

Perfluorinated Compounds (PFCs)



COUNCIL UPDATE – APRIL 13, 2016

Background

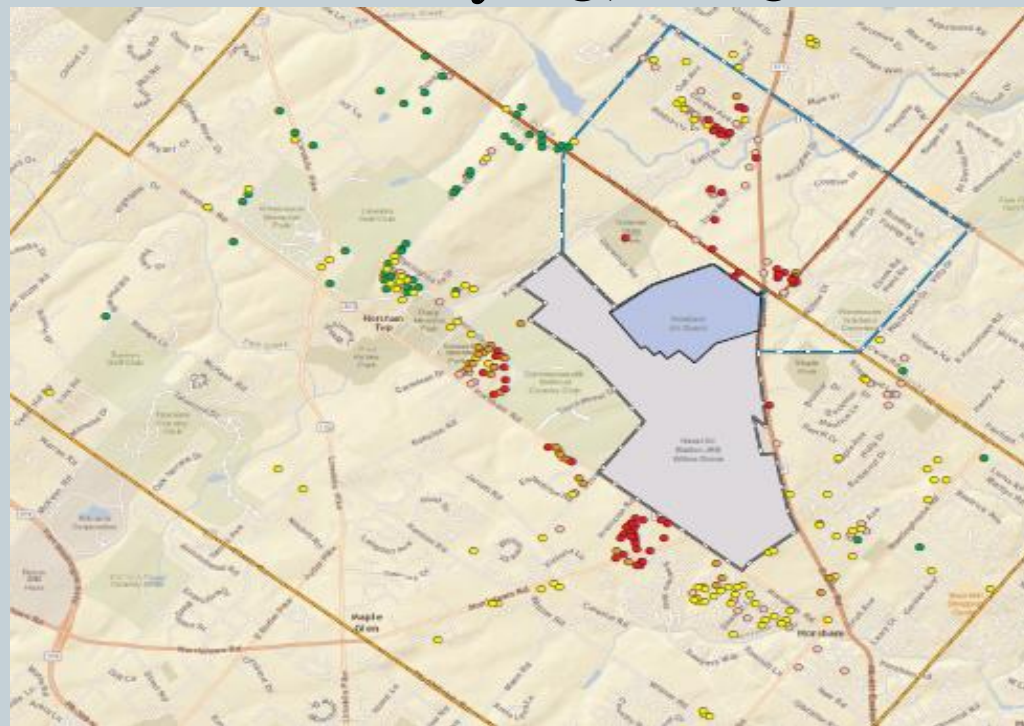


- Results received from first round of UCMR3 sampling July 30, 2014
- Wells 26 & 40 results exceed PHAL for PFOS
- Wells immediately taken out of service
- DEP and EPA notified upon receipt of results
- Public notification issued August 11, 2014
- Discussions initiated with Navy and EPA

Navy Cooperative Agreement



Environmental Services Cooperative Agreement
(ESCA) No. N40085-15-2-8711
dated July 23, 2015



Navy Cooperative Agreement



- Connection of private well properties and permanent well abandonment where public water is currently available
 - 40 private wells with levels exceeding the PHAL
 - ✓ 14 in areas where public water available
 - 5 connected prior to ESCA effective date
 - 6 properties connected by HWSA, wells abandoned, documentation submitted to PA Geological Survey
 - 1 property in process of connection
 - 1 offer of connection rejected
 - 1 offer still outstanding

Navy Cooperative Agreement



- Connection of private well properties and permanent well abandonment where water main extensions are required
 - 26 wells identified with PFOS and/or PFOA above the PHAL which require water main extensions
 - ✓ Design and permitting for water main extensions complete
 - ✓ April 11, 2016 HWSA Board authorized advertisement for bids
 - ✓ Projected completion of construction and house connections by Fall 2016

Navy Cooperative Agreement



- Treatment systems for HWSA wells and other PFC analyses
 - Wells 26 and 40 require treatment before returning to service
 - Various aspects of design of treatment systems to remove PFCs were initiated and are ongoing
 - Current schedule projects completion of construction and operation of the treatment systems in 2016

Navy Cooperative Agreement



- Treatment systems for HWSA wells and other PFC analyses (cont'd)
 - Well 40
 - ✓ Packer testing and pilot test of GAC filtration completed
 - ✓ Results being used to design full-scale treatment systems for Wells 26 & 40 and complete necessary regulatory applications
 - Well 6
 - ✓ Currently off line and in reserve status for unrelated reasons
 - ✓ USGS investigation indicated potential hydraulic connection between Well 6 and 26
 - ✓ 4 hour pump test and sampling performed
 - ✓ PFC results below current PHAL

Navy Cooperative Agreement



- Treatment systems for HWSA wells and other PFC analyses (cont'd)
 - Well 21
 - ✓ Identified unrelated issues that indicate this well is in need of rehabilitation
 - ✓ Conducted low flow packer test and sampling for PFCs at various depths in well
 - ✓ PFCs at all depths are below current PHAL

Navy Cooperative Agreement



- Continued monitoring and replacement water
 - 3 wells identified containing levels below the PHAL during UCMR3
 - ✓ Wells 10, 17 and 21 continue to be below the PHAL
 - ✓ Monitored monthly per Cooperative Agreement
 - HWSA initiated subsequent monitoring at higher sensitivity levels which revealed PFOS and/or PFOA in remaining 9 public supply wells
 - ✓ Wells 1, 2, 3, 4, 7, 9, 19, 20, 22 are below the PHAL
 - ✓ Initiated quarterly monitoring based on December 2015 sample results
 - HWSA voluntarily adopted 0.1 ppb as its own PFOA reference level April 8, 2016
 - 281,046,893 gallons in replacement water purchased and/or produced through increased pumping of other HWSA wells from July 2014 – February 2016

