

2010 Containment Evaluation

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October 19, 2011

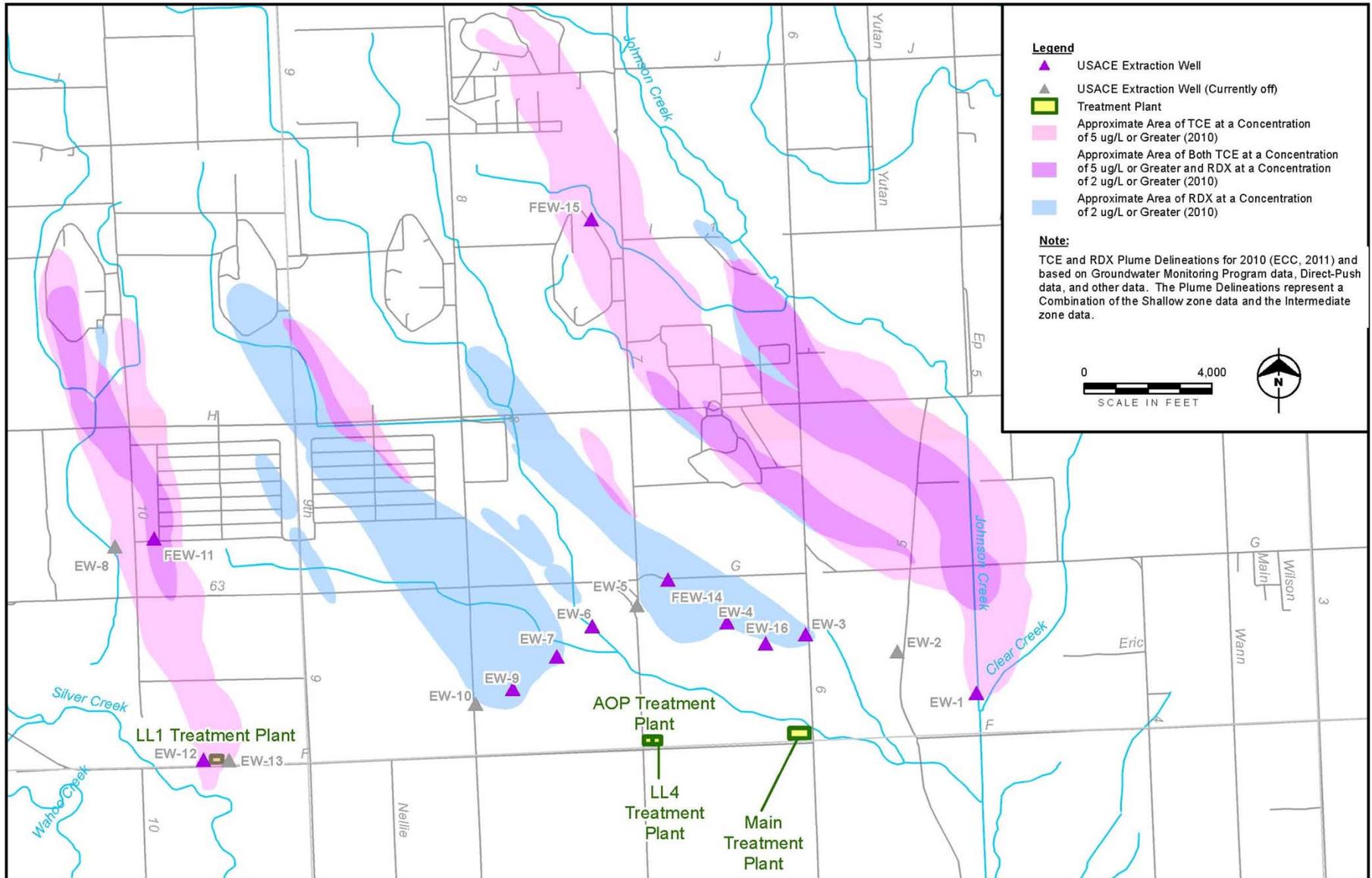


The Containment Evaluation

- U.S. Army Corps of Engineers evaluates containment annually at the former Nebraska Ordnance Plant site.
- Determines if the hydraulic containment wells are capturing the Operable Unit 2 Record of Decision contaminants of concern in groundwater that are above the Final Target Groundwater Cleanup Goals.



