

Salinity Management and Regulatory Issues

Karl Longley, ScD, PE, Professor Emeritus
California State University, Fresno
559 278-8658 - karll@csufresno.edu

Patrick Pulupa, Attorney III, Office of Chief Counsel
State Water Resources Control Board

The broad topic of salinity management is discussed in the context of risk management including not only regulatory issues associated with desalination of seawater but also a discussion on the broader set of regulatory issues associated with salinity management are also discussed.

Litigation involving saline waters is not new, but an extended drought combined with the increasing demands of growing populations for water supplies and the conversion of vast swaths of annual cropland to permanent crops (which cannot be fallowed in times of scarcity) has generated a new generation of legal disputes over salinity impacts and landowners' rights to high-quality groundwater. Issues addressed as part of litigation involving saline waters are not new but variations of issues typically litigated allegations pertaining to environmental issues such as adverse habitat impact and site location, allegations pertaining to nonperformance issues relating to contractual obligations, and allegations pertaining to damages whether it be to health or property. Generally, litigation can be avoided if effective management practices are in place that competently address health, environmental and economic impacts as part of the planning process before implementation of policy, practices or procedures.

If conflict does arise and both parties to the dispute are amendable, a better approach to resolve the dispute is alternative dispute resolutions tools such as mediation or arbitration.

Agencies responsible for the construction and operation of seawater desalination plants in the United States typically must contend with a range of litigious issues including contract performance, site location, and environmentally related issues such as site location and habitat disruption. Two seawater desalination plants, the Claude "Bud" Lewis Carlsbad Desalination Plant in San Diego County and Tampa Bay Water seawater desalination plant experienced these challenges before and during the construction phases of their facilities. Similar forms of litigation for seawater desalination, similar litigation can be expected for inland desalination and for the development and execution of salt and nutrient management plans.

Many salinity and nutrient management strategies, including source control and the use of appropriate technologies, are typically considered for the management of waters having excessive concentrations of salinity and nutrients in inland areas and this management is best provided through the development of salinity and nutrient management plans that provide long term management strategies for all surface and ground waters within a particular hydrological region. While well-developed salinity and nutrient management plans protect water quality for the designated beneficial uses, they also provide a good risk management tool for lessening the risk of litigation. Where

litigation is imminent, if possible the settlement of the dispute by arbitration or mediation should be considered as a preferable course of action.

California's Central Valley Regional Water Quality Control Board (CVWB) undertook the development of a comprehensive salinity and nutrient management plan (SNMP) commencing in 2006 through an extensive stakeholder effort carried out by the organization, Central Valley Salinity Alternatives for Long Term Sustainability (CV SALTS). Over ten years later after this extensive stakeholder effort the SNMP during the latter part of 2017 will be released as part of draft basin plan amendments.