



# CITY OF MERCER ISLAND

## UTILITY BOARD SPECIAL VIDEO MEETING

Tuesday, November 10, 2020 at 5:00 PM

### BOARD MEMBERS:

Chair Tim O'Connell, Vice Chair Tom DeBoer  
Board Members: Stephen Majewski  
George Marshall, Stephen Milton,  
William Pokorny, and Brian Thomas

### LOCATION & CONTACT

Mercer Island City Hall – Zoom Meeting  
9611 SE 36<sup>th</sup> Street | Mercer Island, WA 98040  
Phone: 206.275.7706 | [www.mercerisland.gov](http://www.mercerisland.gov)

*In compliance with the Americans with Disabilities Act, those requiring accommodation for meetings should notify the Staff Liaison at least 24 hours prior to the meeting at 206.275.7706.*

### Virtual Meeting Notice

The virtual meeting will be broadcast live on Zoom and recorded and saved on the City's [YouTube Channel](#)

**Join by Telephone at 5:00 PM:** To listen to the meeting via telephone, please call **253.215.8782** and enter Webinar ID **842 9786 2772** and Password **851646** when prompted.

**Join by Internet at 5:00 PM:** To watch the meeting over the internet via your computer, follow these steps:

- 1) Click [this link](#)
- 2) If the Zoom app is not installed on your computer, you will be prompted to download it.
- 3) If prompted for Webinar ID, enter **842 9786 2772**; Enter Password **851646**

**For the safety and wellbeing of the public and staff**, the City strongly recommends that community members attend the meeting by viewing the live feed of the video conference on the City's [YouTube Channel](#), or on [MI-TV Channel 21](#).

### CALL TO ORDER & ROLL CALL, 5:00 PM

#### REGULAR BUSINESS

1. Approve the minutes of the October 14 Special Video Meeting
2. SCADA Project Update  
**Recommended Action:** Receive presentation and provide feedback.
3. 2020 Comprehensive Garbage, Recyclables & Compostables Report  
**Recommended Action:** Receive annual report from Recology and provide feedback.
4. Review Utility Board Workplan  
**Recommended Action:** Receive report and provide feedback.

#### OTHER BUSINESS

5. Next Meeting

#### ADJOURNMENT



## UTILITY BOARD MINUTES SPECIAL VIDEO MEETING OCTOBER 14, 2020

### CALL TO ORDER & ROLL CALL

Chair O'Connell called the meeting to order at 5:00 pm from a remote location.

Vice Chair DeBoer and Board Members Stephen Majewski, George Marshall, Stephen Milton, William Pokorny, and Brian Thomas participated remotely using a video teleconferencing platform by Zoom.

Council Liaison Lisa Anderl was also present.

Public Works Director Jason Kintner, City Clerk Deborah Estrada, and several staff members participated remotely.

### REGULAR BUSINESS

#### Review and consider approving the September 23, 2020 Minutes

It was moved by DeBoer; seconded by Pokorny to:  
**Approve the minutes.**

It was moved by Marshall; seconded by Thomas to:  
**Amend the minutes to include that there was consensus by the board expressing its appreciation to King County for the recognition and modification made to the King County North Mercer Island Interceptor and Enatai Interceptor Upgrade project.**

A roll call vote was conducted, and the results were as follows:

Passed 7-0

FOR: 7 (DeBoer, Majewski, Marshall, Milton, O'Connell, Pokorny, and Thomas)

A roll call vote was conducted, and the results were as follows:

Passed 7-0

FOR: 7 (DeBoer, Majewski, Marshall, Milton, O'Connell, Pokorny, and Thomas)

#### Preliminary 2021 Water and Sewer Rate Discussion

Angie Sanchez, Vice President of FCS Group, reviewed the water and sewer rate update with the Utility Board, explaining that the focus was to present key data inputs and assumptions and provide a summary of preliminary water and sewer findings.

#### Rate Update Overview:

- Evaluate sufficiency of current rates to meet all utility financial obligations
- Develop rate plan to balance financial needs and minimize customer impacts
- Multi-year rate plan with rate focus on 2021-2022
- Last external rate study completed in 2010

#### Key Data Inputs/Assumptions:

- Study period 2021-2026
- Rate revenue
  - Water – 2019 revenue levels based on historical usage and COVID considerations
  - Sewer – 2020 budget maintained as revenue more stable
- Preliminary 2021/2022 biennial budget used as baseline for expenses
  - City tax increase to 8% in 2021 and 2022 back to 5.3% in 2023
  - Applied on top of customer bill
- Incorporated City provided Capital Improvement Plan

- Focus is on prioritizing critical infrastructure

Water Revenue Requirement:

- 2021-2026 Operational Costs - \$5.5 to \$6.6 million
- 2021-2026 Capital Plan - \$33.1 million in total escalated spending
- Revenue Requirement Summary – 5.25% Increase

Sewer Revenue Requirement:

- 2021-2026 Operational Costs - \$8.5 to \$10.3 million
- 2021-2026 Capital Plan - \$20.6 million in total escalated spending
- Revenue Requirement Summary – 4% Increase

Stormwater Revenue Requirement:

- Financial Policies to help guide the financial management of the City:
  - Operating Reserve
  - Capital Reserve
  - System Reinvestment Funding
  - Debt Service Coverage
- 2021-2026 Capital Plan – total escalated CIP of \$8.5 million
- Revenue Requirement Summary – 5.5% Increase

It was moved by Milton; seconded by Majewski to:

**Recommend to City Council a 5.5% increase to stormwater rates for 2021-2022 biennium**

A roll call vote was conducted, and the results were as follows:

Passed 7-0

FOR: 7 (DeBoer, Majewski, Marshall, Milton, O’Connell, Pokorny, and Thomas)

It was moved by Marshall; seconded by Pokorny to

**Recommend to City Council a 5.25% increase to water rates for 2021-2022 biennium**

A roll call vote was conducted, and the results were as follows:

Passed 7-0

FOR: 7 (DeBoer, Majewski, Marshall, Milton, O’Connell, Pokorny, and Thomas)

It was moved by DeBoer; seconded by Milton

**Recommend to City Council a 4% increase to sewer rates for 2021-2022 biennium**

A roll call vote was conducted, and the results were as follows:

Passed 7-0

FOR: 7 (DeBoer, Majewski, Marshall, Milton, O’Connell, Pokorny, and Thomas)

**Review Utility Board Work Plan**

The next regular video meeting will be on Tuesday, November 10 at 5 pm.

Director Kintner provided a brief overview of the November 10 Agenda:

- Recology Solid Waste Annual Report
- SCADA Project Update
- Booster Station & Water Vulnerability/Risk Assessment Project Updates

**ADJOURNMENT**

There being no additional business, the Special Video Meeting adjourned at 6:25 pm.

