Agenda

- Welcome and Introductions
- Highland Reservoir Pump Station Updates:
  - Water Reliability Plan Overview
  - Construction Goals
  - Impacts
  - Project Schedule
  - Future Community Outreach
- Microfiltration Plant Deactivation Plan
  - Brief History
  - Regulatory Direction
  - Benefits & Impacts of Plan

PWSA Update
Highland Reservoir Pump Station and Microfiltration Plant

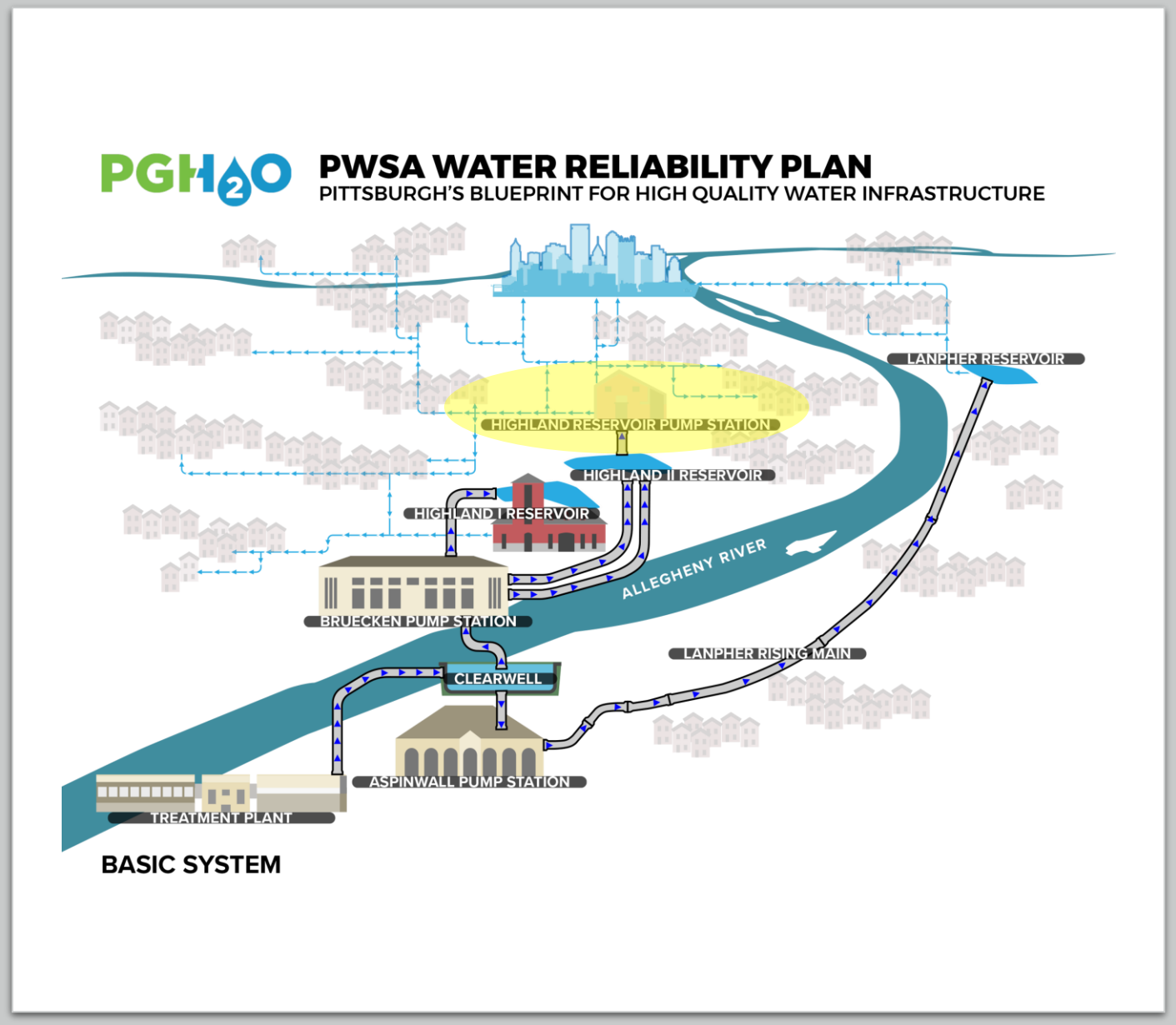
