North Whitehall Division

Water Supply Discussion – 5/20/2019
Quick Facts:
- LCA acquired in 1992
- Developed interconnections among small developer-built systems
- Lower volume groundwater supply
- High levels of manganese naturally found in this area
- Developed interconnection with NBMA water system in 1990s
- Converted system to common rates in 1998
- Several wells discontinued / reduced usage over time due to high manganese or other operational challenges
- Monthly system flushing required to remove manganese buildup in water lines
Current Situation:
- Manganese is currently not regulated by Pa. DEP
- EPA established lifetime health advisory for manganese of 0.3 milligrams per liter
- Early 2019, EPA began testing water systems for manganese as part of the cycle of unregulated contaminant monitoring program to determine if manganese should be regulated
- NL6 water tested at 0.332 milligrams per liter, just over the EPA lifetime health advisory limit
- EPA Lifetime Health Advisory Limit: The concentration of a chemical in drinking water that is not expected to cause any adverse noncarcinogenic effects for a lifetime of exposure ... based on exposure of a 70-kg adult consuming 2 liters of water per day.
# North Whitehall Division Water Sources

<table>
<thead>
<tr>
<th>Water Source</th>
<th>2018 Gallons Per Day</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>NBMA</td>
<td>350,955</td>
<td>86%</td>
</tr>
<tr>
<td>NL1</td>
<td>13,985</td>
<td>3%</td>
</tr>
<tr>
<td>NL3</td>
<td>14,006</td>
<td>3%</td>
</tr>
<tr>
<td>NL4</td>
<td>3,951</td>
<td>1%</td>
</tr>
<tr>
<td>NL5</td>
<td>2,499</td>
<td>1%</td>
</tr>
<tr>
<td>NL6</td>
<td>20,718</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>406,113</strong></td>
<td></td>
</tr>
</tbody>
</table>

NBMA = Northampton Borough Municipal Authority
Replace NL6 with NBMA Water

**PROS:**
- Eliminate high levels of manganese
- Achieve water quality compliance in advance of new regulation
- More consistent fluoride levels throughout the system
- Opportunity to fully clean the system to remove manganese buildup
- NBMA has significant excess capacity available for LCA to use

**CONS:**
- Higher cost to purchase water from NBMA vs. well supply (water purchase cost increase of 5% or about $20,000)
- Occasional summertime taste & odor from NBMA’s Lehigh River source
- Loss of system redundancy
What’s Next?

• Public communication about high manganese
• Discontinue use of NL6
• Purchase additional water from NBMA
• Revise water purchase agreement with NBMA
• Evaluate capital improvements to increase redundancy
  • Second interconnection with NBMA?
  • Additional storage?
Discussion | Other Ideas?