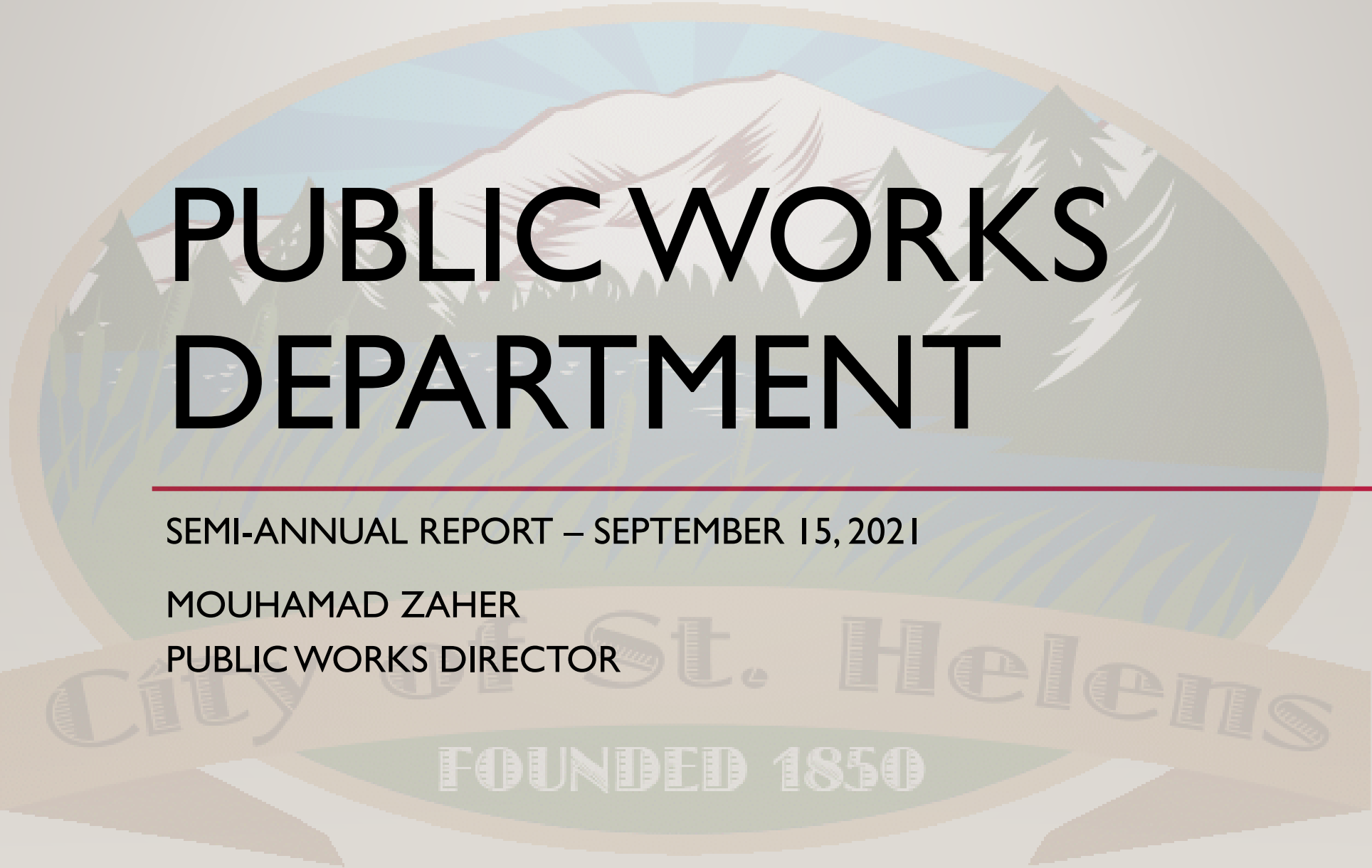




PUBLIC WORKS DEPARTMENT

SEMI-ANNUAL REPORT – SEPTEMBER 15, 2021

MOUHAMAD ZAHER

PUBLIC WORKS DIRECTOR

PUBLIC WORKS MISSION STATEMENT



The City of St. Helens Public Works Department Strives To Provide A World Class Service To Our Citizens & Community.