Attest:

\_\_\_\_\_  
Tim O’Connell, Chair

\_\_\_\_\_  
Deborah A. Estrada, City Clerk



City of Mercer Island

# Utility Board Review

## SCADA Equipment Replacement – Water Sites Design

November 10, 2020



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### AGENDA

- 01 PROJECT BACKGROUND/  
OVERVIEW
- 02 WATER SITES DESIGN REVIEW
- 03 UPDATE ON SCADA  
REPLACEMENT AT SEWER SITES
- 04 QUESTIONS AND NEXT STEPS



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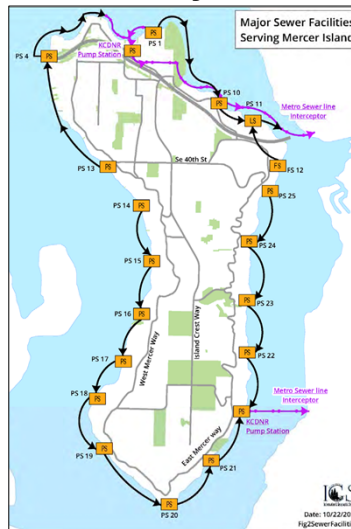
# Project Overview / Background



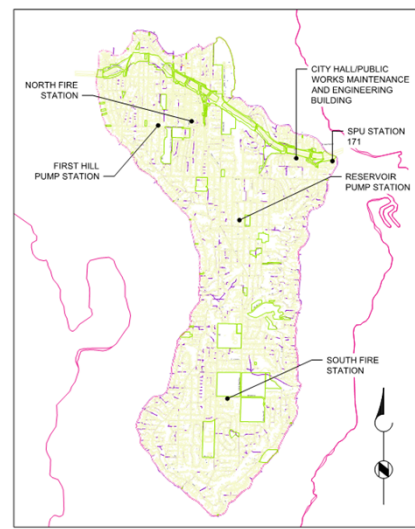
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## City of Mercer Island SCADA System

- Sewer Collection System
  - 18 pump stations around the island
  - Pump to regional WWTP
- Water Distribution System
  - Receives water from Seattle Public Utilities
  - 5 sites currently monitored by SCADA



Sewer Collection System



Water Distribution System

Brown and Caldwell

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## SCADA Criticality to Utility Operations

- Provides insight into the water and sewer processes
  - Collect data
  - Monitor and control process
  - Critical alarm notification
- Requirements
  - Uptime
  - Reliability
  - Accessibility
  - Usability
  - Security



Brown and Caldwell

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## Drivers for SCADA Project

- 2017 – City identified obsolete SCADA components
- Internal evaluation of SCADA system
  - Frequent alarms
  - Fragmented SCADA components
  - Reliability issues
  - Poor usability



Brown and Caldwell

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## Project Objectives



- **Standardize on SCADA technology** for water and sewer systems to minimize maintenance, service, training, and spare parts
- **Reduce risk** by replacing aging components
- **Increase operator efficiency** through improved understanding of alarms, clarity of process conditions, and reduced training time
- **Enable Smart Utility capabilities** by developing a SCADA system platform that can integrate with other City enterprise applications (GIS, asset management, AMI, utility billing, etc.) in the future

Brown and Caldwell

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## Timeline



- SCADA Master Plan completed in 2018
- Design and programming standards 2019-2020
- Water Site SCADA Construction
  - Anticipated Bid Award: January 2021
  - Anticipated Construction: May-September 2021
- Sewer Site SCADA Construction
  - Anticipated Bid Award: Mid-2022
  - Anticipated Construction: 2022-2023


Brown and Caldwell

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# Engineer's Construction Cost Estimate

SCADA Equipment Replacement – Water Sites




Lower Range	Upper Range
\$329,000	\$465,000

Brown and Caldwell 9

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# Water Sites Design Review



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## Project Scope of Work

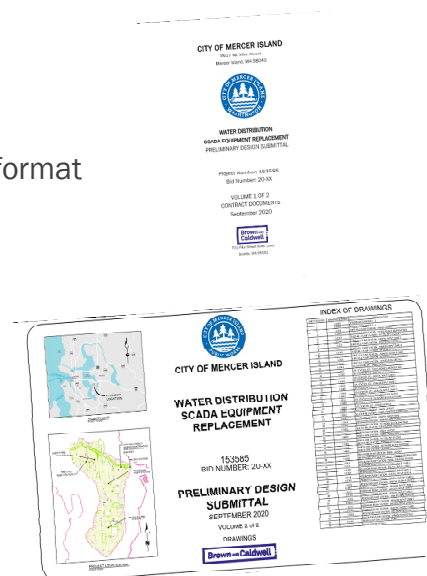
- Replace PLC control panels at 5 water distribution sites
  - First Hill Pump Station
  - SPU Station 171
  - South Fire Station
  - North Fire Station
  - Reservoir Pump Station
- Provide Siemens hardware (City standard)
- Perform field testing and commissioning services
- Perform associated electrical work
- Provide training on the PLC panel hardware
- *Note: Programming is being provided by Brown and Caldwell*



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## Design Package Structure

- Specifications
  - City provided Div 00 upfront specs
  - BC standard specification sections following CSI format
    - Div 01 – General Requirements
    - Div 26 – Electrical
    - Div 40 – Process Integration
- Drawings
  - Control panel layouts
  - Control panel power distribution drawings
  - PLC input/output card drawings
  - Network block diagrams
  - Demolition details



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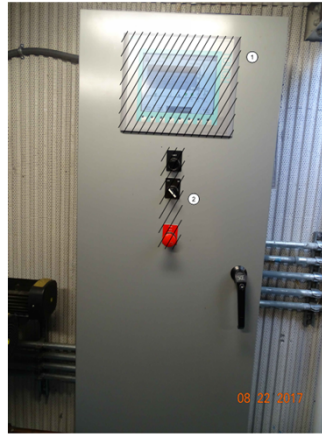
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# First Hill Pump Station

## Scope

- Reuse existing control panel enclosure
- Demo the existing back panel
- Install new back panel in existing enclosure



