



**Passaic Valley
Water Commission**

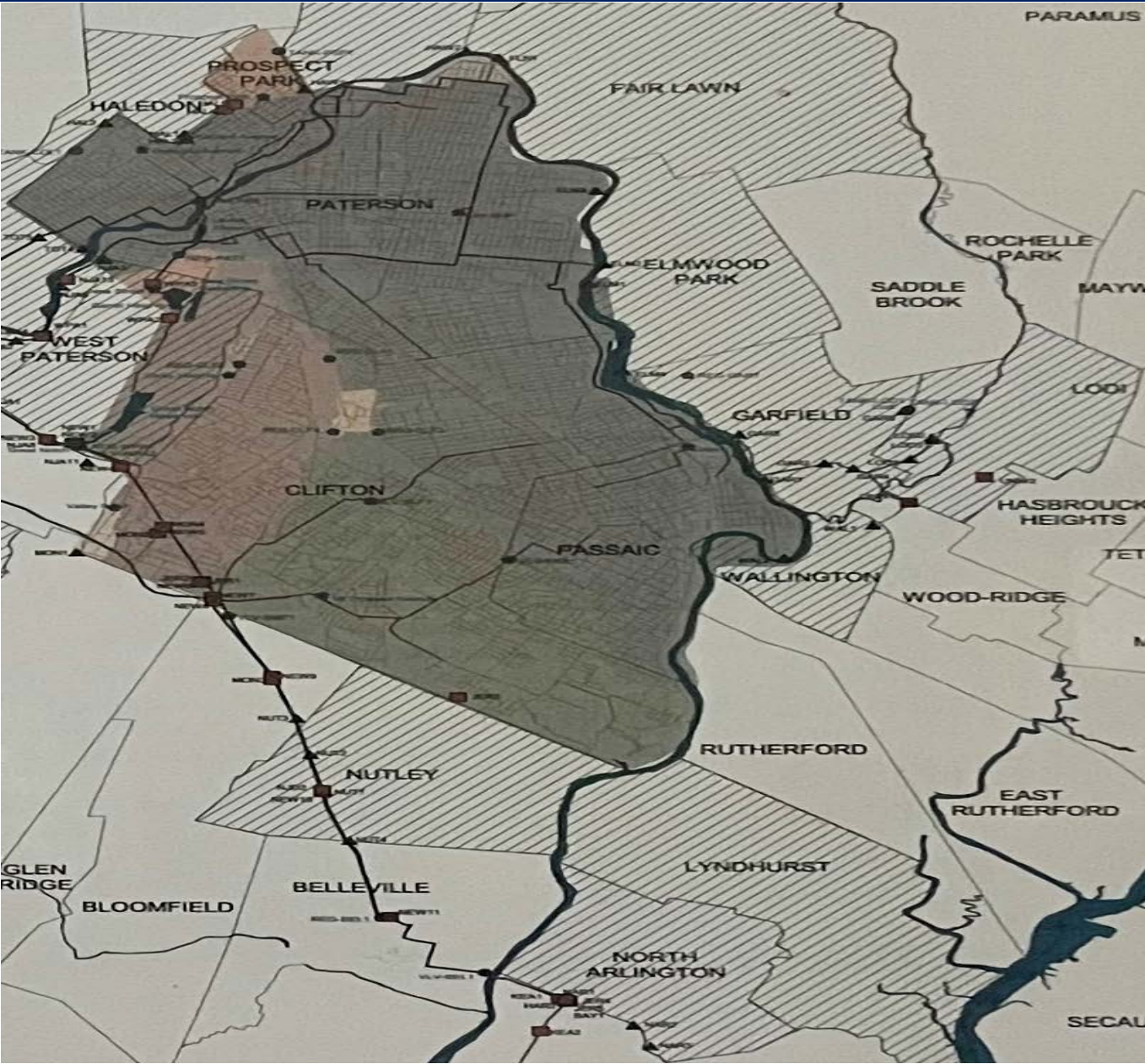
Discolored Water Issues

Jim Mueller
PVWC Executive Director

City of Clifton Council Meeting

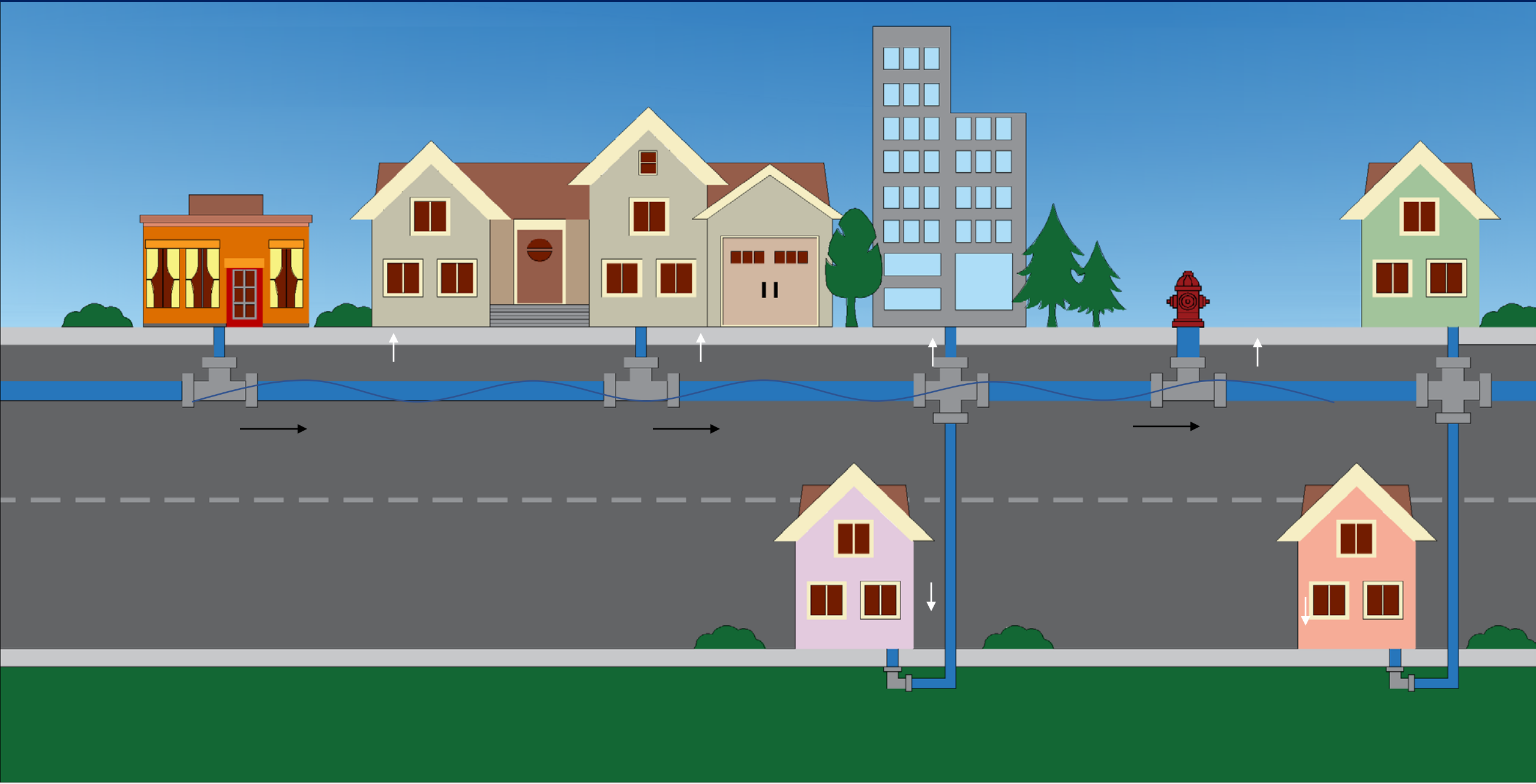
September 20, 2022

PVWC Watershed and Distribution System



- Retail: 650 miles of water mains;
110 miles of water main 16" and greater
 - Clifton
 - Paterson
 - Passaic
 - Prospect Park
 - North Arlington
 - Lodi
 - Post Brook
 - High Crest
- Wholesale: 22 Customers

Water Distribution System – Normal Operation



Hydrant Flushing – A Water Industry Standard



hydrant flushing and brown water



Clayton County, GA

<https://www.ccwa.us> › hydrant-flushing-waterline-maint...