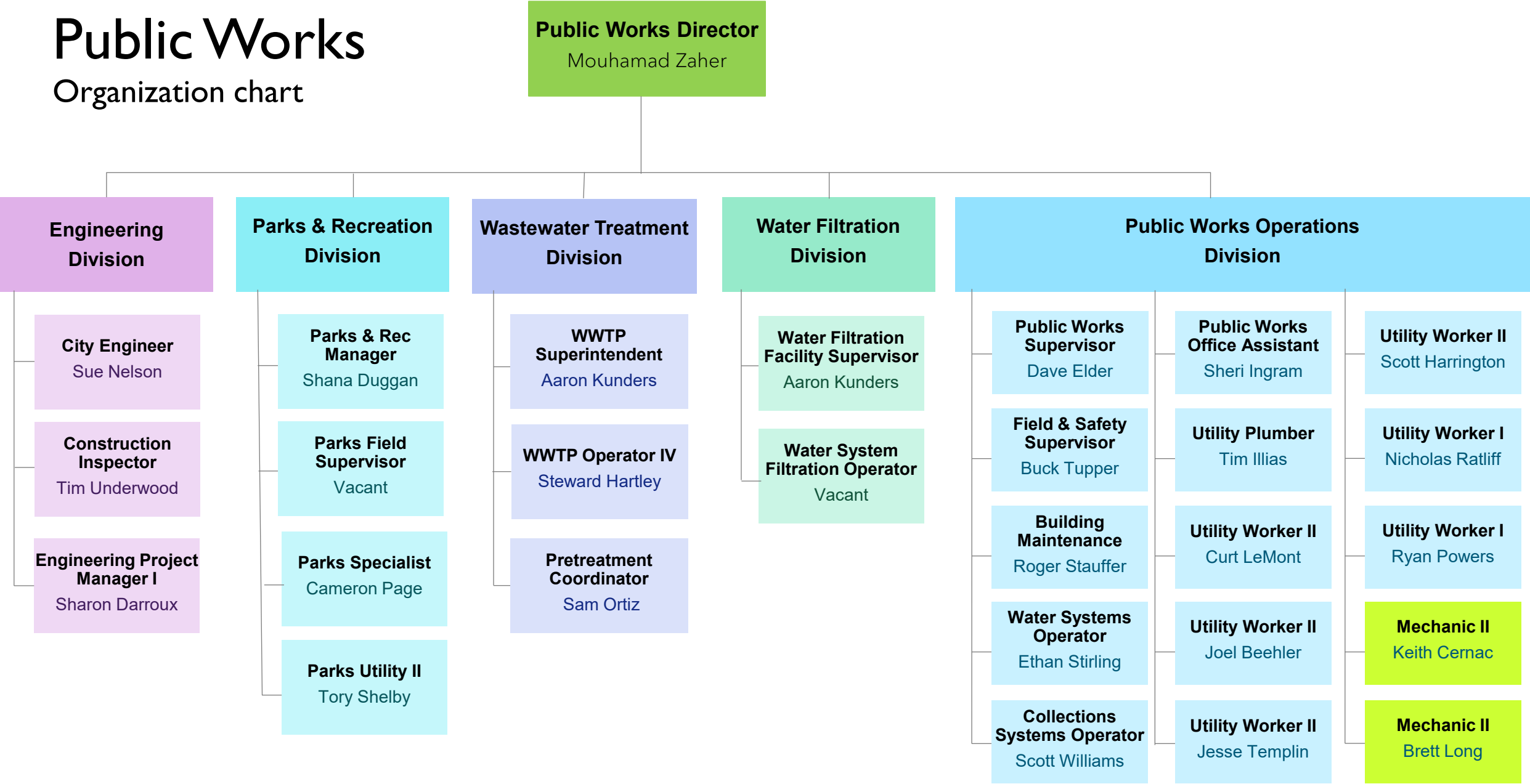


Action Oriented Team That Provides Essential Public Services Promptly, Efficiently & Effectively.