Existing Enclosure



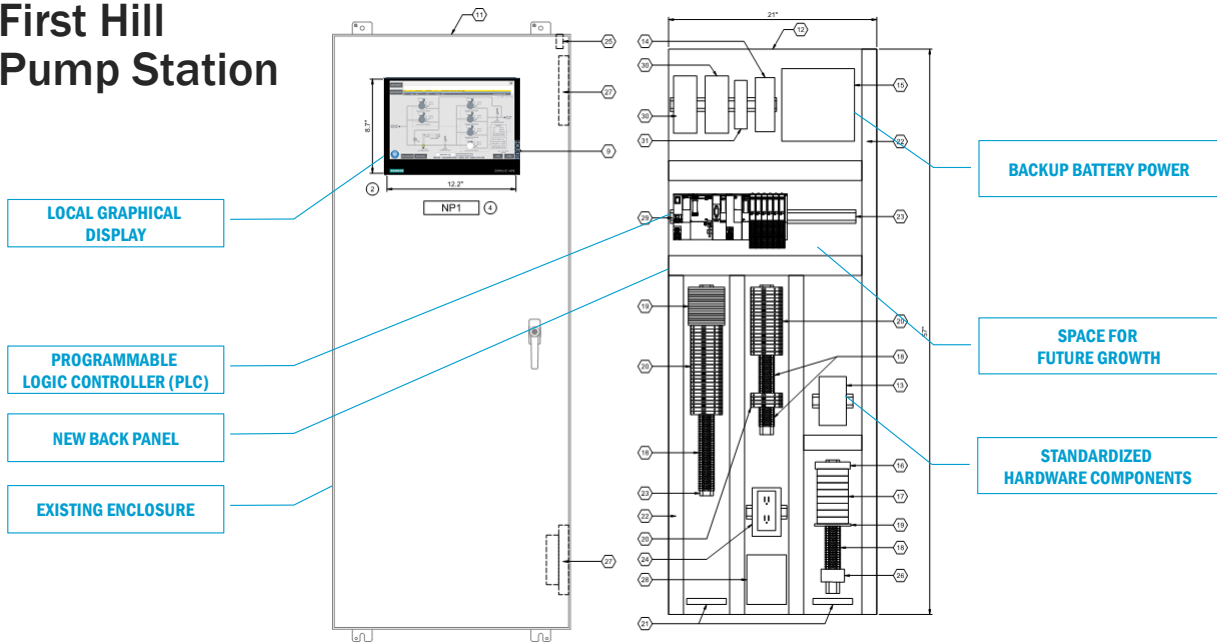
Existing Back Panel

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# First Hill Pump Station



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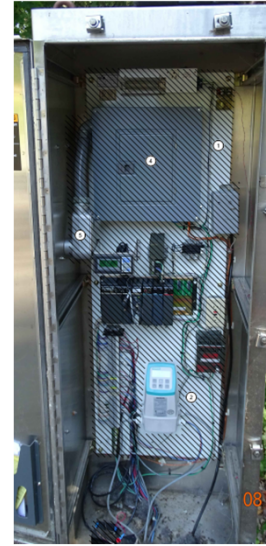
# SPU Station 171

## Scope

- Outdoor roadside cabinet
- Replace back panel in existing enclosure
- Replace power panelboard in existing enclosure



Existing Enclosure



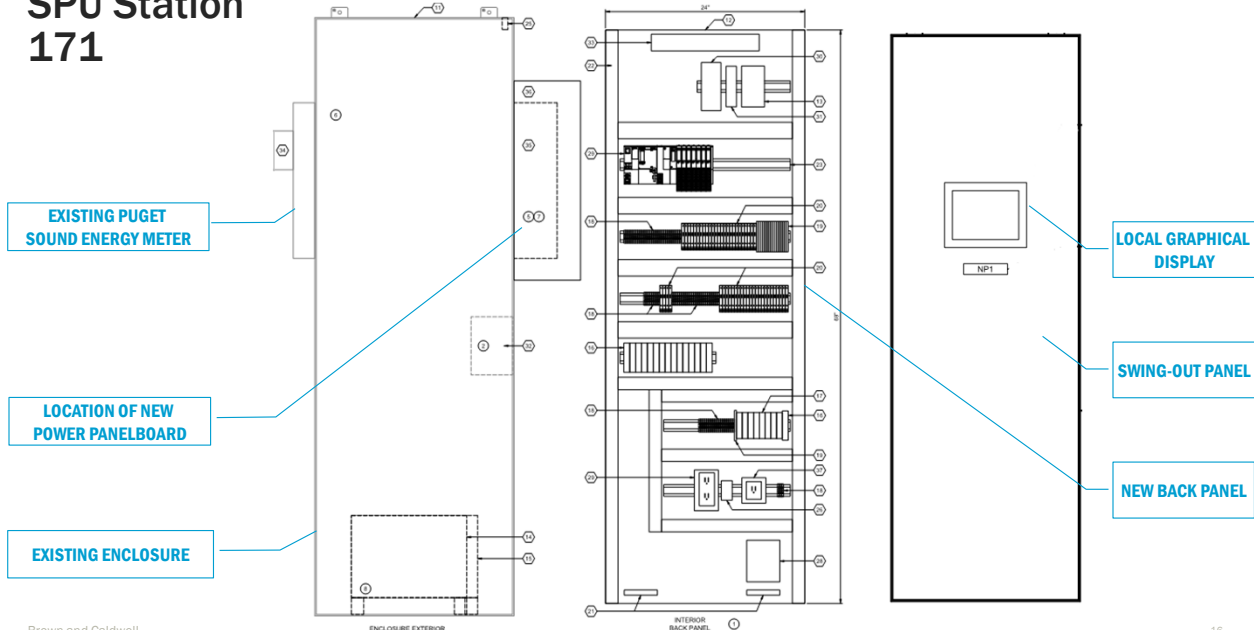
Existing Back Panel

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# SPU Station 171



Brown and Caldwell

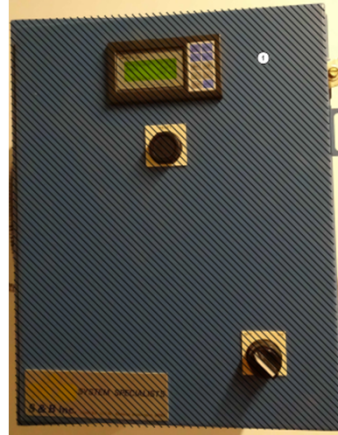
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## South Fire Station (Pressure Monitoring)

### Scope

- Demo the existing control panel
- Install new control panel enclosure in existing location



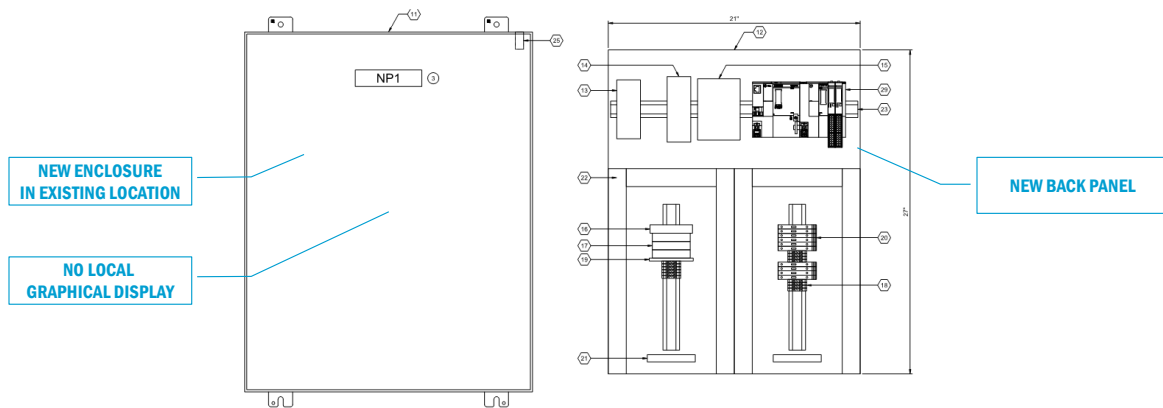
Existing Enclosure

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## South Fire Station (Pressure Monitoring)



