



Turning Liabilities into Leverage

EnvironmentalLeverage.com

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Environmental Leverage® Inc. Turning Liabilities Into Leverage!

Today major companies are focused on the bottom line - Sustainable development, gaining profitable market share and increasing your customer's loyalty are key issues that management must continually track and improve. Production costs, maintenance costs, **environmental liability** and operational safety are key areas where improvements and optimization help deliver these goals. Adding value to your operations and hitting on these areas is our goal at **Environmental Leverage Inc.** Bringing you the latest technology to save you time and money are critical to the success of your operation.

Key Benefits:

- Total Cost of Operation Reductions**
- System Reliability and Sustainability**
- Environmental Compliance**
- Increase Competitive Edge**
- Improve Operational Safety**

At **Environmental Leverage Inc.**, we offer a number of wastewater products along with highly specialized services to complement your existing programs. Trained professionals will bring the latest technology and innovations to your site to help you develop sound business solutions to improve your bottom line.

For more information see detailed descriptions below of each service.

Services:	Typical amount of time required						
Environmental Consulting	TBD based upon need						
Troubleshooting	1-2 days						
Wastewater Operator or Lab Personnel Training Onsite	TBD based upon need						
Wastewater Audits	1-2 days onsite- 1-2 days write-up offsite						
Total System Audits	1-2 weeks (team required)						
Beneficial Reuse	TBD based upon need						
Advanced Technical Training	TBD based upon need						
Benchmark development	1-2 days						
Onsite Operations Manual Development	One to two weeks						
Mass Balance Program	One to two weeks						
Operator Safety Training	1-2 days						
Energy conservation	TBD based upon need						
Lab: Wastewater Biomass Analyses	One to two hours						
Lab: Wastewater Biomass Analyses with Filamentous Identification	Two hours						
Total Cost of Operation Optimization	TBD based upon need						

Smooth operation of a waste treatment plant is critical. Environmental compliance is a must. Operational costs are skyrocketing with new environmental regulations. A complete audit of your plant can help identify opportunity areas for improvement. Troubleshooting minor problems and implementing process changes can help avoid major problems. Call us or email us at **admin@EnvironmentalLeverage.com** to help with your wastewater needs.



Wastewater audits

At Environmental Leverage, we have a team of experienced individuals who come into your plant with a fresh pair of eyes. The system is checked from influent to effluent. System optimization, equipment efficiency and operational excellence are key components explored.

Key Benefits

Equipment Efficiency

Total Cost of Operation reductions

Reliability and Safety

Final Effluent Compliance

Solids Handling Optimization

Nitrification/Denitrification Optimization

BOD.TSS Removal Enhancement

Capabilities

An audit is conducted to examine system parameters, process controls, and current monitor and control procedures. A physical walk-through is conducted, process flow diagrams are examined, previous design criteria are examined and current standard operating procedures are evaluated along with data logs.

Many times aerators can be moved or optimized to increase energy efficiency. Clarifiers are not working optimally, Depth of bed, weir levels, surface overflow rates or RAS rates can be optimized. Sludge wasting or dewatering can be improved. The biological health of the system is not always at maximum levels. Monitor and control techniques are explored. Chemical and electrical components of the operational budget are explored and recommendations for optimization can be made.



Environmental Consulting

How do you increase your bottom line? Cut costs, increase production, decrease waste, and reduce liabilities. There are a number of ways to do this in your treatment system. . .

To reach us on Environmental Consulting contact Tracy Finnegan at Environmental Leverage® Inc. Phone: 630-906-9791, Fax 630-906-9792 or email... admin@EnvironmentalLeverage.com

Capabilities

At Environmental Leverage, we have access to a team of individuals with a variety of skills that can help your specific plant meet the expectations and demands of today and tomorrow.

Capability 1 - Plant operations and troubleshooting

Capability 2 - Environmental Wastewater System Evaluation - Onsite Training

Capability 3 - Environmental Regulations Education and Awareness

Capability 4 - Beneficial Reuse

Capability 5 - Turnkey solutions

Capability 6 – MOP - Creation of new or updating of old standard operating procedures. Many plants already have a manual of standard operating procedures for their lab.

Many times additional testing or simplification of procedures can help streamline duties and increase efficiency while also increasing the effectiveness of the operations.