Highland Park Community Council

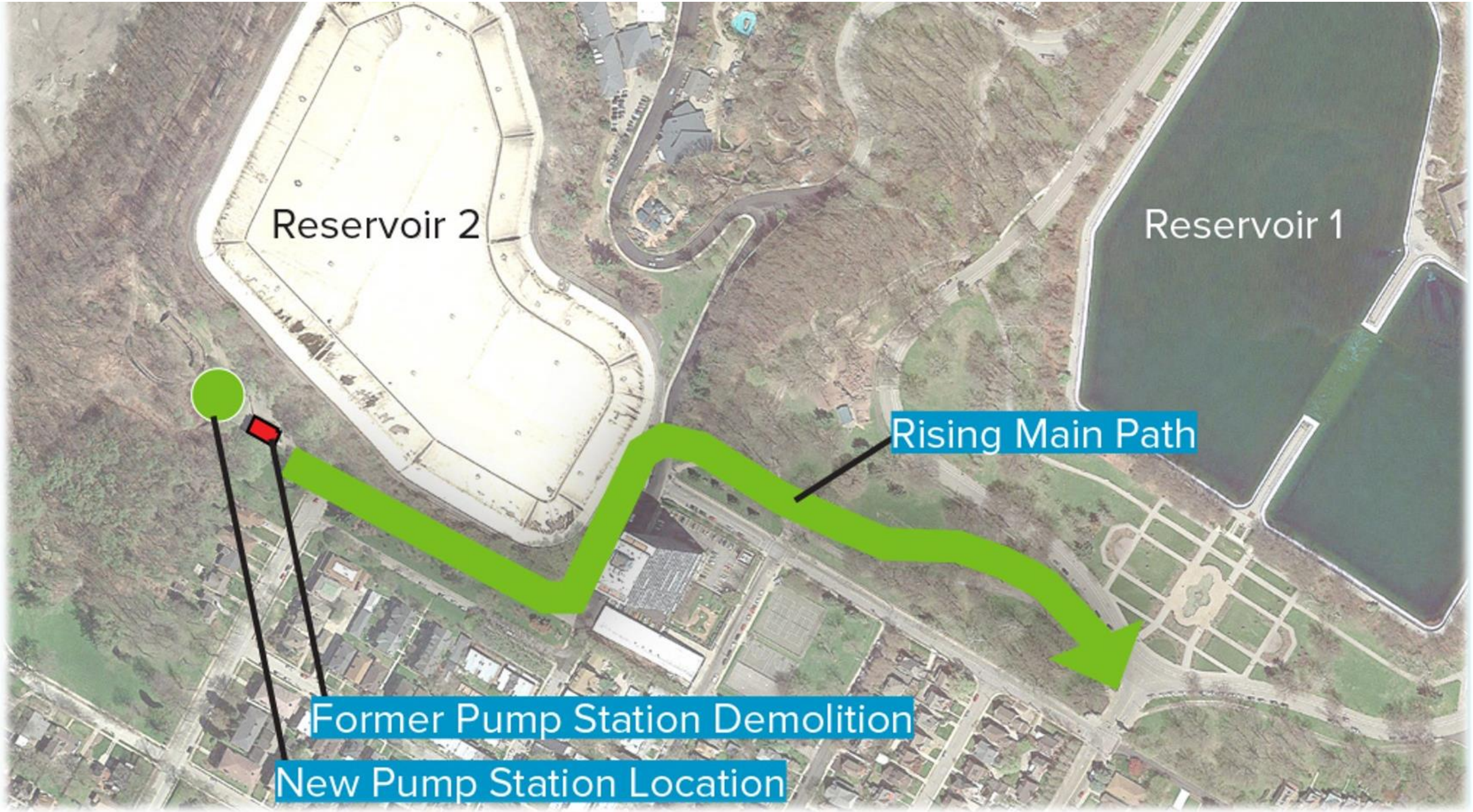
February 15, 2024

Highland Reservoir Pump Station Replacement and Rising Main Upgrades

Water Reliability Plan

- Series of once-in-a-generation projects
- Will strengthen and add redundancy to water system
- Culminates with complete restoration of Clearwell
- Required by State through Consent Order
- Investment of $470 million over next five years