Public Works

Organization chart



PUBLIC WORKS OPERATIONS DIVISION



Public Works Department

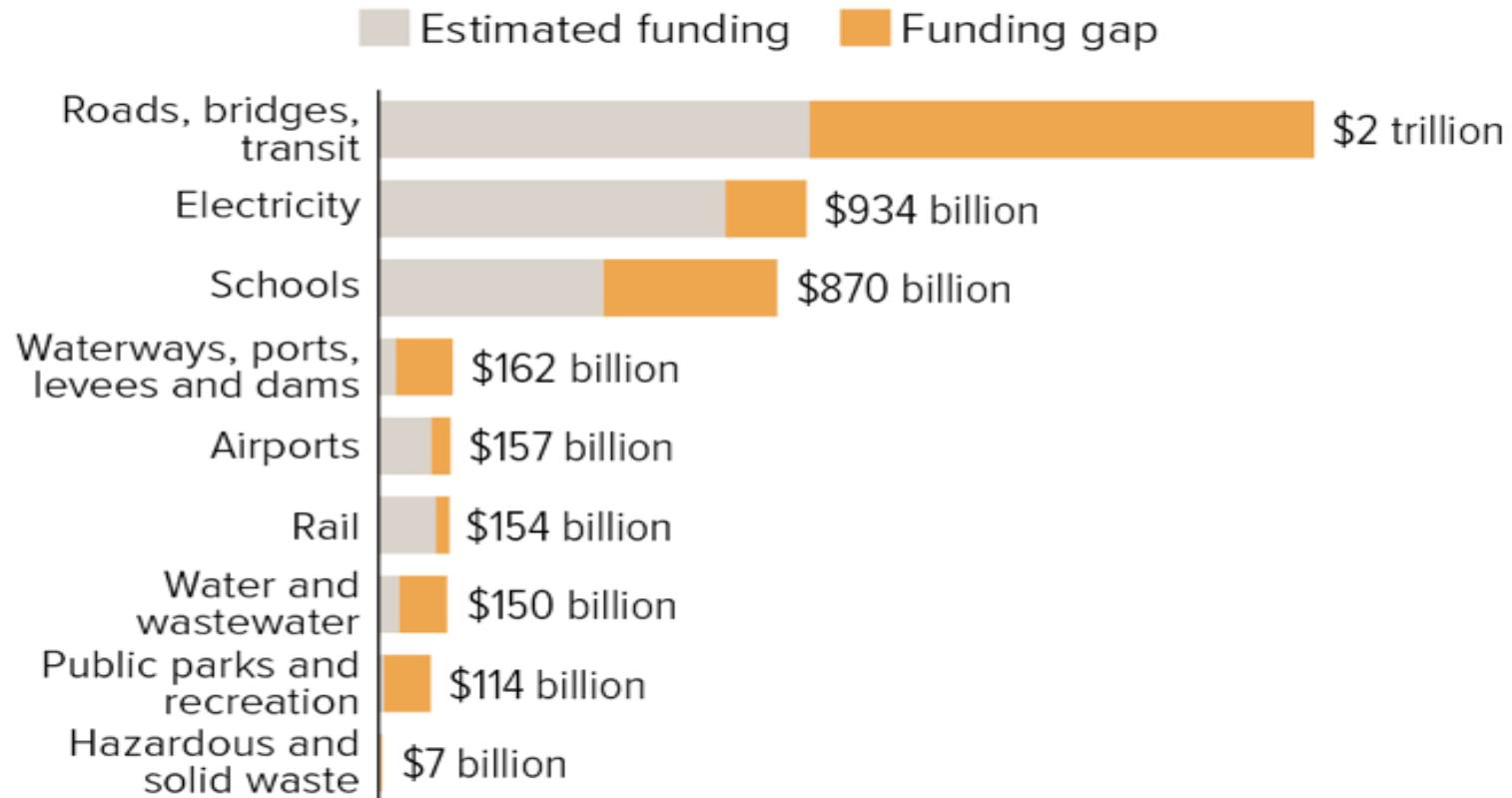
An infographic of a ship sinking. The ship's hull is red and features a city skyline silhouette. The water is a dark blue-grey, and the ship is tilted downwards. The text 'PUBLIC WORKS?' is written in large white letters on the red hull. Below the waterline, the text 'The Cost of Our Aging Infrastructure' is written in white. The ship's internal structure, including pipes and supports, is visible in red and blue.

