



Salt Lake City
Department of Public Utilities
1530 South West Temple
Salt Lake City, UT 84115

Water Reclamation Facility
Construction Update
October 2024

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WATER RECLAMATION FACILITY

CONSTRUCTION ACTIVITIES



Dewatering Bulding

Precast concrete panels have been installed on the exterior of the **Dewatering Building**. The panels which now enclose the facility resemble the very grasses and plant life supported by the water being treated inside. Work to complete the electrical, mechanical, and process piping has started. The **Dewatering Building** will be the tallest structure on the site and serves a critical role in the treatment process. The equipment housed inside this facility removes water from the biosolids allowing them to be trucked off-site and applied to farmland as a soil amendment.



Headworks

Construction is progressing on the **Headworks** facility. The **Headworks** is where the raw sewage enters the plant and begins the treatment process. Within the **Headworks** are large, motorized screening equipment which remove rags from the sewage before flowing into the grit removal equipment. The flow leaving the grit removal process is evenly split to flow into the Primary Clarifiers



Blower Building and Gravity Thickeners

The treatment process requires the movement of a large amount of air to facilitate the growth of different bacteria to consume the organics, remove nitrogen, and uptake phosphorus from the wastewater flow. Blowers housed within the **Blower Building** provide the air for the treatment process. Construction of the two **Gravity Thickeners** is complete. The **Gravity Thickeners** are used to thicken the sludge collected in the Primary Clarifiers before it is sent to the Anaerobic Digesters for processing into biosolids

OUR GUIDING PRINCIPLES

TREAT WASTEWATER COST & BUDGET SUSTAINABILITY SAFETY PUBLIC ENGAGEMENT & EDUCATION

We are building the New Water Reclamation Facility to meet new water quality regulations, improve efficiency, resiliency, and reliability, and to avoid potential risks associated with the existing facility being near the end of its service life.

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Salt Lake City Department of Public Utilities

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MEET JESSE STEWART

Salt Lake City Department of Public Utilities' Deputy Director

Jesse Stewart is a geologist/hydrogeologist, but the Deputy Director of Salt Lake City Department of Public Utilities (SLCDPU) is hardly just a hydrogeologist.

With years of experience under his belt as a technical lead, project manager, and program manager, the licensed Professional Geologist finds himself leaning on the foundational principles he learned and developed early in his career. Whether he's providing technical advice, conducting employee relations, reviewing contracts, or doing one of the many other activities which fall within his professional portfolio, Jesse Stewart's integrity, accountability, and humility shine through.

Stewart joined SLCDPU in September 2013 as the Department's Water Quality Administrator. After being promoted to Deputy Director in 2016, his scope of responsibility expanded from a focus on water quality to include broad oversight for each of the Department's utilities: drinking water, wastewater, stormwater, and street lighting.

If the name 'Jesse Stewart' is familiar to you, you're not alone. In an April 2023 article, *The Salt Lake Tribune* highlighted Stewart's role in managing spring runoff. The season started with a splash when Stewart was the first Salt Lake City employee to observe and respond to the rising waters of Emigration Creek just outside his home. Even after flooding at Emigration Creek was under control, Stewart continued managing and overseeing efforts to respond to and mitigate the effects of spring runoff. The dynamic and evolving nature of that situation echoes the dynamic and evolving nature of public utility topics in which Stewart is involved as the Department's Deputy Director.

"No two days are alike," Stewart said of his day-to-day experience in the office. "I appreciate the challenge presented by working on a wide variety of issues." The color and intensity of Salt Lake City's street lights, the need to protect Salt Lake City's watersheds, or

facilitating the procurement and selection of the design firm and construction manager / general contractor (CM/GC) for the City's New Water Reclamation Facility (WRF) are just a few of the subjects that have crossed Stewart's desk.

Public Utilities is one of Salt Lake City's largest departments when it comes to numbers of employees. Only Salt Lake City Police Department and Salt Lake City Department of Airports have more full-time employee positions. Salt Lakers can rest assured that the City's drinking water, sewer, stormwater, and street lighting interests are in the hands of some of the most knowledgeable people in the region. "Salt Lake City is fortunate to have so many dedicated subject matter experts throughout the Department," Stewart observed of the SLCDPU team. In a department of nearly 500 employees, teamwork is key. Ensuring Department-wide cooperation is a priority for SLCDPU's leaders, Director Laura Briefer and Deputy Directors Jason Brown and Jesse Stewart.



SLCDPU Deputy Director Jesse Stewart (right) takes a moment to talk with Theresa Anderson, a Customer Service representative. September 2024

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CONSTRUCTION ACTIVITIES

Continued from front



Influent Pump Station (IPS)

The new **Influent Pump Station (IPS)**, located about ¾ of a mile south of the Water Reclamation Facility (WRF), develops every day. The depth of the **IPS** must match the elevation of the existing gravity sewers coming into the site. This requires excavation of approximately 50' ft. below the existing ground surface. High-capacity pumps housed within the **IPS** will convey the incoming raw sewage through twin 48-inch diameter pipelines to the new Headworks facility at the WRF.

Construction of the twin 48-inch diameter **force mains** is complete. The **force mains** were installed from the IPS site west and then north across the Rose Park Golf Course and are now connected into the Headworks facility. The areas of Rose Park Golf Course impacted by the **force main** construction have been restored to the same or better condition than what was there prior to construction.

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"Advocating for and supporting our employees is one responsibility I take very seriously."

The WRF and its employees fall under Stewart's purview as Deputy Director. He works closely with Jamey West, the Department's Water Reclamation Administrator, to ensure that the WRF staff is prepared for success when it comes to continued operation of the existing WRF and when it's time to transition to the new facility. The New WRF is one of Salt Lake City's largest public infrastructure projects, second only to rebuilding Salt Lake City International Airport. To say the New WRF is a complex construction project is an understatement, so collaboration and planning are essential.

In the current stage of the New WRF construction project, the team is focused on plans to transition operations from the existing facility to the new one. Salt Lake City has only one wastewater treatment plant, so a smooth transition is imperative. The Department has dedicated time and resources to helping employees learn how their roles and responsibilities will change when the new plant opens in 2027. "Providing our team opportunities to review and learn their new tasks is a top concern for us," Stewart noted. "Before the new

plant opens in 2027, we want all of our WRF staff to be confident in knowing how to do their jobs at the new facility and how to do them well."

Stewart is no stranger to leading people through difficult or unfamiliar terrain. He spent 11 years as a Senior Instructor for the National Outdoor Leadership School (NOLS) where he led students on numerous backcountry expeditions throughout the Western United States, Canada, and East Africa. Even now, 25 years after he stopped guiding, Stewart models the traits he expects from everyone on the team: sound judgment, taking personal responsibility, and being aware of group/program/project needs. "I do many different kinds of things when I'm working, but advocating for and supporting our employees throughout the Department is one responsibility I take very seriously," Stewart remarked. "I rely upon many of the same principles today, such as communication, initiative, and leadership, as those I sought to instill in my NOLS students."