



New Water Quality Regulations Provide Options for Flexibility Publicly Operated Treatment Works

Protecting Water Quality is Critical

Ensuring a safe, reliable drinking water supply is now the highest priority when managing nitrates and salts throughout the Central Valley. Existing and on-going nitrate and salt accumulations are impacting drinking water supplies, making them unsafe in some locations. The quality of all wastewater discharge, whether municipal, agricultural or industrial is critical in protecting public health and environmental quality.

The CV-SALTS initiative and its January 2017 *Salt & Nitrate Management Plan* (SNMP) is a crucial component for all Central Valley dischargers whether municipal, agricultural, or industrial. The SNMP includes recommended policy changes for regulating salts and nitrates. Once these changes are incorporated into the Central Valley Water Board's (Water Board) Basin Plans, they will allow improvements in the way Publicly Owned Treatment Works (POTWs), also known as wastewater treatment plants, and others are regulated.

Regulation: How it Works Now

Publicly Owned Treatment Works (POTWs) provide wastewater treatment services for municipalities. Municipal wastewater contains sewage that is treated before being discharged. POTWs must protect public health and protect the beneficial uses of the receiving waters at the end of the line where the treated effluent is discharged into a lake, river, stream, or groundwater aquifer. The treated wastewater discharge must meet permit requirements based on the receiving water's beneficial uses.

Municipal wastewater discharge from POTWs is highly regulated by the Water Board and the United States Environmental Protection Agency (USEPA). POTWs are often faced with implementing expensive, sometimes unnecessary, treatments that result in limited benefit to the quality of the environment or to public health.

Salts and nitrates are both found in municipal wastewater, they are difficult and expensive to remove from municipal wastewater discharges making the work undertaken by CV-SALTS even more important for POTWs. Today, nitrate levels in drinking water are a

chief concern. Municipal discharges primarily contain nitrogen in one of two forms – nitrate and ammonia. And, the transformation of nitrogen from ammonia to nitrate is also a concern. The currently available regulatory options are constrained and often not locally applicable.

New Regulations Provide More Flexible Solutions to Comply

The importance of protecting surface and groundwater quality, whether for aquatic life, safe drinking water, or municipal or agricultural supply, has become a significant public policy issue. Because not all areas of the Central Valley are impacted similarly, a "tool box" of actions is needed – and the SNMP provides just that.

The regulatory policy changes and new options recommended in the SNMP, once amended into the Water Board's Basin Plans, will offer greater local flexibility for compliance by all regulated dischargers, including POTWs, agricultural and industrial interests, while also ensuring safe drinking water.

Due to the high nitrate concentrations in specific areas, the new nitrate regulations will first be implemented in areas identified in the SNMP as high-priority in the Kaweah, Turlock, Chowchilla, Tule, Modesto, and Kings sub-basins and basins. Salinity regulations are anticipated to be implemented as permits are renewed.

Conceptual Relationship of Water Use Areas to a Management Zone



Key Benefits of New Regulatory Options

All areas of the Central Valley and beyond will ultimately benefit from the implementation of new



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SNMP recommended policies. Here are a few of the benefits that POTWs will experience once the SNMP recommended policies are amended into the Water Board's Basin Plans in 2018.

- Under the new SNMP nitrate regulatory options, all dischargers, can continue to comply individually or they can join a local area management zone. And, both short- and long-term solutions will be available for implementation.
- In a local management zone, POTWs will work together with other dischargers to locally implement solutions to better meet water quality standards, provide safe drinking water, and share the costs of compliance.
- POTWs will be able to use public funds more effectively for more cost-effective and workable local solutions that ultimately result in improved public health benefits.
- POTWs will no longer be regulated by what is coming out of the "end of the pipe", but rather as part of a local area or local watershed.

Long-Term Solutions for Salts

The next step in identifying long-term solutions for salinity management will be to perform a *Prioritization and Optimization Study* that defines potential regional and sub-regional projects (e.g., de-salters or a regulated brine line) and practices (e.g., new treatment controls or development of new water supplies).

CV-SALTS and SGMA Collaboration

The 2014 Sustainable Groundwater Management Act (SGMA) provides a framework for **water quantity**, through sustainable, local groundwater management. Going forward, there will be coordination between SGMA-based water quantity strategies and CV-SALT SNMP-based water quality management.

Get Involved, Shape the Future

To meet the water quality challenges of the future, **all dischargers** must be proactive in protecting water quality within the new SNMP regulatory framework. The future economic sustainability of the Central

Valley is dependent on this. Your participation now is important to be certain that the needed flexibility and localization of future regulations governing discharges of salt and nitrate to surface and groundwater are accomplished for the entire Central Valley.

Those who work in any aspect of the POTWs community are encouraged to participate and get involved today! Visit www.cvsalinity.org to learn more about getting involved.