

# Former Wurtsmith Air Force Base – PFCs in Drinking Water UPDATE



June 14, 2016 Community Meeting  
Oscoda, Michigan

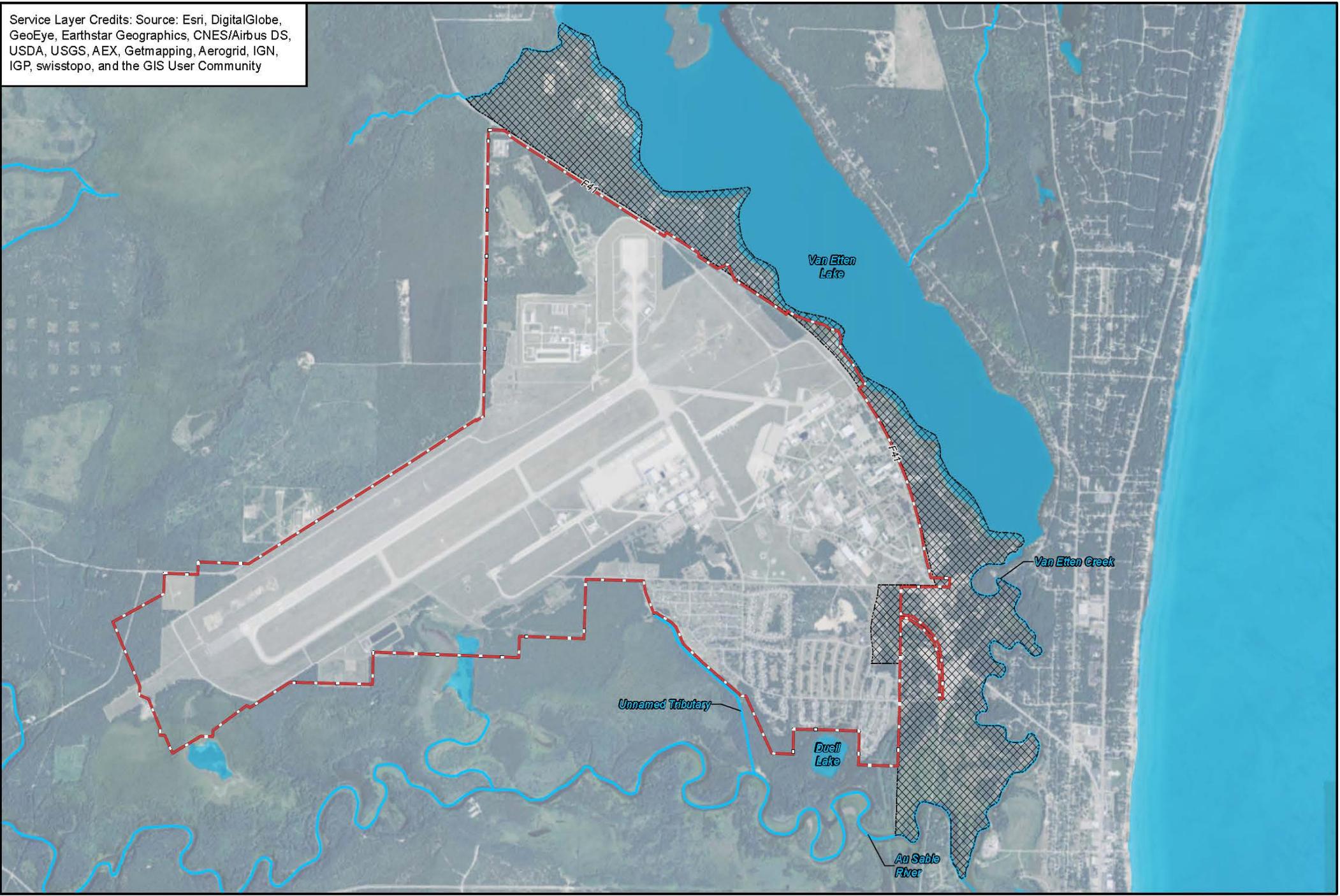
# Outline

- How we got here
- PFCs and public health
- EPA's Health Advisory levels
- Data update (MDEQ)
- Data evaluation
- Decision “tree”
- Alternate water/water treatment (DHD2)
- U.S. Air Force activity update (USAF)
- Legislative update (Sen. Stamas)