Containment System



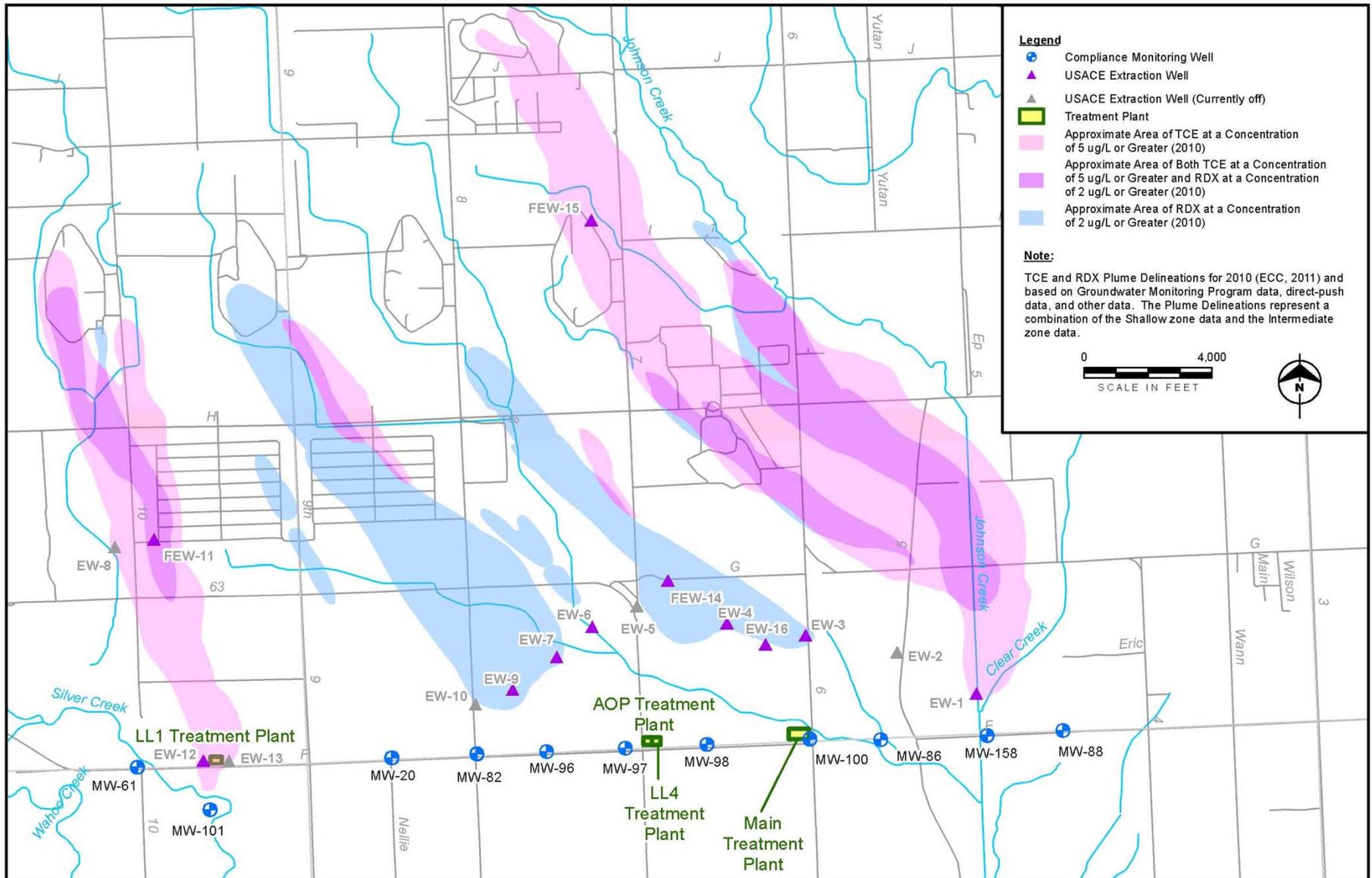
Evaluating Containment

Primary

- Containment is determined based on **chemical data** from downgradient compliance monitoring wells.
- If no contaminants of concern are **detected above the Final Target Groundwater Cleanup Goals** in compliance wells, containment is met.