Hydrant Flushing & Waterline Maintenance

A. When a **hydrant** is opened, there will always be temporary incidences of discolored **water** containing fine sediment particles making the **water** appear **brown** or ...

Carver, MN

<https://www.cityofcarver.com> › View › Fire-Hydr...

Fire Hydrant Flushing – Frequently Asked Questions: Q. Why ...

The fine sediment mixes with the **water**, turning the **water** a cloudy or rusty **brown** color. This mixture is discharged out of the **hydrant**. There is no health ...

Arizona, Connecticut, Massachusetts, New Hampshire

<https://tataandhoward.com> › water-main-hydrant-flushing

Everything You Need to Know About Water Main Flushing

Flushing the **water mains** can remove the sediment and mineral build up, and improve the color, odor and taste of the **water** if it has been problematic.

Dover Township, PA

<https://www.dovertownship.org> › faqs › is-my-water-sa...

Is my water safe to drink after hydrant flushing?

Sep 1, 2022 — Your **water** is safe to drink. Occasionally, **water** becomes discolored after **hydrant flushing**. If this happens, run your cold **water** tap for a few ...

Brunswick, MD

<https://brunswickmd.gov> › vertical › Sites › uploads

WHY DOES THE CITY FLUSH WATER LINES AND FIRE ...

Flushing the **water** system on a routine basis removes sediment from **lines** and keeps the entire distribution system “refreshed”. As a result of the line **flushing**.

Hydrant Use Impacts – Emergencies and Maintenance



Hydrant use may stir up sediment that has accumulated in the mains and cause discolored water – flow may increase up to 20 times (20x) compared to normal operation causing low water pressure.