Environmental Wastewater System Evaluation Training Program

This course is designed to establish Best Practices for your Wastewater System and help your engineers and operators institute Industry benchmarks and standards in order to optimize your system to run as efficiently as possible and develop operational excellence. Control and minimization of Total costs of operations is always necessary, but guaranteed reliability and long term sustainability are the keys to transport your system above and beyond normally targeted measures. This training program is based upon years of experience and accumulation of practices on actual performance of thousands of systems. This program has been consistently successful in teaching people how to be proactive and achieve their goals of reducing Total Costs of Operation while also achieving compliance.

Since many facilities are cutting budgets, reducing research and development and downsizing manpower, many times the waste treatment plant is the first to suffer. This program will help you bring the level of expertise necessary back quickly.

You will learn step by step procedures which will enable you or your operators to develop quick, easy to establish system checks to control and monitor your system in order to predict upsets, minimize energy and chemical usage, and avoid costly repairs and unnecessary maintenance procedures.

Some of the tools used to monitor and control a system include optimization of simple procedures such as sludge judges and the use of settleometers or centrifuge spins to control depth of bed, age of sludge and optimization of RAS and WAS. Microscopic inspections of biological sludge are a must in order to be proactive to avoid upsets and successfully control the biomass. Some of the quick and simple procedures that are taught may take only ten minutes a day and yet are powerful enough to save thousands of dollars a year in unnecessary costs.

Advanced Technical Training



Does your plant use a microscope as a daily monitoring tool? Is a settleometer used to control sludge wasting or control of depth of bed in the clarifier? These are some of the tools that can easily improve the reliability and efficiency of your biological waste treatment plant.

The greatest equipment and the most efficient, dedicated workers are useless if they are not properly trained. At Environmental Leverage, we have years of experience in many process areas and technical expertise on equipment, systems and operations. Programs to optimize your system or custom training can be tailored to increase the reliability and efficiency of your plant.



Key Benefits

- Increased reliability and efficiency
- Reduced operating & maintenance costs
- Equipment design & operations
- Environmental compliance
- Total System Capabilities
- Troubleshooting & optimization
- Safety
- Operations & Maintenance

Microbiology

What are bacteria, how do they work in my biological treatment system, using the microscope as a monitoring and control tool, filamentous identification.

Sludge dewatering and optimization.

What are the best cake solids, what is the best speed for the belt press, is the polymer added in the right place or at the right dosage?

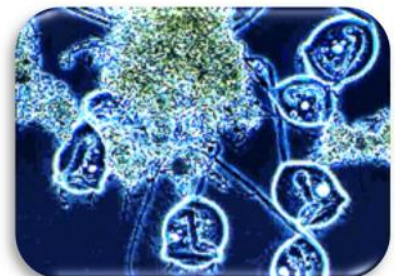
Environmental Regulations.

What are the current regulations that can impact my plant?
How do I avoid capital costs, what can I do to be proactive?

Customer Seminars

Please contact us to tailor a custom training program that can be set up onsite or at specific locations. Training in wastewater operations, microscope troubleshooting and wastewater lab personnel.

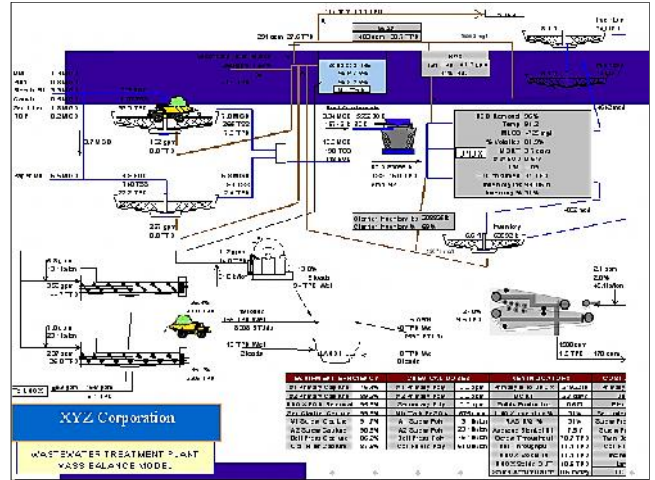
Phone: 630-906-9791 or Fax 630-906-9792 / Email - elfenvironmental@aol.com