PUBLIC WORKS?

The Cost of Our
Aging Infrastructure

Public Infrastructure Has Been Neglected

Infrastructure needs, funded and unfunded, 2016-2025



PUBLIC WORKS: BY THE NUMBERS

Estimated 98 miles
of roadway to
maintain.

85 miles of water
mains

60 miles of sanitary
sewer

50 miles of storm
sewer, culverts, and
ditches

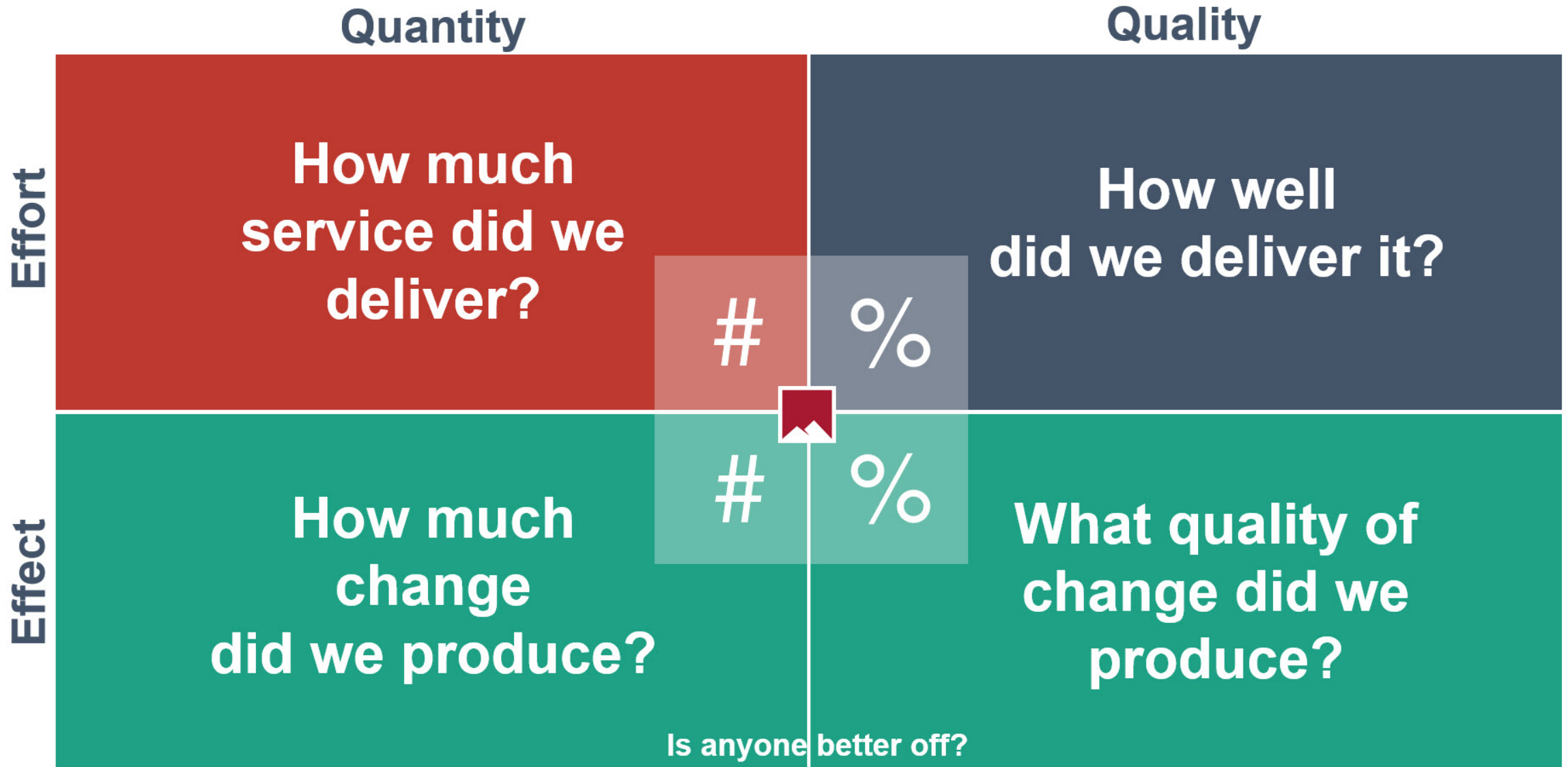
9 Sewer pump
stations

1,720 sewer
manholes, cleanouts,
and other sewer
structures

2,662 catch basins,
storm drain
manholes, and other
storm structures

7,376 fire hydrants,
water meters, and
water valves





MATRIX OF SUCCESS

- How can we Measure Success?
- How can we replicate Success?
- How do decide?
- What projects to chose?
- How to improve?

1 Do First

High Urgency
High Priority

Important Task

2 Delay

High Priority
but Not so Urgent

Schedule to complete

3 Delegate

High Urgency but
not High Priority

Can be done
by someone else

4 Don't Do

Low Priority
Low Urgency

Distraction

NORTH 11TH & DEER ISLAND ROAD – LEAKING VALVE (MAJOR SHUT DOWN)

- There are 16 valves that need to be shut down.
- This will put around 120 houses out of water, including a large apartment complex and 2 businesses, approximately 450 to 500 residents.
- Fire hydrants out of service 12.
- We will need the entire crew to assist in this process of shut down and resume service.
- Notify all residents well ahead of the date of shut down.
- Some individual houses will have to be shut down at the meter.
- Day before the shutdown: Close 11 valves.
- Day of the shutdown: Close 5 Valves.
- Repair leaking valve: Cut 2” pipe from 12” water main line. Remove 2” pipe from 12” flange. Install new 2” pipe with valve.
- To recharge the entire water system, we will need to flush every street to remove any air in the line and as much debris that we can to limit customer concerns.
- Take multiple chlorine residuals in the system to make sure everything is back to normal.



