





**Washington County Service Authority Board of Commissioners  
February 28, 2022 Regular Board Meeting Minutes**


<b>Agenda Item: 1</b>  COMMUNICATION	Call the Meeting to Order
<b>Presenter(s):</b>	Chairman
<b>End Time:</b>	6:00 pm


<b>Agenda Item: 2</b>  COMMUNICATION	Roll Call
<b>Presenter(s):</b>	Chairman
<b>Present:</b>	Mr. Thayer, Mr. Taylor, Mr. D. Miller, Mr. Campbell, Mr. Hutton, Mrs. C. Miller and Mr. Hutchinson
<b>Absent:</b>	None
<b>End Time:</b>	6:00 pm

<b>Agenda Item: 3</b>  COMMUNICATION	Prayer and Pledge of Allegiance
<b>Presenter(s):</b>	Mr. Hutton opened the meeting in prayer and led the Pledge of Allegiance.
<b>Beginning Time:</b>	6:00 pm
<b>End Time:</b>	6:01 pm


<b>Agenda Item: 4</b>  COMMUNICATION	Approval of the Amended Agenda
<b>Presenter(s):</b>	Chairman
<b>Beginning Time:</b>	6:01 pm
<b>Potential Conflict(s) of Interest and Abstention(s):</b>	None
<b>Actual Motion:</b>	Approve the Agenda as presented.
<b>Motion By:</b>	Mrs. C. Miller
<b>Second By:</b>	Mr. Hutchinson
<b>Voting:</b>	<b>Ayes:</b> 7
	<b>Nays:</b> 0
	<b>Abstain:</b> 0
<b>End Time:</b>	6:02 pm


**Washington County Service Authority Board of Commissioners**  
**February 28, 2022 Regular Board Meeting Minutes**


<b>Agenda Item: 5</b>  COMMUNICATION	Public Query and Comment
<b>Presenter(s):</b>	Chairman
<b>Beginning Time:</b>	6:02 pm
<b>Potential Conflict(s) of Interest and Abstention(s):</b>	None
<b>Speakers:</b>	Mr. Junior Gobble on Denton Valley Road spoke requesting a fire hydrant be installed in the Alvarado area and offered to have the fire hydrant installed on his property.
<b>Discussion:</b>	Mr. Campbell said he has had requests a hydrant be installed in the Alvarado area. Mr. Cornett is looking into the system limits for fire flow in the area.
<b>Speakers:</b>	Mr. Billy Brewer of 31428 Holly Field Road in Damascus, Virginia questioned the increase in his water usage since the installation of the new meters.
<b>Discussion:</b>	Mrs. Edwards offered to follow up with Mr. Brewer to remedy the issue.
<b>Actual Motion:</b>	None
<b>Motion By:</b>	
<b>Second By:</b>	
<b>Voting:</b>	<b>Ayes:</b>
	<b>Nays:</b>
	<b>Abstain:</b>
<b>End Time:</b>	6:14 pm

<b>Agenda Item: 6</b>  COMMUNICATION	Approval of the Consent Agenda
<b>Presenter(s):</b>	Chairman
<b>Beginning Time:</b>	6:14 pm
<b>Potential Conflict(s) of Interest and Abstention(s):</b>	None
<b>Discussion:</b>	None
<b>On the Record:</b>	None
<b>Actual Motion:</b>	Motion to approve the Consent Agenda.
<b>Motion By:</b>	Mr. D. Miller
<b>Second By:</b>	Mr. Hutton
<b>Voting:</b>	<b>Ayes:</b> 7
	<b>Nays:</b> 0
	<b>Abstain:</b> 0
<b>End Time:</b>	6:14 pm

**Washington County Service Authority Board of Commissioners**  
**February 28, 2022 Regular Board Meeting Minutes**


<b>Agenda Item: 7</b>  COMMUNICATION	Legal Counsel Report and Update
<b>Presenter(s):</b>	Thomas Dene
<b>Beginning Time:</b>	6:14 pm
<b>Potential Conflict(s) of Interest and Abstention(s):</b>	None
<b>Discussion:</b>	Mr. Dene had no report for open meeting.
<b>Actual Motion:</b>	None
<b>Motion By:</b>	
<b>Second By:</b>	
<b>Voting:</b>	<b>Ayes:</b>
	<b>Nays:</b>
	<b>Abstain:</b>
<b>End Time:</b>	6:14 pm

<b>Agenda Item: 8</b>  COMMUNICATION	General Manager Report and Update
<b>Presenter(s):</b>	Robbie Cornett and Holly Edwards
<b>Beginning Time:</b>	6:15 pm
<b>Potential Conflict(s) of Interest and Abstention(s):</b>	None
<b>Discussion:</b>	Mr. Cornett and Mrs. Edwards discussed the attached presentation.
<b>On the Record:</b>	None
<b>Actual Motion:</b>	None
<b>Motion By:</b>	
<b>Second By:</b>	
<b>Voting:</b>	<b>Ayes:</b>
	<b>Nays:</b>
	<b>Abstain:</b>
<b>End Time:</b>	6:47 pm

<b>Agenda Item: 9</b>  COMMUNICATION	Operations Report and Update
<b>Presenter(s):</b>	Ron Seay and Drew Langston
<b>Beginning Time:</b>	6:47 pm


**Washington County Service Authority Board of Commissioners  
February 28, 2022 Regular Board Meeting Minutes**


<b>Potential Conflict(s) of Interest and Abstention(s):</b>	None
<b>Discussion:</b>	Mr. Seay and Mr. Langston reviewed the attached presentation.
<b>On the Record:</b>	None
<b>Actual Motion:</b>	None
<b>Motion By:</b>	
<b>Second By:</b>	
<b>Voting: Ayes:</b>	
<b>Nays:</b>	
<b>Abstain:</b>	
<b>End Time:</b>	7:04 pm

<b>Agenda Item: 10</b> 	Engineering Report / Construction Projects Update
<b>Presenter(s):</b>	Ryan Kiser
<b>Beginning Time:</b>	7:04 pm
<b>Potential Conflict(s) of Interest and Abstention(s):</b>	None
<b>Discussion:</b>	Mr. Kiser updated the Board on the following projects: <ul style="list-style-type: none"> <li>• Galvanized Line Phase 3 Project</li> <li>• Waterline Extension Projects</li> <li>• Mill Creek Chlorine Contact Tank Replacement</li> <li>• Demolition of the old Route 58 Water Storage Tank</li> <li>• Smyth Chapel Improvements Project</li> <li>• Lee Highway Corridor Sewer Project</li> <li>• Mendota/Mary's Chapel Project</li> <li>• Administrative Complex and Grounds Improvements</li> <li>• Private Development Projects</li> </ul>
<b>On the Record:</b>	None
<b>Discussion:</b>	Mr. Kiser asked the Board to approve a proposed change Order in the amount of \$1,226,120.00 to Boring Contractors for Division 3A of the Galvanized Line Phase 3 Project subject to Rural Development approval.
<b>Actual Motion:</b>	Approved as requested.
<b>Motion By:</b>	Mr. D. Miller
<b>Second By:</b>	Mr. Thayer
<b>Voting: Ayes:</b>	7
<b>Nays:</b>	0
<b>Abstain:</b>	0

**Washington County Service Authority Board of Commissioners  
February 28, 2022 Regular Board Meeting Minutes**


<b>Discussion:</b>	Mr. Kiser asked the Board for permission apply for project funding and commit \$1,500 per connection for Flatwood Acers, Spring Lake Road, Bluff Hollow Road, Spoon Gap Road and Buffalo Pond Road.
<b>Actual Motion:</b>	Motion to approve applying for project funding and commit \$1,500 per connection for Flatwood Acers, Spring Lake Road, Bluff Hollow Road, Spoon Gap Road and Buffalo Pond Road.
<b>Motion By:</b>	Mr. Hutchinson
<b>Second By:</b>	Mr. Taylor
<b>Voting:</b>	<b>Ayes:</b> 7
	<b>Nays:</b> 0
	<b>Abstain:</b> 0
<b>End Time:</b>	7:34 pm

<b>Agenda Item: 11</b>  <b>FINANCIAL VIABILITY</b>	Financial Report and Update
<b>Presenter(s):</b>	Rusty Little
<b>Beginning Time:</b>	7:34 pm
<b>Potential Conflict(s) of Interest and Abstention(s):</b>	None
<b>Discussion:</b>	Mr. Little updated the Board on the state of WCSA's financials including the audit. WCSA received Municipal Relief Fund Grants totaling \$63,000 due to covid-19 that was applied to 1,100 customer accounts.
<b>On the Record:</b>	None
<b>Actual Motion:</b>	None
<b>Motion By:</b>	
<b>Second By:</b>	
<b>Voting:</b>	<b>Ayes:</b>
	<b>Nays:</b>
	<b>Abstain:</b>
<b>End Time:</b>	7:38 pm

<b>Agenda Item: 12</b>  <b>EMPLOYER OF CHOICE</b>	Human Resources Report and Update
<b>Presenter(s):</b>	Shawn Blevins
<b>Beginning Time:</b>	7:38 pm
<b>Potential Conflict(s) of Interest and Abstention(s):</b>	None
<b>Discussion:</b>	Mr. Blevins had no report.


**Washington County Service Authority Board of Commissioners  
February 28, 2022 Regular Board Meeting Minutes**

<b>On the Record:</b>	Mr. Campbell asked if meetings in the Maintenance Department were continuing. Mr. Blevins confirmed the meeting were ongoing.
<b>Actual Motion:</b>	None
<b>Motion By:</b>	
<b>Second By:</b>	
<b>Voting:</b>	<b>Ayes:</b>
	<b>Nays:</b>
	<b>Abstain:</b>
<b>End Time:</b>	7:39 pm

<b>Agenda Item: 13</b>  <b>COMMUNICATION</b>	Consideration of a Customer Service Budget Amendment
<b>Presenter(s):</b>	Holly Edwards
<b>Beginning Time:</b>	7:40 pm
<b>Potential Conflict(s) of Interest and Abstention(s):</b>	None
<b>Background:</b>	<p>As part of our telephone communication evaluation, we have determined that one additional staff member is needed in the short-term. To support this request, we offer the following:</p> <ol style="list-style-type: none"> <li>1. The number of calls to/from customer service has doubled from November 2018 to October 2021 (three-year period). We believe there are several reasons for this including the discontinuing disconnection for nonpayment twice (2021); closing of the lobby (2020 to present); meter replacement project (2021); leaks at the meter (2021/2022); and what appears to be a change in customer behavior (preferring to call rather than come into the office which began even before the pandemic).</li> <li>2. With the upgrade of our customer information system that is set to “go live” in 2022, all customers who use our current portal will have to become a customer in the new portal. This will result in more customer calls than normal.</li> <li>3. Of the nine (9) customer service staff, two (2) have already achieved retirement eligibility and four (4) more will within five (5) years. Depending on the person, training takes about a year to become proficient.</li> </ol> <p>Together, these three (3) things lead us to request a budget amendment of \$18,400 for the remainder of the FY 22 budget. We do believe this is a short-term need and with the pending retirements, depending on when they retire, would not backfill one of our retirees’ positions.</p>
<b>Discussion:</b>	None