# PFCs in Drinking Water

- Timeline
  - September 2015: Type 1 water-supply at mobile home park ID'd and sampled
  - October 2015: Results received; planning begins for potable well survey
  - December 2015: USAF and MDEQ sample 24 private residential wells
  - January 2016: Results received; MDHHS prepares “Understanding Your Well Test Results” fact sheet
  - February 2016: USAF and MDEQ send results letters and fact sheet; MDHHS sends recommendations letter with meeting info, updated fact sheet; local health conducts in-person outreach
  - March 2016: MDHHS final report showing evaluation of data sent to local health and township

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



# PFCs and public health – key points

- Taking conservative (protective) stance
  - What we know
  - What we don't know
- Using best available science
- Using a decision “tree”
- Requesting more data to verify results, strengthen conclusions

# PFCs

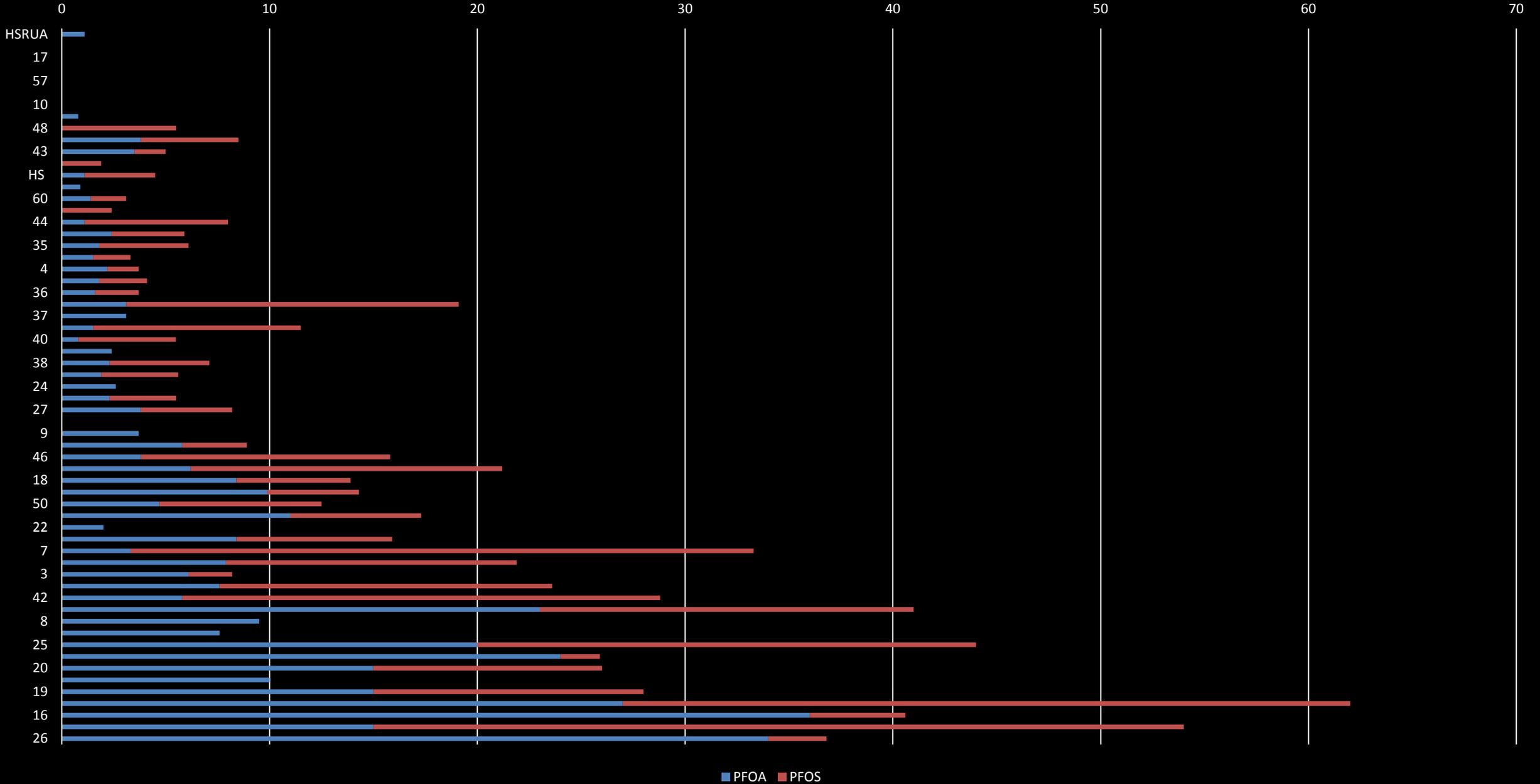
- Common uses: Teflon<sup>®</sup>, Goretex<sup>®</sup>, Stainmaster<sup>®</sup>, Scotchguard<sup>®</sup>
- “Aqueous Film-Forming Foam” = AFFF
- Carbon-fluorine chemical bonds are very strong
- Do not breakdown
- Build up in environment, people