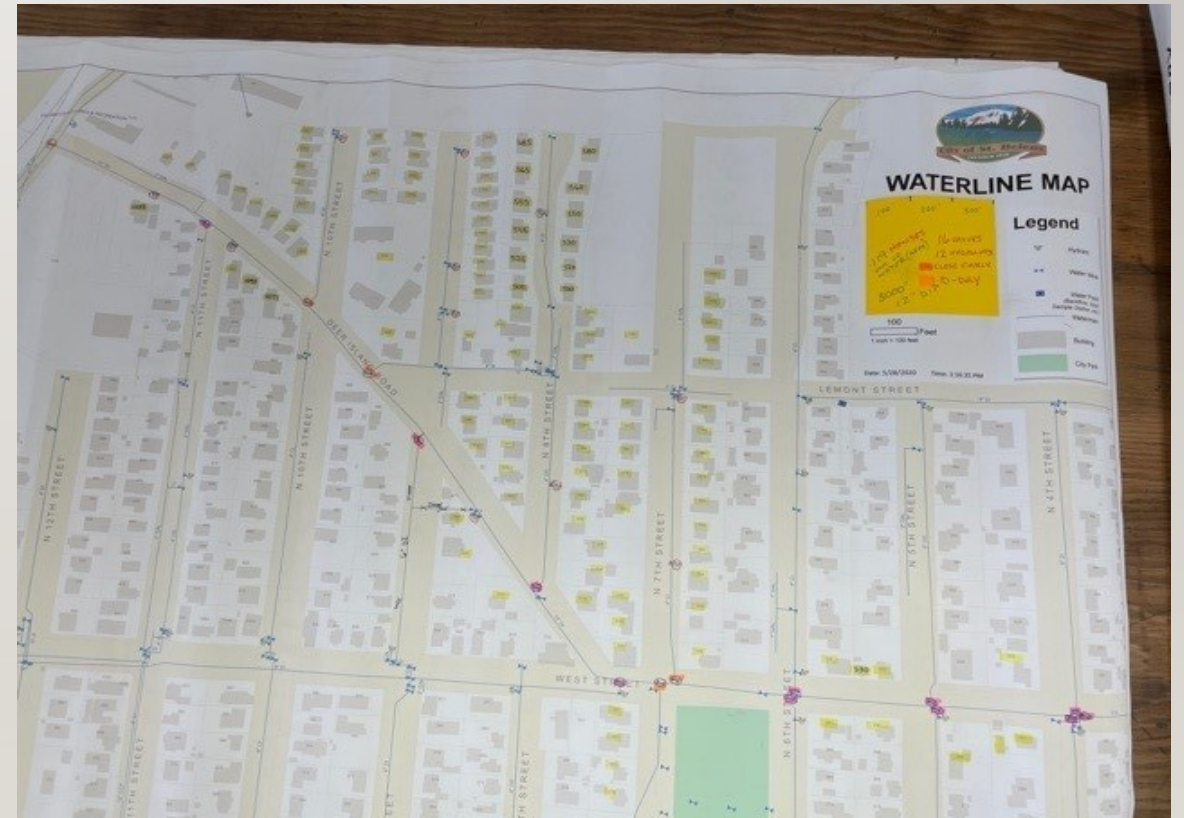
ACTION PLAN

Valves to close the day before: (11 Total)

- N. 4th & West (x3)
- N. 5th & West (x2)
- N. 6th & West (x2)
- West & Deer Island Road
- Deer Island Road & N. 8th
- Deer Island Road & N. 9th
- Deer Island Road & N. 11th

Valves to close on D-Day: (5 Total)

- West & N. 7th (x2)
- Deer Island Road & Lemont
- Deer Island Road & N. 10th
- Deer Island Road & Oregon Street (last valve to shut down)



PROJECT OUTCOME

- Project been pending & leaking since 05/2020
- Major water leak in excess of thousands of gallons over the course of the year.
- Project was successfully executed in less than 2 hours total.



CAPITAL IMPROVEMENT PLAN UPDATE



Public Works Department

COMPLETE CAPITAL IMPROVEMENT MASTER PLANS 5-YEAR CYCLES

- **Water System Master Plan:**

- Last completed in 2013
- New MP done by March 2022

- **Storm Water & Sanitary Sewer Master Plan:**

