

28th Bomb Wing

Public Meeting Restoration Advisory Board



22 May 2012

Ellsworth Air Force Base

UNCLASSIFIED



Presentation Outline



- **OU-11 Basewide Groundwater Record of Decision (ROD) Amendment**
- **Notice of Intent to Partially Delete**
- **East off-base exit strategy**
- **Future plans**



OU-11 Basewide Groundwater ROD Amendment



- Ellsworth AFB has been working toward this ROD Amendment since 2005
- The ROD Amendment follows up on an Explanation of Significant Differences (ESD) prepared in 2007 to allow implementation of in-situ reductive treatment (IRT)



OU-11 Basewide Groundwater ROD Amendment



- In February 2012, the ROD amendment was signed and allowed shut down of pump and treat systems
- Systems shutdown November 30, 2011
- Individual systems may need to be restarted based on groundwater results
 - BG05 was turned back on April 2012 (BG5BEW04)



OU-11 Basewide Groundwater IRT Zones



- In August/September 2011, several IRT zones were reinjected with organic substrate to “revitalize” the IRT zones
- Two IRT zones were extended
- One new IRT zone was installed

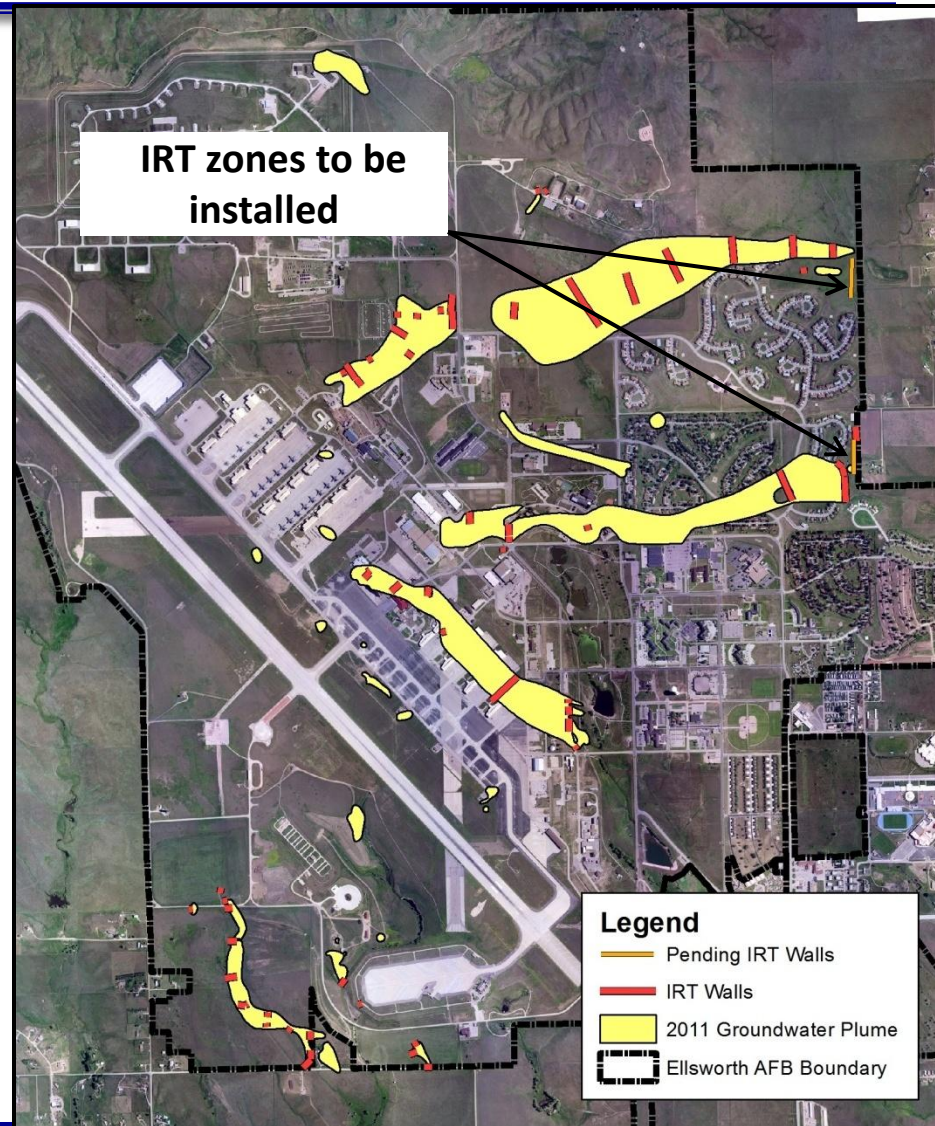




OU-11 Basewide Groundwater IRT Zones



- **Future work at OU-11 IRT zones to include:**
 - Collect samples from performance monitoring wells to ensure proper performance
 - Maintain backup pump and treat systems
 - Re-inject organic substrate to revitalize IRT zones as needed
 - Install two additional IRT walls





Notice of Intent to Partially Delete

- **2006 – Partial deletion of all Operable Units (including landfills and spill areas) except three areas:**
 - Pride Hangar Area of Concern
 - Gateway Lake Ash Area of Concern
 - OU-1

- **On March 13, 2012, EPA issued a Notice of Intent to Partially Delete these three areas**



Notice of Intent to Partially Delete



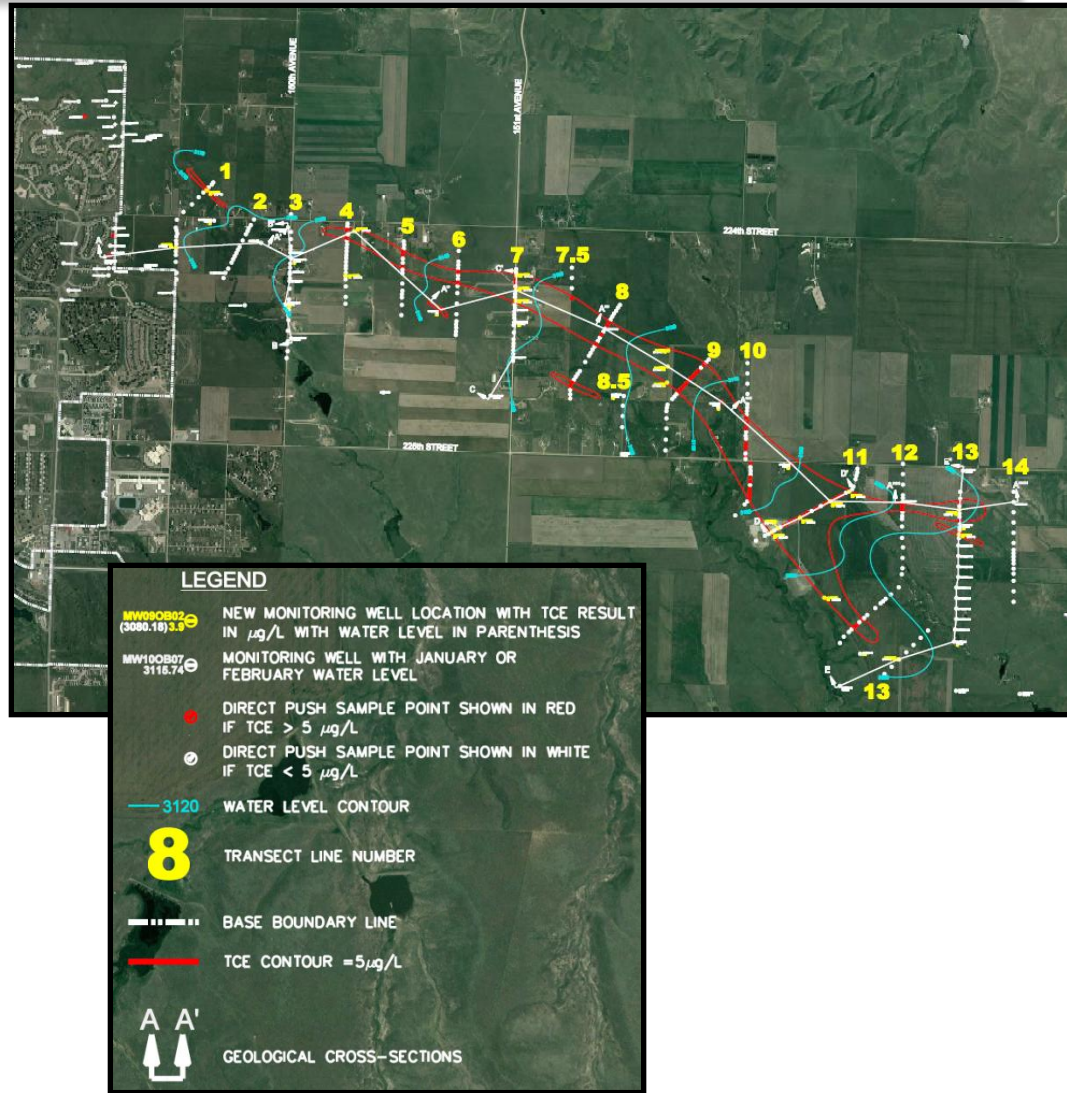
- **No comments were received during the 30-day public comment period**
- **Final step is for EPA to publish a Notice of Partial Deletion**
- **OU-11 Basewide Groundwater remains on the National Priorities List (NPL)**



