

**FORMER KINCHELOE AIR FORCE BASE  
RESTORATION ADVISORY BOARD  
MEETING MINUTES  
U.S. Army Corps of Engineers, Louisville District  
P.O. Box 59  
Louisville, KY 40201-0059**

A public notice was published in the Friday, September 23, 2011 and October 7, 2011 editions of Soo Evening News providing notification, to the public, of the scheduled October 25, 2011 Restoration Advisory Board meeting (see Attachment 1 - public notice). On October 25, 2011, the Restoration Advisory Board meeting was held from 07:05 p.m. to 08:30 p.m. in the Kinross Township Boardroom located at 4884 W. Curtis Street. The following is the attendance and recorded minutes from this meeting.

<b>RAB Members Attendance</b>	
Phyllis Hockett, USACE PM and Alternate Co-Chair	Present
Scott Schaefer, MDEQ	Present
Ed DeWitt	Present
Kathy Noel	Present
Charles Anderson	Present
Larry Palma	Absent
Brenda Brownlee	Absent
James Moore	Absent
Ray Franks	Absent
Vicky Ulrich	Absent
Marvin Besteman, Asst. Com. Co-Chair	Absent - Excused
Rick Southwell	Absent
Brenda Case	Absent
Don Sare	Absent - Deceased
John Gaines	Absent - Deceased
Wesley Jourden	Absent – Resigned/Moved

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**Other Attendees:**

Kevin M. Mieczkowski, USACE Technical Manager	Tom Hutchinson, CH2M HILL (USACE Consultant)
Vicky Couch, USACE Office of Counsel	Robert Delaney, MDEQ
Kenneth Beyer, USACE Office of Public Affairs	Eric Alexander, MDEQ
Barbra Lollar, USACE Office of Counsel	Shea Muller, AECOM (MDEQ Consultant)
Mark Caldwell, XCEL (USACE Consultant)	Erica Alexander, Public
	Edward Radecki, MET/Secretary

## **1.0 Opening of Meeting**

**Ed Dewitt** assumed the Community Co-Chair in the absence of **Marvin Besteman** (Asst. Com. Co-Chair). **Ed Dewitt** opened the meeting at 7:05 by introducing Phyllis Hockett, USACE PM and Alternate Co-Chair.

**Phyllis Hockett** introduced herself and briefly discussed the meeting agenda.

## **2.0 Approval of Previous Meeting Minutes**

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**Ed Dewitt**, Acting Community Co-Chair opened meeting to discuss meeting minutes from May 18, 2010, meeting.

No discussion ensued; therefore, **Ed Dewitt** requested a motion to approve.

**Scott Schaefer** motioned to approve the meeting minutes.

**Ed Dewitt** second.

Board voted unanimously to **approve** the meeting minutes from May 18, 2010. The approved meeting minutes will be placed in the file at the Kinross Township Hall and a copy is in Attachment 2.

## **3.0 Introduction of New Members or Special Guest**

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**Phyllis Hockett** gave a brief introduction of USACE personnel and their consultants. **Kevin Mieczkowski** said the USACE, along with assistance from their consultants XCEL and CH2M HILL, are finishing the seven RI Reports and the reports should be finished by the end of 2012. He said **Tom Hutchinson** will present a power point presentation to summarize the status of the seven RI reports.

Attendees introduced themselves, stating their name and organization.

## **4.0 Report Status**

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**Tom Hutchinson (CH2M HILL)**, with assistance from **Mark Caldwell (XCEL)**, commenced their presentation by identifying the seven areas addressed in the seven RI reports on wall maps. Using a laser pointer, **Tom Hutchinson** highlighted the seven areas covered by the seven RI Reports. He also said the EOB/NBOG is still being evaluated. **Phyllis Hockett** asked him to explain the contour lines on the maps. **Tom Hutchinson** said the lines represent the water table elevation and the groundwater flow direction.

**Tom Hutchinson** commenced the power point presentation. A copy of the Power Point presentation is included in Attachment 3. The following is a summary of discussion outside the presentation.