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# North Fire Station (Pressure Monitoring)

## Scope

- Install new control panel enclosure (new location to meet code requirements)
- Repurpose existing control panel as a terminal junction box for existing wiring
- Install new conduit/wiring between existing enclosure and new panel location



EXISTING ENCLOSURE



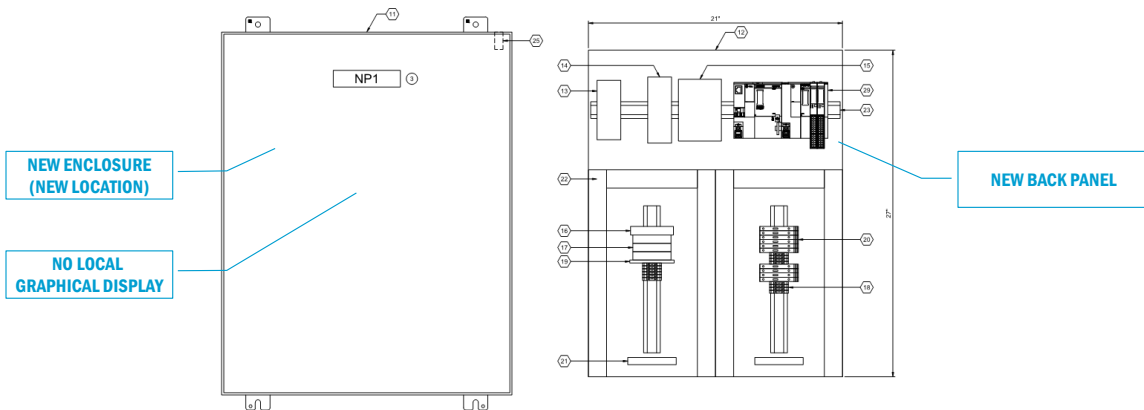
NEW PLC PANEL LOCATION

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# North Fire Station (Pressure Monitoring)



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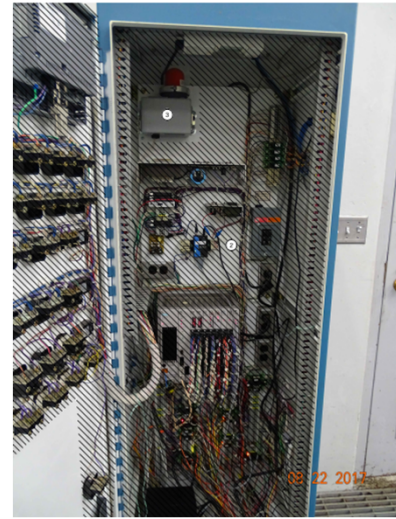
# Reservoir Pump Station

## Scope

- Install new control panel enclosure (new location)
- Repurpose existing control panel as a terminal junction box for existing wiring
- Install new conduit/wiring between existing enclosure and new panel location



Existing Enclosure



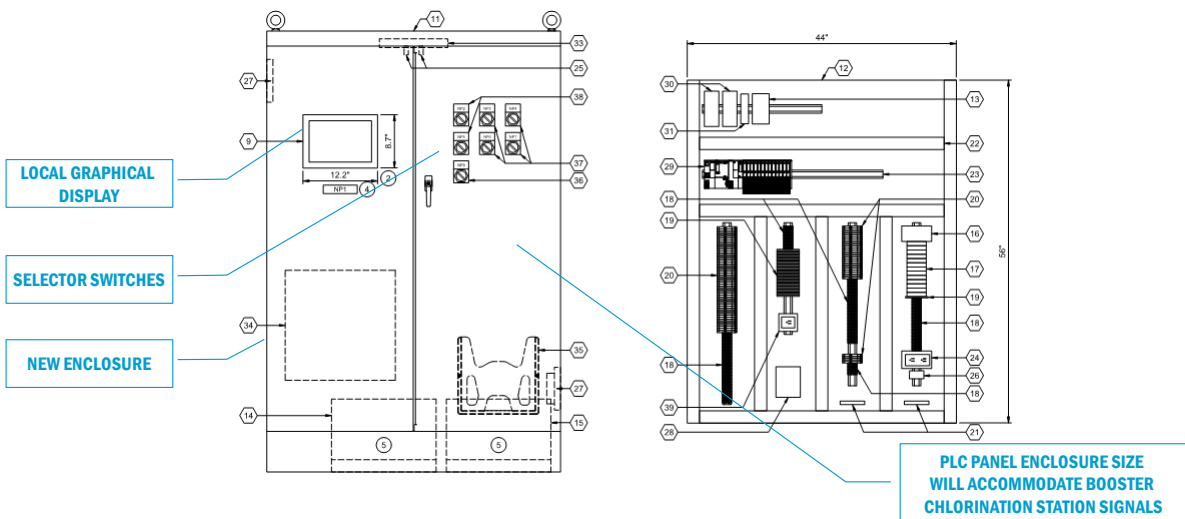
Existing Back Panel

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# Reservoir Pump Station



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## Reservoir Variable Frequency Drives (VFDs)

- Upgrade from hardwired to networked (Profinet) communication between the existing VFDs and new control panel
- Will allow for pump control and transfer of additional monitoring data over a single cable

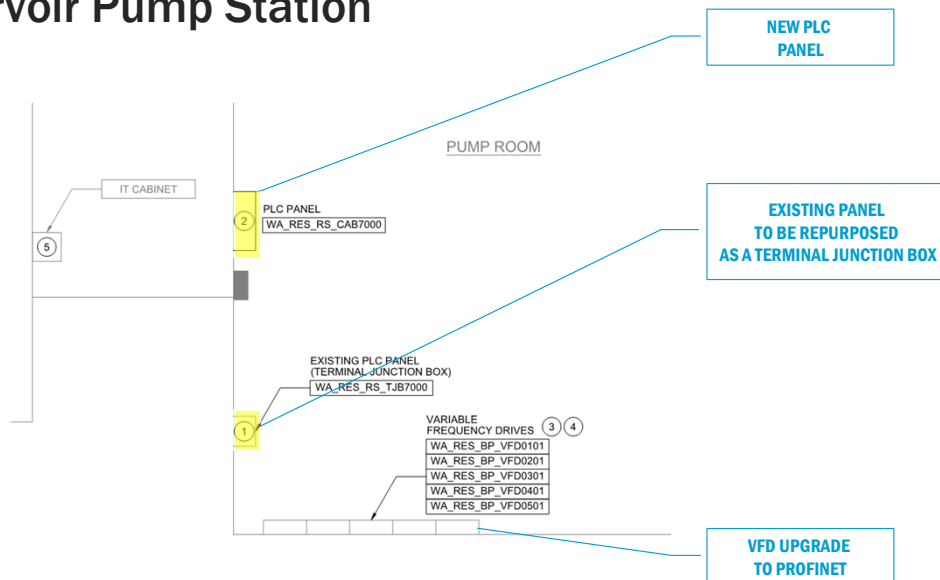


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## Reservoir Pump Station




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# Construction Sequencing and Constraints