East Off-Base Plume Exit Strategy



- Groundwater investigation conducted 2009-2010
- 307 groundwater samples collected from 335 borings
- Based on results from the 307 groundwater samples, 19 new monitoring wells were installed
- These 19 wells, along with 11 existing monitoring wells, make up the optimal monitoring network for the east off-base plume





East Off-Base Plume Exit Strategy



➤ Exit strategy for off-base plume

- 30 wells sampled annually
- Minimum of 4 samples collected from each well
- Concentrations must be stable or declining
- Concentrations must be <Maximum Contaminant Level (MCL) for 3 consecutive years
- At this point, sampling frequency at individual monitor well changes from annual to every 5 years
- Once all 30 wells have attained the above milestones, all 30 wells will be sampled simultaneously for verification
- If verification results are <MCL, site can be deleted and monitor wells abandoned



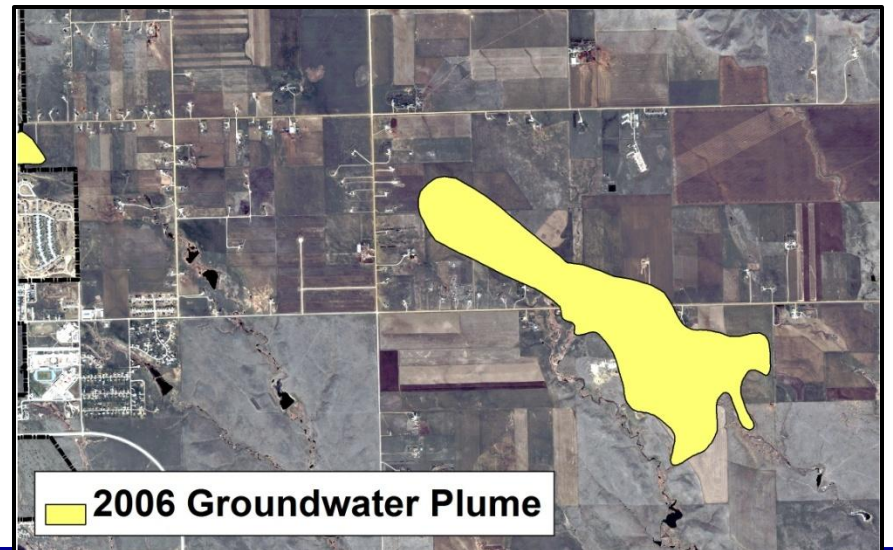
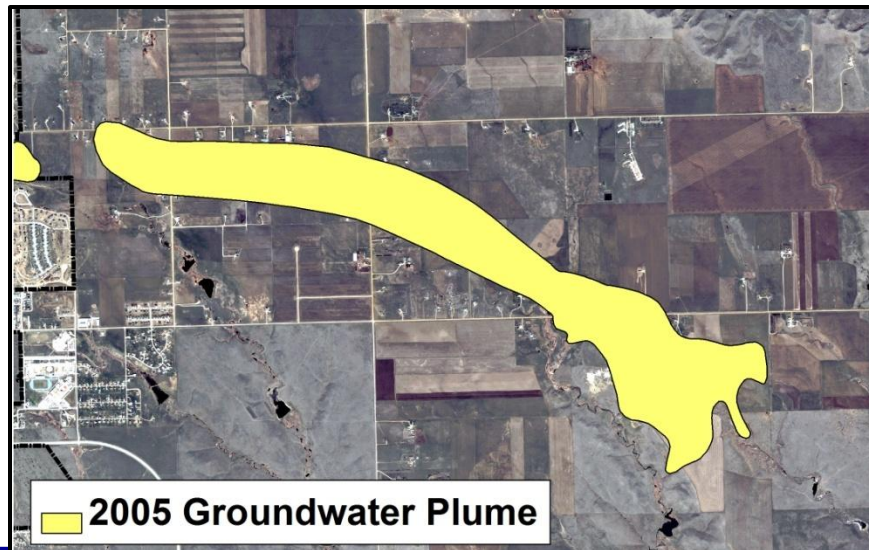
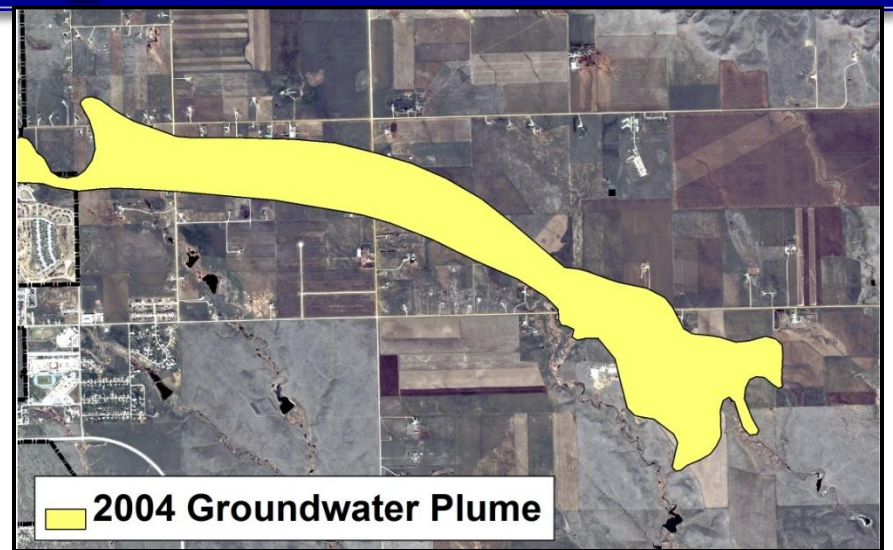
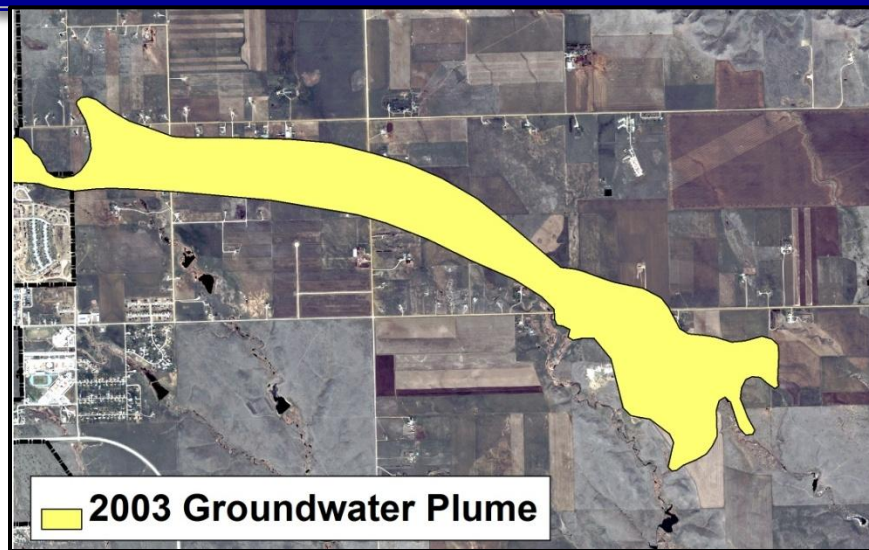
East Off-Base Plume Exit Strategy