**Washington County Service Authority Board of Commissioners  
February 28, 2022 Regular Board Meeting Minutes**

<b>On the Record:</b>	Mr. Hutchinson discussed a call he received from Randy Smith on the Rezoning Commission in which Mr. Smith was complimentary of how fast WCSA's maintenance department was able to repair a major leak and get customers back in service on King Mill Pike. Mr. Hutchinson then spoke about how expeditious WCSA's maintenance department was in repairing a leak in the Highpoint area of Bristol, Virginia.
<b>Recommendations:</b>	Subject to answering any questions the Board may have, Staff kindly recommends the Board favorably consider approving the budget amendment of \$18,400 for the remainder of the Fiscal Year End 2022 budget.
<b>Actual Motion:</b>	Move to approve the budget amendment of \$18,400 for the remainder of the FY 22 budget.
<b>Motion By:</b>	Mr. Hutchinson
<b>Second By:</b>	Mr. Hutton
<b>Voting:</b>	<b>Ayes:</b> 7
	<b>Nays:</b> 0
	<b>Abstain:</b> 0
<b>End Time:</b>	7:52 pm

<b>Agenda Item: 14</b>  <b>COMMUNICATION</b>	Closed Meeting
<b>Presenter(s):</b>	Commissioner
<b>Beginning Time:</b>	7:52 pm
<b>Potential Conflict(s) of Interest and Abstention(s):</b>	None
<b>On the Record:</b>	None
<b>Actual Motion:</b>	Motion to adjourn to Closed Meeting
<b>Motion By:</b>	Mr. D. Miller
<b>Second By:</b>	Mr. Hutchinson
<b>Voting:</b>	<b>Ayes:</b> 7
	<b>Nays:</b> 0
	<b>Abstain:</b> 0
<b>End Time:</b>	7:54pm

**WASHINGTON COUNTY SERVICE AUTHORITY  
BOARD OF COMMISSIONERS  
Closed Meeting February 28, 2022**

Mr. D Miller moved that the Board of Commissioners of the Washington County Service Authority adjourn to Closed Meeting in accordance with the Virginia Freedom of Information Act for

**Washington County Service Authority Board of Commissioners  
February 28, 2022 Regular Board Meeting Minutes**

**1. Code of Virginia Section 2.2-3711 Paragraph (A) (8): Consultation with Legal Counsel**


Consultation with legal counsel employed or retained by a public body regarding specific legal matters requiring the provision of legal advice by such counsel, and specifically involving an amendment of the terms the manufacturer’s membrane warranty for the Mill Creek Water Treatment Plant currently operated by the Authority.

**2. Code of Virginia Section 2.2-3711 Paragraph (A) (8): Consultation with Legal Counsel**

Consultation with legal counsel employed or retained by a public body regarding specific legal matters requiring the provision of legal advice by such counsel, and specifically involving the terms and conditions of a proposed Regional Water Agreement between the Authority and the Town of Chilhowie.

In addition to the Board of Commissioners the presence of Robbie Cornett, WCSA General Manager, and Thomas Dene, WCSA General Counsel, and is requested.

Motion: Mr. D. Miller  
Second: Mr. Hutchinson  
Vote: Unanimous

<b>Agenda Item: 15</b>  COMMUNICATION	Return to Open Meeting
<b>Presenter(s):</b>	Commissioner
<b>Beginning Time:</b>	9:10 pm
<b>Potential Conflict(s) of Interest and Abstention(s):</b>	None
<b>On the Record:</b>	None
<b>Actual Motion:</b>	Motion to return to Public Meeting.
<b>Motion By:</b>	Mr. D. Miller
<b>Second By:</b>	
<b>Voting:</b>	<b>Ayes:</b>
	<b>Nays:</b>
	<b>Abstain:</b>
<b>End Time:</b>	9:10 pm

**Return to Public Meeting**

Mr. D. Miller moved that the Board return to Open Session.

**Certification of Closed Meeting**

Mr. D. Miller moved that the Board adopt the following resolution:

Whereas, the Board of Commissioners of the Washington County Service Authority has convened a Closed Meeting on this date pursuant to an affirmative recorded vote and in accordance with the provisions of the Virginia Freedom of Information Act;

And





**Washington County Service Authority Board of Commissioners  
February 28, 2022 Regular Board Meeting Minutes**

Whereas, Section 2.2-3712 Paragraph D of the Code of Virginia requires a certification by this Authority that such Closed Meeting was conducted in conformity with Virginia law;

And  
Now, therefore, be it resolved that the Board of Commissioners of the Washington County Service Authority hereby certifies that to the best of each member's knowledge, (1) only public business matters lawfully exempted from open meeting requirements by Virginia law were discussed in the Closed Meeting to which this certification resolution applies, and (2) only such public business matters as were identified in the motion convening the Closed Meeting were heard, discussed or considered by the Board.

AYE by Mr. Thayer Mr. Taylor, Mr. D. Miller, Mr. Campbell, Mr. Hutton, Mrs. C. Miller and Mr. Hutchinson

<b>Agenda Item: 16</b>  COMMUNICATION	Late Items
<b>Presenter(s):</b>	Commissioner
<b>Beginning Time:</b>	9:13 pm
<b>Potential Conflict(s) of Interest and Abstention(s):</b>	None
<b>On the Record:</b>	Mr. Thayer has had requests from the Board of Supervisors and citizens to re-open WCSA's lobby to the public. Mr. Cornett will present the Board with lobby safety and security options at the March regular meeting. Board discussion ensued with Mr. Cornett regarding bidding the Mendota Road Project. The Board agreed to proceed with advertising the Mendota Road Project for bids.
<b>Actual Motion:</b>	None
<b>Motion By:</b>	
<b>Second By:</b>	
<b>Voting:</b>	<b>Ayes:</b>
	<b>Nays:</b>
	<b>Abstain:</b>
<b>End Time:</b>	9:24 pm

<b>Agenda Item: 17</b>  COMMUNICATION	Adjourn
<b>Presenter(s):</b>	Commissioner
<b>Beginning Time:</b>	9:24 pm
<b>Potential Conflict(s) of Interest and Abstention(s):</b>	None
<b>On the Record:</b>	None
<b>Actual Motion:</b>	Motion to adjourn.
<b>Motion By:</b>	Mr. D. Miller
<b>Second By:</b>	Mr. Taylor

**Washington County Service Authority Board of Commissioners**  
**February 28, 2022 Regular Board Meeting Minutes**

<b>Voting:</b>	<b>Ayes:</b>	7
	<b>Nays:</b>	0
	<b>Abstain:</b>	0
<b>End Time:</b>		9:24 pm

  
\_\_\_\_\_  
Wayne Campbell, Chairman

  
\_\_\_\_\_  
Carol Ann Shaffer, Assistant Secretary

# Washington County Service Authority



General Manager

# Report and Update

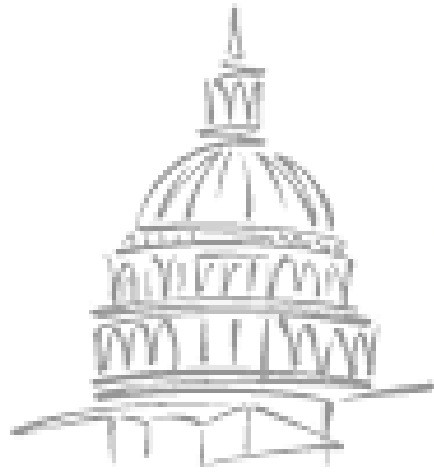
# General Assembly



# Board Retreat



# GovDeals



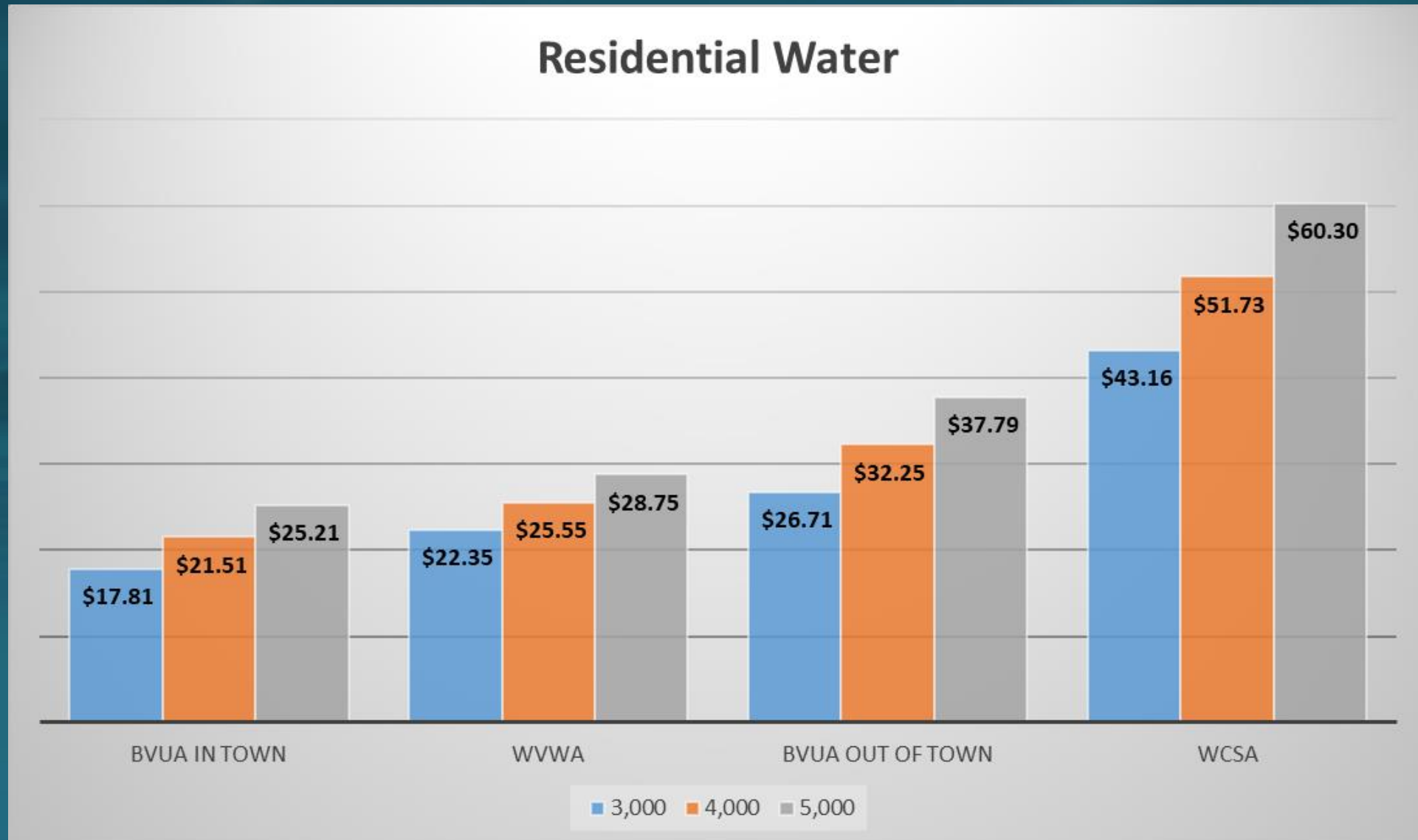
**GovDeals.com**

Online Government Surplus Auction

# Customer Costs

- Customers sometimes ask, *why* is my bill higher than my friend who lives in \_\_\_\_\_.
- Rate comparisons will never be apples to apples however, we can compare and shed light on *why* one bill may be higher/lower than another.
- In the coming months, in comparison to three other utilities, we will look at some of the things we can compare and which result in the rates we see today.