- Work Sequence

Work Package Sequence	Site	Work Period Performed	Estimate I/O Point Quantity per Site	Allowed Cutover Time (Control System Downtime)	Construction Constaints	Flexibility to Move Construction of Package within Sequence
1	SOUTH FIRE STATION	Anytime	10	4 Hours	None.	Flexibility within Work Period
1	NORTH FIRE STATION	Anytime	10	4 Hours	None.	Flexibility within Work Period
2	SPU STATION 171	Anytime	25	6 Hours	None.	N/A
3	FIRST HILL PUMP STATION	Anytime	35	8 Hours	Site must remain in operation during panel cutover.	N/A
4	RESERVOIR PUMP STATION	Construction at site must be complete by August 31, 2021.	100	16 Hours	Site must remain in operation during panel cutover. Coordinate with other Construction at site per Section 01 12 16.	N/A

ANY WORK PERIOD RESTRICTIONS

SITES THAT MUST REMAIN OPERATIONAL

Brown and Caldwell 25

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# Update on SCADA Replacement at Sewer Sites



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## Update on SCADA Replacement at Sewer Sites

- Ventilation Study
  - Impact to SCADA: ensuring the sewer control panels are adequately rated for the environment
- Sewer Site SCADA Construction
  - Anticipated Bid: Mid-2022
  - Anticipated Construction: 2022-2023

Brown and Caldwell

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## Next Steps

The logo for Brown and Caldwell, featuring the company name in a white box with a green border, set against a background of diagonal green lines.

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## Next Steps

- Finalize water bid documents
- City Council meeting – Dec 1<sup>st</sup> for authorization to bid
- Bid Award – January 2021
- Construction – May to September 2021
- Sewer site SCADA design – Mid-2021



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Thank you.  
**Questions?**



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# MERCER ISLAND UTILITY BOARD

## 2021 SOLID WASTE RATE UPDATE



# Agenda

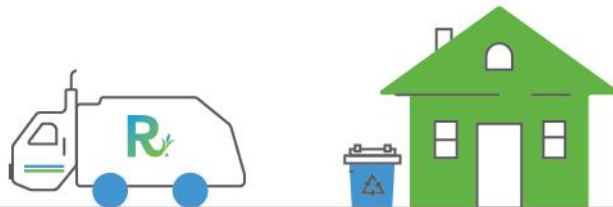
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Introduction

2020 Year in Review

2021 Rate Increase

Q&A



# Introduction



## RECOLOGY IS:

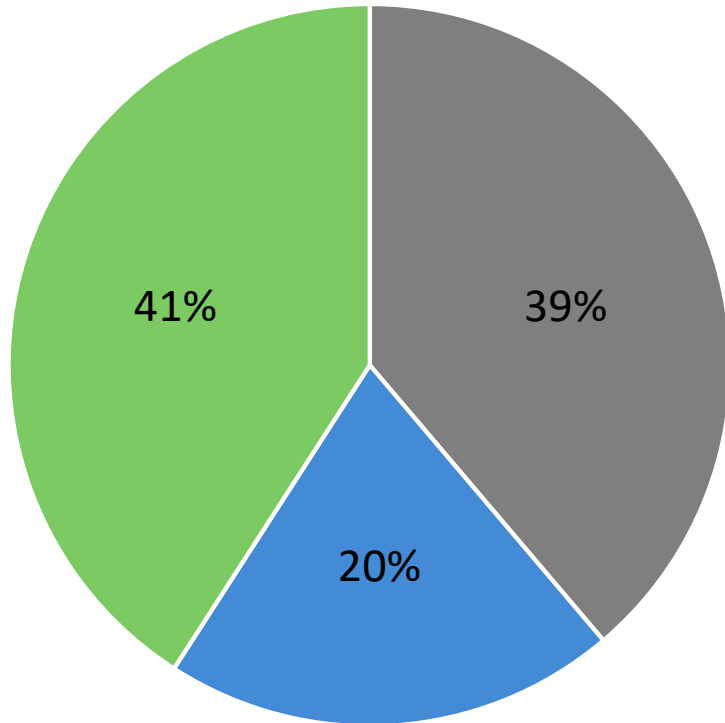
- 100% Employee-Owned
- A Resource Recovery Company

## RECOLOGY PROVIDES:

- Collection Services
  - Residential: +6,400
  - Commercial/Multifamily: +500
- Recycle Processing
- Public Education & Outreach
- Retail Store/Drop-off Recycling

# Operations – Waste Diversion

City Diversion (Tons)



