



**LIFT Scholarship Exchange Experience for Innovation & Technology (SEE IT)
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TRIP REPORT

SCHOLARSHIP UTILITY: [City of Houston, Houston, Texas](#)

SCHOLARSHIP UTILITY CONTACT: [Aisha Niang, Assistant Director, aisha.niang@houstontx.gov](#)

ATTENDEES: [Aisha Niang, Shannon Dunne, Stefanie Leija](#)

TRIP DATES: [June 13, 2019](#)

UTILITIES/SITES VISITED: [Seattle Public Utilities](#)

TECHNOLOGIES/INNOVATIONS SEEN: [Tunneling project](#)

TRIP BACKGROUND and RATIONALE:

We elected to visit Seattle Public Utilities' combined sewer tunneling project. This is significant for Houston Water because we are in the process of attempting to address plant consolidation flow as well as storm flow infiltration and storage. Wastewater Operations currently has 39 treatment plants and 384 lift stations throughout Houston that we will be consolidated, and we are convinced tunneling is the best option. It will help eliminate SSOs in neighborhoods by lowering capacity issues and stabilizing rising costs via control of O&M and capital.

The trip to Seattle allowed us an opportunity to acquire knowledge about the tunneling process from the beginning stages, detect difficulties encountered, discover lessons learned, and ascertain how Seattle Utilities would have done things differently in hindsight. Prior to the excursion, we envisioned gaining valuable advice, knowledge, and learned experiences from Seattle's tunneling expedition. We were not disappointed. Their tunneling experience really opened our eyes to the many aspects an undertaking of this magnitude will take – from public relations to organization to logistics. Additionally, Seattle Public Utilities also shared invaluable resources and vital tips on how to engage with the community for a large-scale project like tunneling.

TRIP SUMMARY:

Seattle Public Utilities' tunneling project was selected because they are near the end of the planning phase and are approaching breaking ground. As such, the timing was advantageous and provided us with significant information as we move forward with our own project. Based on the tour, there are many aspects of Seattle's approach that we will be implementing throughout the various stages of Wastewater Operation's tunneling project. Although a decision was made to implement a tunneling project in the City of Houston prior to this trip, Seattle's project approach, staffing, program organization and management, as well as their learning experiences were paramount. Their guidance regarding the process only enlightened and solidified our decision to begin our tunneling expedition as soon as possible.

In sum, Seattle Public Utilities really went above and beyond to host the City of Houston's visit. It was obvious that impeccable thought had been given to the type of information we would perceive as valuable and necessary. Highlights of the tour included the various subject matter



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experts that shared their expertise and guidance, community engagement considerations for the project, accommodations made by the staff, and realization of the commonalities between our utilities. Knowledge obtained regarding how we should handle communications was also a highlight of the trip. Seattle's approach to tunneling is one that Houston Water should model. The unforeseen hurdles they have faced served to provide us with a broader perspective of the significant impacts of a tunneling project and will assist with our future planning and execution.