

A "Hands-On" Strategy

A shift in focus for regulations dealing with treated wastewater is coming at a critical time in the growth of many cities, counties, and wastewater agencies. The regulations are shifting from the traditional "technology-based" permitting approach, to a "water quality-based" approach to effluent limitations.

The water quality-based approach recognizes that, in spite of billions of dollars spent on wastewater treatment facilities since the advent of the federal Clean Water Act, there still exists major water quality problems with our nation's waterways. The failure to successfully address water issues is a result of a single-minded focus on point sources, while neglecting nonpoint sources of pollution. Nevertheless, the new focus on water quality-based objectives will result in new mass emission limits for wastewater discharges, possibly resulting in flow and growth limitations for many wastewater agencies.

Carollo understands that it is necessary to have a "hands-on" strategy to assure favorable permit conditions. A "hands-on" strategy involves working closely with the appropriate regulatory agencies and stakeholders to renew, revise, or obtain favorable conditions for their National Pollutant Discharge Elimination System (NPDES) permit, as well as all other supporting permits and requirements. This understanding has resulted in the successful negotiation of new and renewed NPDES permits and the resolution of complex permitting issues for a number of our clients.

A "Hands-On" Permitting Approach

Carollo's permitting approach recognizes that there are key decision makers with the EPA, State Water Resources Control Board and Regional Boards, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and other regulatory agencies, that must be relied upon to make critical permitting decisions.



Carollo is assisting the Snyderville Basin Sewer Improvement District in Park City, Utah with the development of TMDLs and NPDES permit renewal.

Our staff has successfully developed relationships with these key decision makers at all levels. Based on our success with wastewater agencies throughout the U.S., we are prepared to successfully negotiate the resolution of key regulatory issues which impact the permitting process.

Preemptive Approach

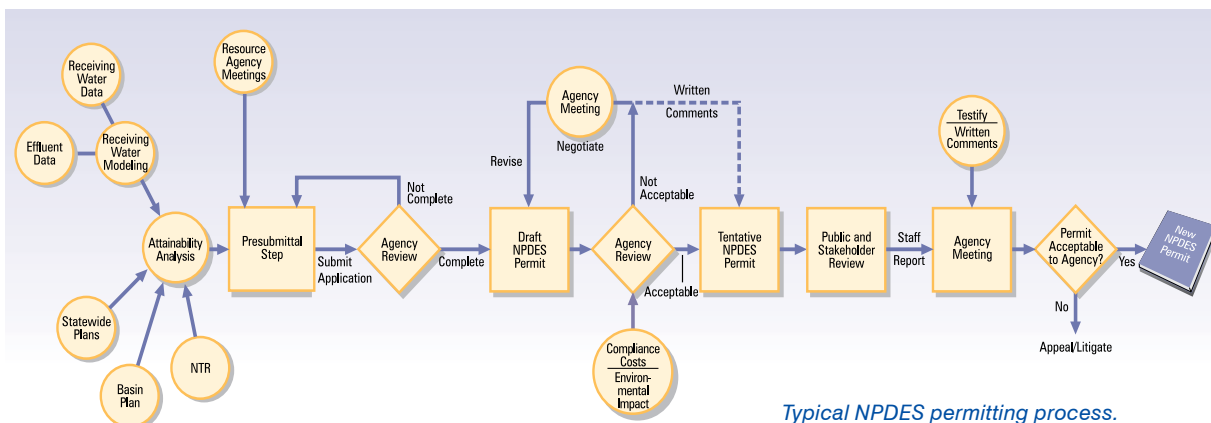
Negotiating NPDES permits involves understanding the "good science" linkages between existing and anticipated requirements and the beneficial uses they are designed to protect, as well as regulatory staff expectations, before the permitting process actually begins. This preemptive approach helps to assure that clients are knowledgeable of their rights and responsibilities, resulting in cost-effective permit conditions.

We work with the client to identify all regulatory requirements, identify all applicable permit agencies and staff contacts, develop a permitting process schedule, and identify major milestones leading up to securing the final permits.

Issues of Concern

Carollo identifies and develops a sound understanding of significant key issues that must be

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Typical NPDES permitting process.



Carollo's 2020 Master Plan for the Sacramento Regional County Sanitation District includes complex permitting issues.

addressed. It is critical that outstanding permit issues be resolved early in the process before they can result in significant delays in obtaining a permit. Key issues may include:

Nutrient Limitations. EPA's new initiative to establish national nutrient criteria is being developed which mandates adoption of numeric nutrient criteria in state water quality standards by 2003.

Metals/Trace Organics. With the implementation of the National Toxics Rule, wastewater discharges must meet new water quality objectives for toxic metals and trace organics for all surface waters. This will impact most treatment plants and their discharges. An analysis must be completed to identify whether a facility's treated effluent exceeds these objectives.

Ammonia Toxicity. Carollo is intimately familiar with the challenge of meeting the new EPA Test Method for compliance with the acute toxicity provisions of NPDES permits. With a change in the testing and laboratory protocol, a number of agencies have been impacted with the issue of ammonia reduction.

Anti-Degradation. Prevention of significant deterioration, along with federal and state anti-degradation analyses, will be required for existing agencies requesting a revised permit for increases in capacity and for new discharges. These analyses require assessing the potential impact upon the existing water quality characteristics of a receiving water due to effluent discharge. If the discharge of treated effluent to the receiving water results in a substantial change from background concentrations of key constituents of concern, there must be an "overriding determination of public need" and/or mitigation in order to secure a new permit.

Total Maximum Daily Loadings. The EPA is now moving towards a watershed approach to establish water quality-based effluent limits (WQBELs) and is implementing the total maximum daily loading (TMDL) program. Through this approach, waste load allocations (WLAs) are being assigned to NPDES permit discharges, limiting the mass loading of pollutants that can be discharged. This approach can potentially limit the flows that a plant can discharge.

Carollo has worked successfully with a number of agencies to obtain new NPDES permits and resolve these key issues of concern. Recent or on-going experience includes:

- ▼ **Sacramento Regional County Sanitation District, California.** Key issues of concern included salmon/steelhead impacts, thermal plan compliance, available dilution, and attainability with toxics requirements.
- ▼ **Cities of Reno/Sparks and Washoe County, Nevada.** Key issues of concern included TMDL refinement, nutrients/dissolved oxygen, available dilution, and endangered species listings (Lahontan cutthroat trout and cui-ui fish).
- ▼ **City of Benicia, California.** Key issues included monitoring requirements for toxics, wet weather flow treatment, and attainability of toxics requirements.
- ▼ **City of Fresno, California.** Key issues included potential groundwater impacts and increased permitted discharge.
- ▼ **Park City (Snyderville Basin Sewer Improvement District), Utah.** Key issues include NPDES permit renewal, development of a TMDLs and a WLA for phosphorous, pollutant trading, and fisheries habitat impairment.
- ▼ **City of Roseville, California.** Key issues included new discharge, conversion of an ephemeral stream, endangered species impacts, anti-degradation analysis, metals/trace organics, and temperature.
- ▼ **City of Winston, Oregon.** Key issues included the development of a TMDL for phosphorus on the South Umpqua River and the resultant load allocation to Winston's wastewater treatment plant. The process resulted in a ten-fold increase in allowable phosphorus discharge while still protecting water quality.
- ▼ **City of Ashland, Oregon.** Key issues included permit negotiations to meet an in-stream phosphorus concentration limit and in-stream dissolved oxygen (DO) limits. As a result of Carollo's efforts, Ashland was allowed to discharge at a 30/30 limit as opposed to a 10/10 limit.