Unauthorized Hydrant Operation or Misuse

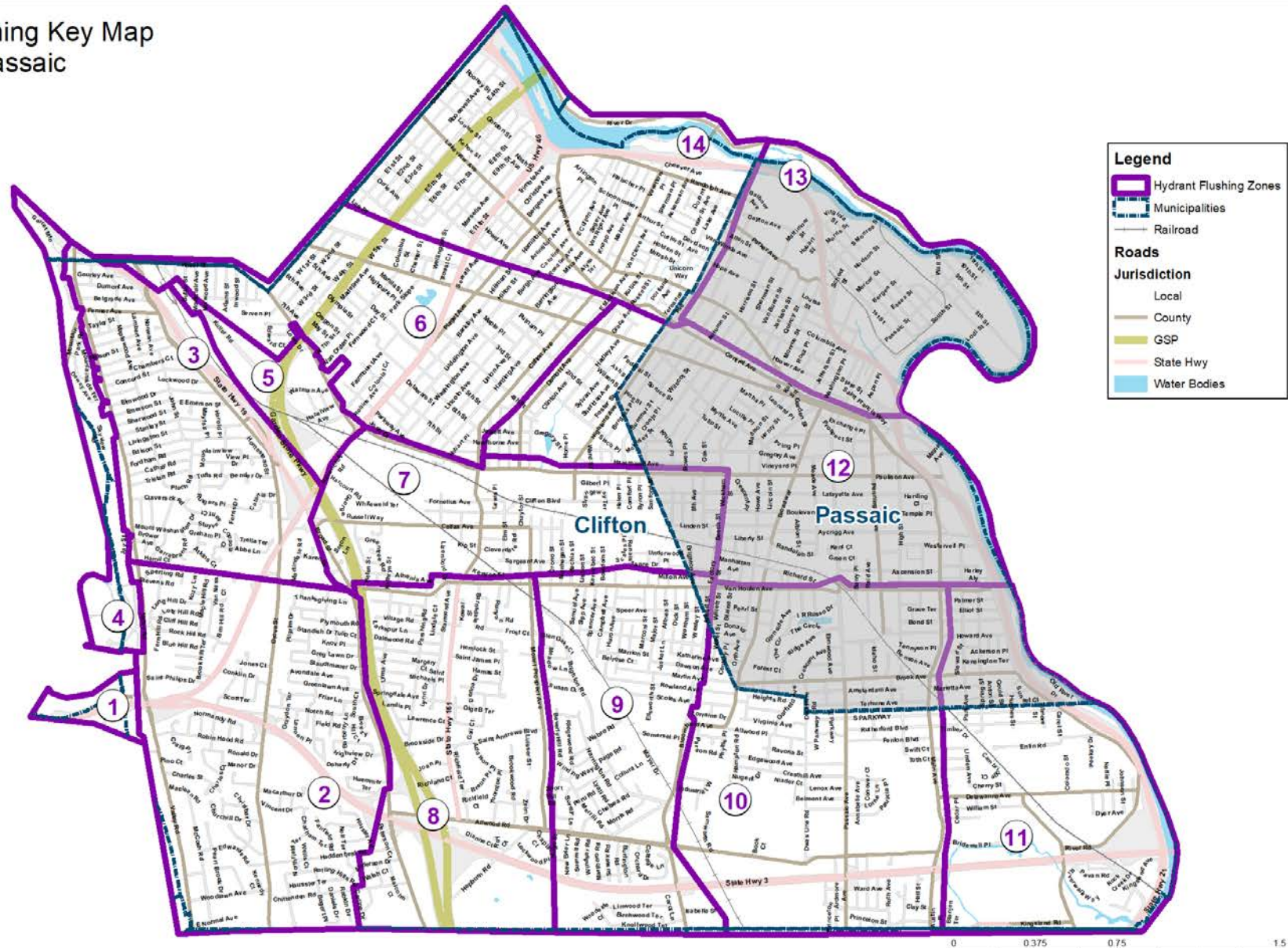


A water main break can occur due to water hammer which is a shock wave that moves through the pipe if flow is stopped abruptly. Discolored water can persist from frequent hydrant use in concentrated areas.

