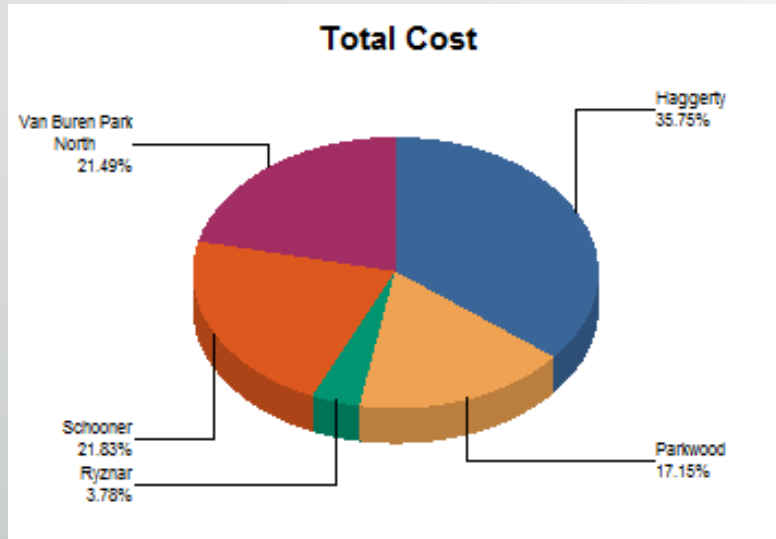


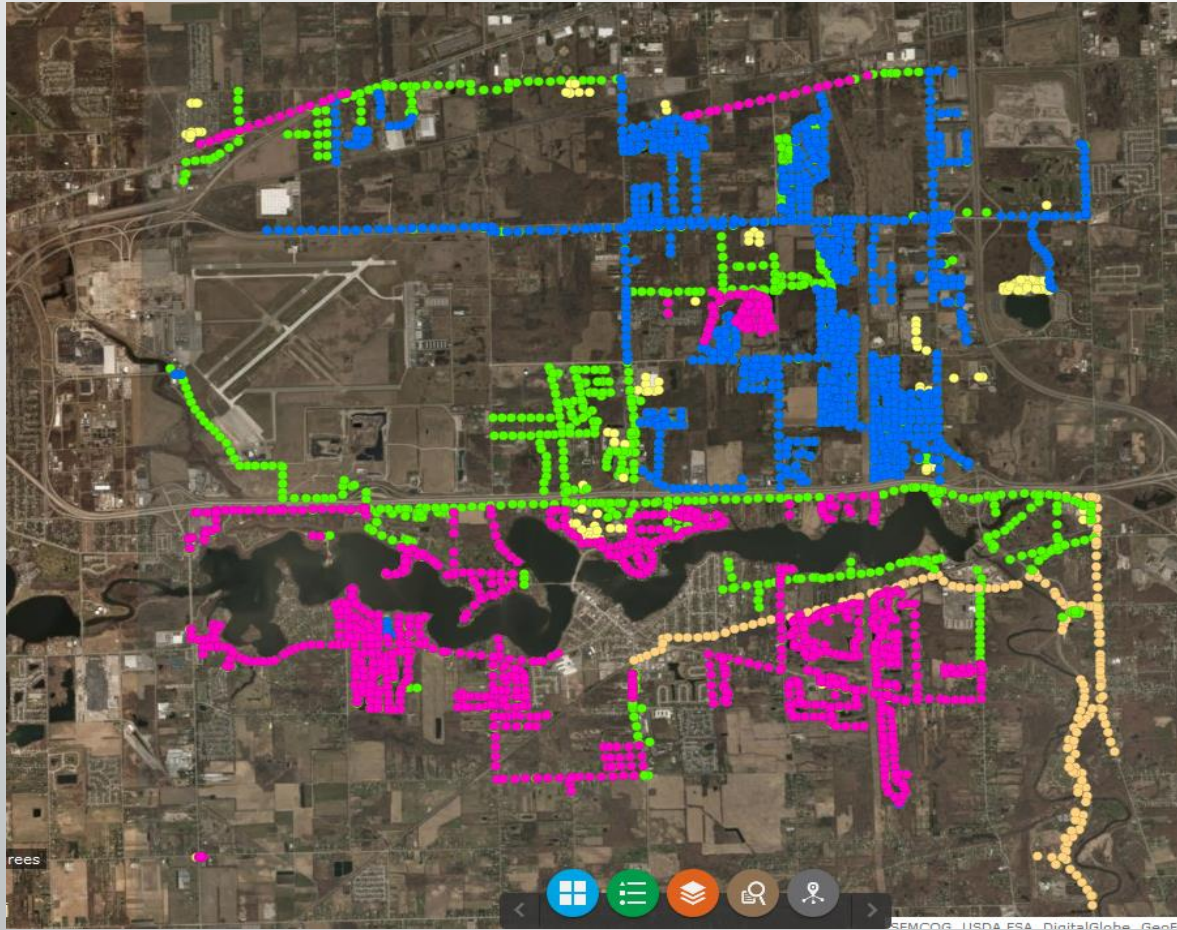
# **WATER & SEWER COMMISSION**

## **April 23, 2019**

# MARCH – APRIL OPERATIONS