Compliance Wells

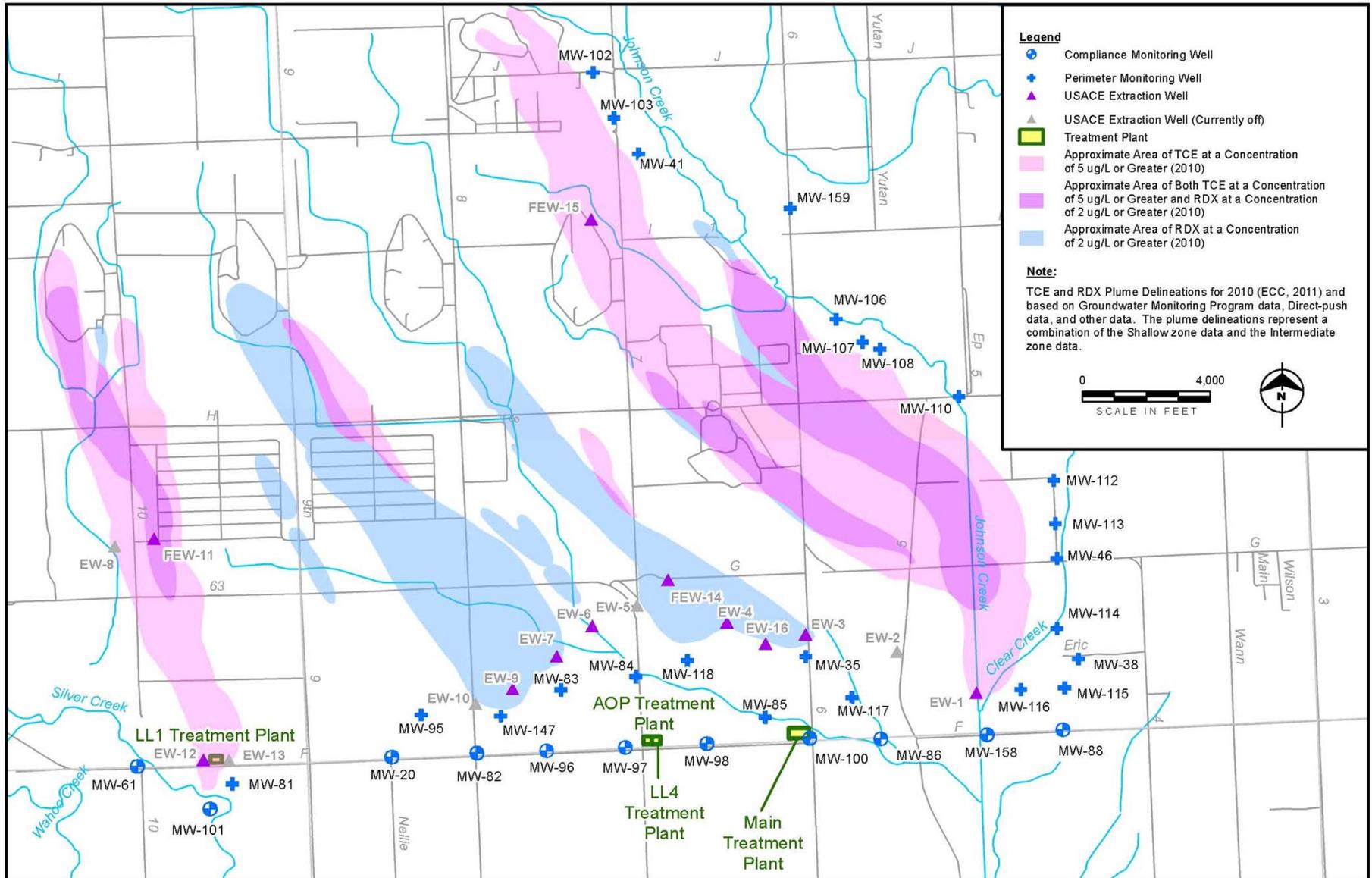


Evaluating Containment Secondary

- **Perimeter wells** are monitored at the perimeter of the plume quarterly
- **Groundwater transport modeling** is performed to evaluate general performance or effectiveness of the hydraulic containment system



Perimeter Wells



Evaluating 2010 Containment

- Information collected and evaluated:
 - ▶ **Water levels** – Approximately 500 wells three times a year
 - ▶ **Groundwater samples** - from 36 Compliance and 68 Perimeter Wells
 - ▶ **Drinking Water samples** - from 78 Water Supply wells
 - ▶ **Pumping rates** - Metropolitan Utilities District, Lincoln Water System, the village of Mead and the city of Ashland.