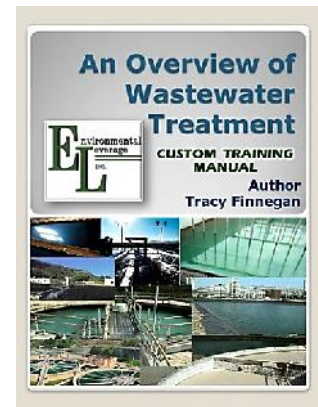
Additional Services Available: Total Systems Capabilities

- **Mass Balance Program** – Developed for the total system and individual process steps. Provides a snapshot of the system to determine how it is operating compared to design. Can be used as a predictive model to play “what if”. Change the inputs to determine the outputs. There are individual excel spreadsheets for clarifiers, aeration basins, sludge thickening devices, sludge dewatering devices, and sludge incineration with ROI determinations. Can also incorporate operators log and troubleshooting guide.
- Assist in creation of an **Operations and Maintenance Manual** for the Wastewater treatment system. This manual should contain the following topics, should be a “living” document to be constantly updated by the operators, and should be kept in the operations office at the wastewater treatment facility;



Note: This manual will be written as a working, *operationally functional document* for field reference promoting procedural consistency and effluent quality compliance

- **Experimental Design** – A scientific method of systematically optimizing a particular piece of process equipment by changing one operating parameter at a time, allow the system to equilibrate, take samples and determine the outcome. Used to determine the operating parameters for a given set of input conditions so as to obtain the optimum performance from that piece of equipment. Used primarily to optimize sludge dewatering devices for maximum cake dryness, solids capture and sludge production.
- **Operator Training** – A customized training seminar can be provided depending upon the level of participant wastewater knowledge and expertise. Given by a certified instructor for CEU's.
- **System Audit** – An equipment as well as process operations review of the total wastewater system by a team of Environmental Services Professional Consultants to assess the system performance and determine its capabilities compared to industry norms. A good opportunity to uncover potential sales opportunities.
- **Waste Biological Analysis (WBA)** – An in-depth report that examines microscopically the biomass of a waste treatment system in order to obtain a better understanding of the health and diversity of that system at that time. This Lab report contains photomicrographs of the indicator organisms observed in the biomass in addition to corrective action recommendations.



• **Complete Line of Wastewater Microbiology Training CD's** – At Environmental Leverage, we have years of experience in many process areas and technical expertise on equipment, systems and operations. Programs to optimize your treatment system or custom training can be tailored to increase the reliability and efficiency of your plant. We have developed numerous training materials in order to help our customers with their process controls. Many of our newsletters and technical Q&A's are developed to help solve current environmental or customer issues. These training CD's are packed full of photographs, videos and custom written training.

***Services are contracted typically as daily consulting fees plus expenses. Phone 630-906-9791 or Fax 630-906-9792**

Products for Bioaugmentation and Bacterial formulations for water, wastewater treatment, lift stations and grease traps.
See our Website below for additional listing of Products available and Training Materials.

You can always email us at... admin@EnvironmentalLeverage.com



At Environmental Leverage, our goal is to bring the latest technology to you in order to make your biological systems plant more efficient and successful. Teaching our customers to look for the right choice of treatment starts with knowing the basics. Doing research is necessary, but you have to know what to look for. Developing a sound, successful program is very important.

System Optimization

BOD Removal Optimization
 TSS reduction
 Solids Handling, Polymers
 Beneficial Reuse
 Biosolids Optimization
 Bioaugmentation Products in water soluble pouch,
 solid slow release and liquid form.
 Odor Control

Professional Guidance

Onsite wastewater system audits, training, consulting, wastewater biomass lab analyses, microscopic & filamentous identification, product program development are just a few ways we can provide service to your company.

Environmental Liability

Permit violations can get costly & can require forced shutdowns. We can help with Optimizing your treatment system & Achieving Total Compliance while still developing a sound economic program is our goal.

Defining Your Goal

Whether your goal is BOD removal, TSS reduction, Solids Handling, Environmental Compliance, Beneficial Reuse or Total Cost Optimization, we can help you set and achieve your goal.

**Look to Environmental Leverage® in the future for these services.
 “Let Us Simplify Your Solution”**

- Onsite Training
- Consulting
- Audits of WWTP
- Lab Services
- Training Materials
- Bioaugmentation Products
- Contract Labor
- Beneficial Reuse
- Remediation: Soil, Lagoons, rivers, etc.