REPORT



# SAW Sanitary Asset Management Project - Update

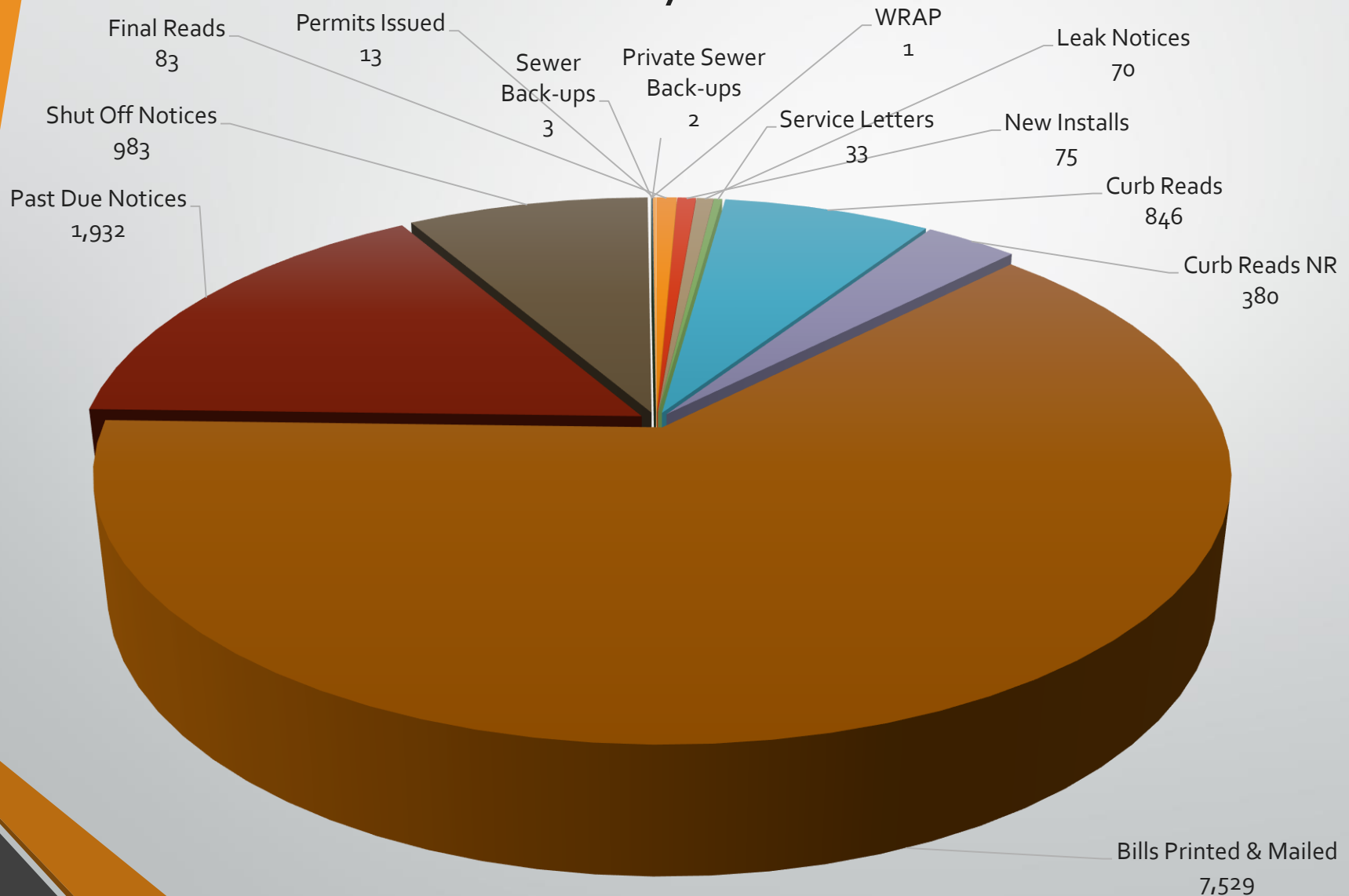


- Inspected 1,830 of 2,542 manholes as of 4/5/2019 (72%)