- Last completed 15 years ago.
- New MP done by November 2021
- Final Drafts In Progress
- Presentation to City Council (Work Session) and Planning Commission in late October
- Adoption by City Council (Regular Session) – Early November

- **Parks & Recreation Master Plan:**

- Last completed in 2015
- New MP initiated and in progress

- **Transportation Systems Master Plan (TSP):**

- Last completed in 2011
- New MP process will kick-off December 2021.





ADAPTING TO LONG TERM PLANNING CHALLENGES

Mercury TMDL (Total Maximum Daily Load) Plan

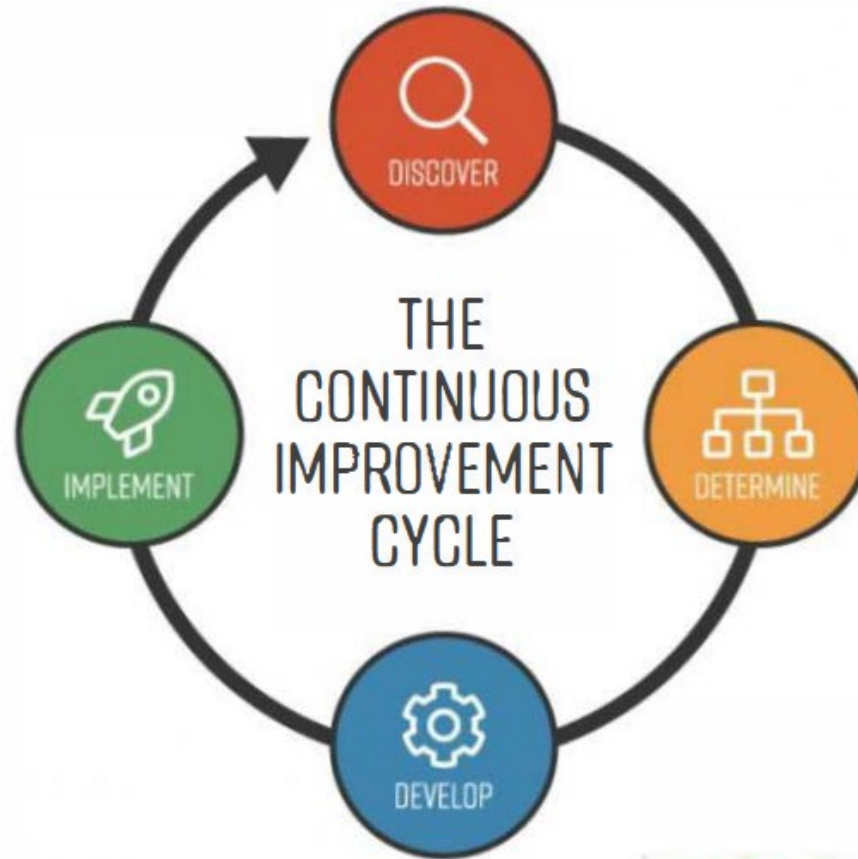
- New DEQ Requirement: City of St. Helens must implement a Willamette Basin Mercury TMDL Plan and implement certain stormwater control measures.
- Deadline to Submit TMDL Plan – September 2022
- After September 2022 – 5 Years to Fund and Fully Implement Plan
- In progress 50% complete