# Customer Costs





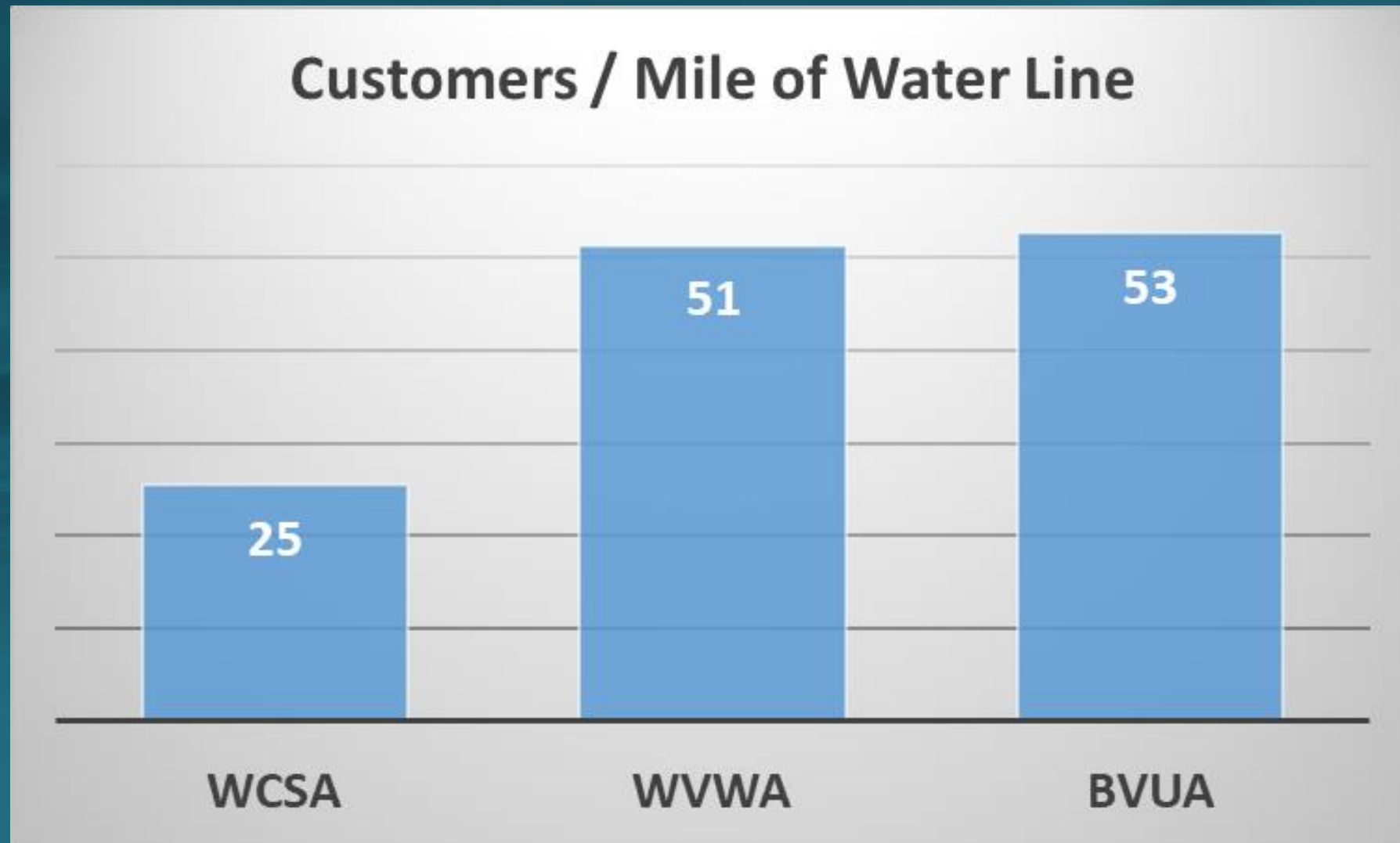
# Customer Costs



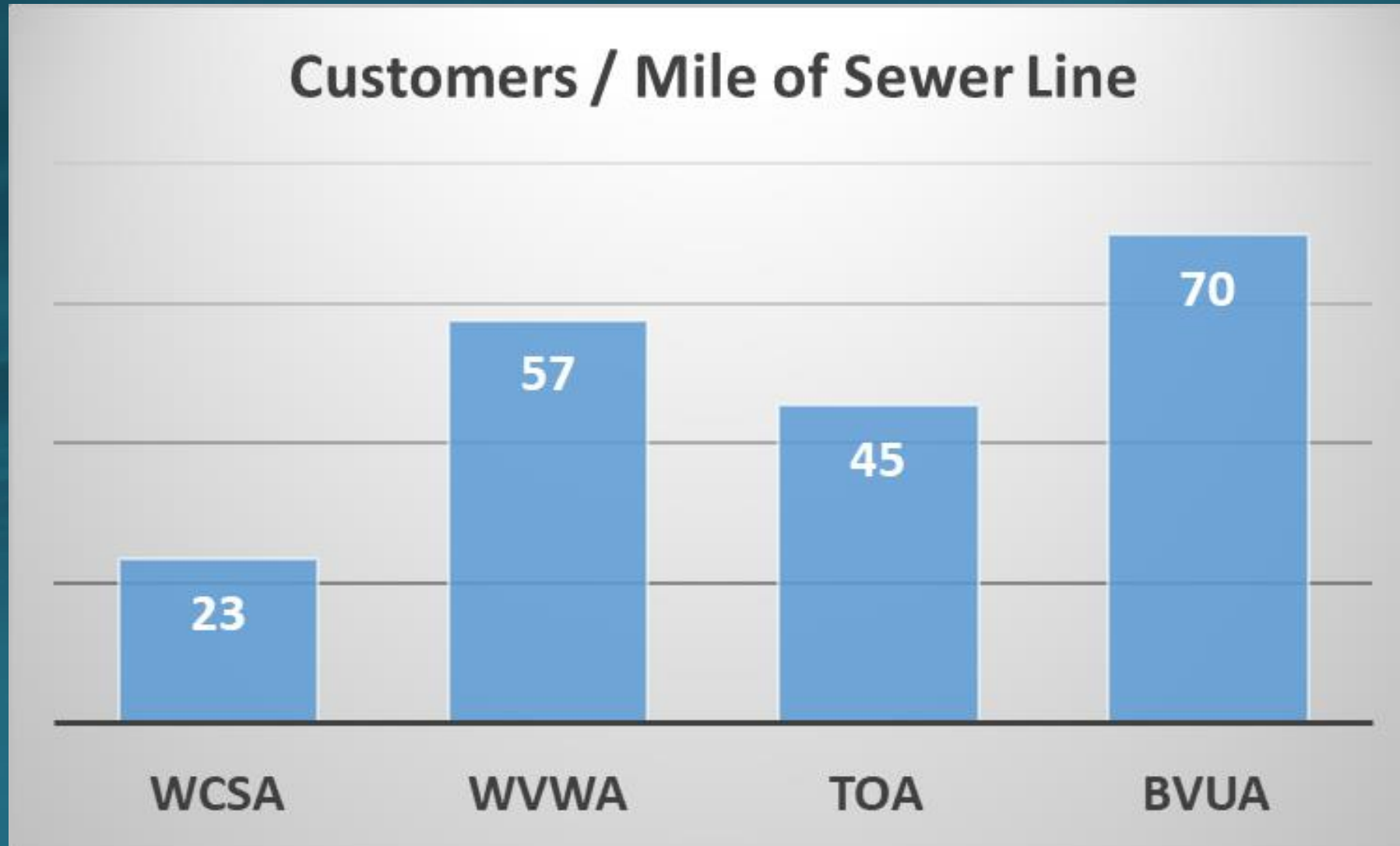
# Customer Costs

- Three things all utilities have in common:
  1. Water/Sewer Line (Miles)
  2. Customers
  3. Cost to Maintain Water/Sewer Line (Budget)
- If we assume each utility has the same cost to maintain a mile of line (\$550/year) and utility A has 50 customers/mile, the cost/customer is \$11/year
- If utility B has the same cost to maintain a mile of line (\$550/year) but only 25 customers/mile, the cost/customer is \$22/year (double utility A customers)
- Does this make sense? Density matters!