# OFFICE SERVICES REPORT

## Quarterly Totals



# ADMINISTRATIVE REPORT

- The VBT Board of Trustees approved the customer request (39591 Price) to connect to the City of Romulus water system.



# GLWA UPDATE

- On March 27, 2019 The GLWA Board of Directors approved the recommended 4.2% rate increase for Van Buren Township to take effect July 1, 2019. This is lower than the 5.0% rate increase we had anticipated from GLWA. (See enclosed document)

# DUWA UPDATE

- Veolia's sludge hauler, Custom Ecology, received notice from Brent Run landfill on January 18, 2019 that they need to reduce DUWA's loads from 4 to 1 load per day. This restriction significantly affects DUWA's ability to dispose of solids at historical costs. The solids will be disposed of at Woodland Meadows, but at a premium cost. The potential cost impact to DUWA is an additional \$100,000.00 per month. Veolia, OHM and the DUWA Technical Committee met on April 9<sup>th</sup> to explore cost effective, short and long term solutions for biosolids disposal. I have provided materials presented at the meeting for our discussion.



# DUWA UPDATE

## Stabilization System via THP/AD Thermal Hydrolysis / Anaerobic Digestion System

- 50% Reduction in Solids for Disposition
- Class A Solids as Organic Soil Amendment
- Renewable Energy for Cost Sustainability
- **\$48.0 Million** Capital Investment

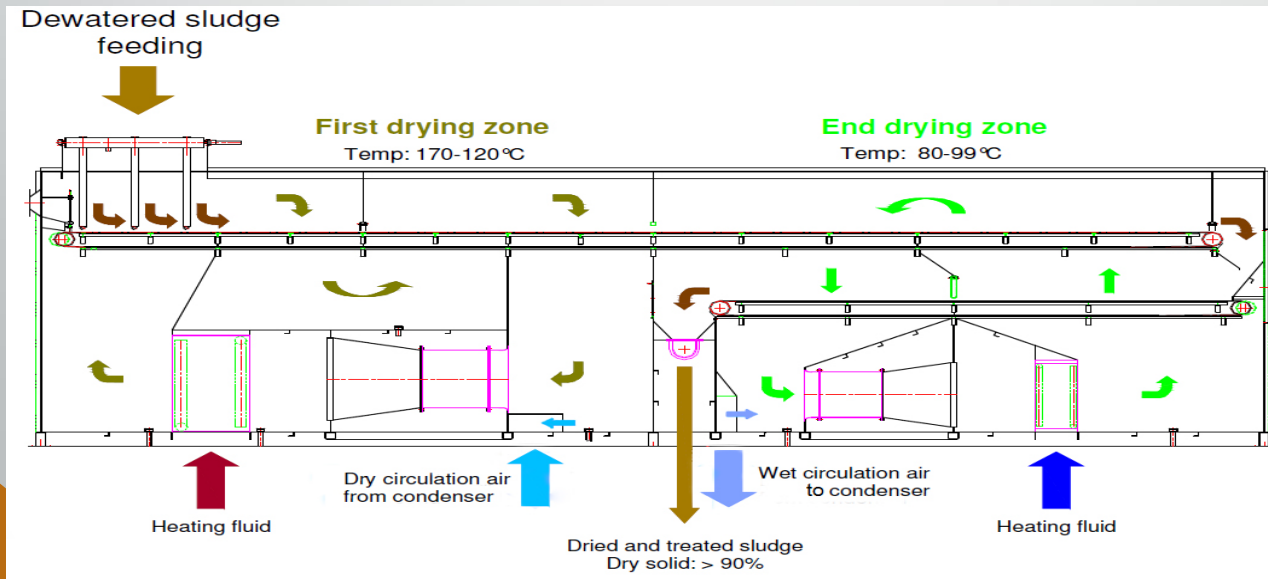
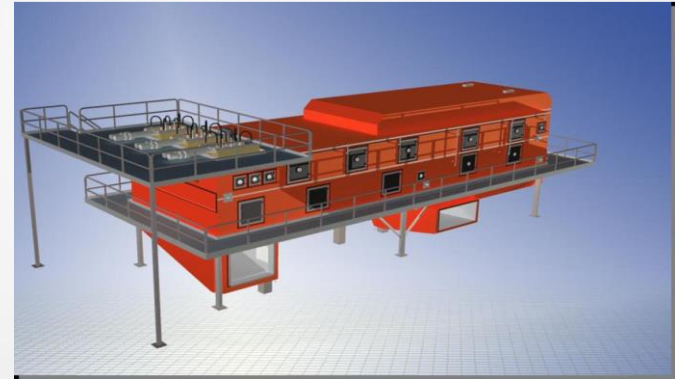