STRATEGIC PLAN ACCOMPLISHED GOALS

- **COMPLETED:** Sidewalks on N.Vernonia Rd
- **COMPLETED:** 5th Street Trail
- **COMPLETED:** 7 Intersections in Town Have New Curb Ramps
- **COMPLETED:** New Playground Equipment at McCormick Park
- **COMPLETED:** Recreation Program Financial Stability
- Campbell Park Improvements are In Progress
- Watermain Replacement Project Coming Out This Fall.

APPROACH TO PUBLIC WORKS DEPARTMENT



ENGINEERING DIVISION



Public Works Department

CURB RAMP IMPROVEMENTS

Strand Street At The Old Courthouse

BEFORE



AFTER



CURB RAMP IMPROVEMENTS

S 4th Street And St. Helens Street

BEFORE



AFTER



CURB RAMP IMPROVEMENTS

Plaza Square At The Courthouse

BEFORE



AFTER



NEW SIDEWALKS ON N VERNONIA RD

BEFORE



AFTER



NEW SIDEWALKS ON N VERNONIA RD

BEFORE



AFTER



WATER & WASTEWATER DIVISION



Public Works Department

WATER FILTRATION FACILITY

- Opened in 2006
- Capacity to make 6 million gallons per day (MGD) with build out potential of 10 MGD
- Two full time employees – One supervisor and one operator
- One employee required to be on Standby at all times



WASTEWATER TREATMENT PLANT

- Opened in 1971 in a joint venture with Boise Cascades
- The Primary treatment, which serves the residents of St. Helens and Columbia City, was remodeled in 1991
- Staff of four-One supervisor, two operators and one Pretreatment Coordinator/operator
- The staff maintains the treatment plant, nine sewer lift stations, and the Industrial Pretreatment Program
- One employee required to be on Standby at all times



NEW WATER / WASTEWATER TREATMENT DIVISION

- Five full time employees
 - Supervisor
 - Three cross trained operators
 - One Pretreatment Coordinator/Operator
- Maintain Both Treatment Plants, Sewer Lift Stations, And Pretreatment Program

BENEFITS MOVING FORWARD

- Can reduce staff by one employee while maintaining high quality treatment and regulatory compliance
- Fewer duplicated resources
 - Chemicals
 - Testing Equipment
 - Mechanical Equipment
- Better trained operators



EFFICIENCIES

- We essentially had two crews performing the same tasks
- Will no longer need an individual in each department to be on standby. There will only be one for both plants.
- We will standardize equipment, therefore, reducing the amount of spare parts inventory



WATER FILTRATION PLANT

- **SCADA System Upgrade at Water Filtration**
- **Scope:** To replace outdated hardware, software, and ancillary equipment, including programming & training necessary to update the Supervisory Control & Data system.
- **Start:** Oct 2020.
- **End:** August 2021.
- **Progress:** The Water Filtration Facility SCADA upgrade to the control system and computers is almost complete.
- **Next Steps:** Installation of new hardware & software. Programming by Contractor, training of City staff on new software. Implementation of the system planned for this month.