# Customer Costs

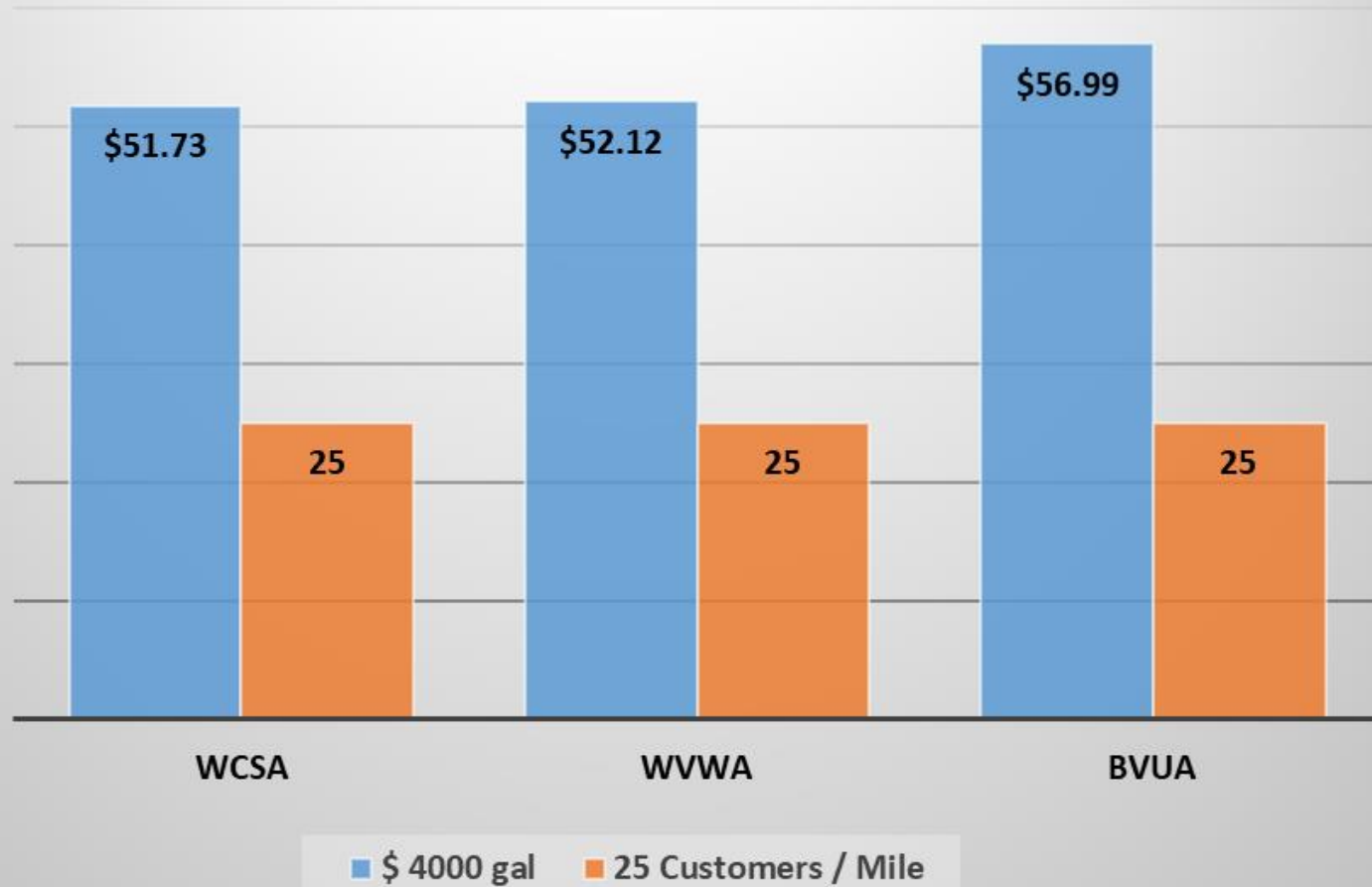


# Customer Costs



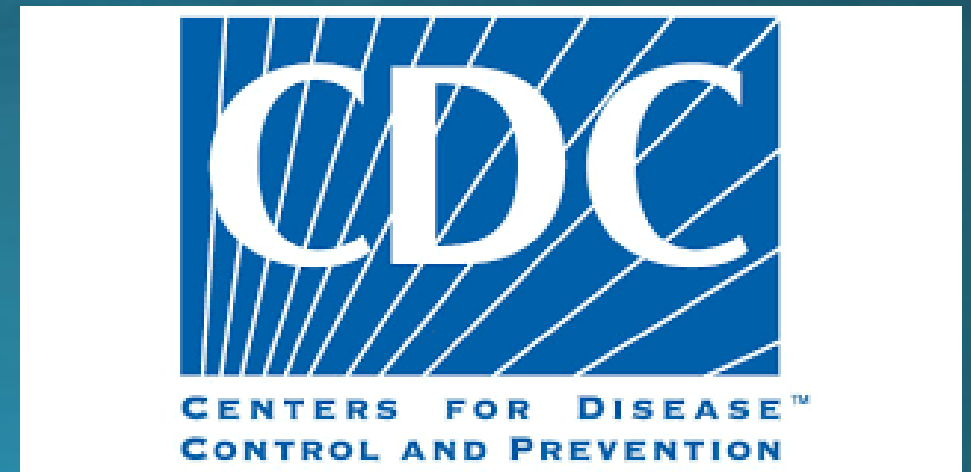
# Customer Costs

Residential Water - Nominalized for Density



# Guidance on Masks

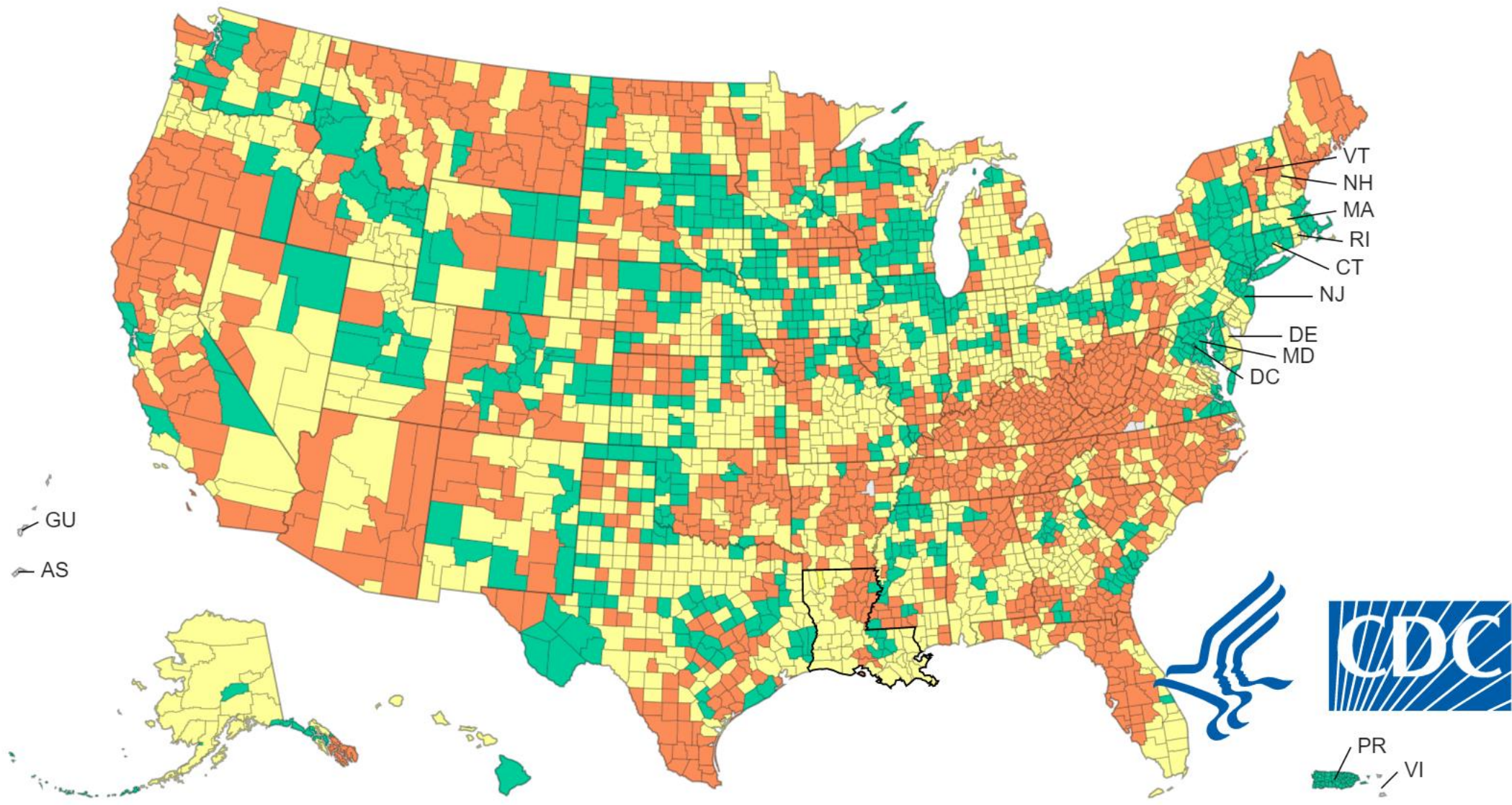
- January 15, 2022, Governor Youngkin, requests Safety and Health Codes Board consider changes to the DOLI standard
  - February 16, Board adopted DOLIs finding that COVID-19 no longer poses “grave danger” to employees and DOLIs recommendation to revoke the Virginia Standard, subject to a 30-day comment period and second Board meeting/vote.
- February 25, 2022, CDC updates



# What Prevention Steps Should You Take Based on Your COVID-19 Community Level?

Low	Medium	High
<ul style="list-style-type: none"><li>• Stay <a href="#">up to date</a> with COVID-19 vaccines</li><li>• <a href="#">Get tested</a> if you have symptoms</li></ul>	<ul style="list-style-type: none"><li>• If you are <a href="#">at high risk for severe illness</a>, talk to your healthcare provider about whether you need to wear a mask and take other precautions</li><li>• Stay <a href="#">up to date</a> with COVID-19 vaccines</li><li>• <a href="#">Get tested</a> if you have symptoms</li></ul>	<ul style="list-style-type: none"><li>• Wear a <a href="#">mask</a> indoors in public</li><li>• Stay <a href="#">up to date</a> with COVID-19 vaccines</li><li>• <a href="#">Get tested</a> if you have symptoms</li><li>• Additional precautions may be needed for people <a href="#">at high risk for severe illness</a></li></ul>

People may choose to mask at any time. People with symptoms, a positive test, or exposure to





# Customer Service

## Holly Edwards

# Telephone Communications

- Proposing one new position to help answer the increased number of calls
  - Number of calls have doubled since 2018
- Meeting with Embarq and telephone consultant on March 3<sup>rd</sup> to examine the service and systems
  - From this, we will develop a plan



# Administrative Building Improvements

- Architect (Thompson & Litton) is helping us with:
  - Board room dais (multi-function)
  - Customer lobby security issues
  - Parking lot light code issues
  - Carpet



# Washington County Service Authority



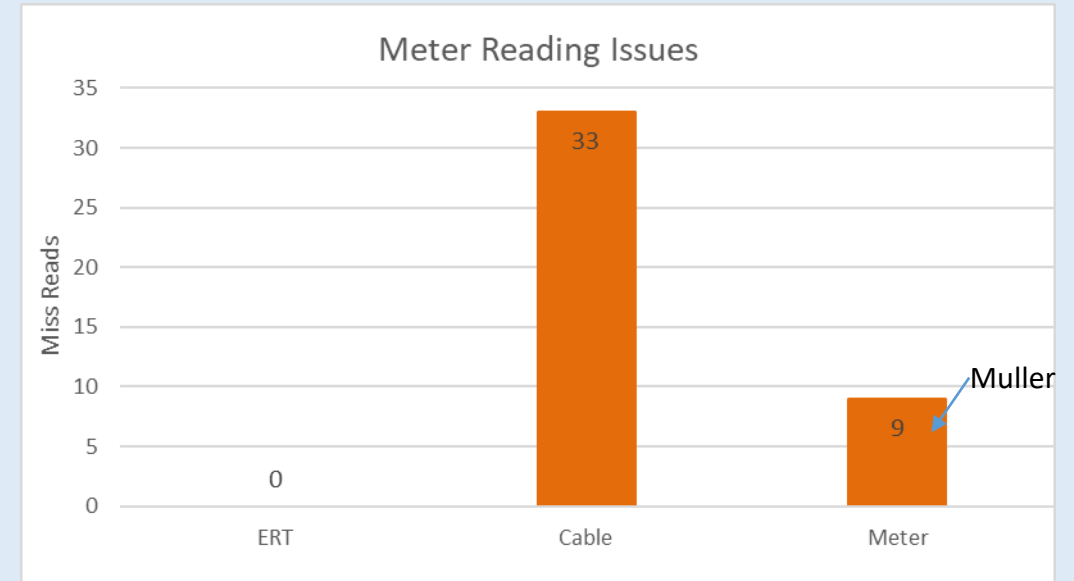
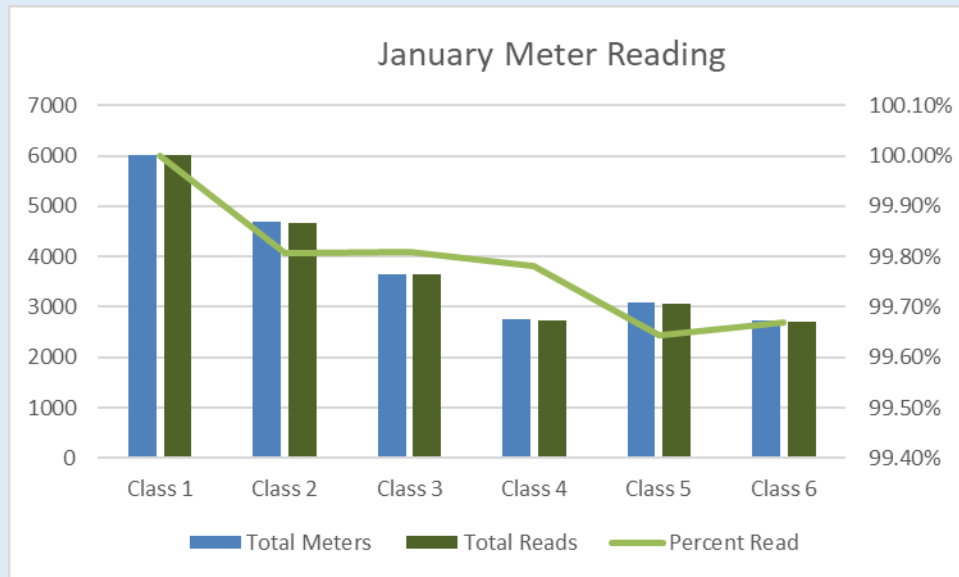
## Operations Update