# DUWA UPDATE

## Thermal System via Dual Belt Dryers

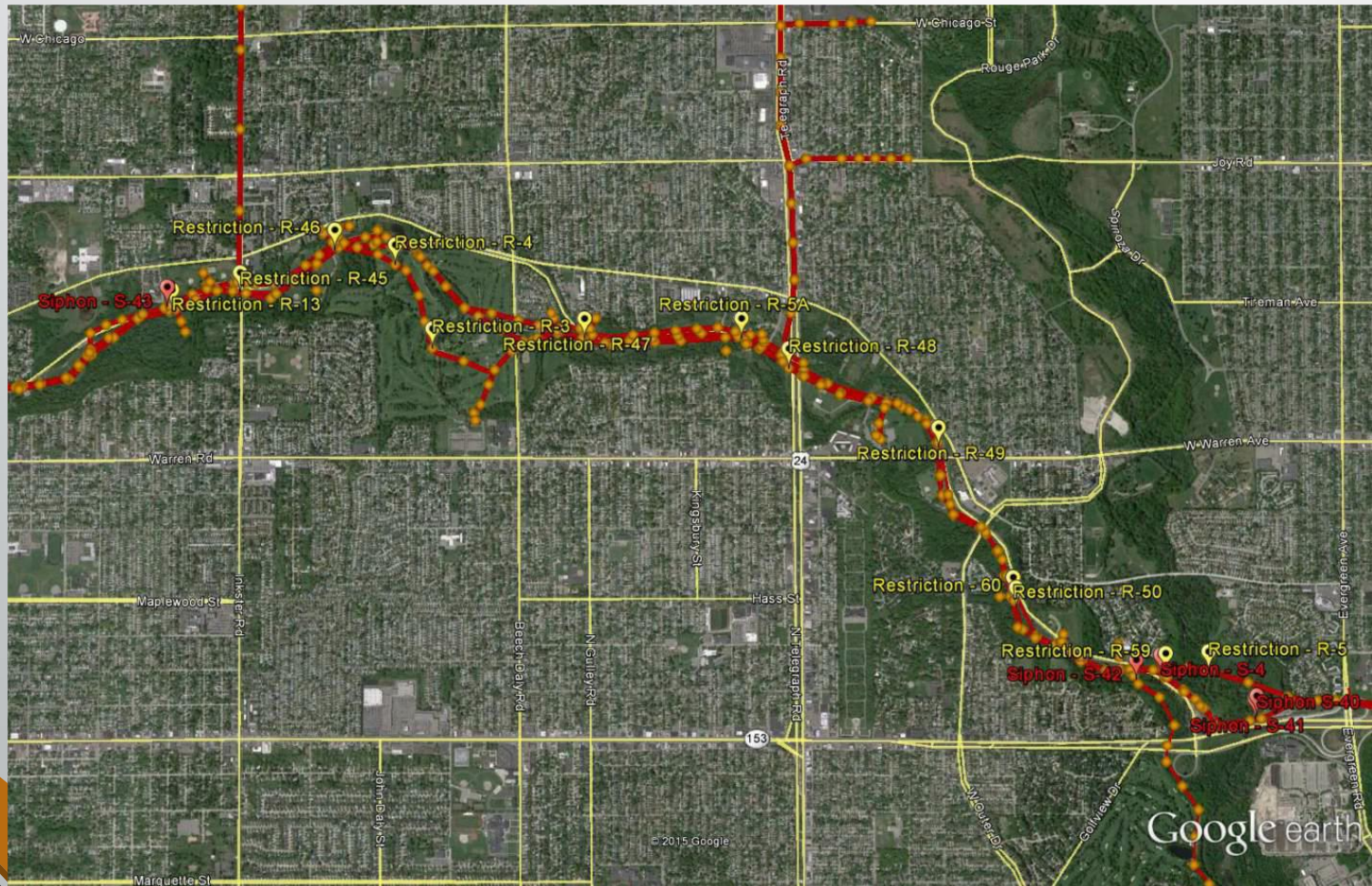
- 75% Reduction in Solids for Disposition
- 95% Reduction in Wet Cake to Landfill
- Class A Solids as Landfill Cover Material
- **\$16.6 Million** Capital Investment





