

Local Agencies Collaborate in Response to AB 2270

By

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Abstract

This article discusses Assembly Bill 2270's focus on the effects on water quality of self-regenerating water softeners, and details a successful collaboration between two local government agencies to help solve salt-related water problems.

Introduction

Assembly Bill 2270, Recycled Water: Water Quality (amended June 12, 2008), sets new regulations for recycled water and water quality that allow a community to restrict the use of water softeners, among other things. This article discusses the regulatory background and outlines how local agencies can arrive at solutions to water quality issues that meet the needs of all parties involved. Striking a balance between the needs of property owners and the desire for a clean, sustainable environment requires cooperation and creativity. The solution reached by the local agencies described herein shows one example of such cooperation.

Regulatory Background

AB 2270 provides a tool for local agencies to manage salts by limiting the use of softeners that contribute to increased salinity levels in urban wastewater systems. The bill authorizes any local agency that maintains a community sewer system to act to control residential salinity input (e.g., from water softeners) to protect the state's water quality. The following measures have been adopted by the State Water Resources Control Board (State Water Board) or one of the Regional Water Quality Control Boards (RWQCBs).

- Actions to control residential salinity input, such as requiring plumbing permits and removing water softeners
- Policy stating that if a local agency adopts an ordinance requiring the removal of a water softener, that local agency must provide a program to compensate owners
- Requirement directing agencies to investigate potential sources of water quality problems, and to provide a standard of judicial review of the evidence that is equivalent to the standard required for the water quality impact that served as the basis for the finding

Case Study

Diablo Water District (DWD) recently approved an environmental impact report (EIR) and a project for two municipal wells that will allow flexibility and reliability for future water supplies. One impact associated with increased use of groundwater is salinity (i.e., concentration of salt). Ironhouse Sanitary District (ISD), the local sanitation district, immediately raised the concern of increased salt load to the sanitation district, potentially

occurring through the use of water softeners in proposed development and through the additional growth allowed by the increased water supply capacity.

ISD is obligated to meet the Central Valley Regional Water Quality Control Board's (CVRWQCB's) stringent National Pollution Discharge Elimination System (NPDES) permit effluent limitations for salt (electrical conductivity [EC] or total dissolved solids [TDS]) in the San Joaquin River. EC and TDS measurements provide indication of salt concentrations in a body of water.

ISD measured EC and TDS at several locations throughout its collection system. The results indicated that the portions of the collection system serving newer homes resulted in higher EC and TDS levels in the raw wastewater than areas in the older sections of the City of Oakley. ISD concluded that the higher wastewater salinity is a result of water softener use in new developments. Increased use of groundwater by DWD also increases salt load to ISD in an amount equal to the difference between the salt content of groundwater and that of DWD's regular surface water source.

The salt contribution of DWD's groundwater plays a factor in ISD's ability to meet the conditions of its NPDES permit. To address this, DWD is implementing a salinity component of its Groundwater Management Plan to affect an overall reduction in salt from their service area, equivalent to eliminating approximately 400 conventional water softeners.

Results

The result of DWD's collaboration with ISD includes adoption of several policies and plans for taking action to offset the incremental increase of salt in the municipal supply source from DWD's Well Utilization Project. Both agencies agreed to undertake the following actions in this collaborative effort.

- Except during times of water shortage, as solely determined by DWD, DWD will operate its project so as not to exceed a hardness level of 140 parts per million whenever it is blending well water with surface water.
- DWD and ISD will jointly develop a public information brochure to be distributed to their respective ratepayers explaining the presence of salt in potable water and the adverse impacts of salt on water quality and the overall environment. The brochure will explain the salinity problems posed by residential and commercial use of self-regenerating water softeners. The two agencies will share the cost of brochure development and distribution.
- DWD will partner with ISD in a water softener rebate/exchange program within the overlapping ISD and DWD service areas. DWD and ISD also will work together to promote the adoption of legislation and, as permitted by law, will adopt ordinances requiring the removal, with compensation, of existing residential and commercial self-regenerating water softening appliances that discharge into the ISD wastewater system.
- DWD will, on a case-by-case basis, as solely determined by DWD, participate (financially and otherwise) with ISD in pursuing grant opportunities to address salinity issues within the overlapping ISD and DWD service areas.

- As permitted by law, DWD and ISD will adopt ordinances prohibiting the installation of new residential and commercial self-regenerating water softening appliances that discharge into the ISD wastewater system and will investigate opportunities to develop and implement new softener technologies that can help improve water quality.

DWD and ISD plan to implement the above actions to create a comprehensive community outreach and education program with the objective of reducing salinity sources associated with indoor residential water use. Through the above actions, both agencies will quantify and track offsets to demonstrate program effectiveness, and will seek to reduce brine discharges from existing and future softener installations that are equivalent to the incremental salt discharge from the well project.

DWD also plans to assist ISD in working with the State Water Board through the Central Valley Salinity Alternatives for Long-Term Sustainability (CV SALT) workshop process to gain recognition that the EC of the ISD discharge during dry and drought periods will be lower than ISD's San Joaquin River Jersey Point EC, resulting in a net positive effect on the environment. DWD will lobby in support of final EC limits that reflect this condition.

Conclusion

The successful collaboration between DWD and ISD resulted in a coherent plan to reduce salinity input to the San Joaquin River. It is clear that both agencies are committed to reducing salinity loading to the environment due to their operations.

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