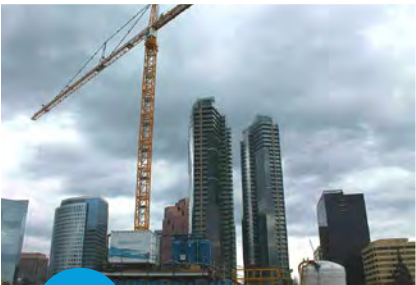


CONSTRUCTION SITE WATER MANAGEMENT

PERMITTING • DESIGN • EQUIPMENT • INSTALLATION • FIELD SERVICE



What is your **WATER** STRATEGY?



Commercial



Residential



Infrastructure



Remediation

WATERTECTONICS BY THE NUMBERS

300+
COMPLETED PROJECTS

17
YEARS IN
BUSINESS

85+
PIECES OF EQUIPMENT
MANUFACTURED

0.6
EMR

PROJECTS
COMPLETED IN **7** STATES

\$35M+
TOTAL CONSTRUCTION
REVENUE

\$1.6M
LARGEST CONSTRUCTION
CONTRACT

OVER 100 MILLION
GALLONS OF WATER TREATED ANNUALLY



WHAT IS YOUR WATER STRATEGY?

Whether your project is a simple building addition, downtown tower, residential plat or highway project, site water management is key to a project's success. Before a shovel breaks ground, knowing how your team will collect, treat and dispose of site water is critical to staying on schedule. WaterTectonics' team of experts can evaluate your project's unique characteristics and develop options that meet project and regulatory expectations.

PRE-CONSTRUCTION SERVICES

- Complimentary Project Review & Alternatives Analysis
- NPDES & Local Discharge Permitting
- Stormwater Pollution Prevention Plans (SWPPP)
- Site-specific Pre-construction Submittals
- Treatability Testing & Process Validation

FIELD SUPPORT SERVICES

- Equipment Mobilization/ Demobilization
- Maintenance & Technical Support
- System Operators
- Operator Training & Certification
- CESCL Monitoring & Sampling
- DMR Reporting

TECHNOLOGIES

- Wavelonics Electrocoagulation (EC)
- AcistBox Chitosan-Enhanced Sand Filtration (CESF)
- UltraFiltration (UF)
- PhatBox Automated pH Adjustment
- Passive & Mechanical Filtration

520 BRIDGE REPLACEMENT – WEST APPROACH

Client: Flatiron Owner: WSDOT

Location: Seattle, WA

Receiving Water: Lake Washington

Scope: Treat stormwater & groundwater flows to meet discharge specifications in CSWGP

Solution: 400gpm Wavelonics EC system

Results: Processed and discharged over 5M gallons meeting all WADOE requirements



PIER 4 – PHASE 1 REMOVAL ACTION

Client: Orion Marine Group Owner: Port of Tacoma

Location: Tacoma, WA

Receiving Water: Commencement Bay

Scope: Treat stormwater & dredge return water to meet state and federal water quality standards

Solution: 400gpm Wavelonics EC System

Results: Processed and discharged over 11M gallons meeting all WADOE/EPA requirements