# ROUGE VALLEY UPDATE

- The communities of the Rouge Valley Sanitary Disposal System will be meeting to discuss the Long Term Capital Asset Plan that was presented to local communities on April 10<sup>th</sup>.



# **ROUGE VALLEY UPDATE**

## **Alternative 1 – RVSDS Asset Management**

- **Baseline Alternative (includes 20 year horizon)**
- **Assumes Asset Management Plan and related capital improvements fully addresses SSOs**
- **Lowest cost, and most targeted to known problems**
- **Includes**
  - **River inflow reduction**
  - **System inspection / rehab**
  - **LS1A improvements**
  - **CSO throttling**
  - **Lower Rouge siphon replacement**
- **Total Cost: \$80 million (heaviest investment Years 1-5)**

# **ROUGE VALLEY UPDATE**

## **Alternative 2 – RVSDS Asset Management**

### **PLUS Wet Weather Storage**

- **Likeliest alternative for implementation**
- **Asset Management will largely address SSOs but some additional protection needed**
- **Wet weather storage on Inkster and Middle Rouge Interceptors (about 5-6 MG)**
- **Along Middle Rouge, need to locate above floodplain**
- **Systems to include:**
  - **Pumping, storage, flushing, control systems, odor control**
- **Total Cost: \$127 million**



# **ROUGE VALLEY UPDATE**

## **Alternative 3 – RVSDS Decentralized Storage**

- This alternative focuses on wet weather storage only (no systematic asset management or river inflow removal)
- Multiple diversions and storage tanks and along Inkster Arm and Middle Rouge
  - Pumping, storage, flushing, control systems, odor control
- Up to 48 MG total storage
- Total Cost: \$247 million

# **ROUGE VALLEY UPDATE**

## **Alternative 4 – RVSDS Enhanced Conveyance and Downstream Storage**

- This alternative focuses on transporting higher flows along the Inkster Arm and Middle Rouge to the downstream end of the Middle Rouge
- Single wet weather storage location in the vicinity of LS1A
  - Finding available land will be difficult
- 43.2 MG total storage
- Total Cost: \$260 million

# **ROUGE VALLEY UPDATE**

## **Alternative 5 – RVSDS Transport & Treat**

- **Same as Alternative 4, but instead of wet weather storage, provide wastewater treatment in project area**
- **No storage, but very expensive treatment plant**
- **Total Cost: \$1.07 billion**