# EPA's Health Advisory levels

- Previously “provisional”
  - PFOA = 400 ppt (ng/L)
  - PFOS = 200 ppt
- Now “lifetime” (as of 5/19/2016)
  - PFOA + PFOS = 70 ppt
  - Short-term and long-term exposure
- Protecting fetus and against cancer/noncancer effects

Data Update (MDEQ)

# PFOA+PFOS in Wells and HSRUA

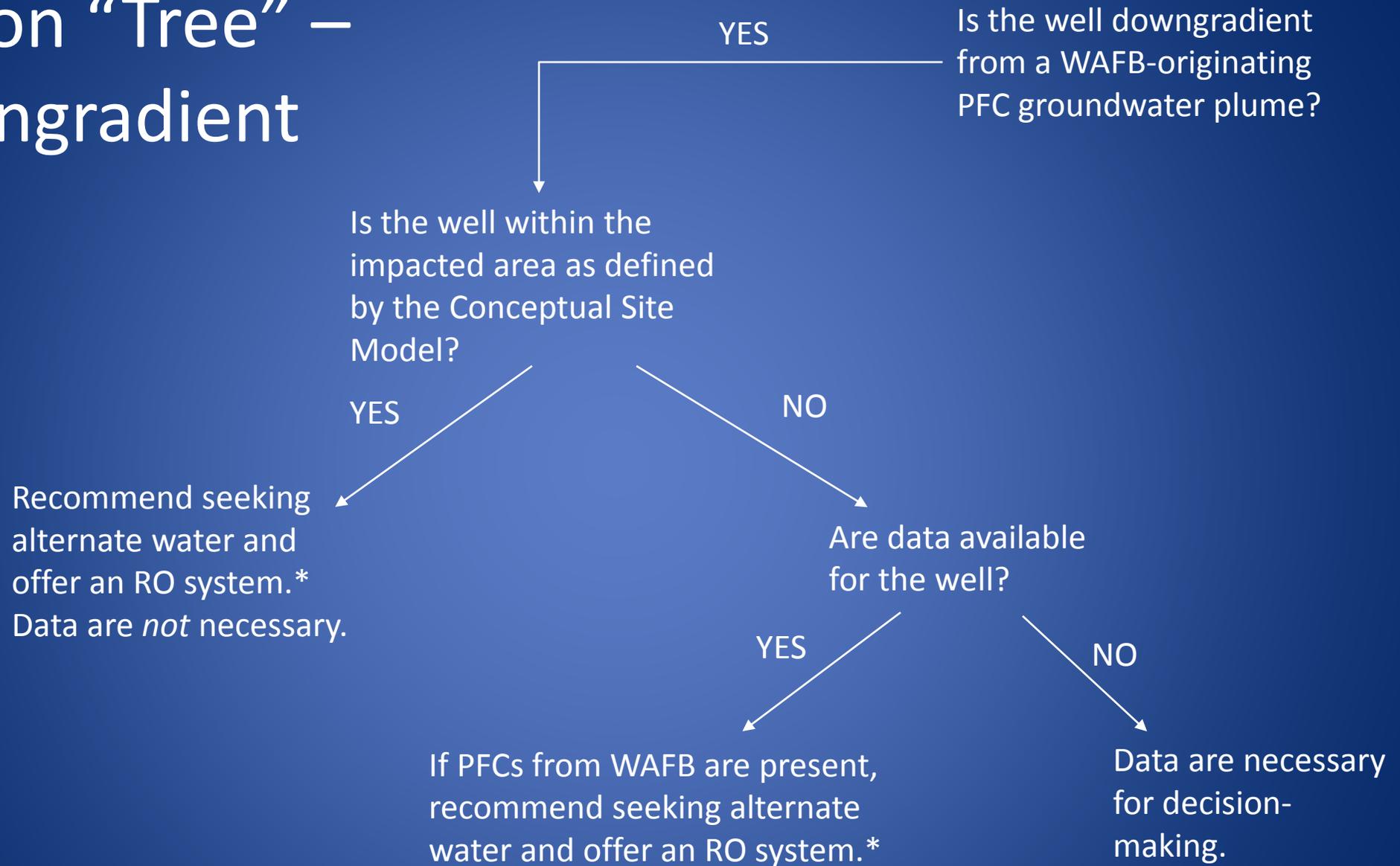




# Data Evaluation

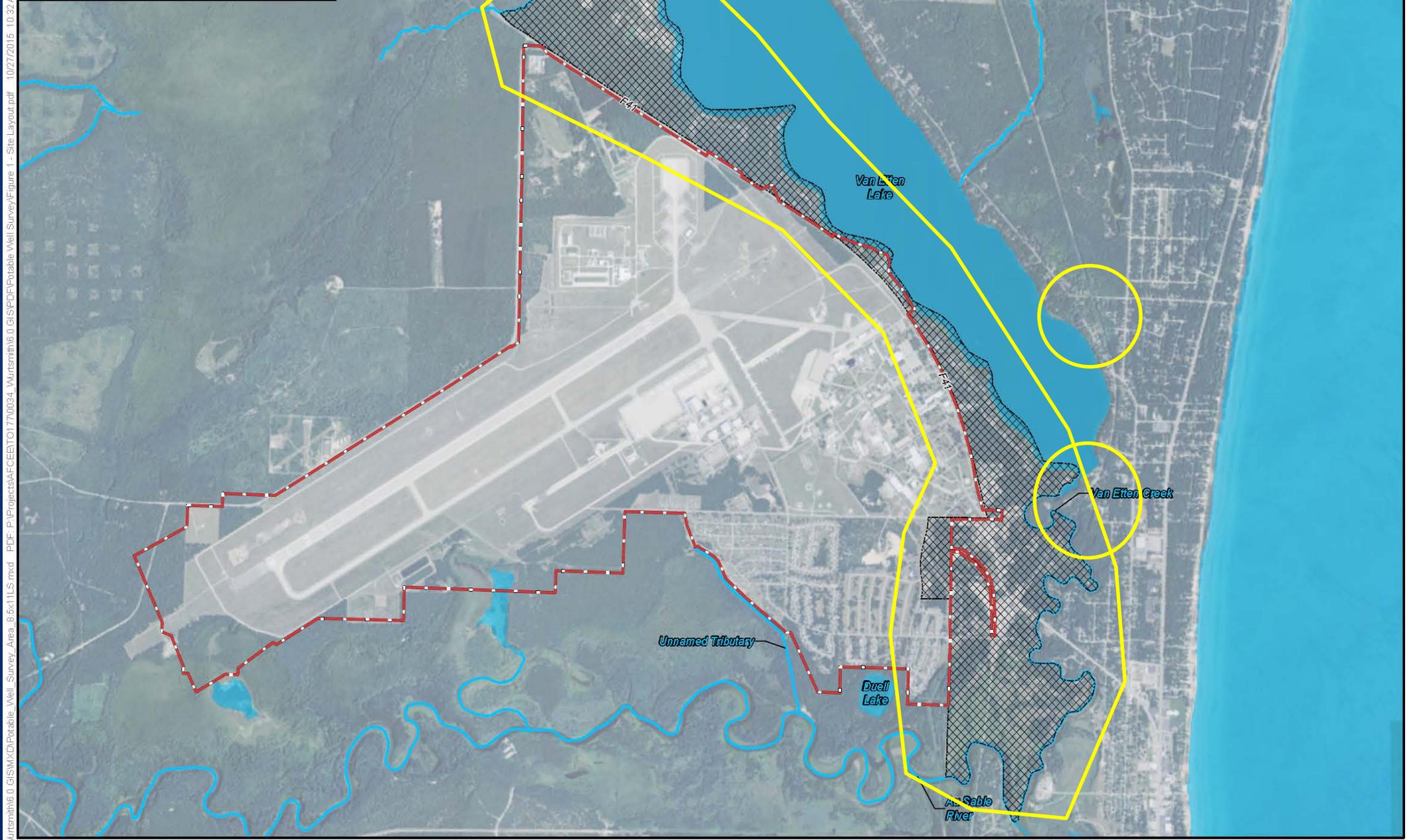
- Contamination not fully understood or controlled
- One sample cannot determine past exposure amount or duration, is not predictive of future
- Contamination at WAFB → → drinking water wells
- PFCs in most well water samples are higher than in HSRUA
- Animal/human studies → potential for harm
- PFCs are persistent, bioaccumulate
- Some PFCs have long half-lives in humans

# Decision “Tree” – Downgradient



\*Well owners may choose to connect to township water, if that is currently available.

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Wurtsmith6.0.GIS\MXD\Portable\_Well\_Survey\_Area\_8.5x11.LS.mxd PDF-P:\Projects\AFCEB\T01770034\_Wurtsmith6.0.GIS\PDF\Portable\_Well\_Survey\Figure 1 - Site Layout.pdf 10/27/2015 10:32 AM brnan.peters

# Decision “Tree” – Other Areas

Is the well downgradient  
from a WAFB-originating  
PFC groundwater plume?

NO

Are data available  
for the well?

