

# WATER TREATMENT PLANT LEAD

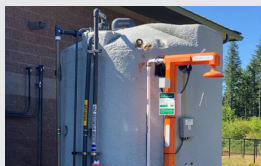
Ali  
Leeds, PE



## + Project Experience References



**Clackamas River WTP Master Plan**  
Clackamas River Water  
16770 SE 82nd Drive, Clackamas, OR 97015  
Adam Bjornstedt, PE, Chief Engineer  
503-722-9246 // abjornstedt@crwater.com



**Corrosion Control Facility**  
City of Camas, WA  
616 NE 4th Avenue, Camas, Washington, 98607  
Sam Adams, PE, Utilities Manager  
360-817-7003 // sadams@cityofcamas.us

>> Detailed project experience write-ups continued on next page

### EXPERIENCE

+ 14 years

### REGISTRATION/LICENSES

+ Professional Engineer: OR (#95031PE)

### EDUCATION

+ MS Civil and Environmental Engineering, University of California, Berkeley, 2007  
+ BS Physics, Georgetown University, 2002

# Why We Chose Ali as Water Treatment Plant Lead

**Value Delivered**  
as **Water Treatment Plant Lead**

Ali has a strong attention to detail and significant process design experience. She understands cascading implications of decisions in complex systems.

### Relationship with the Team

- Shared work history with all of the key team members as well as the majority of the team members from our organization chart.

### Similar Project Experience

- Ali has been involved in predesign, design, construction, and startup across a number of treatment plant processes, with a specific focus on pretreatment and chemical system design.

### Responsibilities

- Provide key information about process and cascading impacts to facilitate City decisions about treatment technology and design.
- Deliver a functional, operable WTP.
- Support the transition of operations staff.

### Career Highlights

- Within the past four years, Ali has lead facility planning efforts for four, 30 mgd water treatment plants in the Pacific Northwest. This experience provides key information for technology selection.

### Extraordinary Outcomes

- Working with operations staff on water treatment plants from 2 to 150 mgd, she knows which details matter to balance stakeholder needs on a baseline of safe and effective operation.

## + Project Experience

### Secondary Supply Water Treatment Plant Preliminary Design

*Eugene Water and Electric Board, OR*

**Process Lead** // Preliminary design of a new WTP on the Willamette River for the Eugene Water and Electric Board, Oregon. The preliminary design of this WTP provided provisions for an initial treatment capacity of 10 mgd with the space allocated to expand to 20 mgd in the future. Provide a robust treatment scheme that provided both high quality drinking water as well as specific barriers for emerging contaminants of concern, the new WTP facility included flocculation and sedimentation with plates, intermediate ozone, and deep bed GAC filters. The WTP, when constructed, will provide a resilient secondary source of supply and treatment for the City of Eugene.

### Lake Oswego Water Treatment Plant

*Tigard Water Partnership, Lake Oswego, OR*

**Staff Engineer** // Lead for demolition and temporary construction requirements for the Lake Oswego WTP. Coordinated with all design disciplines to identify their requirements at each phase and to determine how to meet these requirements while maintaining the operability of the existing WTP. Assisted in the development of drawings and specification to communicate these requirements to bidders. Provided input to contractor information requests and alternative sequencing scenarios.

### Geren Island Water Treatment Plant

*City of Salem, OR*

**Staff Engineer** // As part of emergency response efforts, evaluated pump station hydraulics to assess potential for groundwater well connection to the filter piping. Designed temporary acetic acid feed system to provide a carbon source for biological activity. Confirmed includes process Pump Station improvements to increase overall roughing filter firm capacity, intermediate ozonation facilities to remove algal toxins from the surface water source, and integration of new and enhancements to existing operations control systems and equipment.

### Lebanon Water Treatment Plant

*City of Lebanon, OR*

**Design Engineer** // Confirmed chemical system design criteria developed during the preliminary design. Designed chemical systems, including chemical storage tanks, metering pumps, and a soda ash system.

### CRW Water Treatment Plant Master Plan

*Clackamas River Water, OR*

**Project Manager** // Assisted Clackamas River Water (CRW) to determine the future of the CRW WTP, examining risks and hazards, the condition of the existing facility, and confirming CRW's overall goals for treatment capacity and water quality. Options for improvement were developed through several collaborative workshops. Alternatives included evaluation of multiple treatment technologies to increase capacity and improve water quality. These were paired with implementation / construction sequence alternatives that prioritized the improvements based on select governing drivers.