5016



2627

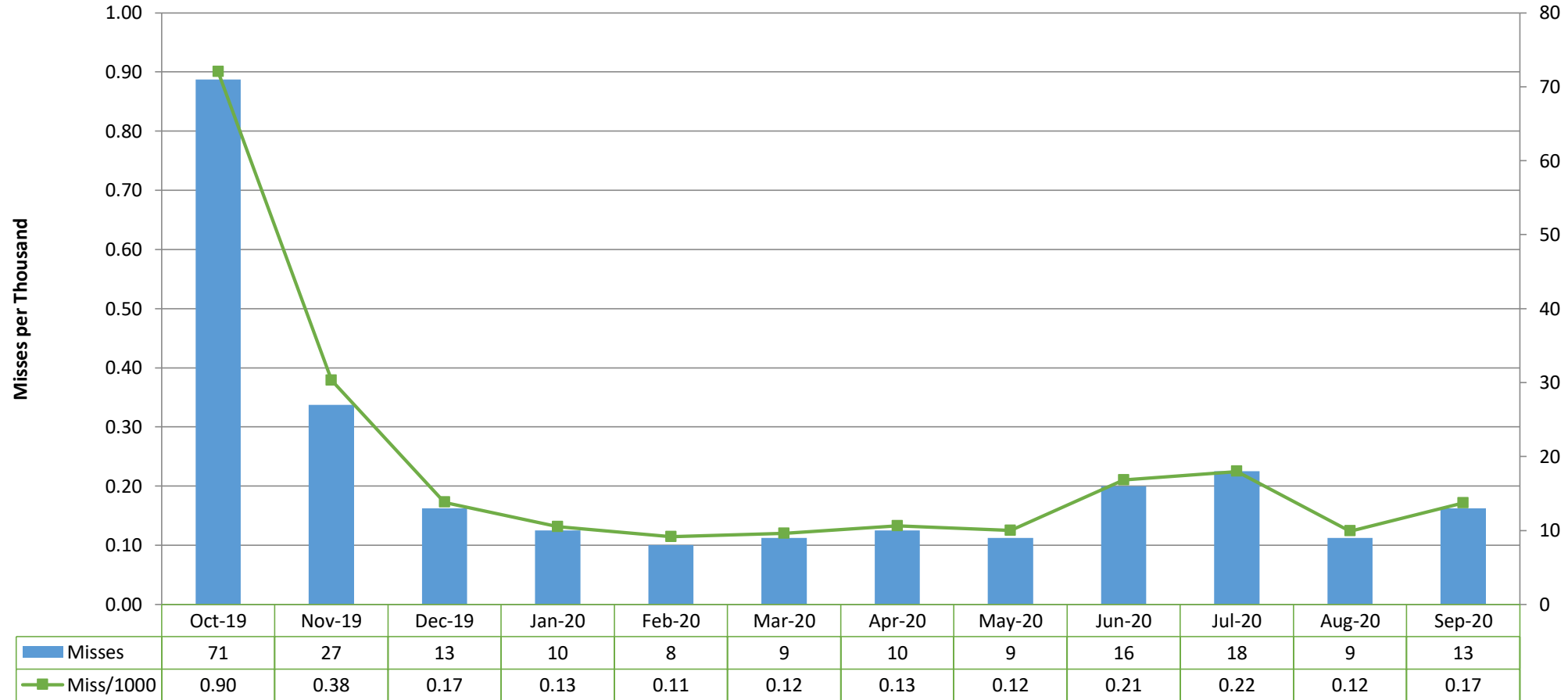


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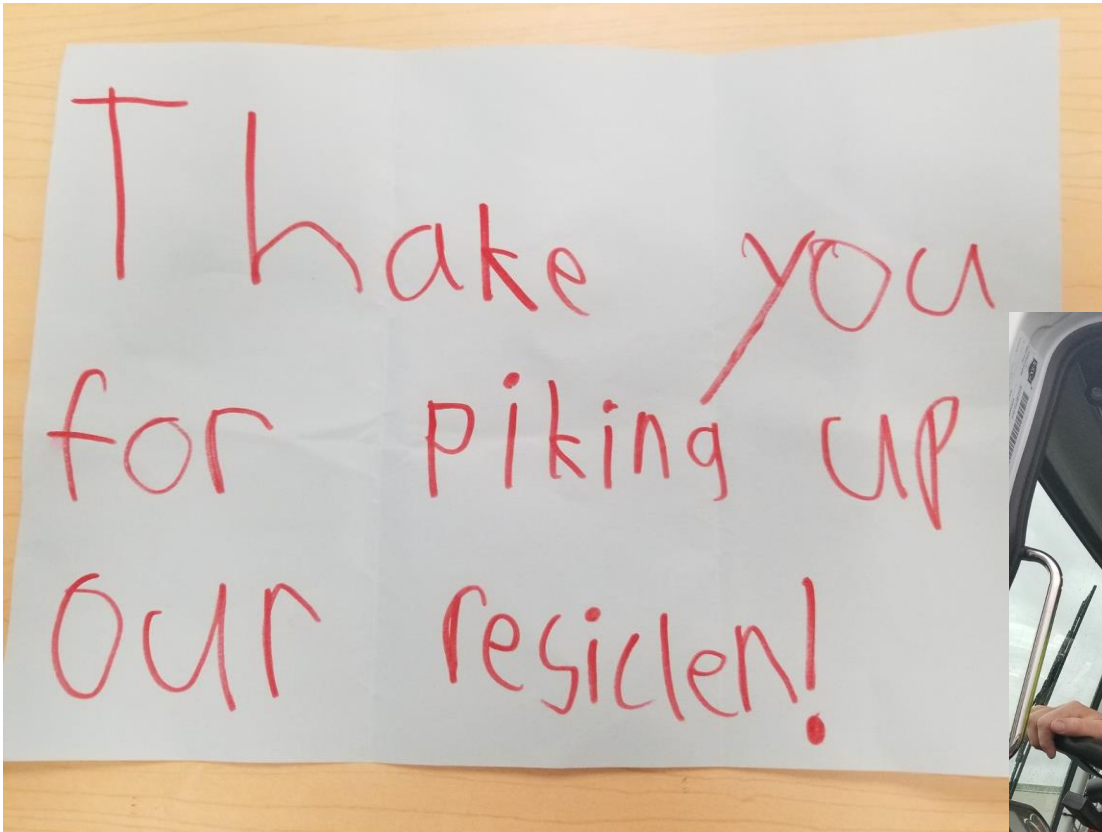
# Operations - Misses

Misses/1000 Collections (target = <1)



# COVID-19 Response

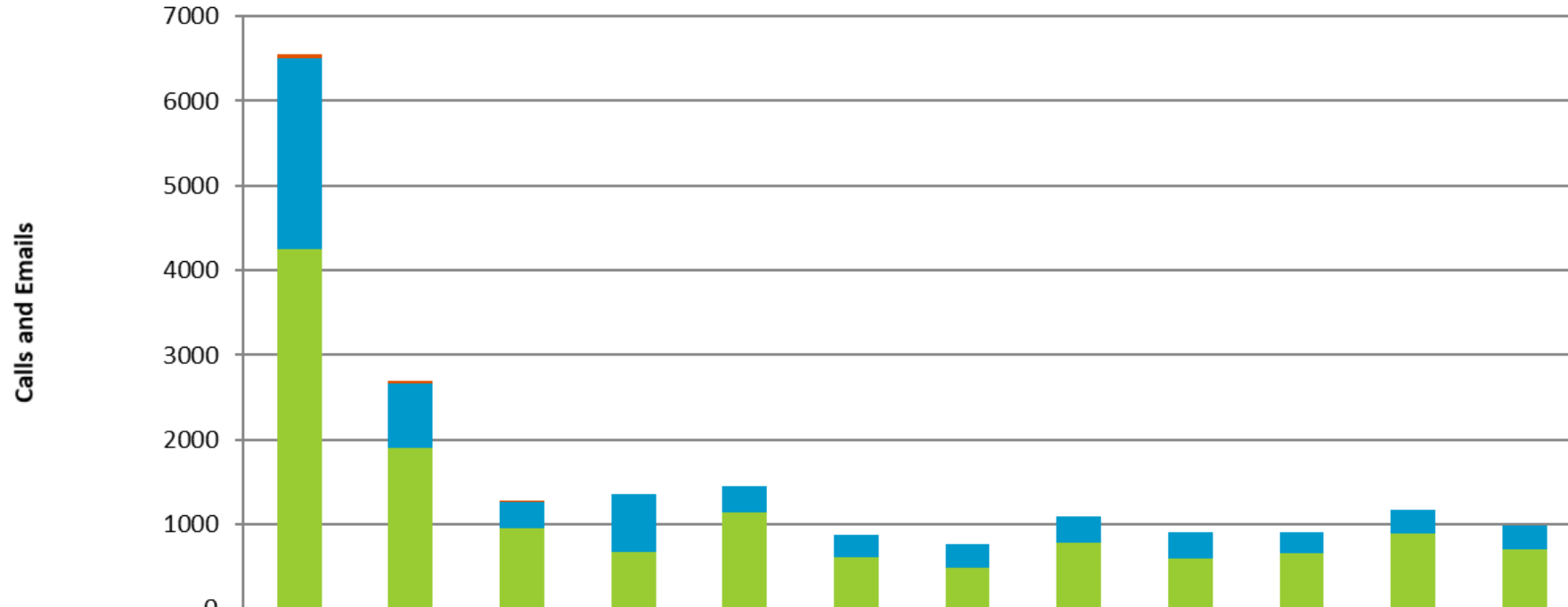
Item 3.