1. US99 – The presentation followed the slides; no discussion or questions from the attendants.

2. Landfills LF01 – LF05: The presentation followed the slides, with minimal discussion or questions from the attendants.

**Vicky Couch** provided interpretation concerning “PRP” site status. She said DERP funding can only be utilized to clean up contamination for which the government is responsible. When a PRP (potentially responsible party) is identified, USACE works with and transfers the site to the Department of Justice. During the negotiations/settlement process, responsibilities and costs for necessary remediation will be allocated and the federal government’s fair share of responsibility for the contamination is determined. If a settlement negotiation is not successful, the case will be litigated. Once settlement or litigation is completed, the federal government may, may pay its fair share of responsibility to the entity performing the remaining remedial effort, or in some cases, continue to be involved in the remedial efforts as the designated entity in the settlement or court orders. The cost of the federal government’s fair share of responsibility is paid for out of the Judgment Fund, which is a different source of funding than DERP funding.

3. Fire Training Area – FT01: The presentation followed the slides with minimal discussion or questions from the attendants.
4. Fuel Storage Area/US10: The presentation followed the slides. **Scott Schaefer** said the site is still a “free product concern” and the “no detections” in groundwater does not mean the site is clean. He said it has not been determined or accepted that free product is no longer present; therefore you cannot conclude that there are no contaminants above criteria. **Kevin Mieczkowski** said there has been no free product in over a year, despite the groundwater elevation fluctuation. He said the USACE will continue monitoring operations with MWH through the end of 2011, compile data and then determine how to move forward.

**Tom Hutchinson** said that all groundwater results were reported at levels below MDEQ criteria. **Scott Schaefer** said that over 60 gallons of fuel have been collect from the site over the past several years. **Tom Hutchinson** said it’s been 18 months with no free product and all groundwater results, including the former free product wells, were reported at levels below MDEQ criteria. **Scott Schaefer** reiterated that the site cannot be classified as clean.

5. Site Wide Area: The presentation followed the slides with minimal discussion or questions from the attendants.
6. MA01: The presentation followed the slides with minimal discussion or questions from the attendants.
7. EOD/NBOG: The presentation followed the slides. **Scott Schaefer** asked why the USACE is still looking at the metals and saying the evaluation is in process when it has already been presented to the RAB. **Tom Hutchinson** said he is still working on the evaluation. **Kevin Mieczkowski** said the data was not finalized and the USACE is just giving an update on progress. **Tom Hutchinson** said there have been some post DOD activity may have occurred and the site may be a PRP site.
8. Sentinel Wells: **Tom Hutchinson** said there have been no detections in the Sentinel wells. **Scott Schaefer** said there have been some false positives. **Tom Hutchinson** said there

have been no “real” positives. **Kevin Mieczkowski** said if the October 2011 sampling event shows no detections, then the USACE will stop sampling the Sentinel wells.

**Ed Dewitt** asked what will happen to the wells. **Tom Hutchinson** said if the wells are not going to be used they must be properly abandoned. **Scott Schaefer** said the wells are an early detection for protecting the Townships water supply and are part of the remedy. Removing the wells is a risk, the Sentinel wells should stay. He recommended that the Township keep the wells and continue to sample them. **Kevin Mieczkowski** said there has not been any evidence of a plume leaving the up gradient landfill during the historical monitoring of the sentinel wells. However, the Township may want to utilize these wells as part of the Township’s groundwater protection plan.

**Ed Dewitt** said the wells can present a trip hazard. **Scott Schaefer** said if the wells are properly maintained they will last a long time. He said the Township must decide what they want to do and the USACE needs to talk to the Township to determine how the wells will be maintained in the future. **Kevin Mieczkowski** said the USACE will contact the Township once the 2011 annual sentinel well monitoring data is obtained and evaluated.

**Tom Hutchinson** presented the Summary Slide from the presentation. He said that the RI reports for the “Federal Eligible Sites” will be complete in Fall 2012 and they will be provided to the Justice Department to assist with the PRP projects.