2010 Containment System Modifications

- EW-10 was deactivated in February 2010
 - ▶ To mitigate the southwesterly shift of the plumes
 - ▶ Additional monitoring wells were installed adjacent to EW-10

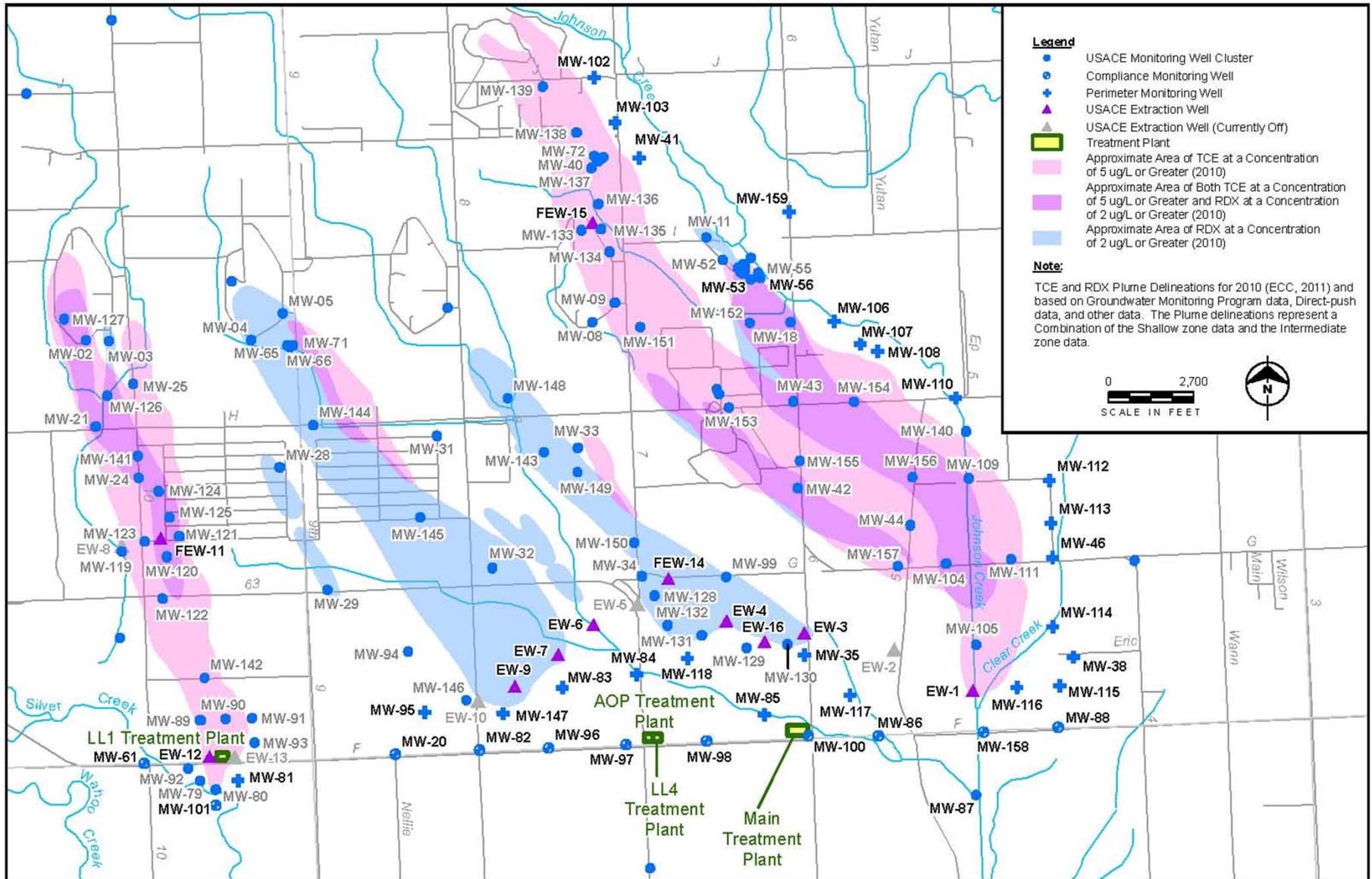


Annual Monitoring

- Groundwater data will continue to be collected during the annual Groundwater Monitoring Program
 - ▶ Water supply wells
 - ▶ Select monitoring wells
 - ▶ Compliance wells
 - ▶ Perimeter wells



Monitoring Well Network



2010 Containment Evaluation Conclusion

- Containment has been achieved for 2010
 - ▶ No contaminants of concern were detected in any of the perimeter or compliance wells above the Final Target Groundwater Cleanup Goals from the data collected in 2010



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2011 Updates

- Annual Monitoring
- Perimeter Well MW-116A TCE Detections
 - ▶ Continued collection of groundwater samples for laboratory analysis
 - ▶ Assessment of pumping extraction well EW-1 capture zone
 - ▶ Operate EW-1 at current maximum pumping rate
 - ▶ Take continuous water level measurements in the vicinity of EW-1 and MW-116A
 - ▶ Groundwater pumping test at EW-1 confirmed capture zone extent
 - ▶ Continue sampling and monitoring



Questions

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