

Assessment of PFC Contamination Private Well Sampling Westfield

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Outline

- Brief background on PFCs
- Identification of private wells
- Methodology in choosing wells to be sampled
- Mitigation measures to be taken if necessary

Collaborative Effort

- City of Westfield
- Barnes Air National Guard
- MassDEP

What are PFCs?

- Perfluorinated chemicals (PFCs) – stain, water and grease repellent chemicals found in a variety of consumer products
 - Carpet and fabric protection
 - Food packaging
 - Metal plating
- Key components of Aqueous film-forming foams (AFFF) widely used in firefighting
- Persistent in the environment

How are PFCs Regulated?

- Emerging contaminants – No established limits yet
- US EPA set Health Advisory of 70 parts per trillion last year
- Levels above this does not necessarily indicate that there are health risks
- The Health Advisory is a “screening value” designed to be protective

Barnes Aquifer

- Hydrogeology is well understood
- General flow direction is south

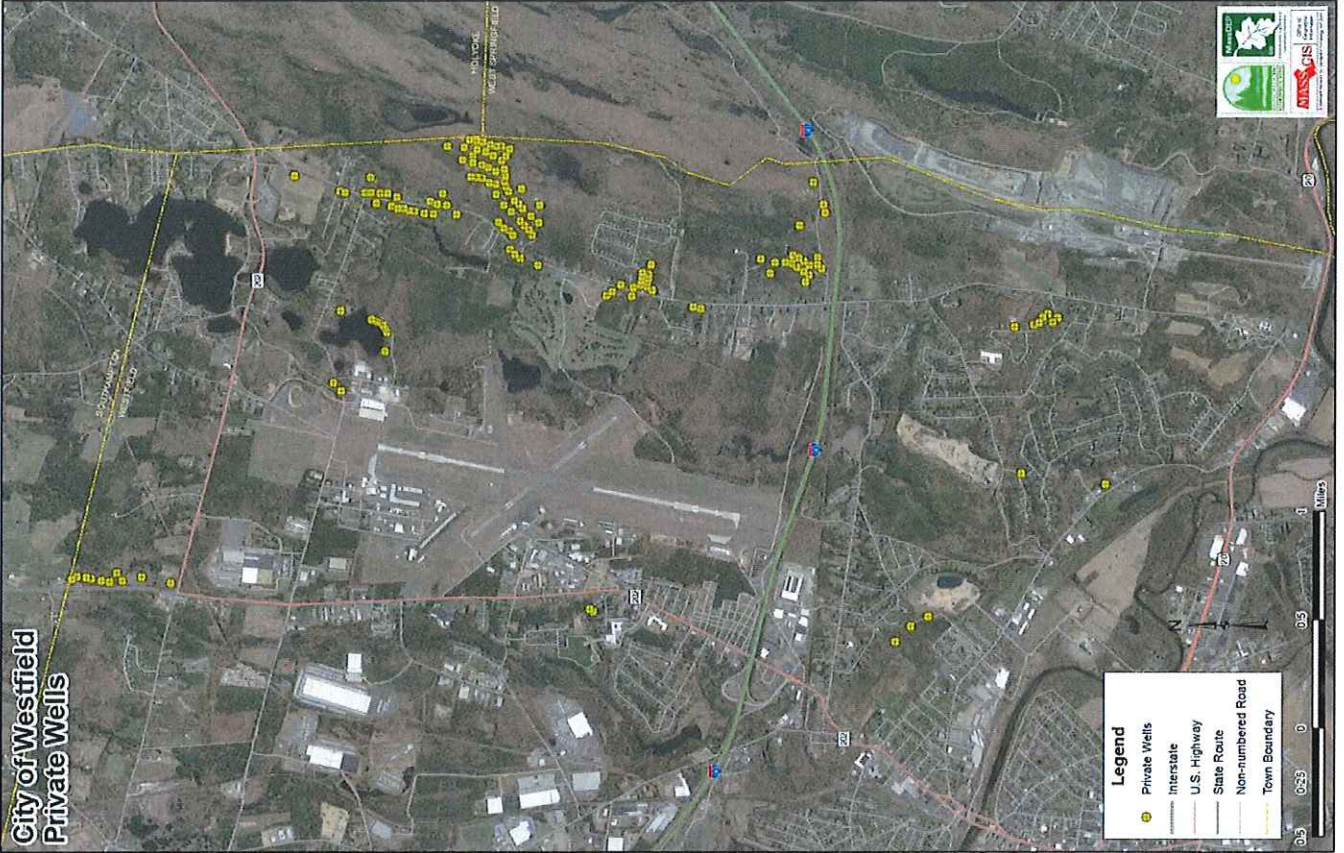
City of Westfield Groundwater Flow Direction



Identification

- Evaluation of hydrogeology and groundwater flow of the Barnes Aquifer
- 1-mile radius of wells 7&8 and 1&2
- Evaluation of Well Driller database
- City Records
- Approximately 150 wells identified
- Approx. 130 wells are south/southeast