**February 28, 2022**

# Meter Operations

- ~100 meters remain to be replaced
  - Several 4" and 2" in diameter meters (Denmark)
  - Some difficult  $\frac{3}{4}$ " diameter meters
- AMR reading remains excellent
- AMI testing and transition continues (behind schedule)
  - Successfully read the four test meters
- Meter Leaks
  - Initially, probably due to installation
  - Meter leaks may be due to the gasket between the "yoke" and "expansion wheel"
  - New gaskets are on hand, when called to a meter leak, the gaskets are replaced
  - Tracking gasket replacement in ArcGIS

# Meter Operations



## Takeaways:

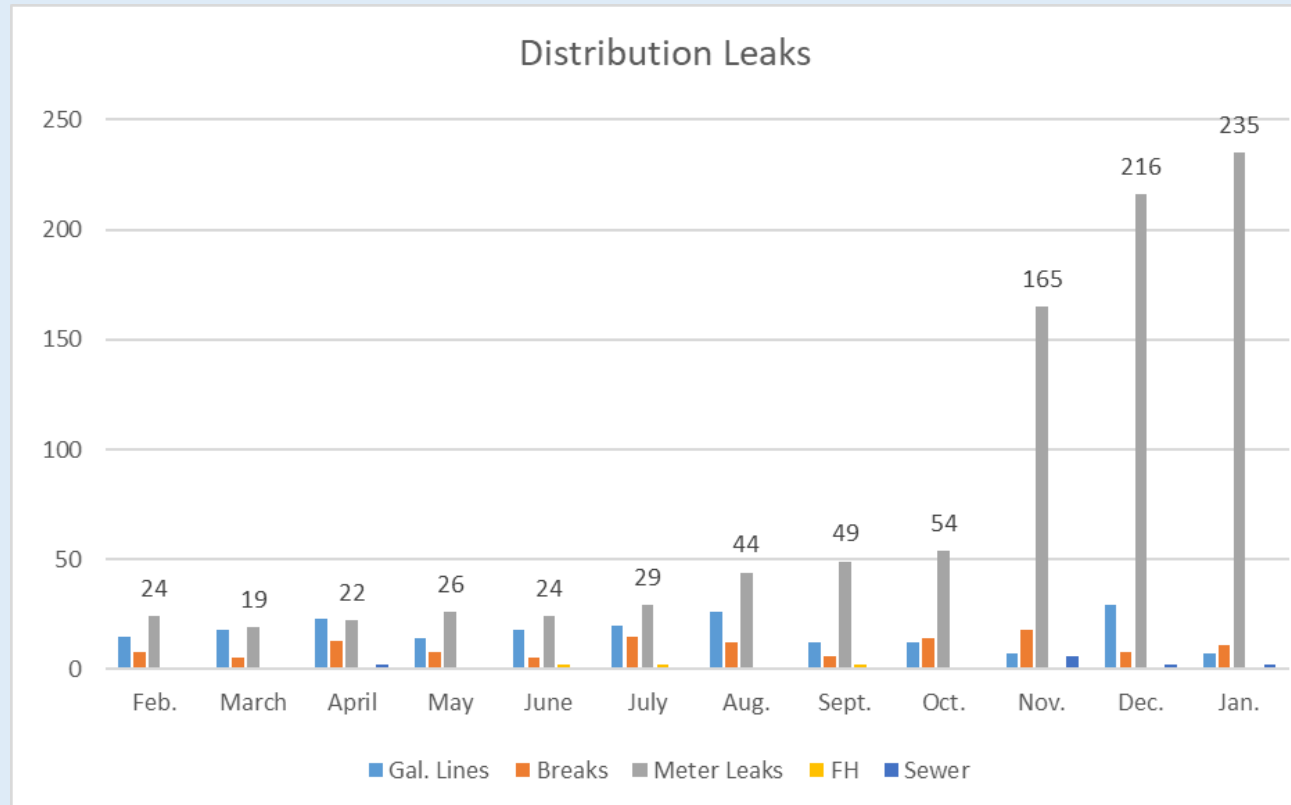
1. Meter reading accuracy using AMR is 99.8%
2. Meter reading issue is broken cable between ERT and Meter

# Maintenance Operations

- Offers accepted - two new maintenance crew employees
  - Start date in February
- Completed 1<sup>st</sup> Quarter Tank Inspections
- Put into service 10 New Fire Hydrants from G3 Project
- Completed all Lift Station inspections
- Completed 1<sup>st</sup> Quarter pump Stations Inspections
- Installed two Tank shrouds



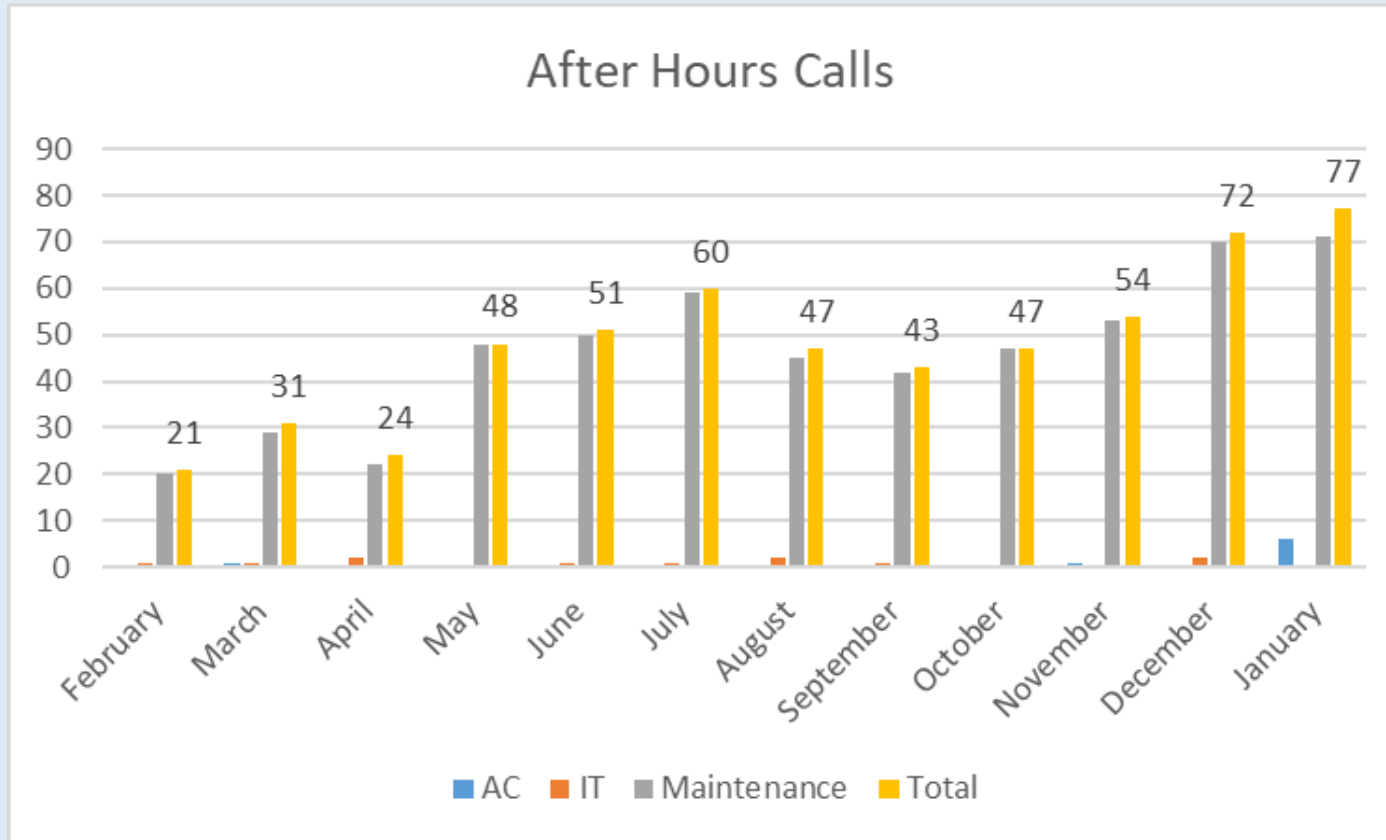
# Maintenance Operations



## Takeaways:

1. Meter leaks are in part due to gaskets – working to determine root cause
2. Recording meter gasket change out using ArcGIS Survey