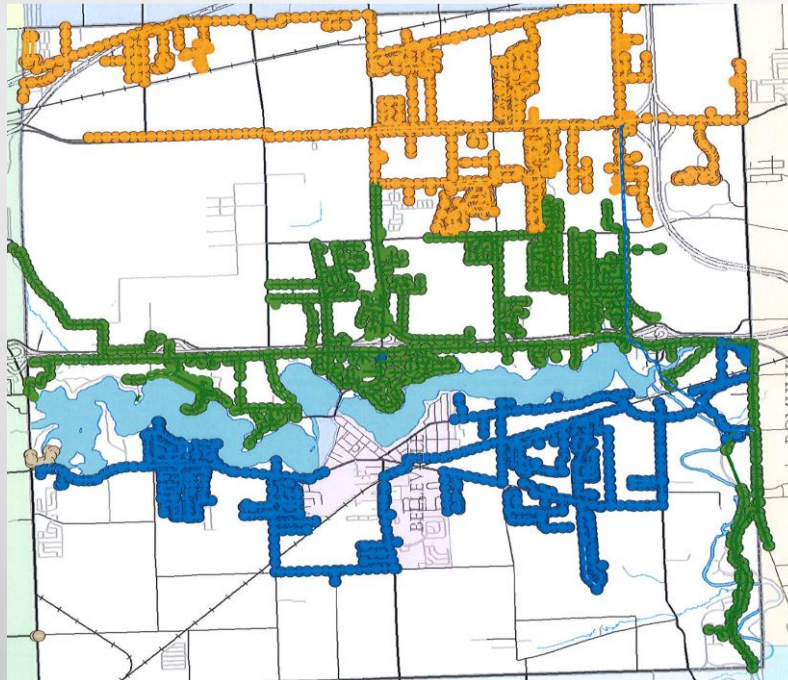


# ROUGE VALLEY UPDATE

- Alternative #2 has been identified by Wayne County as the most likely option to be approved by the State
- The total cost for this option is \$127 Million
- The proposed rate increase for this proposal is between 18% – 21 %
- The anticipated increase for Van Buren customers is between \$12 - \$33 per quarter (just for the project costs)
- It was also revealed at the last RVSDS Tech Meeting that the County has not passed on the rate increases from the GLWA since 2015. This is estimated to add another 10% to the proposed increase.

# ROUGE VALLEY UPDATE

- I presented an option to the Supervisor that could possibly remove Van Buren Township from the RVSDS and/or re-route our flows to SHVUA and/or DUWA. FTCH Project Engineer Maria Sedki and I met with the Supervisor on Monday to discuss this option in detail.



- A meeting is also being scheduled with the RVSDS community representatives in the next several weeks to discuss other options moving forward

# ROUGE VALLEY UPDATE

## VBt PROJECT STUDY PROPOSAL

- To provide information on the performance of our system in more specificity that will provide operational and maintenance decisions.
- To determine the accuracy of the actual flows that come through our system from the City of Belleville to the DUWA system.
- To determine if there is an option to opt out of the RVSDS and/or redirect the flows to the SHVUA and/or DUWA collection systems. If redirection of flows is viable, to create at least three options for use of the EQ Basin to redirect flows from the RVSDS to the SHVUA and/or DUWA systems.
- The Township currently has three separate hydraulic models for the three separate systems. The work product of this study will combine the three models into one updated hydraulic model to include new developments and associated flows.



# ROUGE VALLEY UPDATE

## PROPOSAL COST:

FTCH is proposing to complete the analysis for a lump sum fee of One Hundred Twenty Thousand Eight Hundred Dollars (\$120,800), based on the following breakdown:

Task 1 – Flow Metering (9 meters, 3 months) \$52,000

Task 2 – Update Wastewater Hydraulic Model \$23,500

Task 3 – Review Existing Wastewater Contracts \$6,000

Task 4 – Develop Routing Options \$19,900

Task 5 – Report \$19,400

**Total \$120,800**

Allowance for additional metering and data analysis (9 meters, 4 months)  
\$45,000