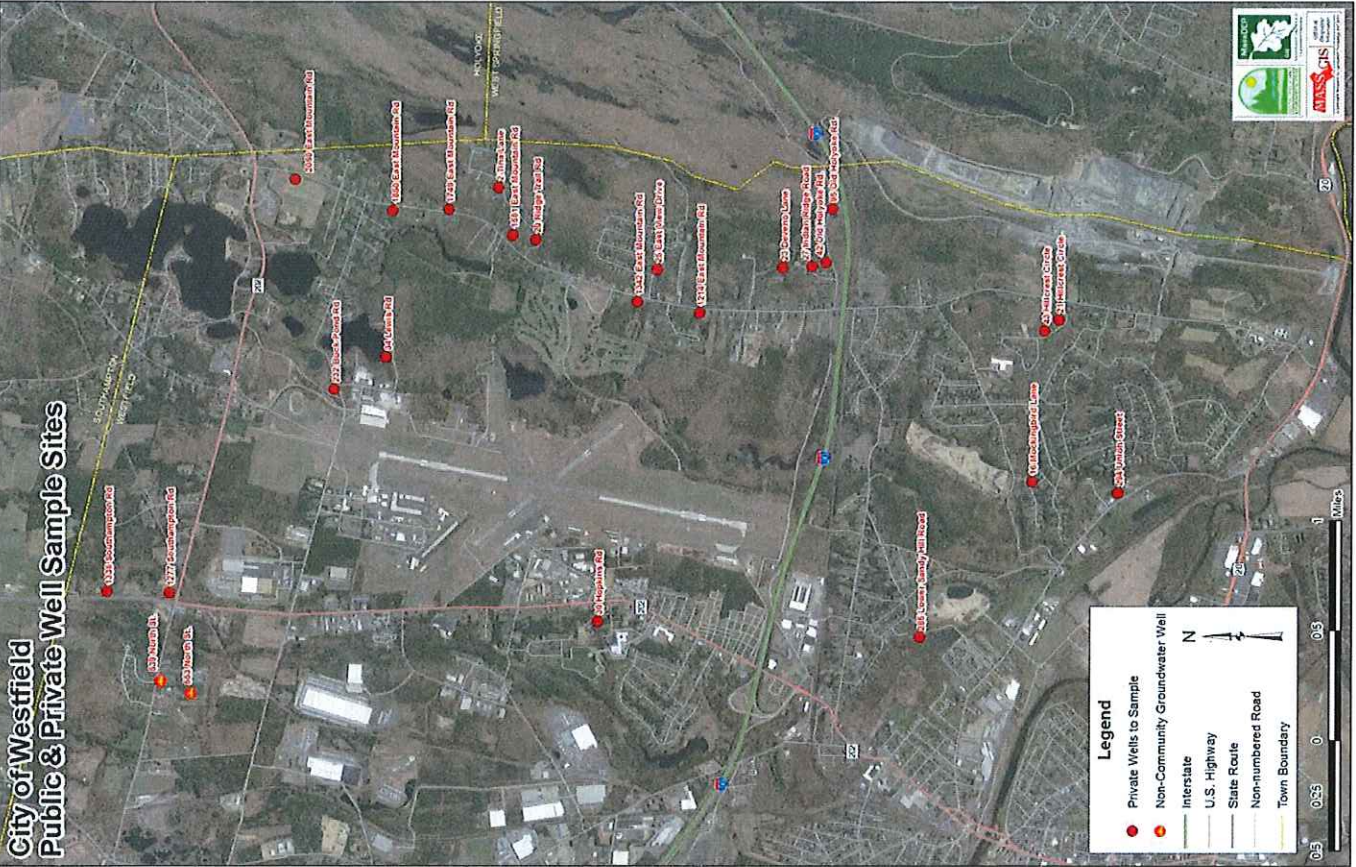
**City of Westfield
Private Wells**



Sampling Methodology

- Phased approach
- Identification of extent
- General indication of concentrations
- Greater focus of immediate downgradient
- Inclusion of areas upgradient as a conservative measure and to address outside concerns
- Initial proposed number of wells Phase 1: **25**

City of Westfield Public & Private Well Sample Sites



Legend

- Private Wells to Sample
- Non-Community Groundwater Well
- Interstate
- U.S. Highway
- State Route
- Non-numbered Road
- Town Boundary

0.5 0.25 0 0.25 0.5 1 Miles

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Mitigation

- If concentrations are detected that may pose health risks, MassDEP is prepared to:
 - Provide bottled water
 - Install a water treatment system
- Long term solutions may include tie-in to the City's Public Water Supply

Phase 2

- Potentially expand beyond the 1-mile radius
- Potentially sample additional wells in an area of detections
- Considerations for the above:
 - Sample concentrations compared to the advisory
 - Number of wells in the vicinity