# Maintenance Operations

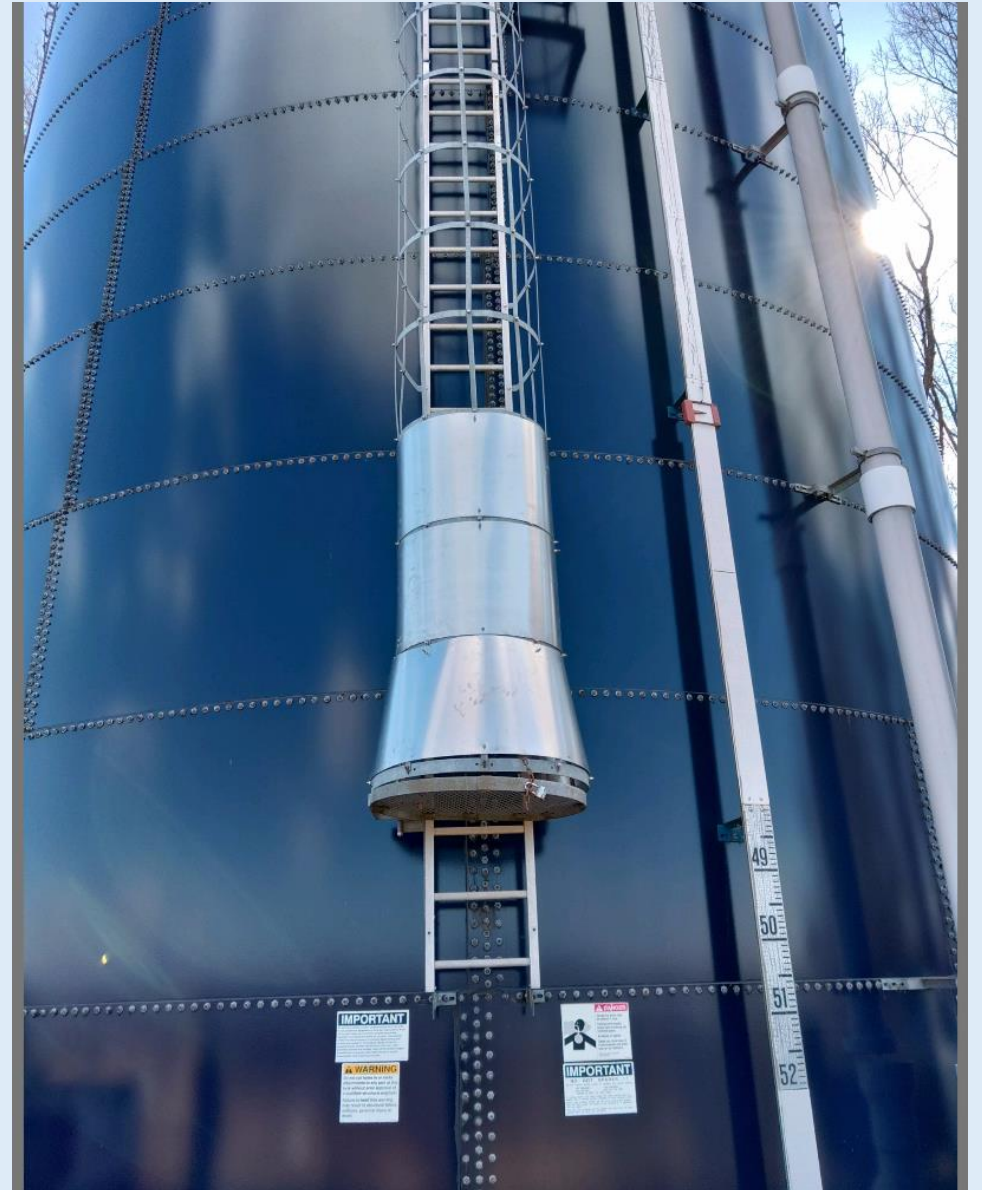


## Takeaways:

1. Meter leaks along with seasonal line breaks resulted in a consistent uptick in call-outs in January

# Maintenance Operations

- Safety and Security Improvements
- Maintenance Team led by Randall Mitchell installed two shrouds
  - 740 Tank
  - Route 19 Tank



# Fire Hydrant Improvements

- Met with Emergency Management Coordinator, Theresa Kingsley & Others
  - Items discussed
    - ArcGIS mapping Application
    - Communication to WCSA in a Fire event
    - Mapping updates
    - Fire hydrant visibility
    - Safe flow capability
    - Identification
    - Safe operation

# Fire Hydrant Improvements

- Takeaways from meeting with Emergency Management Coordinator, Theresa Kingsley & Others
  - Shared ArcGIS mapping application
    - Emergency responders can load App on cell phone to locate fire hydrants
  - Dispatch contact WCSA when there is a Fire
    - Currently Dispatch was contacting Middle Fork Plant
    - Updated Dispatch to contact our main number – after hours goes to third party
    - WCSA crew will go to the location to assist with Hydrants and meter cut off
  - Mapping updates to Emergency Management
    - Current mapping updates were sent quarterly
    - Increased frequency of updates to monthly or as major changes are made
  - WCSA sourced 7' Reflective Rods to install on hard to locate Hydrants
    - Installed Reflective Rods on two Hydrants
    - Requested feedback from Emergency Management & Fire Departments on hard to locate Hydrants

# Fire Hydrant Improvements

- Installed Reflective Rods on two Hydrants

17074 Lee Hwy



Wyndale Rd & Providence Rd



Wyndale Rd & Providence Rd



# Operations Update

- Looking Forward
  - Seeking applications for a Manager of Information Technology and Systems
  - In the process of extending offers to two new Maintenance Crew employees
    - Start dates in March
  - Established project for VPDES Permit reissuance for Hall Creek WWTP

# Water Production & Wastewater Production

- Drew Langston will cover...



# January 2022

## Washington County Service Authority Production/Reclamation Operations Report



# Production Operational Notes

- New hires began Training
- Submitted Semi-Annual DEQ Withdrawal Report
- Conducted Employee Reviews
- Reservation Spring went out of service for two days due to heavy precipitation.
- Leaking joint on a Finish Pump at the Middle Fork was repaired.
- Began procurement of Finish Pump at Mill Creek
- Began Annual Cleaning of filters to remove Permanganate staining.



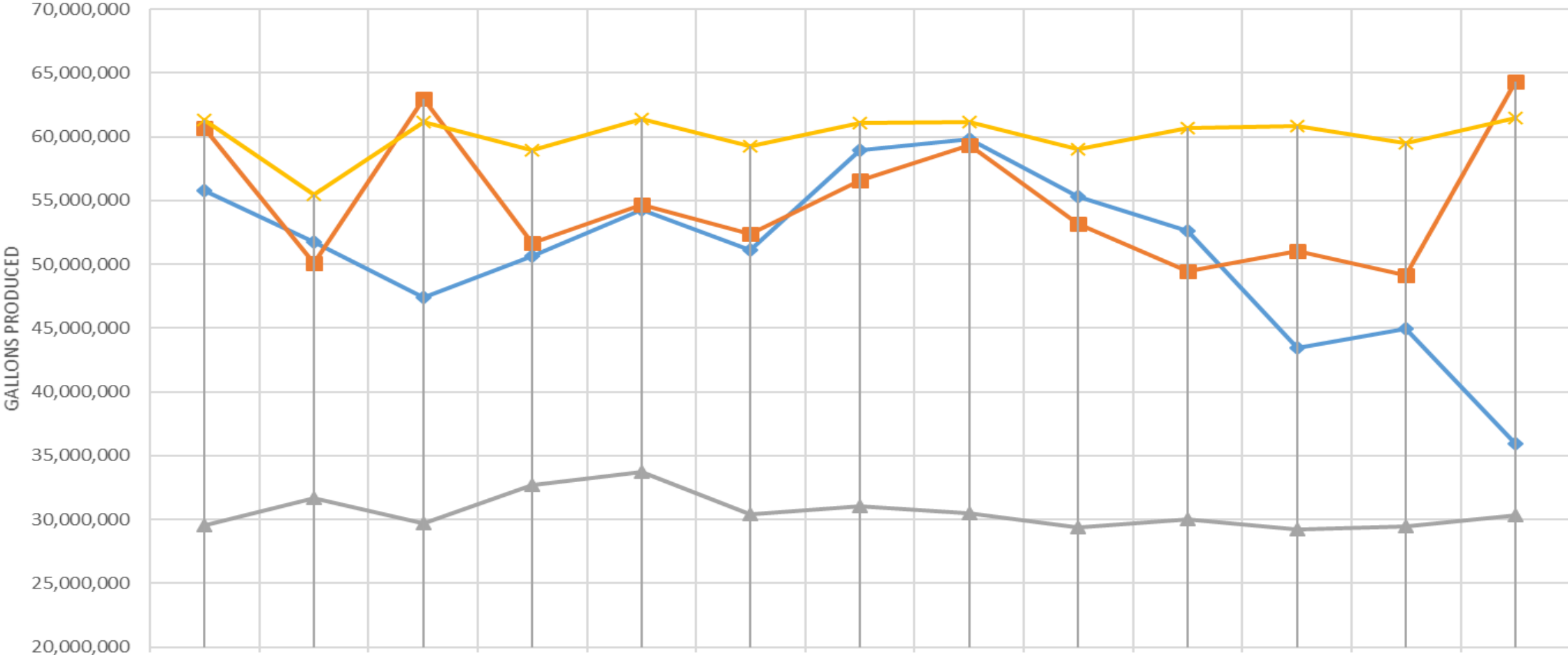
# Production Operations Data

## January 2022 Withdrawals

RAW WATER SOURCE	TOTAL VOLUME WITHDRAWN (Gallons)	AVERAGE DAILY WITHDRAWAL (Gallons)
Middle Fork Holston River	64,340,000	2,075,000
South Fork Holston River	35,900,000	1,436,000
Reservation Spring	30,352,000	979,000
Cole Spring	61,500,441	1,983,985