ENERGY SMART INDUSTRIAL COHORT

- In April of 2019, we joined a cohort of Wastewater Treatment Plants from the area with a common goal of reducing energy usage.
- Spent less than \$8000 total
- Projects included:
 - LED lighting
 - Occupancy sensors
 - Timers
 - Reducing aerator run times
- The Return on Investment was 8 months.



FIRST YEAR

- We saved over 280,000 kWh
- Savings of over \$13,000 in power usage
- Resulted in an incentive check from ESIP/CRPUD of over \$7000



SECOND YEAR

- Maintained aerator schedule
- Needed extra aeration to control odors, but still saved power.
- Should get another incentive check later this fall.



PARKS & RECREATION DIVISION



Public Works Department

PARKS AND RECREATION: BY THE NUMBERS

13 City parks with
over 135 acres

2 Recreation
Facilities

11 Sports Fields

3 other City
facilities
groundskeeping
maintained

4 retention ponds

8 irrigation
systems



EFFICIENCIES

- Utilizing staff where needed and providing additional office support so that parks staff can focus on other tasks.
- Combined opportunities for grant funding.
- More streamlined approach for work orders and ordering.
- More public outreach with volunteer events, and joint programming.
- Joint effort in creating spaces and programming for citizens.





PARKS AND RECREATION DIVISION

GRANTS 2020/2021

- \$25,000 CPCCO Grant
- \$10,000 Blazer PLAY! Grant
- \$20,000 Greys Family Foundation
- \$3,000 Early Learning Hub
- \$21,250 Oregon State Oregon Camps
- \$75,000 OCF 2021 2021 K-12 Summer Learning
- \$25,000 OCF 2021 Early Learning Summer Support
- \$10,000 Additional Blazer PLAY! Grant
- \$37,000 Moda Assist

Total: \$226,250



PARKS AND RECREATION DIVISION

Successes for 2021/2022

- Building stronger partnerships with local organizations and nonprofits.
- Onboarded new user-friendly software for the Parks and Recreation team to communicate and accomplish tasks timely and effectively.
- Acquisition of new Community Center.
- Updated McCormick Park play structure.
- Updated picnic tables that are easier for staff maintenance, and visually appealing to the community.
- Utilized shared equipment, staffing and resources.
- Created a High Value list to accomplish some projects that have been pending.
- First combined activity for Parks and Recreation- Teen Service Camp.
- Collaboration of projects with service groups to help the Parks and Recreation Division utilize resources effectively.
- Strong partnerships with the School District for out of school time activities and spaces.



PARKS AND RECREATION DIVISION

Goals for 2021/2022

- Division collaboration to achieve common goals.
- Continuing partnerships with local organizations.
- Look at feasibility of hosting tournaments to generate revenue for the Division.
(Basketball, Soccer, Softball, Baseball, Disc Golf, Volleyball, etc.)
- Create diverse and safe programs and spaces for all interests, age groups and abilities.
- New parks master plan with extensive community outreach.
- Business Sponsorship Opportunities.
- Adopt a park program/volunteer outreach.
- Increase grant applications and other funding opportunities.
- Create a community Wellness HUB



NEW PLAYGROUND EQUIPMENT AT MCCORMICK PARK

BEFORE



AFTER



5TH STREET TRAIL IMPROVEMENTS

BEFORE



AFTER





PARKS AND RECREATION DIVISION



WHOLE SCHOOL WHOLE COMMUNITY WHOLE CHILD



A Collaborative Approach to Learning and Health

For more information
ASCD: www.ascd.org/learningandhealth
CDC: www.cdc.gov/HealthyYouth/ctshp



The **Whole School, Whole Community, Whole Child (WSCC)** model combines and builds on elements of the traditional coordinated school health approach and the whole child framework. The focus is directed at the whole school, with the school in turn drawing its resources and influences from the whole community and serving to address the needs of the whole child. ASCD and the U.S. Centers for Disease Control and Prevention (CDC) encourage use of the model as a framework for improving students' learning and health in our nation's schools.



Public Works Department

THANK YOU



Public Works Department