- **Once exit strategy milestones have been attained and the site is deleted from the NPL, groundwater use restrictions can be removed**
 - When groundwater restrictions are removed, it will be okay to install new wells and use existing wells without a modified memorandum of agreement (MOA)
 - Currently, a modified MOA is required to pump the groundwater for non-potable uses (irrigation and swimming), in accordance with the 2011 ESD



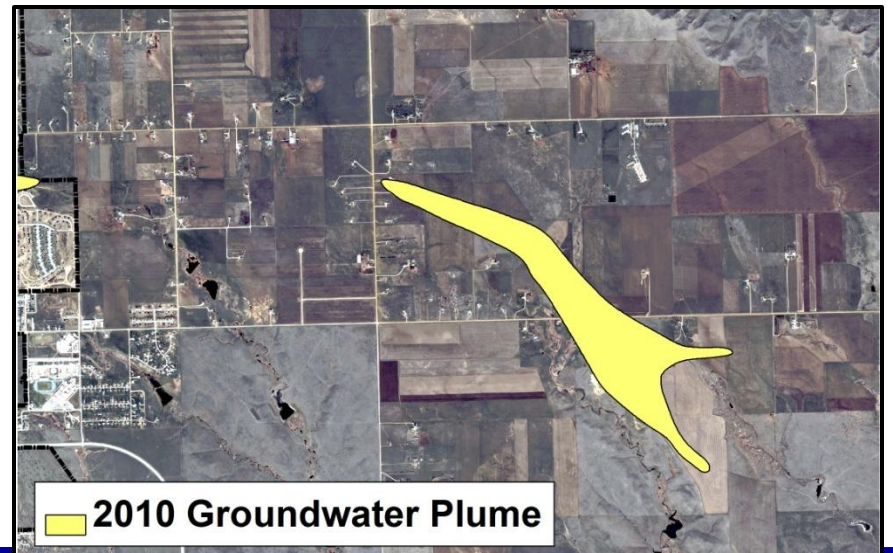
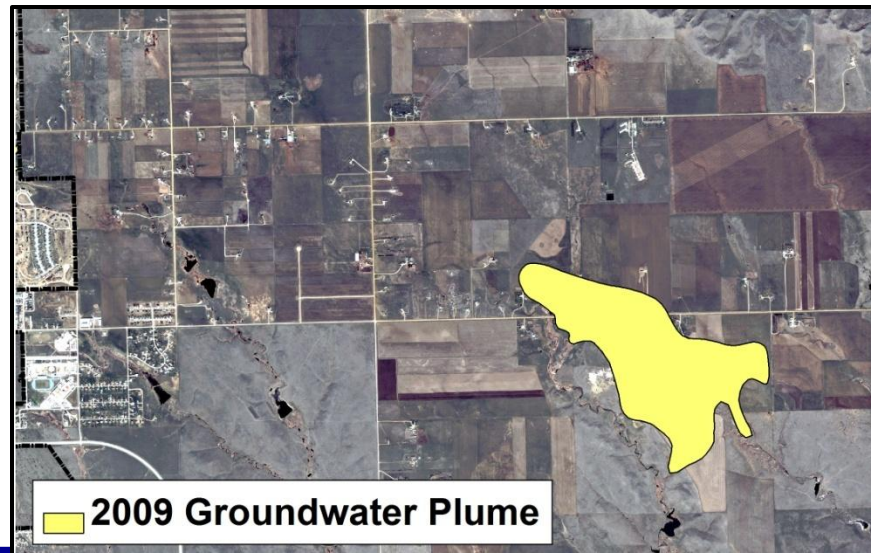
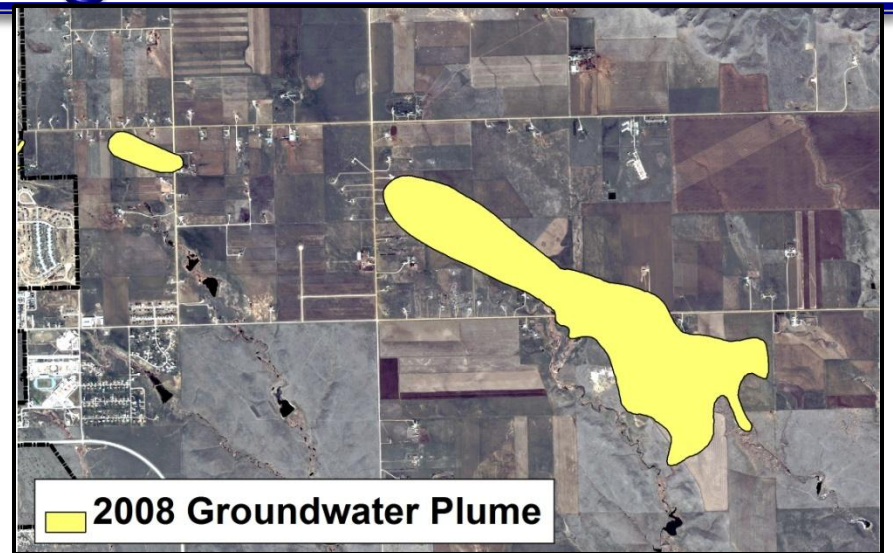
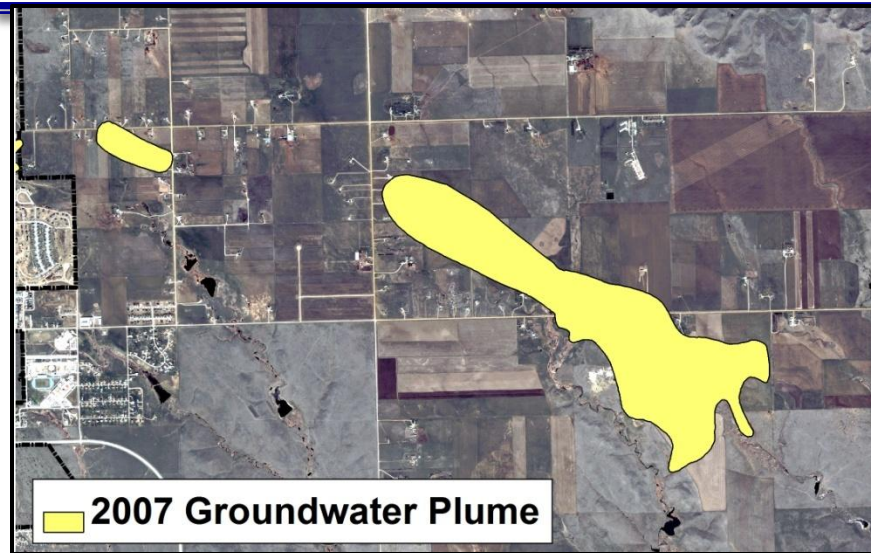
East Off-Base Plume Over Time 2003 through 2006