NO

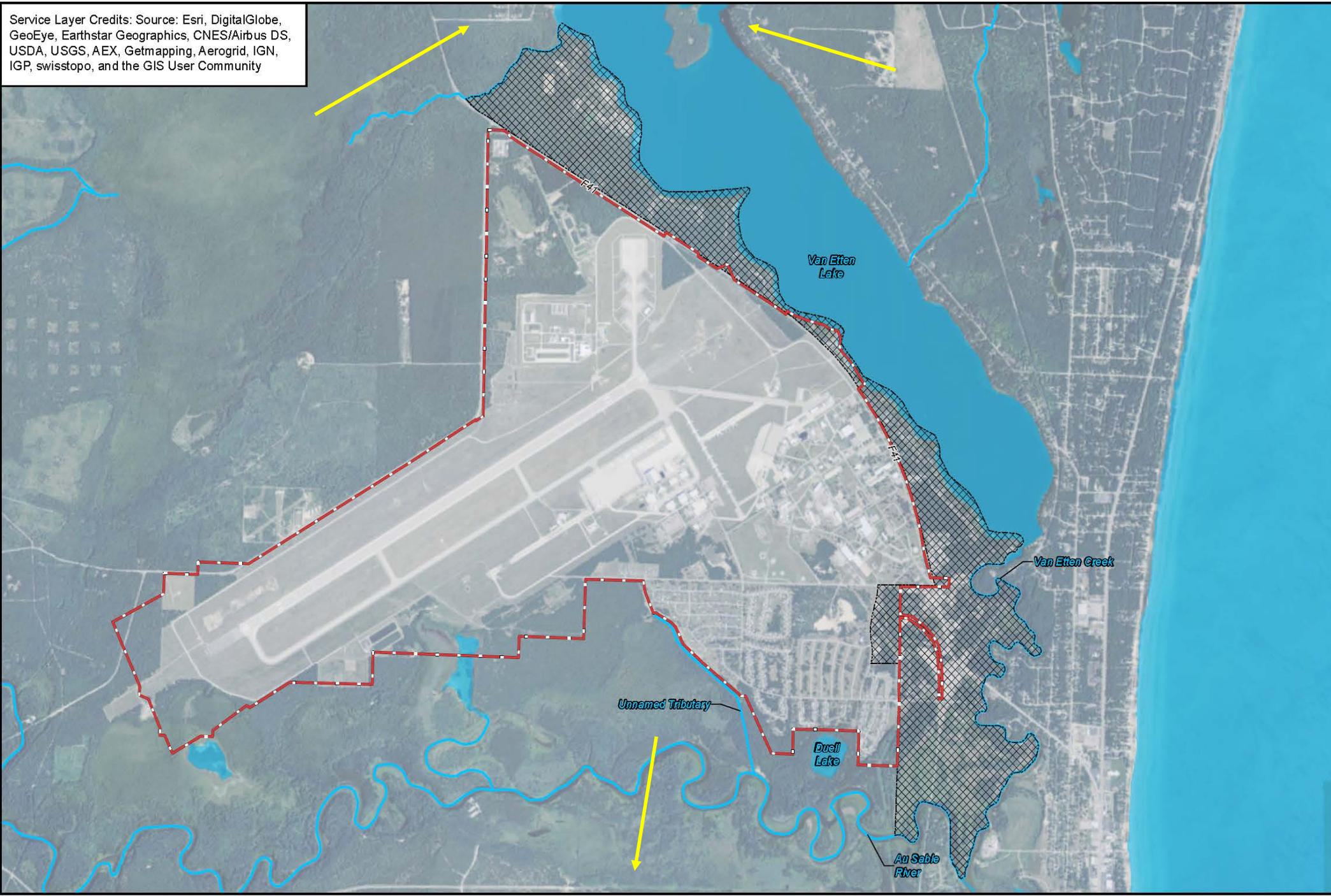
YES

Data are necessary  
for decision-  
making.

If PFOA + PFOS > 70 ppt,  
recommend seeking alternate  
water and offer an RO system.\*

\*Well owners may choose to connect to township water, if that is currently available.

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



# Alternate Water/Water Treatment (DHD2 and vendor)

# USAF Activity Update (USAF)

# Legislative Update (Sen. Stamas)

# Health Dept Contacts

- FIRST CONTACT = District Health Dept #2 – Denise Bryan,  
Health Officer  
– 989-343-1800
- MDHHS - Christina Bush, Toxicologist  
– 517-284-4794 (NEW) or 800-648-6942  
– bushc6@michigan.gov

# Web

- MDHHS webpage for Wurtsmith work:
  - [www.michigan.gov/envirohealth](http://www.michigan.gov/envirohealth) → Toxicology and Response Section  
→ “Health Assessments and Related Documents” → “(Former) Wurtsmith Air Force Base”
  - Links to EPA, ATSDR, USAF webpages

Questions / Comments