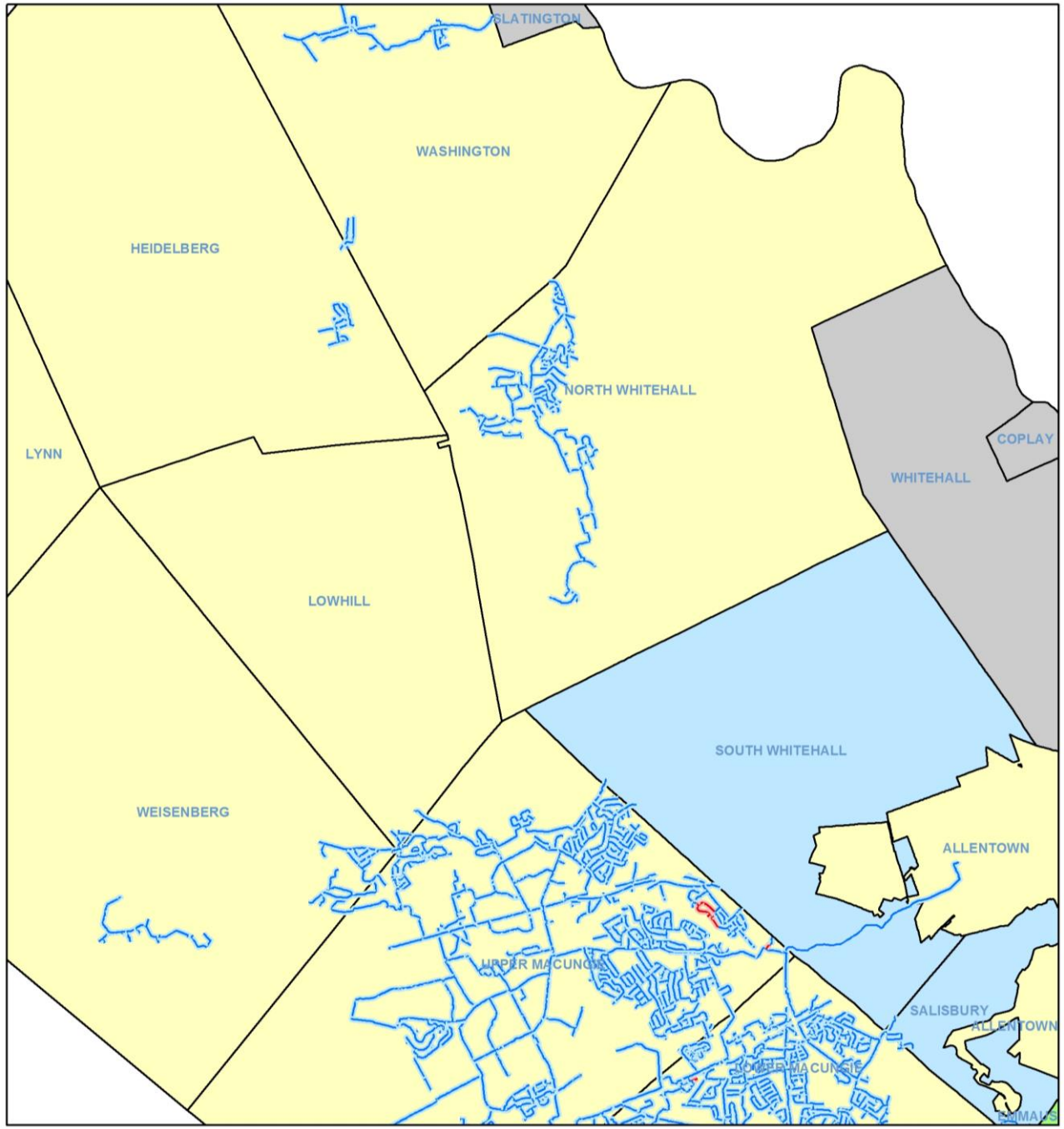
North Whitehall Division

Water Supply Discussion – 5/20/2019

North Whitehall Division



Quick Facts:

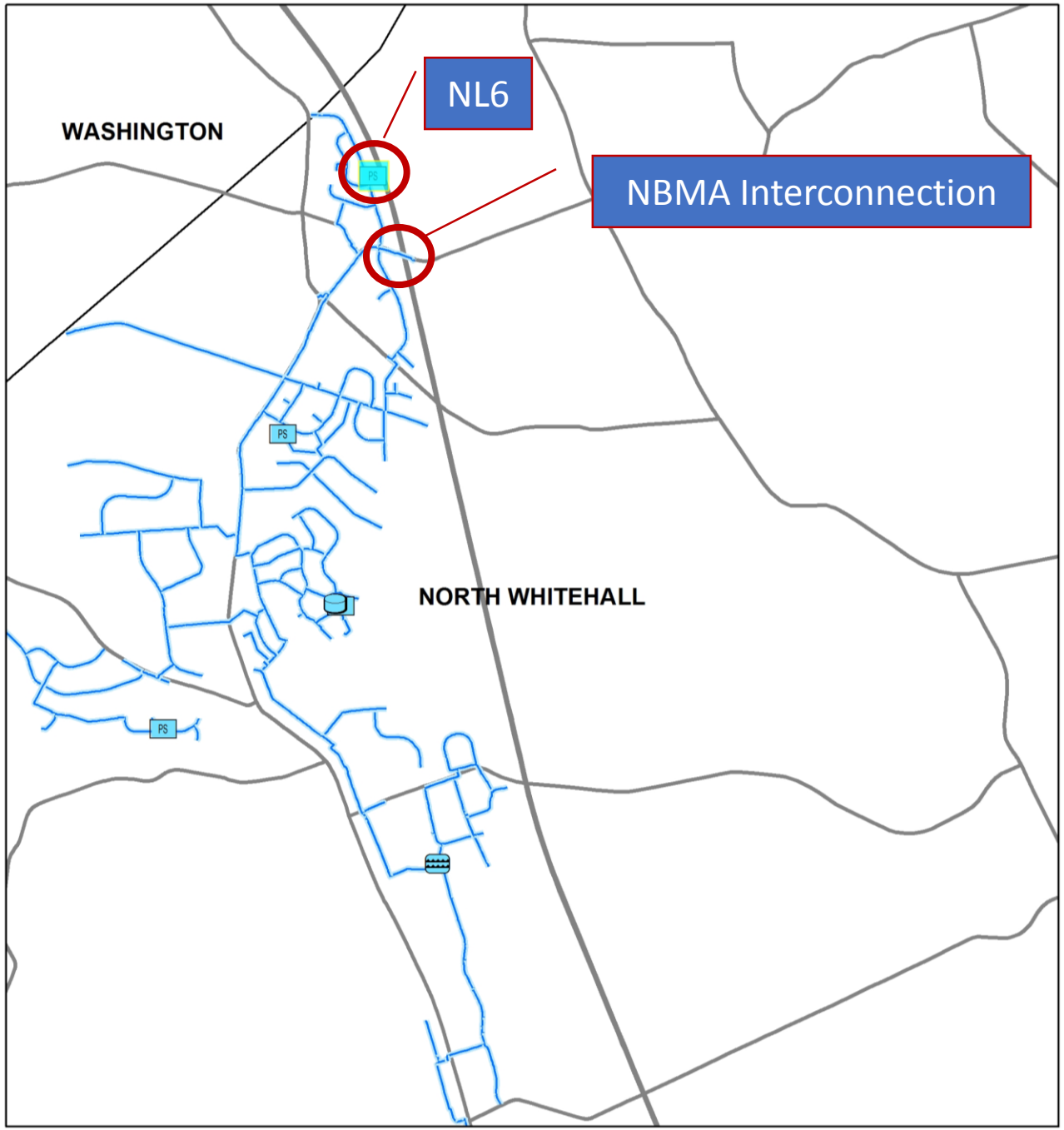
- LCA acquired in 1992
- Developed interconnections among small developer-built systems
- Lower volume groundwater supply
- High levels of manganese naturally found in this area
- Developed interconnection with NBMA water system in 1990s
- Converted system to common rates in 1998
- Several wells discontinued / 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 Facilities



North Whitehall Division Water Sources

Water Source	2018 Gallons Per Day	% of Total
NBMA	350,955	86%
NL1	13,985	3%
NL3	14,006	3%
NL4	3,951	1%
NL5	2,499	1%
NL6	20,718	5%
Grand Total	**406,113**	

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?