

Horsham

Water Quality Update

June 14, 2017

Short Term Remediation Action Plan:

1. Temporary Treatment Systems at Wells 10, 17 and 21
2. Permanent Treatment Systems at Wells 26 and 40
3. Shutdown all other wells except keep Well 7 in operation
4. North Wales Water Authority increase to 1.2 million gpd
5. Possible suspension of Aqua PA Interconnection

Short Term Remediation Action Plan Update:

1. Temporary Treatment Systems at Wells 10, 17 and 21:
 - Well 10 no change since last update
 - Carbon replacement at Wells 17 & 21 is planned for late June in advance of the summer demand.
 - It will be second carbon replacement on both wells. Well 17 was replaced in Dec. 2016 and Well 21 was replaced in Nov. 2016. Reminder that this is a temporary filtration system with small filter vessels.

Short Term Remediation Action Plan Update:

2. Permanent Treatment Systems at Wells 26 & 40:

- Wells 26 and 40 are back in service.
- HWSA has received some calls from customers regarding discolored water. HWSA had a special staff meeting to discuss.
 - Short term:
 - Flushing services
 - Excavate & remove sections of unlined cast iron mains to assess condition/suitability for relining
 - Increased monitoring
 - Expand water quality analyses
 - Refine operating parameters for Well 40 for potential Standard Operating Procedure revision
 - Evaluate need for future pump replacement due to yield loss
 - Long Term: replace or reline unlined cast iron pipes on certain roads in certain neighborhoods and evaluate additional system 'looping'.

Short Term Remediation Action Plan Update:

3. Shutdown all other wells except keep Well 7 in operation:

- Currently, all wells except Well 7 are suspended from service.
- As of early May, Well 7 tested at 8.5 ppt combined.

4. North Wales Water Authority:

- Currently at the maximum of 1.2 gpd

5. Aqua PA Interconnect:

- Currently at 225,000 gpd

Other Factors:

- PADEP Permit conditions
 - Well 10 permit conditions
- Changes in drought status
- Demand changes: average demand will now be changing due to increase summer demand
- Chlorine Residual
- Water Main Breaks

Other Factors:

- Longer run times on wells.
 - Normal run time is usually 14 hours a day.
 - Well 7 is running almost 24 hours a day.
 - All other wells running around 21 hours a day.
- Quality control of lab analytical results
- Declines in production yields
 - Well 21 - had to install smaller pump in order to install temporary treatment
 - Well 40 - decrease in yield due to sealing upper 100' of well, currently yield loss is in excess of 100,000 gpd
- Mechanical breakdowns and/or routine maintenance requirements at active sources
- Factors including but not limited to those above will necessitate operational changes over the course of the short term plan

Private Wells:

- Navy:
 - 450 private wells have been sampled
 - 92 tested above the EPA LHAL 70 ppt
 - 66 have been connected to public system
 - 3 properties owners have rejected the offer
 - 2 have not accepted nor rejected the offer
 - 4 are already connected & only require well abandonment
 - 7 require water main extensions and/or easements (4 properties included in Phase II water main extension project)
 - 3 are delayed due to well abandonment issue
 - 5 properties in various stages of connection process
 - 1 property is awaiting validation
 - 2 connection offers expected to be issued this week
 - 78 tested between 40 and 70 ppt
 - Phase II of water main extensions: mobilization and site/clearing work began this week.
 - Phase III of water main extension and numerous other connections are included in amended agreement with U.S. Navy expected to receive HWSA Board approval on June 12th
 - Navy has taken over for EPA the testing and monitoring of private wells.
- Air National Guard:
 - 4 private wells have been sampled
 - 4 have been connected to the public system

Long Term Remediation Action Plan:

1. Convert temporary treatment systems at wells 10, 17, & 21, to permanent treatment systems.
2. Permanent Treatment System on five additional wells: Wells 2, 4, 19, 20 & 22.
3. Permanent Treatment System on the Aqua PA interconnection
4. Additional interconnection with North Wales Water Authority
5. North Wales Water Authority: 600,000 gpd
6. 1.8 miles of new water main to make public water available

Long Term Remediation Action Plan:

- PennVest Board awarded the \$10M grant on January 25, 2017.
- All bids have been awarded and contracts signed for the projects.
- HWSA will be at the June 26th Council Meeting requesting waivers of Land Development for the filtration systems at six locations.
- PennVest settlement is tentatively scheduled for June 30, 2017.
- If settlement is after June 30th, Pennvest has provided in writing to HWSA that the grant funding will still be available.

Recap of Drinking Water Efforts:

- Treatment systems were installed on five planned wells by the end of 2016
- Currently, approximately 86% of water serving the public system is either filtered or supplied by NWWA.
- The combined concentration of PFOS/PFOA from all sources currently supplying the public system is approximately 2 ppt.
- Other sources which remain in service are those with the lowest detected levels of PFOS/PFOA based on increased monitoring since adoption of the short term plan last year.
- Will continue to purchase water and rely on a mix of sources to ensure our residents have a safe and adequate supply.
- Will continue to test filters in accordance with DEP operations permits.
- Horsham Township continues to achieve more stringent water quality standards than those set by EPA and DEP.

Wastewater:

- Wastewater sampling at the Horsham Air Guard Station (HAGS):
 - HAGS wastewater discharge permit limit is 300 ppt combined
 - August 2016 sample 3,600 ppt combined
 - December 2016 sample 197 ppt combined
 - Feb/March 2017 sample 250 ppt combined
 - Transition to new water treatment facility is believed to be the cause of increase
- Effluent monitoring results at the Park Creek Sewage Treatment Plant are currently averaging **28** ppt combined vs. results from earlier 2016 which averaged over 200 ppt combined

Stormwater:

- A temporary plan has been developed and approved to divert and treat the stormwater on the Horsham Air Guard Station. Project received approved funding the week of June 5th.
- The Navy has closed off two artesian wells.
- The Navy is moving forward to seal off five (5) outfalls on north side of Base (Keith Valley Rd). Some initial work has started.
- The Navy is also looking to removal soil around the former Fire Station on Base.

Looking forward:

- Continue communication to the residents
- Adjust short term plan through various operational changes as necessary based on fluctuations in demand or as necessitated by other system conditions e.g. main breaks, flushing, chlorine residual
- Continue to work with PennVest to secure the funding to assist with the implementation of the long term plan
- Continue to meet, lobby and work to address the storm water run off from the bases
- Continue to lobby to receive reimbursement of costs and full funding relating to the contamination. New letters seeking reimbursement will be mailed within a month.
- Continue towards implementation of the long term plan

Looking forward:

- Continue towards implementation of the long term plan
- Continue following any Federal and/or State Legislation regarding PFOA and PFOS
- Continue following any research and/or information regarding possible new treatment methods for PFOA and PFOS

Communication:

- Monthly updates at Council's second Wednesday public meetings
- Township website: www.horsham.org
- HWSA website: www.horshamwater-sewer.com
- Water hotline: 215-907-0034
- Follow us on Twitter at @HorshamTownship
- Like us on Facebook at Horsham Township
- Sign up for email updates at water@horsham.org