CITY OF NORTH SALT LAKE, UTAH

How this City is
Boosting Productivity and Employee Contributions

Employee Turnover is low, productivity is high, and smiles are easy to find at the Public Works Department of this northern Utah city.

Bordering Salt Lake City to the north, the City of North Salt Lake sports more than just a practical, geographically friendly name. North Salt Lake (NSL) is home to a Public Works Department where employees find themselves on baseball-style trading cards that showcase job-related "career statistics", achievements, and a quick note about their hobbies or pets. Additionally, employees at NSL regularly receive data-driven awards (and rewards) for performance excellence, leading to measurable increases in performance and boosted employee morale – some of this driven by metrics obtained through an innovative asset and infrastructure management platform.

A Motivated Workforce
A motivated and healthy workforce have found a home in the City of North Salt Lake's Public Works Department thanks in part an asset and infrastructure management journey that began nearly 15 years ago. While early on the asset management software was met with a healthy dose of skepticism, today the same technology is embraced and serves as a peer-influenced tool for broad-based productivity.

At NSL, the Public Works Department, consisting of Water, Storm Water, Parks, Streets, and Fleet, is responsible for maintaining roads, providing safe drinking water, irrigation water, protecting rivers from contamination, removing garbage and other waste, maintaining the vehicles and equipment used by the city.

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Jon Rueckert, Public Works Director, City of North Salt Lake

Driving Transformation
As NSL embarked on its journey in 2008 to optimize the management of asset inventories, maintenance operations, workflows, community engagement and customer service, the city recognized the need to provide critical support for its most important resources – human capital – from the bottom-up. The City also understood and embraced the importance of fostering a culture of sharing both successes and instructive failures, valuing one's contribution, accountability through self-governance, and the relevance of each person's work to helping achieve organizational outcomes.

"Making the invisible visible can be challenging sometimes. Using data we collect in Elements XS and sharing it with our Employees and Council Members has been powerful and motivating." Says Jon Rueckert, Public Works Director.

Using an iceberg as an analogy, this Public Works Department uses the 'Public Works Iceberg', as a department metaphor to visualize the departments list of observable and sometimes invisible responsibilities. This thinking helped formed the basis to better identify specific needs that could be

met by the application of the right technologies. Elements XS by Novotx, an Esri® ArcGIS-centric solutions platform deployed widely by municipal and public works organizations across the country, emerged as the technology of choice that checked the boxes of several of these needs.

Key among them included:

- Easy Access to Information
- Mobile Compatibility
- Access to Esri® ArcGIS Maps
- Customizable Task Forms

The process of socializing and acquainting the adoption of the Elements XS Asset Management System to the department staff began by facilitating a series of collaborative discovery sessions, storyboarding and open meetings, with particular focus on managing feedback gathered from stakeholders representing all areas of operation. This approach helped build transparency, trust and ownership amongst everybody, and contributed significantly to a successful deployment of the system in 2008. The open, highly flexible nature of the Elements XS GIS-centric platform also made it easier to engage in this exercise.

Overcoming Challenges

Initial skepticism about workflow efficiencies, time and cost savings, and technology benefits started to disappear as users began to experience increased levels of productivity and an elevated level of trust in the program as managers leveraged data to show their contributions and began to recognize and reward efforts. Over time the data collected using Elements XS has helped to foster a culture of openness, fun and belonging. Peer Recognition Awards, Team Games, and Community Engagement Events have led to higher levels of motivation and camaraderie among crews and administrative staff.

By providing the ability to monitor and understand activities that are meaningful to the tasks being performed, managing the feedback loop has become an important part of responding to

change, which in turn has helped to optimize operational measures.

Tangible Savings

The resulting outcomes were substantial – the city has achieved an average cost savings of over 40 percent from key capital projects. Some of these savings include:

- ✔ **49% savings** compared to contractor bids for the same job when crews laid approximately 600' of 24" RCP pipe to enclose a hard to maintain open drainage ditch.
- ✔ **42% savings** comparted to engineer estimates when the Water Construction Crew replaced 550' of 6" aging cast iron water line with new 8" PVC and upgraded 18 service connections.
- ✔ **45% savings** compared to actual contractor bids on a recent 4" cast iron line replacement project.
- ✔ **36% savings** compared to engineer estimates for when the Water Construction Crew replaced 700' aging 6" cast iron line with new 8" PVC and upgraded 22 service connections.

Employee improvement, driven by employee empowerment, has expectedly made a positive impact on organization-wide needs and priorities such as below –

- Contributions and Accountability (Validating Hard Work)
- Raising the Bar (Higher Service Levels)
- Revealing and Addressing Issues Responsively (Timeliness)
- Support from Administration and Elected Officials (Scaling Staffing Levels via data-supported metrics justifying additional Positions)

Measurable performance increases at NSL have been demonstrated over the years using Elements XS. Damage claims from potholes have drastically reduced because crews geolocate and record each pothole that is filled showing time stamped data of continual maintenance efforts.

Looking Forward
Moving forward the City plans to make Elements XS a powerful tool for all employees by continually training them on how to use the program and listening to their suggestions on how to better collect data.

"Documenting information accurately and in a way that can be easily found may not make our jobs easier today, but it will pay dividends in the future, we have already seen this with our organization."

Jon Rueckert, Public Works Director, City of North Salt Lake

Currently the City is beginning to expand the use of Elements XS's built-in inventory tools to better manage materials used on work tasks to show the associated costs more accurately. "We are starting to see time savings for our employees by tracking the most used items to ensure we have them in stock, so they don't need to be ordered as often and items are available when needed." says Rueckert.

"Elements [XS] has been and will continue to be a key tool in our system to collect information. Moving forward our process of data collection will become more refined thus making it easier for us to spotlight and show our work to the Elected Officials and help everyone make better decisions." Rueckert says regarding the future of the City with Elements XS.

About North Salt Lake
With a population estimated at 24,180 (January 2022), the city spans an area of 8.52 miles and is situated in the metropolitan Salt Lake City area in northern Utah. Year 2021 marked the 75th anniversary of the City of North Salt Lake. North Salt Lake has been using Elements XS for over 15 years.

About Elements XS
Elements XS is an industry-leading asset management and civic engagement platform used by local governments and utilities around the United States and internationally. Learn more at elementsxs.com.