# SOURCE WATER WITHDRAWALS

South Fork Middle Fork Reservation Spring Cole Spring



# Production Operations Data

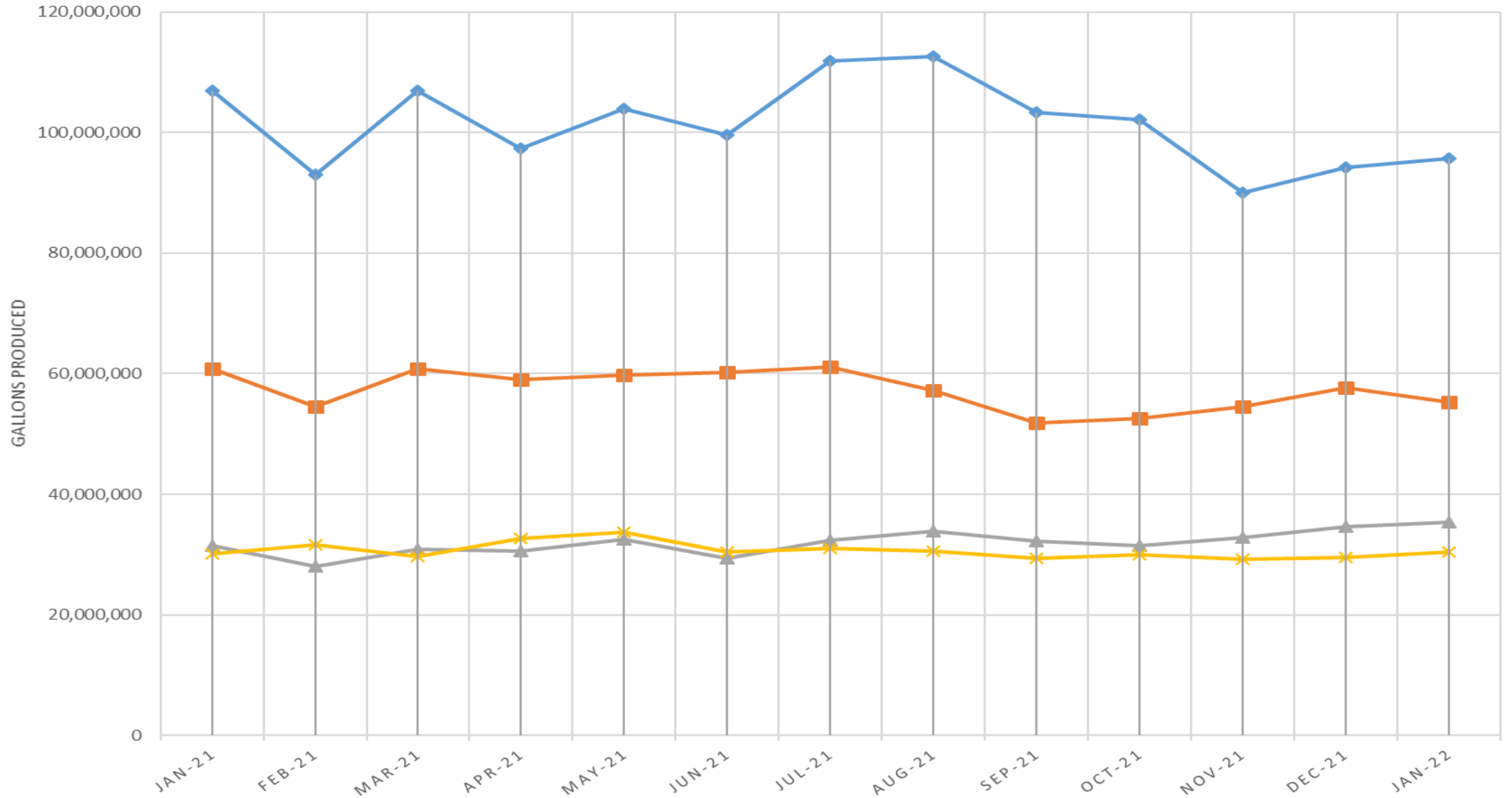
## January 2022

### Finished Water

TREATMENT FACILITY	FINISHED WATER PRODUCED (GALLONS)	AVERAGE DAILY PRODUCTION (Gallons)
Middle Fork Drinking Water Plant	95,615,000	3,084,000
Reservation Spring	30,352,000	979,000
Mill Creek (WCSA)	55,227,000	1,782,000
Mill Creek (Chilhowie)	35,370,000	1,141,000
Mendota	Purchased from Scott County	Purchased from Scott County

# WATER TREATMENT PRODUCTION

◆ Middle Fork Treated    ■ Mill Creek WCSA    ▲ Mill Creek TOC    ✕ Reservation Spring



# Production Operations Data

## January 2022 STABILITY

Treatment Facility	Average Raw Water Turbidity	Max Raw Water Turbidity	Average Finished Water Turbidity	Max Finished Water Turbidity
Middle Fork DWP	8 (NTU)	94 (NTU)	0.04 (NTU)	0.12 (NTU)
Mill Creek	0.59 (NTU)	2.17 (NTU)	0.01 (NTU)	0.03 (NTU)

Treatment Facility	Average Finished Water Chlorine Residual	Average Distribution Chlorine Residual
Middle Fork DWP	2.10 mg/L	1.20 mg/L
Mill Creek	1.56 mg/L	

**ON TRACK FOR GOLD**

# January 2022

## Water Reclamations Operational Notes

- Performed all DEQ DMR requirements for Hall Creek and Damascus WWTP (November and December)
- Checked Exit 22 Pump Station Daily
- Pulled and cleaned pump 1 at Glade Pump Station
- Pulled pump at Foxfire for repair
- Replaced pump at Abingdon Steel
- Vacuumed Abingdon Steel and Glade 1 Pump Stations
- Changed thermostat at Exit 13 Pump Station.



# Wastewater Operational Data January 2022

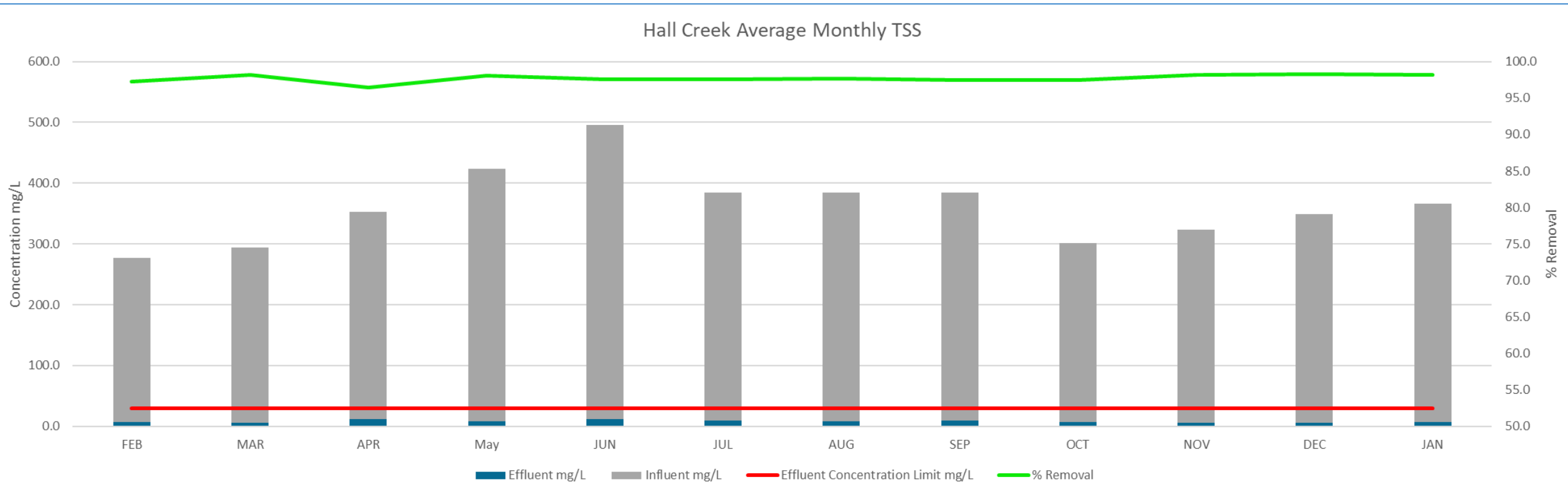
## Hall Creek

<b>TOTAL Gallons Treated</b>	<b>9,897,000</b>
Average Gallons Treated Per Day	319,000
Total Precipitation	3.66"
Total Tons of Sludge Disposed	44.7
Total Lbs of Chlorine Used	613
Total Lbs. of Sulfur Dioxide used	520

## Damascus

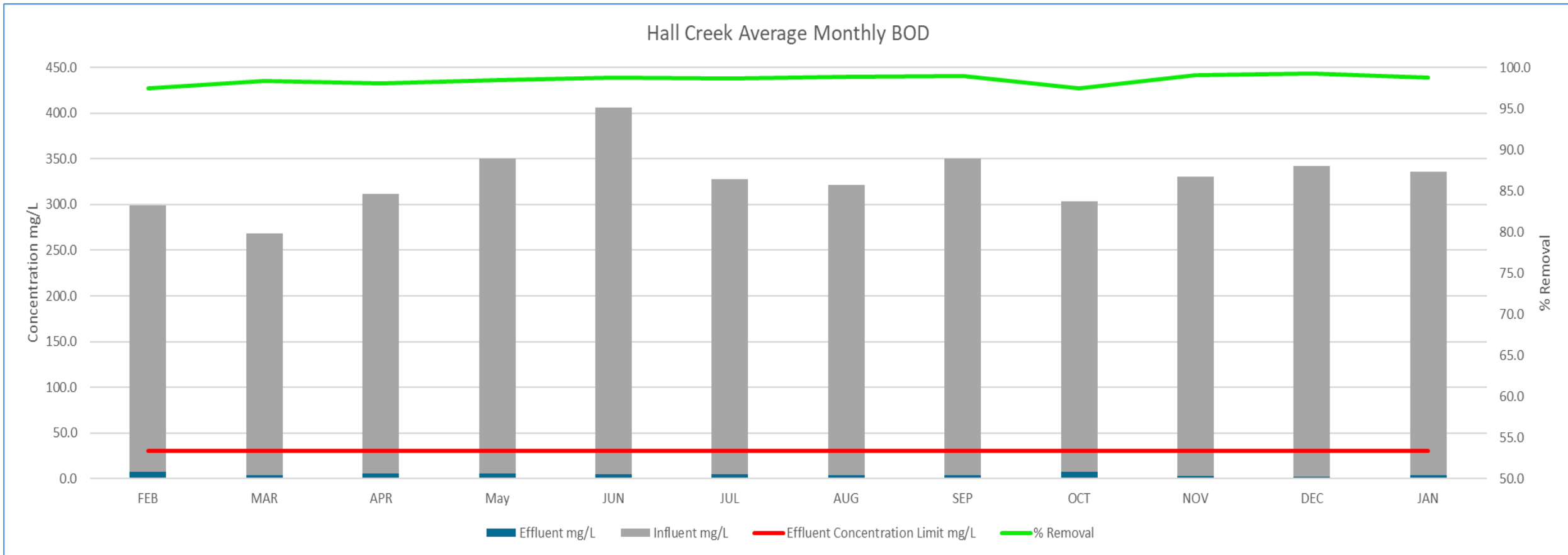
<b>TOTAL Gallons Treated</b>	<b>3,900,000</b>
Average Gallons Treated Per Day	130,000
Total Precipitation	4.07"
Sludge Sent to Landfill	34,960 lbs
Total Lbs of Chlorine Used	161
Total Lbs. of Sulfur Dioxide used	N/A

# Hall Creek Operations: TSS



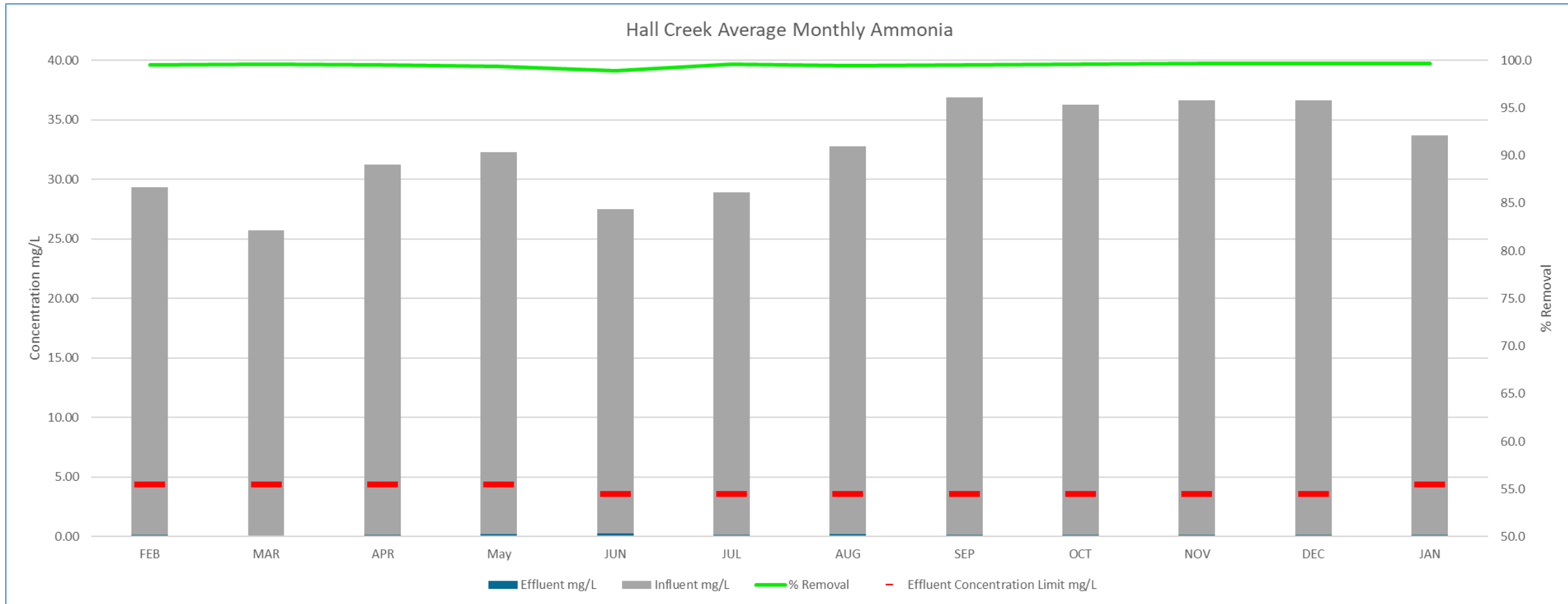
Total Suspended Solids (TSS) removal helps determine the efficiency of wastewater treatment. Effluent results are reported to DEQ on a monthly basis.