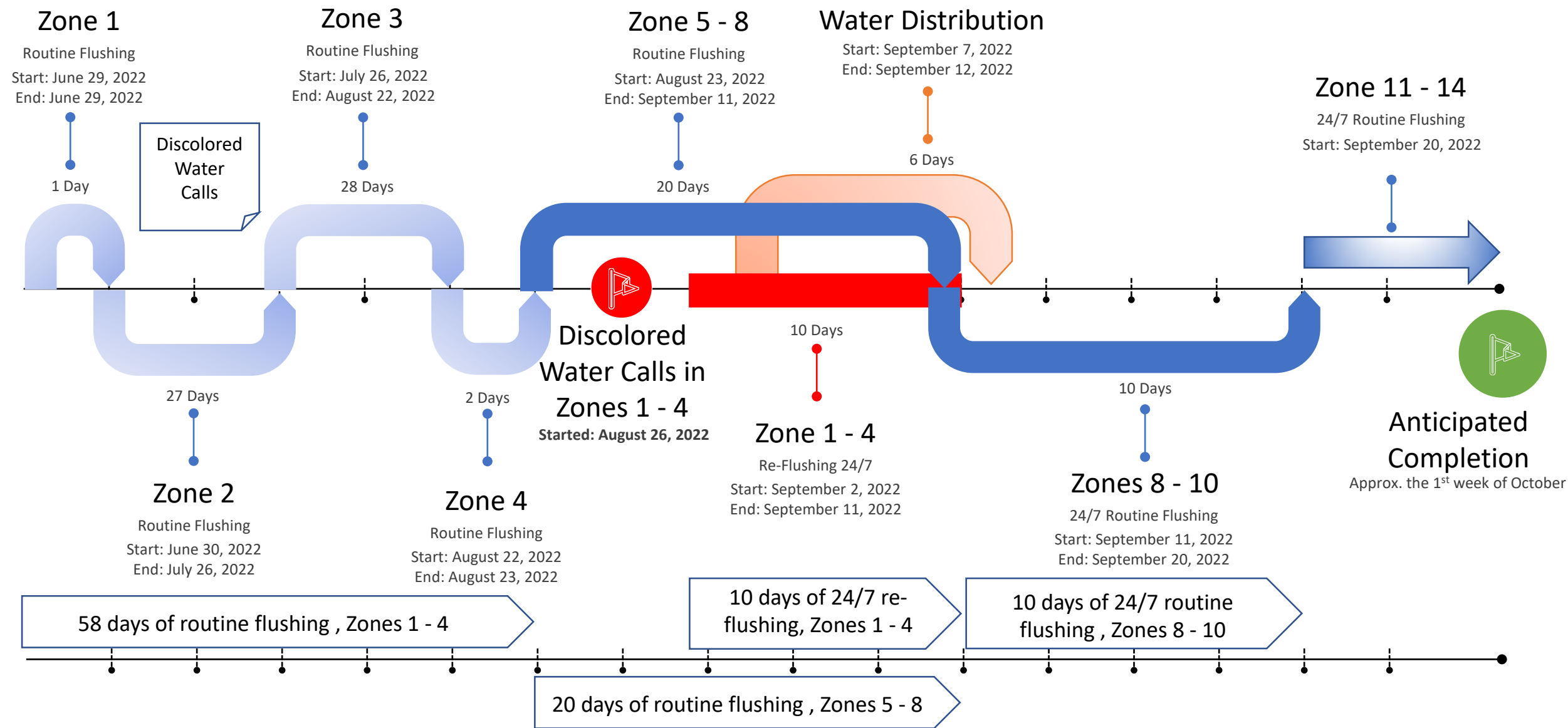
Clifton Map - All Flushing Zones

Hydrant Flushing Key Map Clifton and Passaic

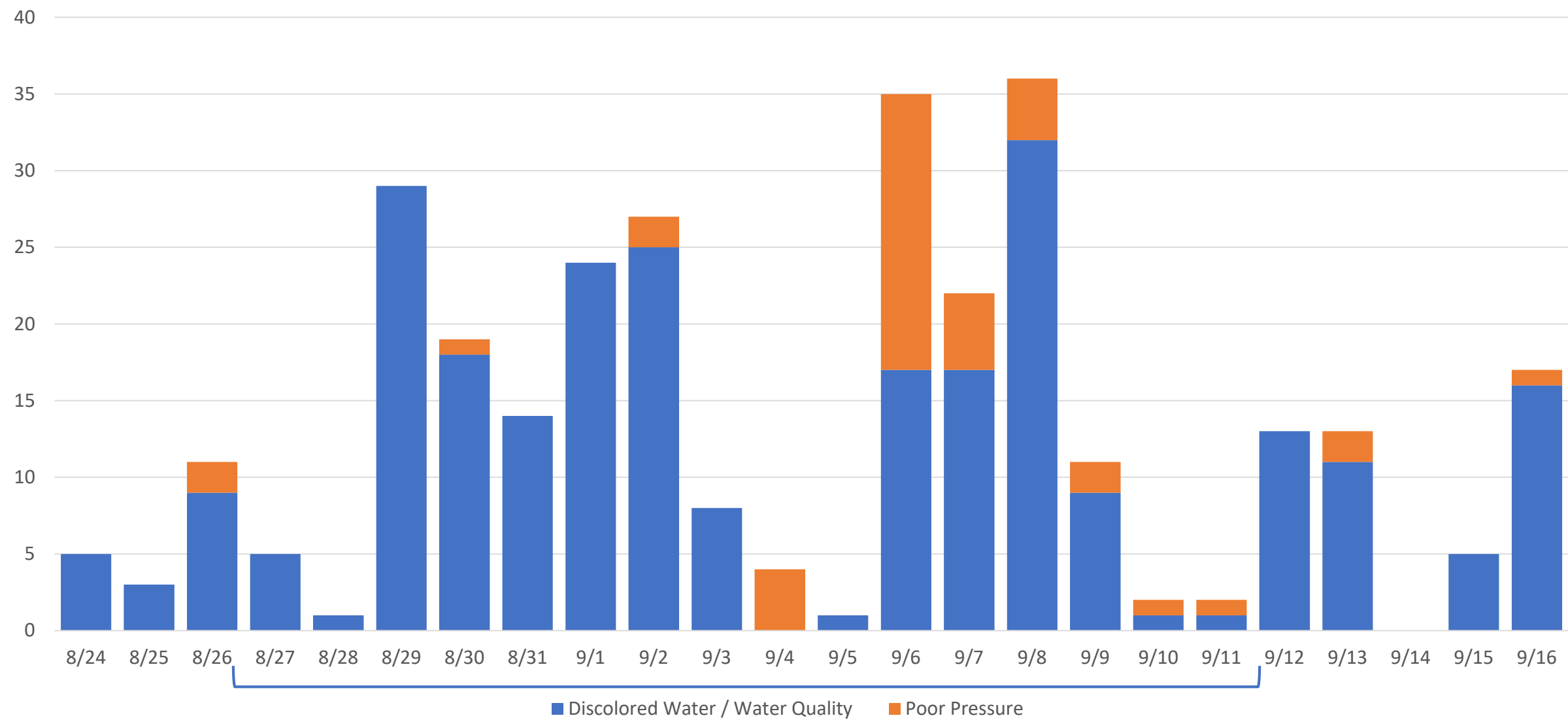
Date: 9/20/2022

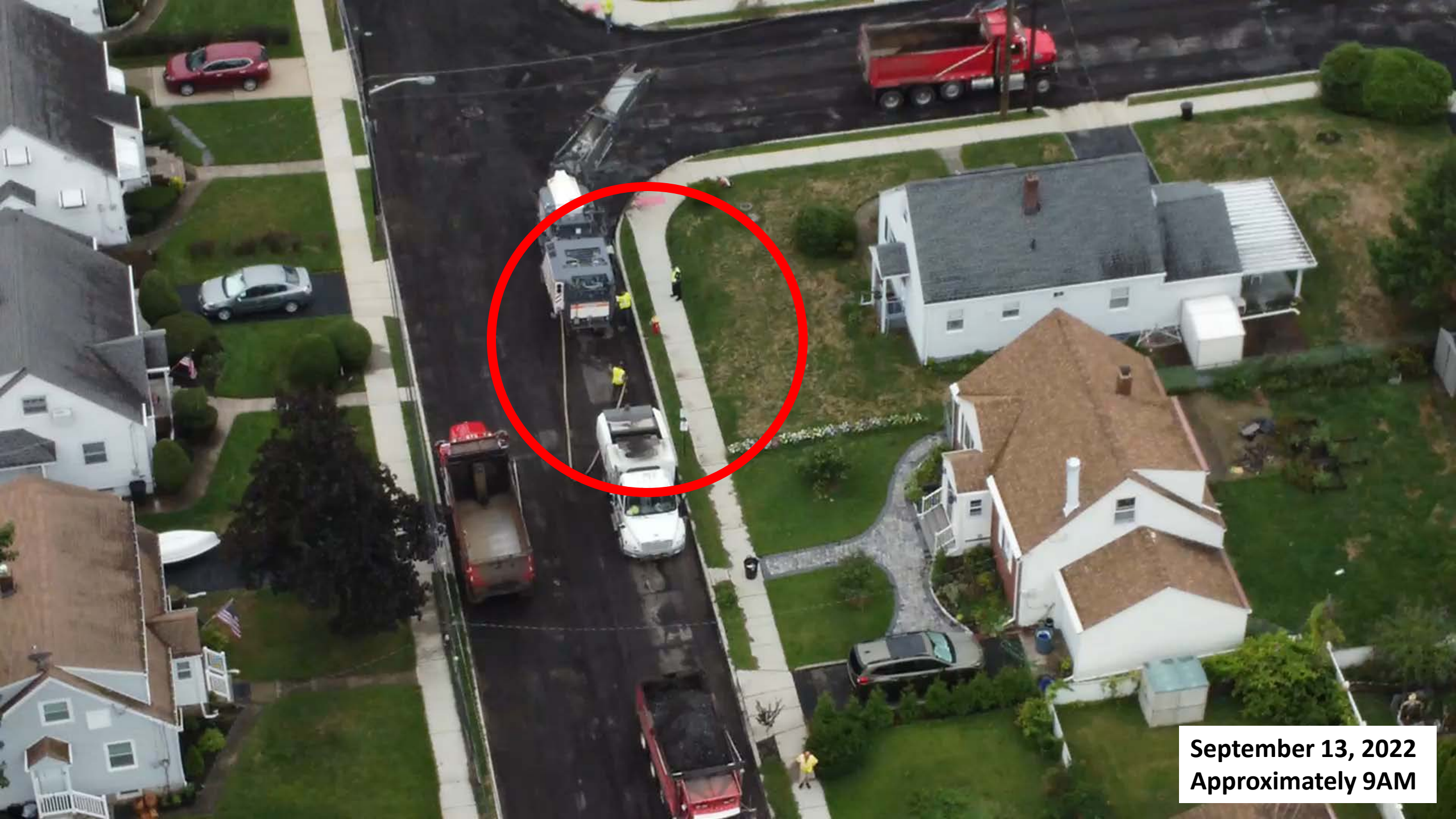


Clifton Annual Flushing - Timeline



Customer Service Complaint Call Logs





September 13, 2022
Approximately 9AM



September 12, 2022



September 12, 2022





September 12, 2022

September 13, 2022



PVWC Short-term Plans to Address Issues

- Coordination – improve communication with utilities and owner cities on planned street work, development, paving plans and routine maintenance activities
- Permitting – develop formal permitting process for contractors to apply and submit payment to PVWC for water use
 - Highlight geographic area of work and timing/duration and point of contact
 - Fill contractor water trucks in Clifton yard or other owner City yards as applicable
 - Contractors must demonstrate proper hydrant use
- Flushing - more frequent flushing of problem areas
