potable uses, including analysis of cost for potential individual end-users/customers; comparison with present and projected costs for other sources of water in the City of LA's portfolio; and assessment of any avoided costs that would result from recycling wastewater (e.g., eliminating the need to invest in upgrades to Hyperion plant or invest in alternative water sources);
- 7) Assessment of whether and to what extent the use of recycled water will not be detrimental to public health;
- 8) Analysis of the impact or benefits recycling additional wastewater will have on water quality; plant, fish, and wildlife; generation of hazardous waste; air quality; and GHG emissions.
- 9) Analysis of any water rights issues potentially resulting from implementation of the proposed water reclamation and reuse project (e.g., discussion of whether and to what extent the creation and use of additional recycled water would or would not cause any loss or diminution of any existing water right); and
- 10) Assessment of how and to what extent recycling additional wastewater from Hyperion will further goals established in Los Angeles' *Sustainable City pLAN*.

General Legal Requirements and Objectives Supporting the Proposed Waste & Unreasonable Use Analysis

The above elements of a proposed waste and unreasonable use analysis for Hyperion are based on the legal requirements set out in the California Water Code, as well as the objectives and requirements set out in the State Water Resources Control Board's Recycled Water Policy and water rights decisions, the City of Los Angeles' pLAN, and similar federal laws/policies:

1. Local and Statewide Recycled Water Considerations

- a. State Board water rights decision factors: The amount of water currently recycled;
- b. North Valley Regional Recycled Water Program Feasibility Study Volume I: Draft Final Report: Description of the current water reuse taking place, including a list of recycled water uses, type and amount of reuse, and a map of existing pipelines and use sites;
- c. Recycled Water Policy: Amount of recycled water that would be needed to supplement existing water supplies, including for potable uses;
- d. Recycled Water Policy: Whether recycled water will increase the amount of water conserved in urban and industrial uses by comparison to 2007 by at least 20 percent by 2020;
- e. Recycled Water Policy: Whether recycled water will promote substitution of as much recycled water for potable water as possible by 2030;
- f. pLAN: Specifically to Los Angeles, whether the amount of recycled water that can be produced over time will help achieve the City of Los Angeles goal of reducing purchase of imported water by 50% (from 2013/14 baseline) by 2025, and sourcing 50% of water locally by 2035.
- g. pLAN: Specifically to Los Angeles, amount of recycled water that can be produced over time to move toward City of Los Angeles goal of increasing to reach 59,000 AFY by FY 2024/25 by adding 19,000 AFY of planned municipal/industrial use and 30,000 AFY of indirect potable reuse (groundwater replenishment);
- h. North Valley Regional Recycled Water Program Feasibility Study Volume I: Draft Final Report: Provide an analysis of whether increasing the amount of recycled water would result in: (a) Reduction, postponement, or elimination of development of new or expanded water supplies; (b) Reduction or elimination of the use of existing diversions from natural watercourses, or withdrawals from aquifers; (c) Reduction of demand on existing water supply facilities; and (d) Reduction, postponement, or elimination of new or expanded wastewater facilities

2. Beneficial Use Considerations

- a. State Board water rights decision factors: Whether the water that would be recycled currently serves a reasonable and beneficial purpose;
- b. State Board water rights decision factors: Whether other beneficial uses could be made of the water that would be reclaimed;
- c. Water Code § 1243: Amount of water required for recreation and preservation and enhancement of fish and wildlife resources;
- d. Water Code § 1243.5: The amount of water needed to remain instream for protection of beneficial uses, including any uses specified to be protected in any relevant water quality control plan established pursuant to Division 7 (commencing with Section 13000) of this code;
- e. Recycled Water Policy: Amount of recycled water that would minimize the impacts of growing demand for new water on sensitive natural water bodies;
- f. Water Code §§ 13550 et seq.: Amount of recycled water that is available for reuse and not currently being put to beneficial use

3. Existing Water Rights Considerations

- a. Water Code §§ 13550 et seq.: Analysis of any water rights issues potentially resulting from implementation of the proposed water reclamation and reuse project;
- b. Water Code §§ 13550 et seq.: Determine that the use of recycled water does not cause any loss or diminution of any existing water right;
- c. Water Code §§ 13550 et seq.: Determine that the use of recycled water will not adversely affect downstream water rights

4. Cost/Benefit Considerations

- a. State Board water rights decision factors: The amount and reasonableness of the cost of additional water reclamation amounts;
- b. State Board water rights decision factors: The probable economic, environmental, and other benefits that would result from more efficient use of water, which may offset a portion of the costs of additional reclamation;
- c. North Valley Regional Recycled Water Program Feasibility Study Volume I: Draft Final Report: Summary of water reclamation and reuse technology currently in use, and opportunities for development of improved technologies;
- d. State Board water rights decision factors: Whether the required methods of water reclamation are conventional and reasonable rather than extraordinary;
- e. North Valley Regional Recycled Water Program Feasibility Study Volume I: Draft Final Report: Document and describe qualitatively as completely as possible benefits of increased amount of reclaimed water including availability of a drought tolerant water supply, reduced water importation, and other social or environmental benefits, and consider these benefits as part of the justification for the cost of increased water reclamation;
- f. Water Code §§ 13550 et seq.: Reasonable cost to the user depending on present and projected costs of supplying, delivering, and treating potable domestic water for these uses and the present and projected costs of supplying and delivering recycled water for these uses, and shall find that the cost of supplying the treated recycled water is comparable to, or less than, the cost of supplying potable domestic water;
- g. Water Code §§ 13550 et seq.: Impact of the cost and quality of the non-potable water on each individual user

5. Public Health and Water Quality Considerations

- a. Water Code §§ 13550 et seq.: Determine that the use of recycled water will not be detrimental to public health;
- b. Water Code §§ 13550 et seq.: Food and employee safety, and level and types of specific constituents in the recycled water affecting these uses, on a user-by-user basis;
- c. Water Code §§ 13550 et seq.: Effect of the use of recycled water in lieu of potable water on the generation of hazardous waste and on the quality of wastewater discharges subject to regional, state, or federal permits
- d. Water Code §§ 13550 et seq.: Determine that the use of recycled water will not degrade water quality, and is determined not to be injurious to plant life, fish, and wildlife