TROUTDALE REYNOLDS INDUSTRIAL PARK – BROWNFIELD REDEVELOPMENT

Client: Goodfellow Bros. Owner: Port of Portland

Location: Troutdale, OR

Receiving Water: Columbia River

Scope: Treat stormwater & groundwater flows to meet discharge specs in 1200-C

Solution: 1,000gpm AcistBox CESF system

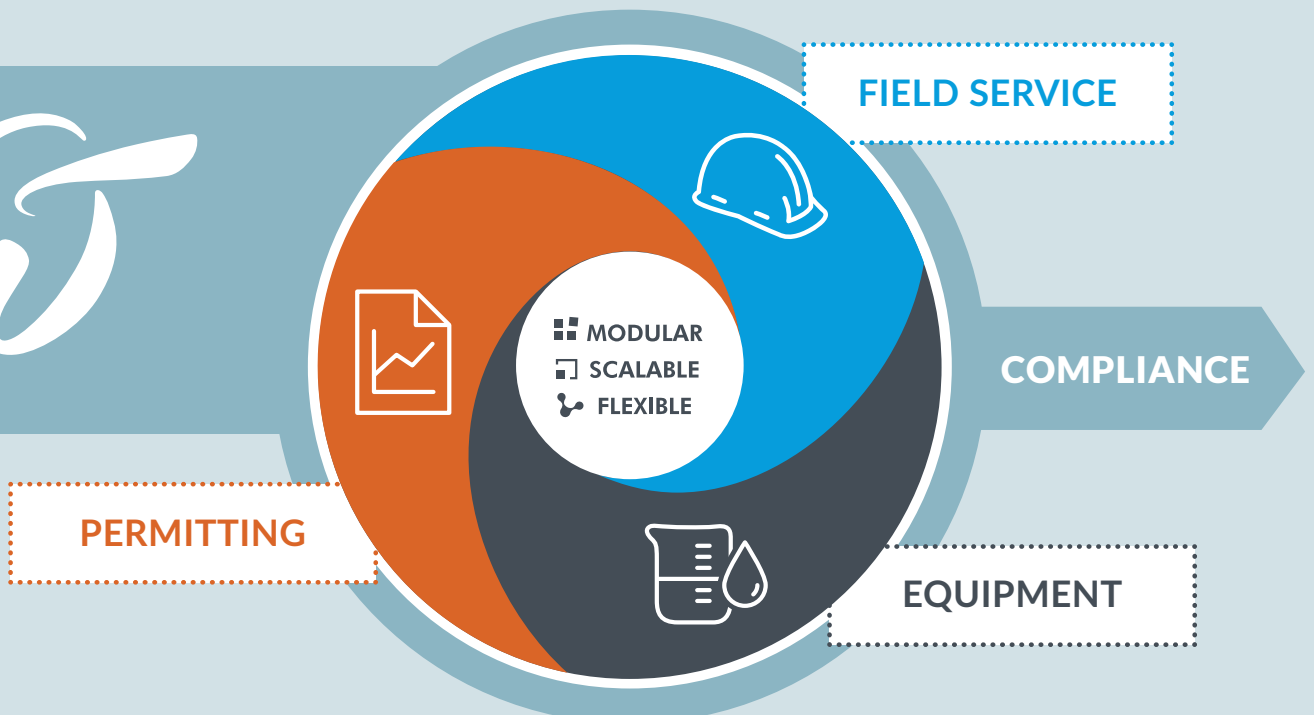
Results: Processed and discharged over 60M gallons meeting all EPA requirements



WaterTectonics was a crucial partner and team member throughout an incredibly challenging and high profile project in South Lake Union. We could not have succeeded without their assistance and experience. They helped us to overcome a myriad of unexpected challenges and obstacles.”

– Ryan Lundberg, Senior Project Engineer, GLY Construction

THE WATERTECTONICS PLATFORM



TREATMENT METHODS BY CONTAMINANT OF CONCERN

Method	Suspended Solids (Low Turbidity)	Suspended Solids (High Turbidity)	Total Metals (attached to soil particle)	Dissolved Metals (free ions)	Organics (TPH, PCBs, PAH, TBT)	Pretreatment for Granular Activated Carbon (GAC)
Detention Tank	Possibly ¹	Possibly ¹	Possibly ¹	✗	✗	✗
Bag Filter	✓	Possibly ¹	Possibly ²	✗	✗	Possibly ¹
Sand Filter	Possibly ¹	Possibly ¹	Possibly ²	✗	Possibly ²	Possibly ¹
Chitosan Enhanced Sand Filtration (CESF)	✓	✓	✓	✗	Possibly ²	✓
Specialized Polymer & Sand Filtration	✓	✓	✓	✓	Possibly ²	✓
Electrocoagulation (EC)	✓	✓	✓	✓	Likely ^{2,3}	✓
Granular Activated Carbon (GAC) ⁴	N/A	N/A	N/A	✗	✓	N/A
Ion Exchange Resin ⁴	N/A	N/A	N/A	✓ ⁵	✗	N/A

