DERP Forum

Strengthening Relationships with our Regulatory Partners

St. Louis, Missouri
May 8-9, 2019
The PFAS PUZZLE

One State’s Approach to Piecing it Together

May 2019
Why is PFAS an Issue in New York?

• No known manufacturers of PFAS
• Many users of PFAS in product manufacturing
• AFFF use at military installations
• AFFF use at Airports
• AFFF at Fire Training Centers
• AFFF use by Fire Departments
• Disposal of PFAS containing material at Landfills
• Composting Facilities
Hoosick Falls: A Community Shaken

- Multiple businesses in the area built upon the fabric coating industry and use of PFAS liquid dispersions or fine powders
- 2015 - Village water supply serving ~3000 people contaminated with PFOA
- Water Supply wells located 1200’ from one mfg facility
- Private wells in Town also contaminated with PFOA
Town of Hoosick
Affected Private Wells
Response Action taken by New York

- Emergency response initiated in Hoosick-Installed almost 1000 POETS in 3 months
- GAC on MWS
Legislative/Rulemaking Actions

- Formation of a Water Quality Rapid Response Team
- Emergency Rulemaking listing PFOA and PFOS as Hazardous Substances
- Clean Water Infrastructure Act – provided funding for response
- Formation of a Drinking Water Quality Council
- Promulgation of MCLs - not yet - soon
Other Response Actions
PFAS SURVEY

• Surveyed 2500
  – Manufacturing Facilities
  – Fire Training Centers
  – Fire Departments
  – Airports
  – Bulk Storage Facilities

• Results
  – 250 Facilities within ½ mile of a drinking water supply
  – Testing on or near the Facility
  – Impacted Water Supplies Mitigated
PFAS Initial Sampling Initiative

• Assess presence of PFAS and 1,4-Dioxane in groundwater at each active remedial site by 2020
  ▪ 1475 Sites
  ▪ ~55% have been sampled
Purpose

• Evaluate types, amounts, and likely areas of concern of PFAS and 1,4DX in groundwater across the state

• Data to be utilized to:
  ▪ Identify potential receptors (especially drinking water)
  ▪ Mitigate potential public health and environmental impacts
  ▪ Formulate priorities, policies and procedures for addressing emerging contaminants
PFOA/PFOS Groundwater Max Values Per Region

Region 1 (Air Base)
PFOA = 12,600 ppt
PFOS = 58,900 ppt

Region 2 (Former Plating)
PFOA = 79.7 ppt
PFOS = 5770 ppt

Region 3 (Air Base)
PFOA = 1,610 ppt
PFOS = 4,290 ppt

Region 4 (Manufacturer)
PFOA = 5,600,000 ppt
PFOS = 24 ppt

Region 5 (Air Base)
PFOA = 981,000 ppt
PFOS = 70,300 ppt

% of sites with RMCL Exceedance

Region 1
90%
81%

Region 2
96%
85%

Region 3
88%
70%

Region 4
64%
61%

Region 5
73%
77%
PFOA/PFOS Groundwater Max Values Per Region

Region 7 (Landfill)
PFOA = 8.6 ppt
PFOS = 4,500 ppt

Region 6
PFOA = 56.2 ppt
PFOS = 279 ppt

Region 9 (Air Base)
PFOA = 110,000 ppt
PFOS = 1,200,000 ppt

Region 8 (Army Depot)
PFOA = 89,000 ppt
PFOS = 8,300 ppt

% of sites with RMCL Exceedance

Region 7
44%
44%

Region 6
32%
16%

Region 9
54%
46%

Region 8
51%
51%
Statewide Data as of 4/16/2019

<table>
<thead>
<tr>
<th>Possible MCL (input values)</th>
<th>PFOA</th>
<th>PFOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Sites Above MCL</td>
<td>% Above</td>
<td>Number of Sites Above MCL</td>
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<tr>
<td>70</td>
<td>118</td>
<td>24</td>
</tr>
<tr>
<td>10</td>
<td>359</td>
<td>73</td>
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<tr>
<td>Total Number of Sites</td>
<td>494</td>
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</table>

<table>
<thead>
<tr>
<th>Possible MCL (input values)</th>
<th>1,4 - Dioxane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Sites Above MCL</td>
<td>% Above</td>
</tr>
<tr>
<td>1</td>
<td>203</td>
</tr>
<tr>
<td>0.35</td>
<td>262</td>
</tr>
<tr>
<td>Total Number of Sites</td>
<td>818</td>
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</tbody>
</table>

Statewide Progress
- 1,475 Sites With EC projects
- 54% Sampling Has Started
- 39% EC Project Complete
  - 10% No Further Action (56 sites)
  - 28% Terminated (160 sites)
  - 62% Further Action (352 sites)
Further Actions:
Prior to Remedy Selection

• Investigation phase (prior to remedy selection)
  ▪ Monitor EC levels in groundwater and sample other media as part of investigation
  ▪ Initiate water supply sampling/mitigate as directed by DOH

• If the Site is the apparent source:
  ▪ Determine nature and extent
  ▪ Identify source(s)
  ▪ Incorporate ECs into remedy selection
Further Actions:
Site Management Phase

• Post RA/site management phase sites
  • Add ECs to groundwater monitoring program
  • Initiate water supply sampling/mitigate as directed by DOH
  • Assess need for remedial options for ECs during periodic review
    • Assess applicability of new technologies
    • Assess applicability of environmental or health-based standards/guidance available or in place at time of review
Other Response Actions

- AFFF Collection
- Water Supply Source Assessments
- Inactive Landfill Initiative (>2000 Landfills)
- Identified 30 potential SSF sites
- Bio Monitoring and assessment of affected populations
- Incorporation of PFAS into the Remedial Program
Next Steps

- Establish MCLs
- Continue Assessment of Incoming Data
- Take Appropriate Follow up Action (water supply mitigation, monitoring, etc)
- Preliminary Environmental Assessments at:
  - Fire Training Centers
  - Airports and Fire Stations
- Establish surface water and groundwater guidance/standards
Thank You

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NYSDEC, DER, Bureau D
May 2019