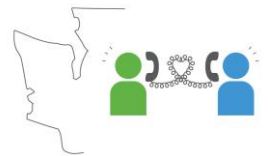


# Customer Service 2020

## Mercer Island Call and Email Volumes

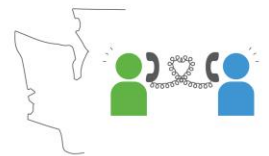
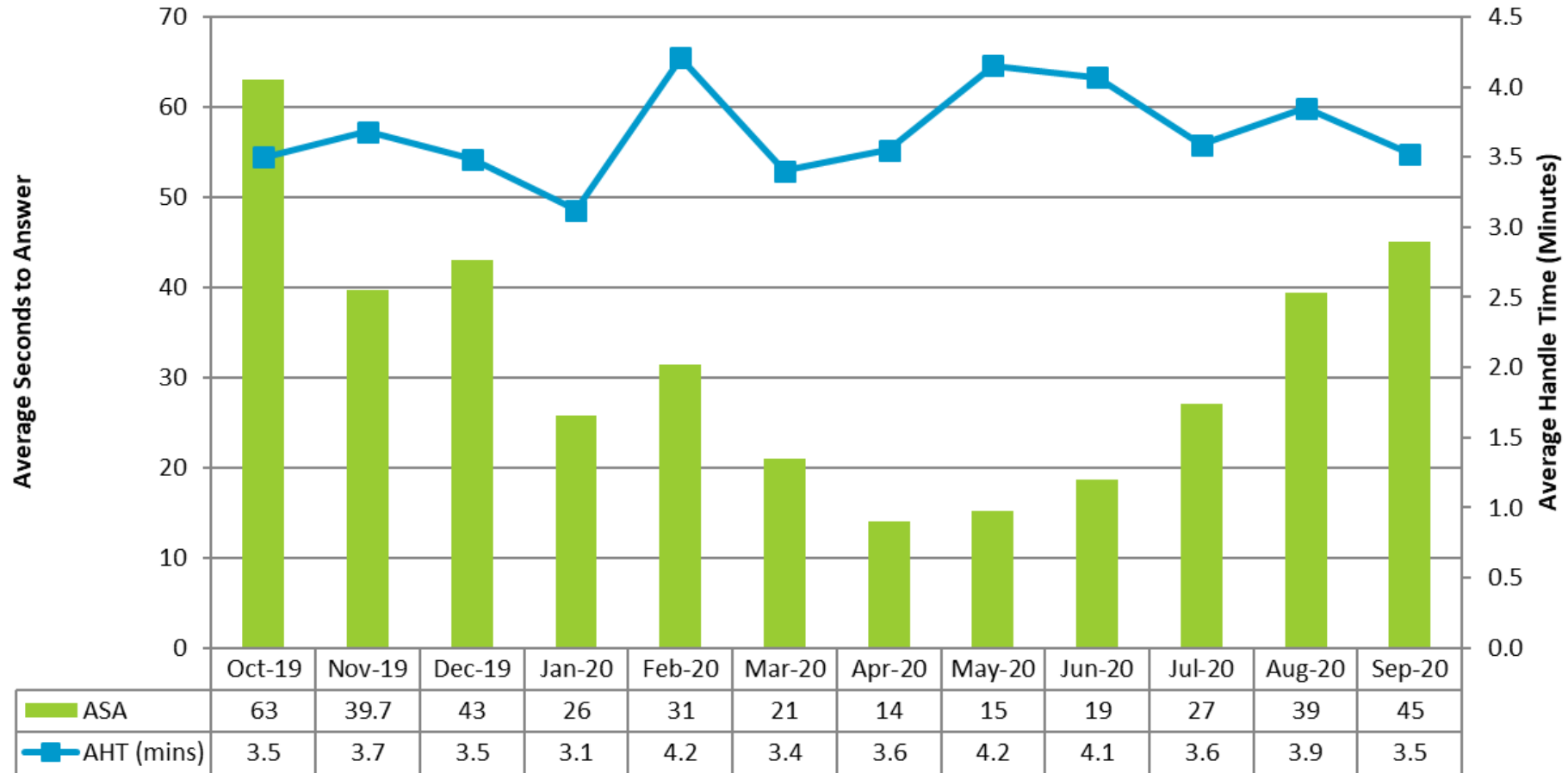


	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20
Text	53	24	4	0	0	0	0	0	0	0	0	0
Customer Emails	2248	761	316	686	302	267	277	308	317	259	277	289
Calls	4249	1908	955	678	1142	616	491	789	590	652	889	701



# Customer Service 2020

## Average Seconds to Answer & Average Handle Time



# 2020 Outreach

DATE	GROUP TYPE	ORGANIZATION	OUTREACH TYPE
1/20/2020	Multi-Family	Alijoya	Site Visit
1/21/2020	Multi-Family	Alijoya	Presentation
2/6/2020	Commercial	Mercer Island Chamber of Commerce	Presentation
2/18/2020	Community	Congregational Church	Presentation
2/18/2020	Commercial	Paul Allen Estate	Site Visit
2/27/2020	Community	Congregational Church	Materials

# 2020 Outreach: Post COVID-19

- Virtual Presentations
- Virtual workshops
- Virtual technical assistance
- Educational videos
- Social Media campaigns



**RECYCLING REMINDER**

**NO PLASTIC BAGS  
OR WRAP!**



## Sign the Pledge!

After you watch the videos with tips to help you recycle right, use the QR code or visit the link below to sign the pledge.