# Hall Creek Operations: BOD



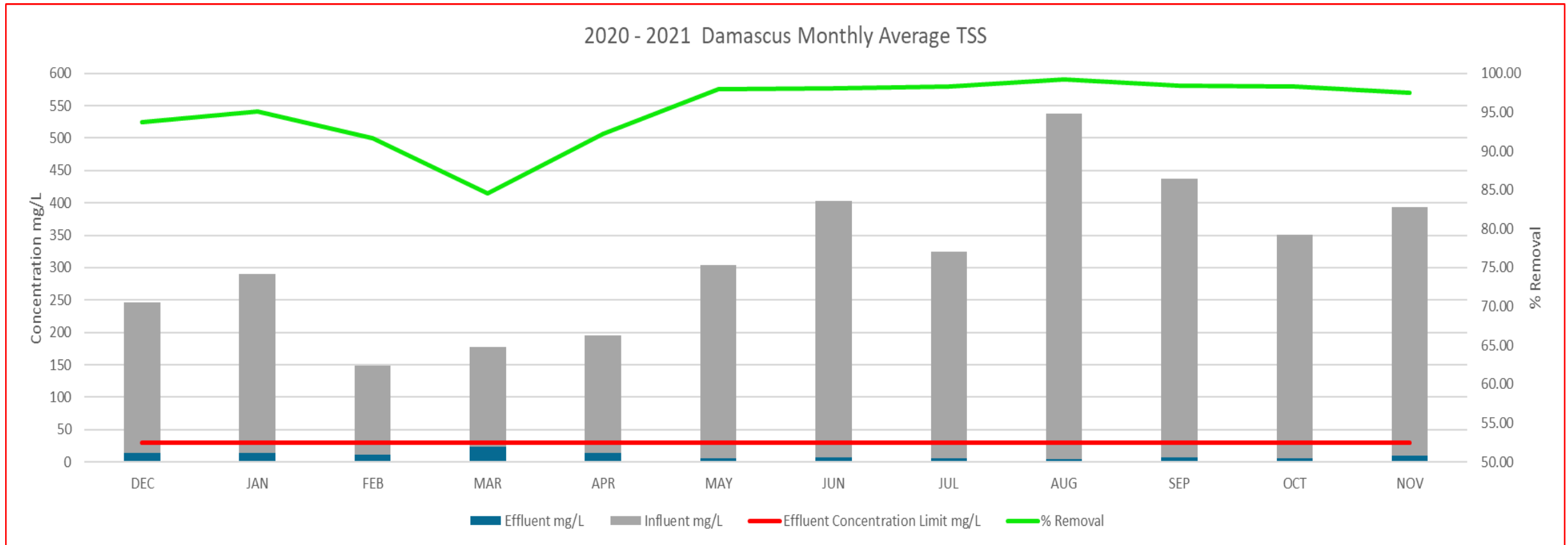
Biochemical Oxygen Demand (BOD) is the strength of wastewater. Percent removal helps determine the efficiency of wastewater treatment. Effluent results are reported to DEQ on a monthly basis.

# Hall Creek Operations: Ammonia



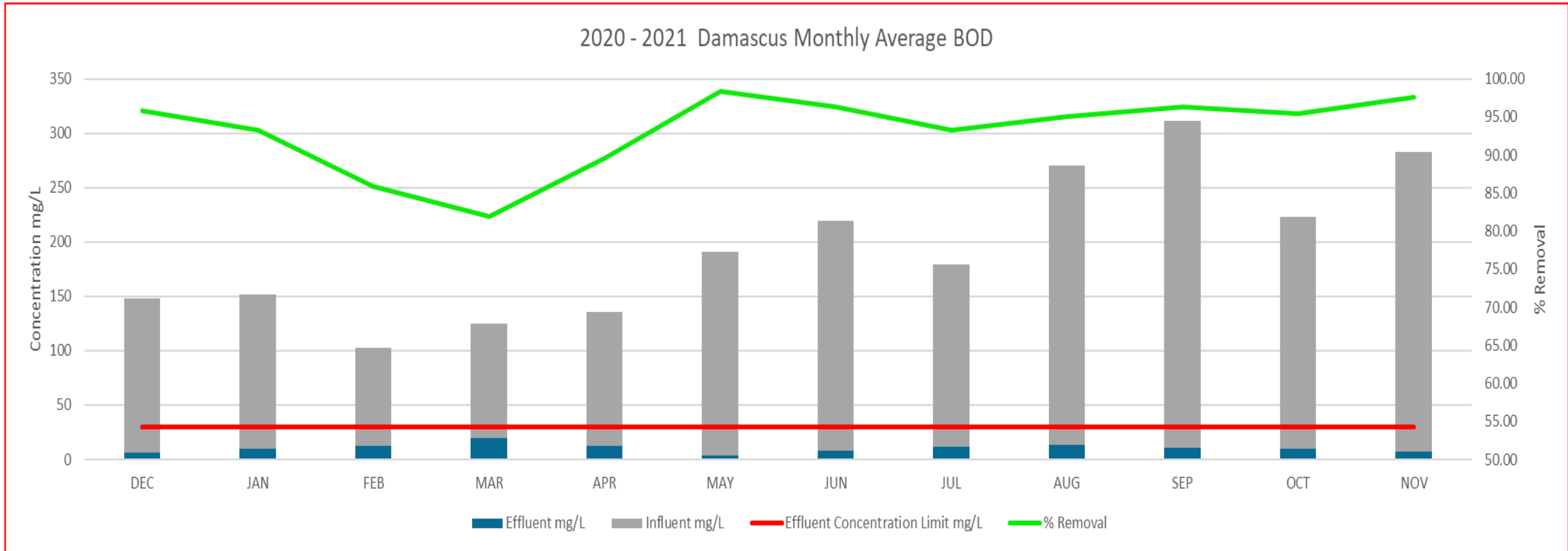
Ammonia is a form of Nitrogen, a natural human waste product. Percent removal helps determine the efficiency of wastewater treatment. Effluent results are reported to DEQ on a monthly basis.

# Damascus WWTP Operations: TSS



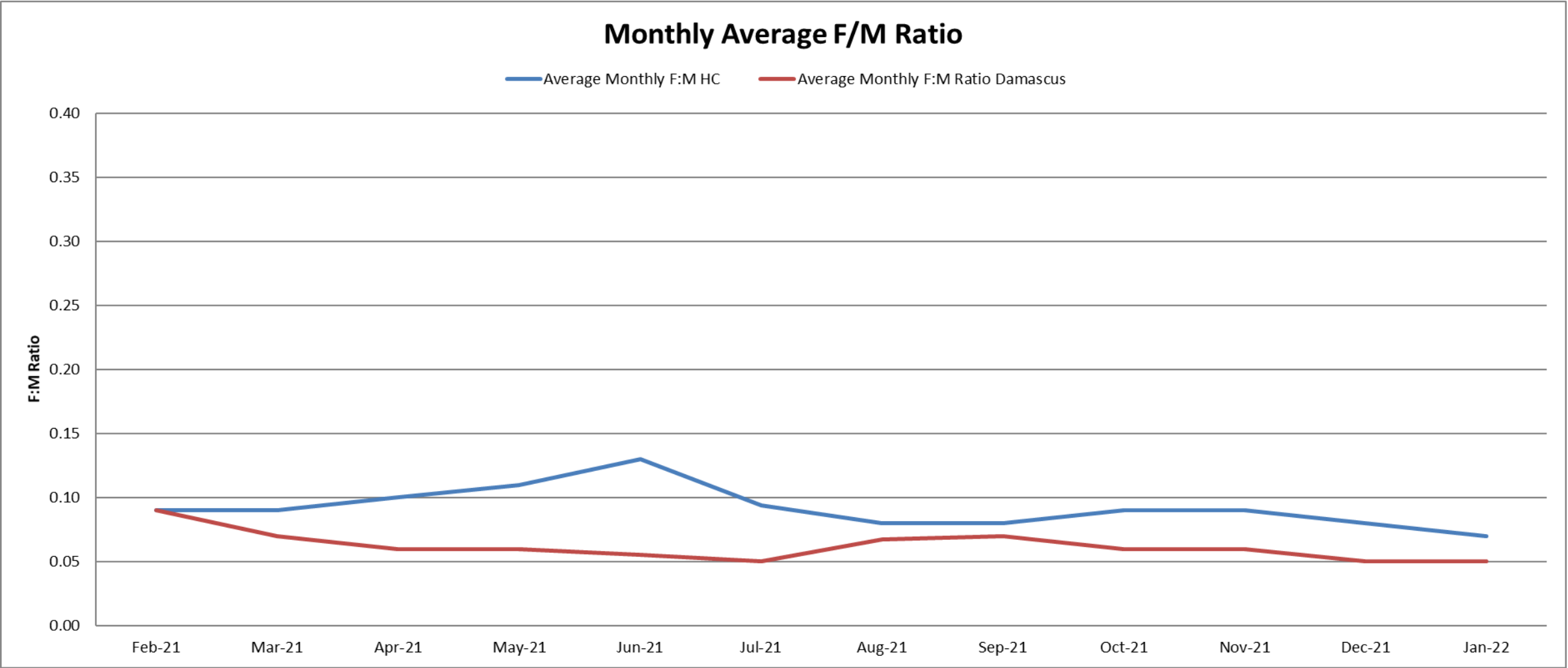
Total Suspended Solids (TSS) removal helps determine the efficiency of wastewater treatment. Effluent results are reported to DEQ on a monthly basis.

# Damascus WWTP Operations: BOD



Biochemical Oxygen Demand (BOD) is the strength of wastewater. Percent removal helps determine the efficiency of wastewater treatment. Effluent results are reported to DEQ on a monthly basis.

# Food/Microorganism (F/M) Ratio



F:M is monitored on a weekly basis as a process control test. This means that the test is not required by DEQ but helps WCSA monitor treatment so that our regulated samples are in compliance.