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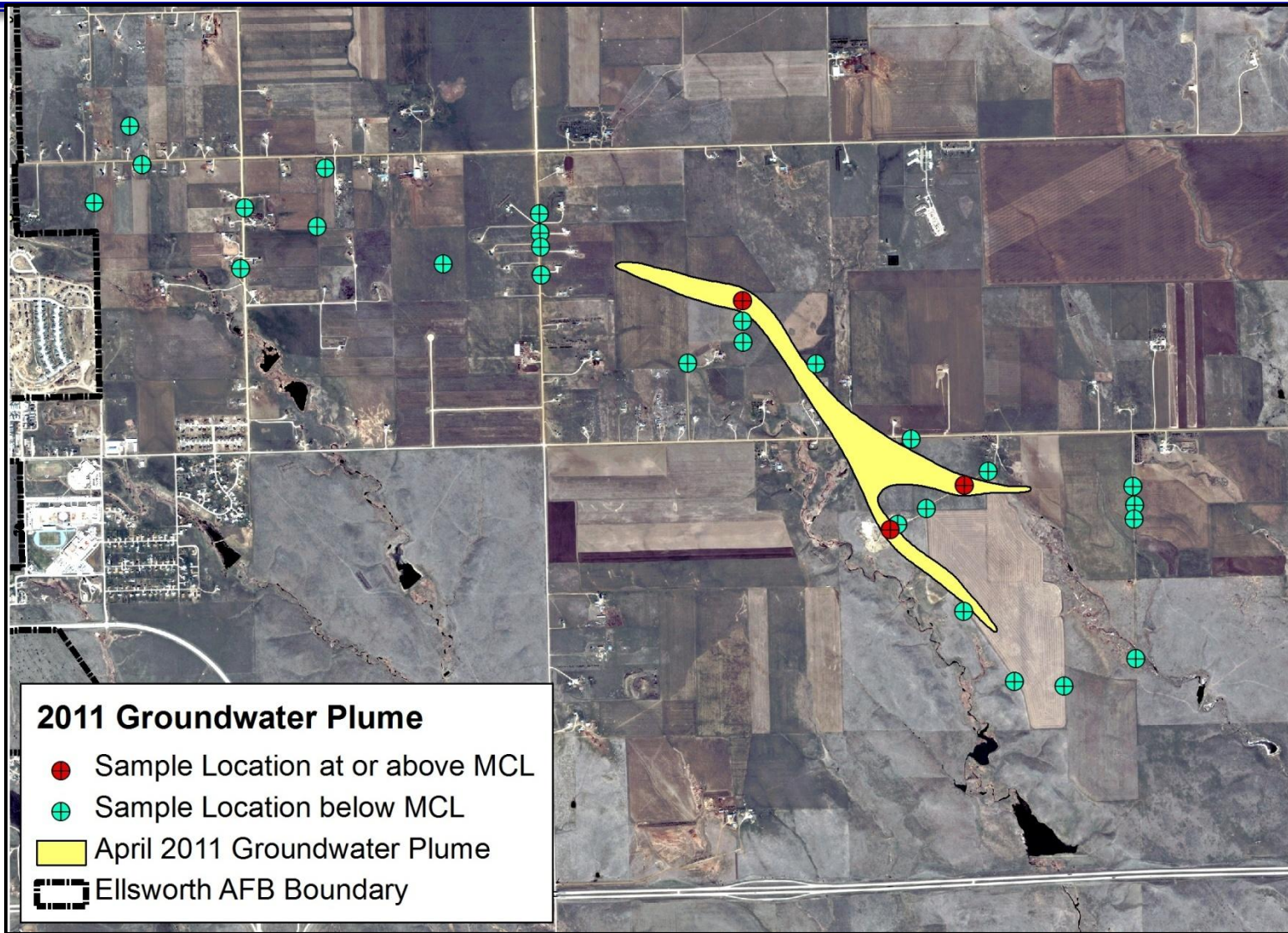
East Off-Base Plume Over Time 2007 through 2010