Navy Cooperative Agreement



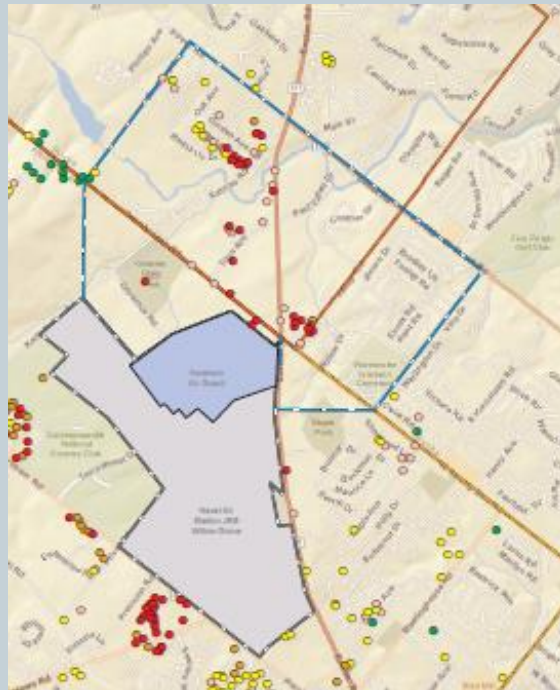
- **Administrative**

- 1st Annual Audit for year end December 31, 2015 completed and submitted to Navy February 19, 2016
- Three Quarterly Performance and Financial Reports submitted thus far

NGB Cooperative Agreement



May 13, 2015 EPA Administrative Order &
May 29, 2015 Superseding AO assigned area of
responsibility to National Guard Bureau



NGB Cooperative Agreement



National Guard Bureau (NGB) Cooperative Agreement
No. W912KC-15-2-3084
dated November 19, 2015

NGB Cooperative Agreement



- Connection of private well properties and well abandonment
 - 801-835 County Line Road (shopping center)
 - ✓ Property owner connected prior to NGB agreement with HWSA
 - ✓ Agreement between HWSA and property owner to defer tapping fees
 - ✓ Direction from NGB regarding abandonment of wells pending
 - ✓ Invoice submitted to NGB in Feb 2016 for payment of tapping fees

NGB Cooperative Agreement



- Connection of private well properties and well abandonment (cont'd)
 - Graeme Park
 - ✓ NGB Offer of connection and well abandonment has been accepted
 - ✓ Directive to connect issued by ANG to HWSA
 - ✓ Plumbing proposal approved by HWSA
 - ✓ Awaiting approval for ground disturbance from the PA Historical and Museum Commission

NGB Cooperative Agreement



- Connection of private well properties and well abandonment (cont'd)
 - Allows for future water main extensions, if necessary

NGB Cooperative Agreement



- **Administrative**

- 1st Quarterly Performance and Financial Report currently being prepared
- Reimbursement Processing through Wide Area Workflow (WAWF) system
 - ✓ Processing Issues necessitated modification to agreement
 - ✓ Modification signed by HWSA Board April 11, 2016
 - ✓ Awaiting fully executed modification back from NGB

Horsham Air Guard Station Wastewater



- HAGS wells have the highest known concentration of PFOA & PFOS in the vicinity
- HAGS wells are not being used for drinking & cooking purposes, but continue to supply other domestic needs
- Park Creek STP receives and treats all HAGS wastewater
- PFCs pass through the wastewater treatment process with dilution as the only reduction

Horsham Air Guard Station Wastewater



- Navy conducted surface water and sediment sampling in February 2015
- August 2015 HWSA & HAGS obtained PA DEP permit for rehabilitation of HAGS wells and water supply facilities
 - Permit includes requirement for installation of permanent treatment system for PFCs
- Continued pumping of HAGS wells is essential to plume containment

Horsham Air Guard Station Wastewater



- HWSA and Horsham Township continue to pursue ways to expedite PFC treatment of the HAGS wells
- Per HWSA and Horsham Township March 30, 2016 request, EPA confirmed HAGS must address wastewater issue as part of Administrative Order
- Temporary GAC systems tentatively scheduled for installation between May 23 and June 10, 2016

Horsham Air Guard State Wastewater



- HWSA received DEP direction on April 4, 2016 to collect weekly influent & effluent grab samples at Park Creek STP to be analyzed for PFOS & PFOA
- PA DEP empowered HWSA to create pretreatment requirements for ANG and other users that may be contributing elevated levels of PFCs to the sewer system
- HWSA adopted resolution on April 11, 2016 establishing interim limits and reporting requirements for certain PFCs discharged to HWSA sewer system
- HWSA issued notice on April 13, 2016 to HAGS to immediately begin sampling its wastewater discharge for PFCs and report to HWSA

Communications



- **Communications**

- 2014 notice (8/11/14)
- 2014 CCR (4/15/15)
- 2015 update mailer (10/23/15)
- Teleconferences including representatives from Horsham Township, HWSA, DEP, EPA, USGS, Navy, Air National Guard, HLRA
- Technical Team meetings

Communications



- **Communications**

- Open House meetings
 - ✓ Attended Warminster Open House meeting (8/27/14)
 - ✓ Horsham/Warminster/Warrington – (10/7/14 and 2/24 & 25, 2015)
 - ✓ Next meeting scheduled for 5/24 & 5/25, 2016
- 2016 update mailer (1/18/16)
- Press release (4/8/16) HWSA adopts 0.1 ppb as its own PFOA reference level
- 2015 CCR (4/13/16)
 - <http://www.horshamwater-sewer.com/2015%20ccr.pdf>