**Ed Dewitt** asked if the additional water use from the new Ethanol Plant would affect anything. **Scott Schaefer** said the municipal well is designed for municipal capacity and that there are backup wells. He said the Township needs to know what the additional well yield will be. A future issue may arise if the Methanol Plant pursues access to groundwater in a restricted area. **Robert Delaney** said if there is a groundwater use restriction then the Township people need to consider their needs.

**Kevin Mieczkowski** said the well yield and radius of influence from the current well was determined and that an additional yield will increase the radius of influence. He said there is not enough information at this time to discuss future water use options and problems. **Scott Schaefer** said the Township and the USACE need to look at long term water needs and uses; the Ethanol Plant is going in and will use water.

**Charles Anderson** asked for information on fly ash and arsenic in the NBOG/EOD. **Tom Hutchinson** said they are still processing information for that area. He said arsenic is not in the NBOG and fly ash is in the EOD. **Eric Alexander** asked if the Power Plant facility was investigated. **Scott Schaefer** said the Power Plant was used until “recent time” and an investigation has not been conducted.

## 5.0. RAB Status

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**Kevin Mieczkowski** asked the RAB members in attendance if the community wants the RAB to continue because this is his third RAB meeting and the lack of a community Co-chairman, attendance by RAB members, and the public in general are indications of a lack of community interest. Of the 13 existing RAB members only three are in attendance at this meeting and the

Co-Chair is again not present. In addition, only the status of PRP projects can be discussed, specific details of the PRP sites cannot be discussed with the RAB or at RAB meetings. Subsequently, future RAB involvement is limited to the non-PRP sites. The USACE requested that the current RAB determine the interest in the community to continue the RAB. If the community decides that the continuance of the RAB is desired by the community, then community Co-chair and board members are required. The TAPP contract to provide technical support to the RAB board was not extended, at this time, but the funding is still there and accessible.

**Ed Dewitt** asked if the next RAB meeting can be scheduled in conjunction with the Township Board meeting. **Kevin Mieczkowski** said you can discuss the non-PRP sites at a public meeting, but that does not take the place of the RAB. He said you still need a consortium of RAB members (at least eight members) at the meeting to vote on any changes to or actions of the RAB.

**Scott Schaefer** said even though the PRP sites are not discussed at the RAB, the Township still needs to be aware and updated since several of the PRP sites will be moved from USACE control/funding to possible local and/or township responsibility. That should create new interest in the community. **Vicky Couch** said once a site is determined to be a PRP site, the USACE will meet and discuss the situation with the PRP to discuss a path forward so that the responsibility for the contamination can be fairly apportioned.

**Ed Dewitt** said he will make effort to increase community involvement. **Kevin Mieczkowski** said he would look into procedures required to continue the RAB or disband the RAB.

## **6.0. Public Comment**

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**Ed Dewitt** asked if there was any public comment. There was no response from the public. **Ed Dewitt** Stated "Meeting Adjourned" at 8:30 pm.

## **7.0. Set Date of Next RAB Meeting**

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The date for the next RAB meeting was not decided.

Meeting adjourned at **8:30 p.m.**

Approved as written:

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Ed Dewitt, Acting Community. Co-Chair

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Phyllis Hockett, USACE PM and Alternate Co-Chair

# **ATTACHMENT #1**



**US Army Corps  
of Engineers  
Louisville District**

## **RESTORATION ADVISORY BOARD MEETING**

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The community is invited to attend the next Restoration Advisory Board meeting to learn about the progress being made on the environmental investigation at the former Kincheloe Air Force Base. Updates will be provided as well an opportunity to ask questions and provide comments.

**Tuesday, October 25, 2011**

7:00 p.m.