Reservoir 2
Reservoir 1
Rising Main Path
Former Pump Station Demolition
New Pump Station Location

Highland Reservoir Pump Station

- Construction new, modernized pump station behind the footprint of the existing pump station.
- Demolish old pump station.
- Replace the original supply main that carries water from the covered Highland Reservoir to the pump station.
- Install a new rising main, from the intersection of N. Highland Avenue and Bunkerhill Street, and the new pump station.
- $50 million investment in our water system.

Pump Station Construction Impacts

- Regular project Schedule
  - M-F, 7:00a.m. – 5:00 p.m.
- No impacts to water service
- Pump station work will take place behind existing facility, no residential impacts.

Project Timeline:
Highland Reservoir Pump Station

Project/Phase	Anticipated Schedule
Contract Award	**October 2023**
Construction Start	**February 2024**
Anticipated Completion	**Mid-2026**

Project Phases

- New Pump Station Construction – **end of 2025**
- Process Phase – **early 2026**
- Tie-In to already completed work – **early 2026**
- Demolition/Decommissioning of the Existing Pump Station – **mid-2026**

The information provided is an estimated schedule and is subject to change.

Community Outreach Plan

- As we approach the start of construction, we will provide updates on the project webpage: www.pgh2o.com/HighlandPumpStation
- We plan to host a media event to commemorate the start of building construction in the coming months.

Microfiltration Plant (MFP)

Presented by
Rebecca Zito, Senior Manager, Public Affairs
Barry King, Director, Engineering and Construction

February 15, 2024

Why MFP Was Critical Before 2017

- Regulatory requirements prohibit the use of an open reservoir for drinking water storage, requiring full treatment of water leaving Highland I Reservoir.
- The Highland I Distribution System lacked sufficient back up systems and resiliency.
- At the time, the MFP was a necessary facility within our water system

Notable MFP Events

- **December 2002:** MFP granted operating permit by PADEP to retreat water from the open Highland I Reservoir
- **January 2017**: PADEP issued field order requiring Tier 1 Boil Water Public Notice
- **October 2017**: PADEP issued Administrative Order requiring either
  - Cover Highland I Reservoir and take the MFP permanently offline, or
  - Complete MFP upgrades (UV disinfection system and Sodium hypochlorite)
- **June 2020**: PWSA issued operating permit from PA DEP
- **August 5, 2022**: Last date MFP supplied water from Highland I Reservoir into the distribution system

Installation of large diameter water distribution pipe in Highland Park

Changes Since MFP Restoration

Completed Resiliency and Redundancy Backup Measures

- Liner and Cover Replacements at Multiple Reservoirs
- Distribution System Improvements
- Pumping System Enhancements
- Power System Improvements

Regulatory Direction and MFP Limitations

- September 2019, PADEP informed that MFP will have to be taken offline before receiving Operating Permits for:
  - Highland Reservoir Pump Station (HRPS):
  - Clearwell Bypass (Clearwell Emergency Response):
- PUC repeatedly encourages removal of MFP from service
- MFP cannot prevent loss or low-pressure events associated with power outages
  - Once power lost and hydraulic control structure drops, MFP is unable to operate
  - When prolonged period, this may result in a boil water advisory

Benefits of Taking MFP Offline

- Maintain Water Quality Improvements
- Reduce Operating and Maintenance Costs
- Reduce Water Loss
- Eliminate Employee Safety Risks
- Reduced Permitting and Regulatory Requirements

Closing Summary

- MFP and Highland I Reservoir will remain in use for distribution system monitoring and hydraulic control.
- MFP building and Reservoir will continue to be maintained by PWSA
- Operational Cost Savings
  - Estimated $1M per year
  - Approximately 2.5 Million Gallons/Day
- No visible change for park users
  - Although offline, the building will remain
  - The tower provides for hydraulic relief and pressure control
  - Opportunity for long-term visioning for future use

Thank you

Questions or comments, please contact Mora McLaughlin, mmclaughlin@pgh2o.com