- Enforcement – enforce existing ordinances prohibiting unauthorized hydrant access
 - The City of Clifton's Code (§455-2) specifically prohibits the opening/operating of any fire hydrant:
 - A person shall be guilty of disorderly conduct if he:
 - Shall at any time or in any manner open or operate any fire hydrant, gate valve or other appurtenance of the water system or tamper with or damage any part of the water system or destroy or cause to be removed any part of the water system.
 - Has in his possession or on his person any hydrant or hydrant part belonging to the Passaic Valley Water Commission
 - Opens or operates, turns on, turns off, interferes with, attaches any pipe or hose to or connects anything with any fire hydrant, gate valve or other appurtenance of the water system or in any manner molests or interferes with same.
 - Exceptions: PVWC employees or duly authorized City of Clifton employees

PVWC Long Term Solutions

- Line and or replace water mains in problem areas and valve replacements



Great Notch Service Area, Clifton, Passaic County
Discolored Water Calls to PVWC
From August 29, 2022 to September 13, 2022



Date: 9/16/2022

Created By: Claire Nation

- Storage Tanks
 - Effective corrosion control, maintain pH

Communications

- **Current Emergency Notification Solution**

- Utilizes the City of Clifton's Emergency notification infrastructure.
- Relies upon a voluntary service subscription model (i.e. opt-in model)

- **Future PVWC Emergency Notification Solution**

- Work is underway to design an Emergency Notification System, where residents would have the option to opt-out.
- PVWC Engineering & IT Departments are working together to integrate systems to leverage targeted, timely and effective customer notifications.

- **Bridging the Gap**

- Press releases
- Website / Socials
- Mayor, City Council and administration updates

Thank You For Your Time!

Q&A

973-340-4300

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