

**GWT Process Optimization Engineering Services
Water & Wastewater Treatment
(Municipal/Commercial/Industrial)**



Many years of experience involved in the designing, engineering and integration of water & wastewater treatment systems provide a foundational platform for the Genesis Water Technologies process optimization consulting engineering services serving our municipal utility and commercial/industrial clients.

What is Genesis Water Technologies Process Optimization Engineering Services for Water & Wastewater?

This innovative engineering consulting service is designed around our commercial/industrial & municipal utility clients to assist them in optimizing the treatment of their current water or wastewater treatment systems to reduce costs and meet continually stringent regulatory requirements.

In wastewater treatment applications, we optimize and explore options for integrating wastewater reuse into our clients existing process to reduce continued reliance on fresh water sources, meet sustainability goals and reduce costs where the economic benefits are attractive to do so.

This process optimization consulting engineering service will help you answer the following questions:

- What is my current purification/treatment and solids disposal costs?
- How can I optimize my treatment process to be more sustainable?
- How can I reduce my treatment plants energy and chemicals costs?
- How can risks associated with my system process be minimized and protection of health be optimized?
- Will optimizing my treatment plant operations enhance treated water quality or enable greater treatment capacity?
- What would the cost look like for integrating these system optimization recommendations?

When should a company or utility engage Genesis Water Technologies for process optimization engineering services?

- Commercial/Industrial Companies and Municipal Utilities should engage us for process optimization engineering, in two scenarios.
- Their treatment systems are working fine, however, they want to reduce operating costs, increase treated water output, or enhance treated water quality.
- Whenever the clients suspects a possible problem, either because their energy costs have increased due to source water quality differences, or their treated water is not meeting applicable regulatory standards.



What are the steps involved in the Genesis Water Technologies Process Optimization Engineering Service?

There are 5 steps to this process.

- 1) Introductory Evaluation/Call
 - Characterization of Water Sources (Water Analysis) & Current Plant Configuration Documents
 - Discussion of Scope of the System Optimization
 - Proposal Provided for Process Optimization Engineering Service
- 2) Start of Optimization Consulting Engineering Service
 - Review/Analysis of Current Plant Performance Data (Input/Output Water Quality, Operation Costs)
 - Analysis/Evaluation of Plant Process Drawings
 - Overview of the existing plant process itself via tour, (viewing intake, and existing treatment process in place currently)
 - History/Background of plant, sustainability/reliability, plant operations, source water, permit discharge limits
- 3) Final Assessment of Plant Optimization
 - Complete Assessment of Existing Plant Operations
 - Evaluation of Cost Savings, Performance/Treated Water Quality Enhancements
 - Risk Analysis
- 4) Bench Test/Lab Testing (As applicable)
- 5) Summary Report of Optimization Recommendations/Suggestions
 - Evaluation/Meeting to discuss treatment plant assessment
 - Recommendation of options for system optimization
 - Evaluation of capital costs and financing options

Goals of the Genesis Water Technologies Process Optimization Engineering Consulting Service:

- Reducing operating costs
- Safety concerns
- Rectify system performance not meeting standards
- Optimizing system output
- Meeting sustainability goals

Client Benefits:

- Identification of Improvements to Minimize System Failures
- Meeting Stricter Regulations
- Increasing the plant output
- Reducing Operational Cost