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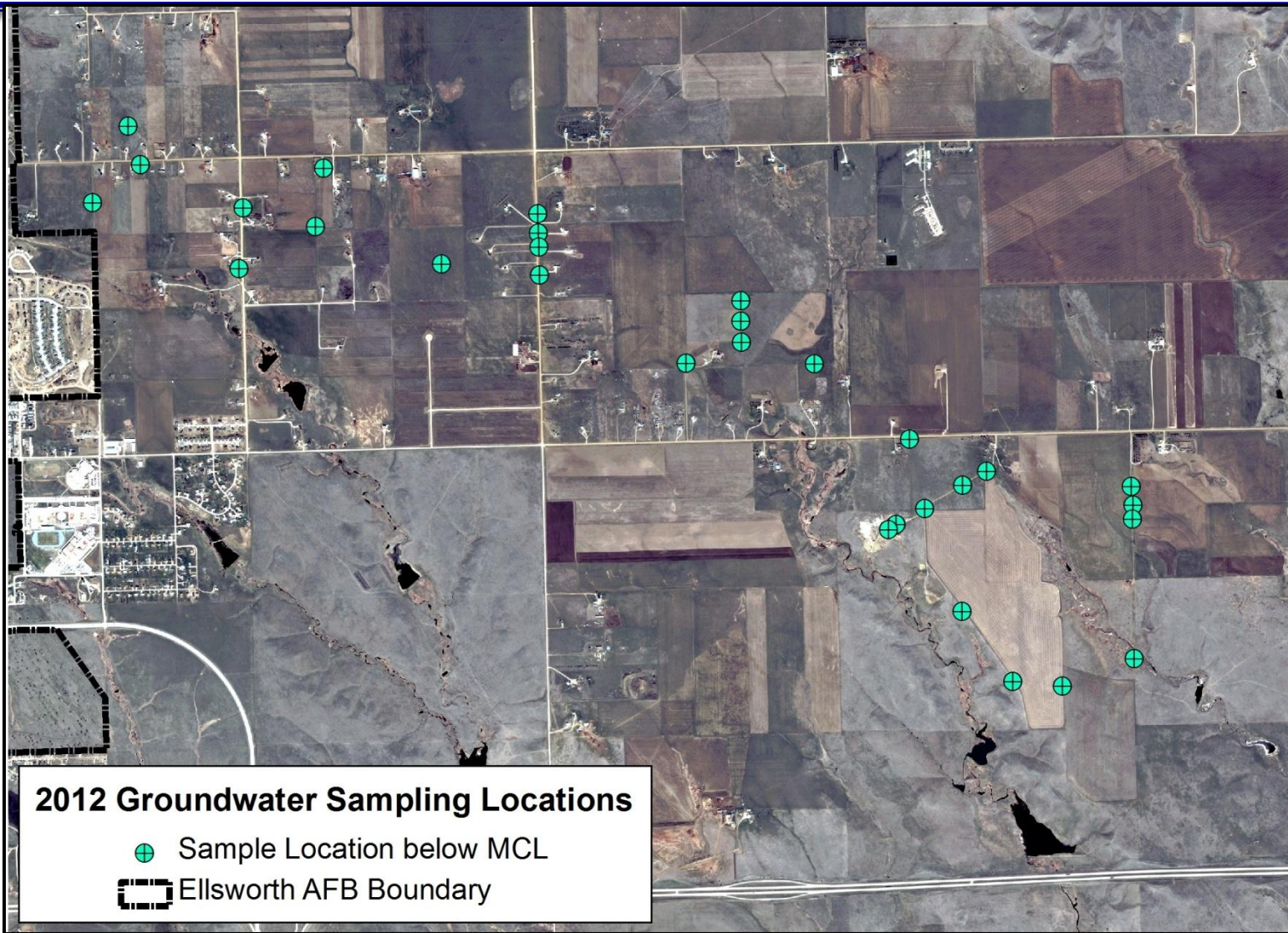
East Off-Base Plume Over Time 2011



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East Off-Base Plume Over Time 2012



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East Off-Base Plume Exit Strategy



- After groundwater use restrictions are lifted, Ellsworth AFB will no longer be obligated to provide free water to those landowners currently receiving free water
- At that point, landowners will be responsible for paying their own water bill
- The earliest this could happen is at the end of year 2015



Future Plans

- **Continue routine inspection and monitoring at landfills**
- **Continue monitoring of IRT zones and “revitalize” as needed**
- **Follow the 2011 ESD which allows non-potable use of groundwater, and continue to update MOAs when requested by landowners**



Future Plans

- **Follow the Exit Strategy and continue plume monitoring**
- **Report Exit Strategy status at future public meetings**
- **Continue to send out semi-annual newsletters**