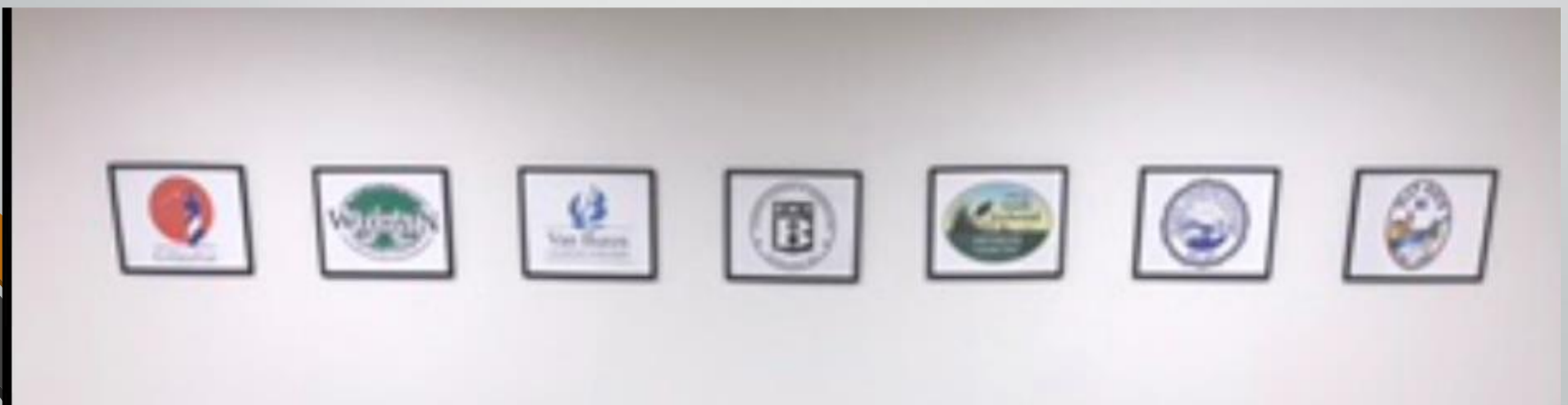
# SHVUA UPDATE

- Plant Offices prior to cleanup...



# SHVUA UPDATE

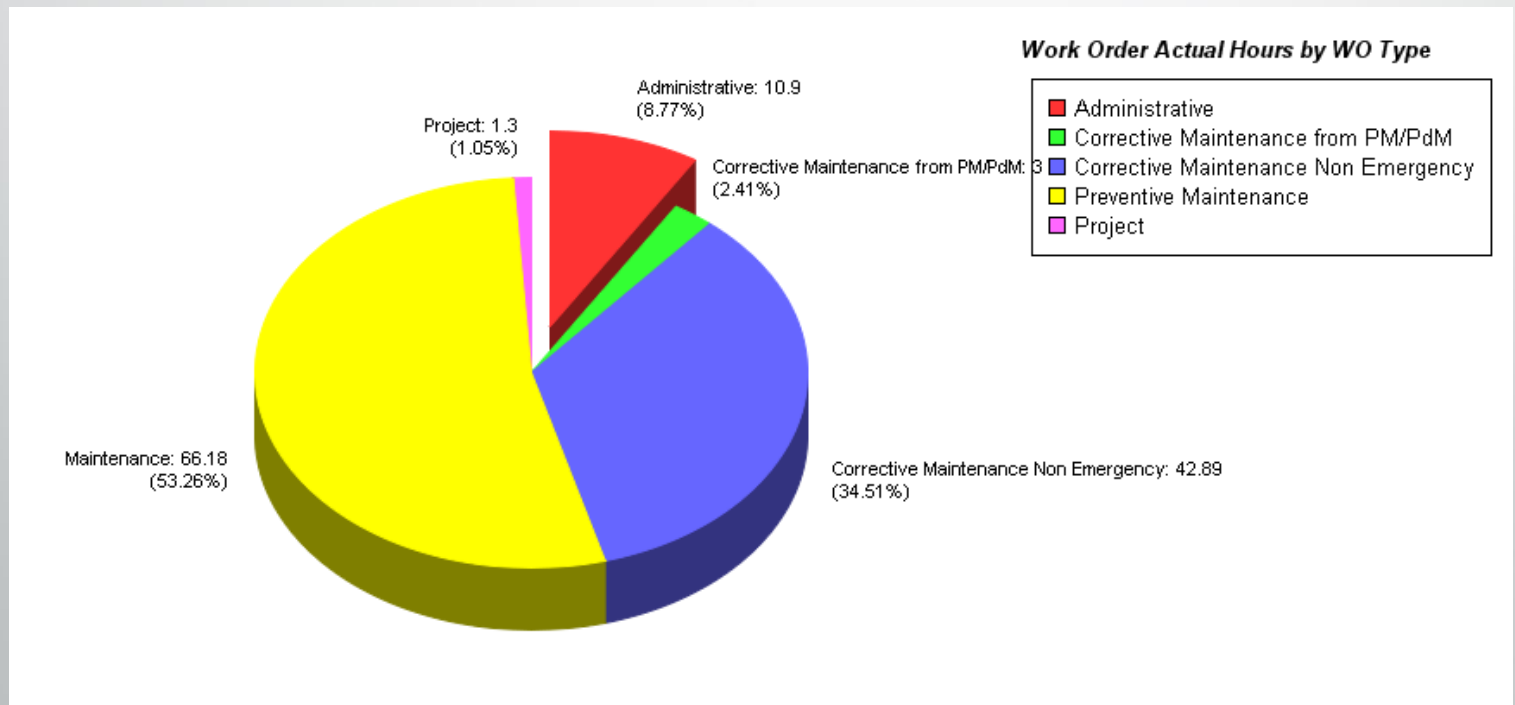
- Plant Offices after cleanup...