[bit.ly/XXXXXX](https://bit.ly/XXXXXX)



*Thank you  
for doing  
your part to  
Recycle Right!*



Follow us for more tips:  
[@RecologyKingCounty](https://www.instagram.com/RecologyKingCounty)



# INFLATION ADJUSTMENT

	2019 Period	2020 Period	% change to PY Index	% change to rates
CPI (3.3.1)	270.644	275.764	1.892%	1.892%

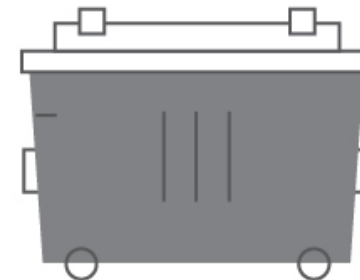
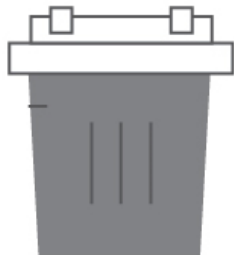
The collection fee component of the Contractor’s service fees contained in Exhibit B, and the miscellaneous fees and charges contained in Exhibit B that do not have separate disposal fee components, for each level of service shall increase each year by one hundred percent (100%) of the annual percentage change in the Consumer Price Index (CPI) for Seattle-Tacoma-Bellevue, Urban Wage Earners and Clerical Workers, All items, Series ID: CWURS49DSA0 (1982-84=100) prepared by the United States Department of Labor, Bureau of Labor Statistics, or a replacement index. Adjustments shall be based on the twelve (12) month period ending June 30<sup>th</sup> of the previous year that the request for increase is made. For example, an adjustment to the Contractor’s collection service charge effective January 1, 2021 will be based on the CPI for the twelve (12) month period ending June 30, 2020.



# RECYCLING RATE ADJUSTMENT

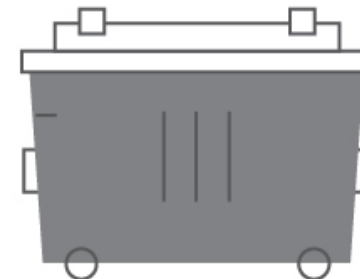
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Two waste characterizations of the City's residential Recyclables stream will be conducted each calendar year, one on or about May 1 and the other on or about November 1. Each characterization will measure the percentage by weight of each of the following commodity types in the City's residential Recyclables stream: OCC, Mixed Paper, Mixed Glass, Tin/Steel Cans, Aluminum Cans, Mixed HDPE, Natural HDPE, PET. For each commodity type, the weighted average of the May 1 and November 1 percentages will be used for purposes of calculating the following January's credit/debit adjustment.



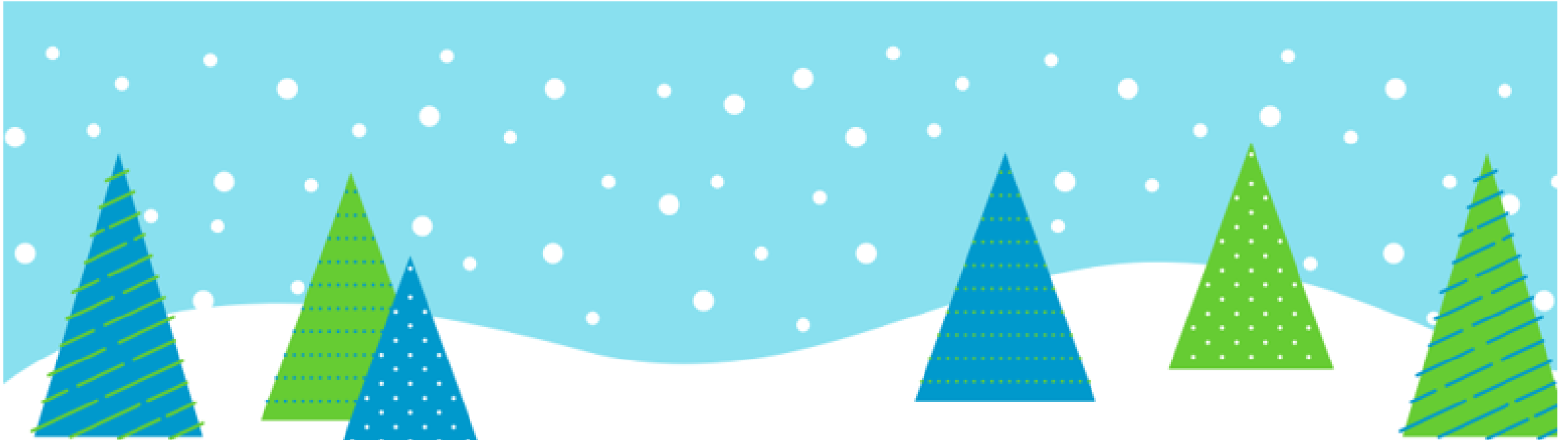
# RECYCLING RATE ADJUSTMENT

Residential Garbage Collection	Current Rate	January 1, 2021 Rate	Commercial Garbage Collection	Current Rate	January 1, 2021 Rate
32-Gallon Cart - Monthly	\$7.41	<b>\$7.18</b>	2YD - Weekly	\$238.14	<b>\$241.38</b>
32-Gallon Cart - Weekly	\$32.04	<b>\$32.19</b>	4YD - Weekly	\$451.73	<b>\$457.74</b>
64-Gallon Cart - Weekly	\$50.41	<b>\$50.83</b>	6YD - Weekly	\$665.34	<b>\$674.13</b>
96-Gallon Cart - Weekly	\$63.26	<b>\$63.83</b>	8YD - Weekly	\$872.42	<b>\$883.86</b>



# Upcoming Events

Item 3.



## where does it go? workshop







Questions?

# Utility Board

## 2020 Work Plan

Meeting Date	Agenda Item
January 14	Cancelled
February 11	Canceled due to COVID
March 10	Canceled due to COVID
April 14	Canceled due to COVID
May 12	Canceled due to COVID
June 9	Canceled due to COVID
July 14	Canceled due to COVID
August 11	Recess
September 23	King County North Mercer Island/Enatai Sewer Interceptor Project Update Board Elections City Update Introduction to Stormwater & EMS Rate 2021-2022 CUO Preview Revised UB Workplan
October TBD	Water Rate Discussion Sewer Rate Discussion EMS, Stormwater, Water & Sewer Rate Recommendation
November 10	Recology Solid Waste Annual Report SCADA Project Update
December 8	Booster Station & Water Vulnerability/Risk Assessment Project Updates Preview 2021 UB WorkPlan
<b>To Be Scheduled:</b>	