¹ If contaminant particle size is large enough to be captured

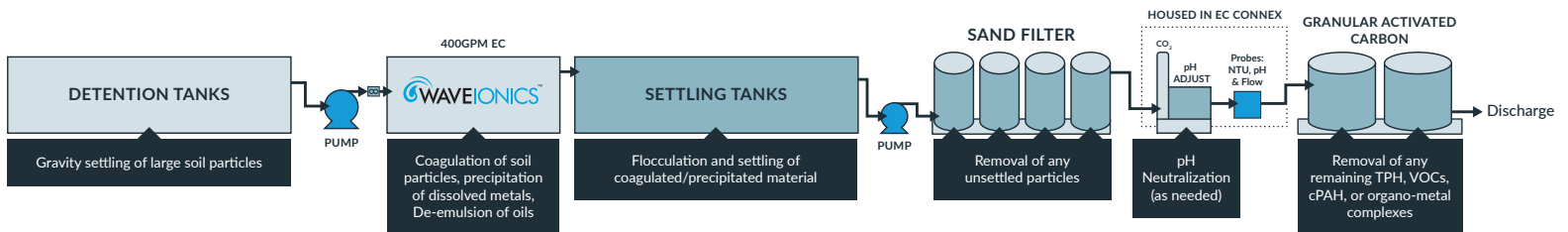
² If contaminants are attached to soil particles removal can be achieved

³ If organics are attached to soil particles removal can be achieved. EC does destroy/precipitate some hydrophilic organic compounds, the full range of compounds is still under research

⁴ Pretreatment required to remove turbidity and prevent blinding

⁵ Not recommended for salt water application as salts will compete with metal ions and reduce performance

CONCEPTUAL TREATMENT PFD



Example of active water treatment at various stages. Left is untreated, center is partial treatment and right is fully treated and filtered. WaterTectonics has performed years of lab and aquatic testing to ensure the safety of our products.

OUR SOLUTIONS

From simple to sophisticated, WaterTectonics can deliver an equipment package to meet your specific needs. We provide standard detention tanks to full, active treatment systems that remove multiple levels of contaminants. Our chitosan enhanced sand filtration (CESF) and electrocoagulation (EC) systems are manufactured in-house at our Everett, Washington facility to meet the Washington Department of Ecology General Use Level Designation (GULD) specifications. Our staff is authorized by Ecology to provide Certified CESF Operator Training to your staff or can provide operators upon request. Should you need to supplement your current water quality approach or have a turn-key solution crafted, WaterTectonics is here to help.

OPTIMAL TREATMENT BY PARTICLE SIZE

For most construction projects, soil particle size will dictate the level of treatment needed. Also, most contaminants have an affinity for soil particles binding to them, so removing the soil particles reduces the contaminant loading. Sites with soils in the mid-silt range and smaller will likely need active treatment, particularly if detention is not available.

	Soil Type	Particle Diameter (microns)	Time Required to Settle 3ft	TREATMENT OPTIONS			
●	Gravel	10,000	0.016 sec	Active Treatment, CESF/EC	Pressurized SF, Bag Filters	Passive Filtration	Silt Fence, Ponds, Vault, Bioswales
●	Coarse Sand	2000	0.4 sec				
		1000	1.7 sec				
		600	4.6 sec				
		300	19.0 sec				
		200	42.0 sec				
●	Fine Sand	150	1.25 min				
		100	2.8 min				
		60	7.8 min				
•	Silt	25	2.2 hrs				
		15	6.2 hrs				
		10	14.0 hrs				
		5	56.0 hrs				
		3	155.3 hrs				
•	Clay	1.5	26.0 days				
		1	58.0 days				
		0.1	16 yrs				
.	Colloidal Particles	0.01	1600 yrs				

(not to scale)

“The staff at WaterTectonics has been instrumental in creating, implementing and treating the water on site, allowing us to discharge it. But almost more importantly, they have been incredibly successful and helpful with the entire Department of Ecology permitting process from start to finish, along with creating and managing the backup data required for that process.”

– Andrew Spelman, Field Manager, Sellen Construction

DEVELOP YOUR STRATEGY TODAY

WaterTectonics provides complimentary site reviews to determine what requirements your project may encounter. From permitting and design to equipment rentals and 24/7 field service, WaterTectonics is here to help make your next project a success.

866-402-2298

watertectonics.com



I would definitely like to work with WaterTectonics again. They were professional, prompt and experts in their field."

- Casey Shaw, Senior Project Engineer, Orion Marine Group

- PERMITTING
- DESIGN
- EQUIPMENT
- INSTALLATION
- FIELD SERVICE



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 **WATERTECTONICS**