# SHVUA UPDATE

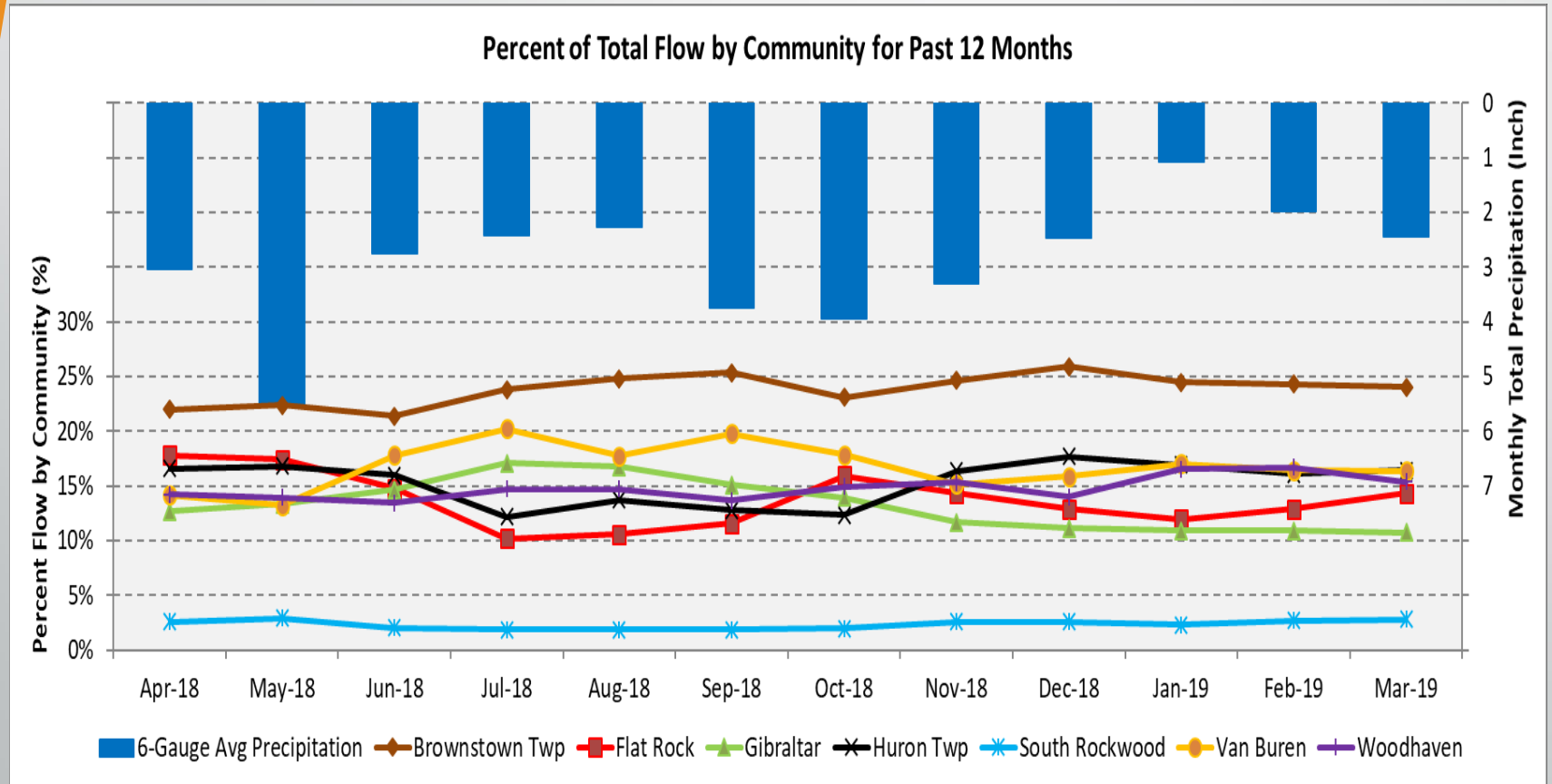
Below is summary of March work orders:

Description	Quantity	Hours
Preventive Work Orders	78	66
Corrective Work Orders	54	46





# SHVUA UPDATE



# Questions?



**NEXT SCHEDULED  
MEETING:  
May 28, 2019**