### Water Treatment Plant Improvements

*City of Grants Pass, OR*

**Project Engineer** // This project included development of a predesign report to improve performance and reliability of the treatment plant. Developed sections of a predesign report for mechanical improvements to achieve better performance of the flash mix system, automated re-moved of solids from the existing settling basins and retrofit of flocculation to the existing settling basins.

### Water Distribution and Treatment Facility Master Plans

*City of Corvallis, OR*

**Process Engineer** // The project included a combination of master plans—a distribution system master plan and a master plan for each of the City's two water treatment Plants (Rock Creek and Taylor). Develop a plan for coordination of their two treatment plants and performed seismic analysis to assess improvements needed to existing WTP infrastructure.



“Through the projects I have managed or served as a design engineer, I've learned that one of the most important factors that contributes to the success of a project is listening to the client's needs and ideas and responding promptly.”

- Ali Leeds, PE  
Water Treatment Plant Lead

## + Project Experience

### **Corrosion Control Facility at the San Water Filtration Plant**

*City of Camas, WA*

**Assistant Project Manager** // The plan includes an evaluation of the optimal pH and alkalinity for compliance with the Lead and Copper Rule (LCR) mandated by the State of Washington Department of Health (DOH). In addition, the Carollo team is also providing guidance on equipment selection.

### **Butterfield WTP Facility Plan**

*City of Pasco, WA*

**Project Manager** // This update to the Butterfield WTP Facility Plan provides guidance for improving the facility over the next 20 years, by developing a capital improvement program based on review and evaluation of historical plant performance and regulatory requirements.

### **Judy Reservoir Water Treatment Plant Facility Plan**

*Skagit County PUD No. 1, WA*

**Project Manager** // Assisted the District in evaluating risks to the WTP, identified hydraulic and process capacity bottlenecks, and completed a comprehensive mechanical, structural, and electrical facility assessment. Worked with the District to develop alternatives to address WTP risks and limitations and formulate a capital improvements projects list that prioritized the District's needs with their goals and cash flow requirements.

### **Fargo Water Treatment Plant Ozone Improvements**

*City of Fargo, ND*

**Project Manager** // Supported the design of near-term improvements to address safety concerns with existing contactors. Developing alternatives to address long terms goals for expansion.

### **Green River Filtration Facility Water Treatment Plant Optimization 2017**

*City of Tacoma, WA*

**Project Manager** // Provided support for optimizing pretreatment process and reducing manganese cycling within the WTP. Also provided support for ongoing filter surveillance efforts.

### **Aquifer Storage and Recovery Treatment Facility Conceptual Design Report**

*City of Salem, OR*

**Project Manager** // Project included evaluation of water quality for recovered water in ASR wells to assess alternatives for pH adjustment to meet Lead and Copper Rule compliance criteria, addressing the formation of disinfection by-products in injected water, and providing a centralized facility for chlorination of recovered water.

### **Draper Water Treatment Plant**

*City of Oklahoma City, OK*

**Project Engineer** // Author of the predesign report providing analysis of disinfection and finished water storage to provide sufficient disinfection time to achieve CT while minimizing formation of disinfection byproducts.

### **Arcadia Water Treatment Plant Improvements**

*City of Edmond, OK*

**Process Lead** // Project included design of mostly new facilities on the same site as the existing treatment plant for construction while plant remained under operation. Updated and confirmed design criteria, including sizing and layout for plant construction and development of process flow and plant control scheme Performed detailed design of ozone generation and contact facilities, chemical facilities, solids dewatering facilities and modifications to existing clearwells.

### **Overholser Water Treatment Plant Improvements**

*City of Oklahoma City, OK*

**Design Engineer** // Under this project, retrofits and improvements were made to increase the reliability and operability of this 28 mgd conventional filtration plant, originally built in 1906. Designed retrofits to remove cross connections in existing filter piping while still providing for filter to waste and the ability to completely drain the filters, replacements for existing aging clarifier mechanisms, and lagoon decant structure layout.



Carollo provided excellent service for our corrosion control and chemical systems project, from the predesign study and design through construction management.

Ali, Austin, and their team were great to work with, providing the guidance and expertise necessary to execute the project quickly and efficiently.”

- Sam Adams,  
Public Works Director  
City of Camas