Kinross Township Boardroom  
4884 W. Curtis Street  
Kincheloe, MI 49788

**For more information visit our Web site at <http://bit.ly/KincheloeAFB> or call (502) 315-6770.**

# **ATTACHMENT #2**

**Ph: 502-315-6312 FORMER KINCHELOE AIR FORCE BASE  
 RESTORATION ADVISORY BOARD  
 MEETING MINUTES  
 U.S. Army Corps of Engineers, Louisville District  
 P.O. Box 59  
 Louisville, KY 40201-0059**

A public notice was published in the Friday, April 16, 2010 edition of Soo Evening News providing notification, to the public, of the scheduled May 18, 2010 Restoration Advisory Board meeting (see attachment 1 - public notice). On May 18, 2010, the Restoration Advisory Board meeting was held from 7:07 p.m. to 7:55 p.m. in the Kinross Township Boardroom located at 4884 W. Curtis Street. The following is the attendance and recorded minutes from this meeting.

<b>RAB Members Attendance</b>	
Wesley Jourden, Community Co-Chair	Absent - excused
Dave Dierken, USACE Project Manager and Co-Chair	Absent - excused
Phyllis Hockett, USACE Project Manager and Alternate Co-Chair for Dave Dierken	Present
Marvin Besteman, Asst. Com. Co-Chair	Absent
Scott Schaefer, MDEQ	Present
Brenda Brownlee	Absent
Ed DeWitt	Present
Ray Franks	Absent
John Gaines	Absent
James Moore	Absent
Kathy Noel	Present
Larry Palma	Present
Don Sare	Present
Rick Southwell	Present
Vicky Ulrich	Absent
Edward Radecki, MET/Secretary	Present

**Other Attendees:**

**Kevin M. Mieczkowski, USACE Technical Manager  
 Vicky Couch, USACE Office of Council  
 Jennifer Domashevich, USACE Public Affairs Office  
 Kathy Vermaat, TriMedia Consultants  
 Mylan Koski, TriMedia Consultants  
 Sitca Muller, AECOM**

**Don Sare** assumed the Community Co-Chair in the absence of **Wesley Jourden** (Community Co-Chair) and **Marvin Besteman** (Asst. Com. Co-Chair). **Don Sare** opened the meeting at 7:07 by introducing Phyllis Hockett, USACE PM and Alternate Co-Chair.

**Phyllis Hockett** briefly discussed the meeting agenda and introduced the other USACE personnel that were present at the meeting (**Kevin Mieczkowski**, **Vicky Couch** and **Jennifer Domashevich**).

## **2. Approval of Previous Meeting Minutes**

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**Don Sare**, Acting Community Co-Chair opened meeting to discuss meeting minutes from Sept. 15, 2009, meeting.

No discussion ensued; therefore, Don Sare requested a motion to approve.

**Ed DeWitt** motioned to approve the meeting minutes.

**Rick Southwell** second.

Board voted unanimously to **approve** the meeting minutes from Sept. 15, 2009. The approved meeting minutes will be placed in the file at the Kinross Township Hall and a copy is in Attachment 2.

## **3. Technical and Contract Schedule Updates**

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Phyllis Hockett, USACE PM and Alternate Co-Chair

**Phyllis Hockett** provided a brief summary of on-going work.

- The Fuel Storage Area and Fire Training Area remedial actions are continuing with MWH under a separate contract. On-going work includes monitoring and operation of a SVE system in the Fire Training Area.
- The USACE is continuing to provide technical assistance to the RAB.
- The TAPP is continuing.
- Sentinel wells are scheduled for sampling this summer. A proposal shall be reviewed and if acceptable a contract may be awarded later this month. 18 wells are included in the sampling plan.
- Introduction of **Kevin Mieczkowski**, USACE technical manager, who provided the status of the remedial investigation reports.

## **4. Report Status**

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Kevin Mieczkowski, USACE Technical Manager

**Kevin Mieczkowski** stated that the MWH TERC contract was expiring and that the USACE has been working very closely with MWH to end all draft reports at the most reasonable stopping point in order for the Corps to efficiently complete the draft reports by the end of 2011. MWH delivered the draft reports to the USACE on March 16, 2010 and submitted most of the required information to close the contract in April 2010.

**Kevin Mieczkowski** provided **Ed Radecki**, secretary, with the document titled, "Former Kincheloe Air Force Base, Status Summary of Technical Documents for RAB Meeting (May 18, 2010 summary). A copy of the document is Attachment 3. **Kevin Mieczkowski** read from the aforementioned document to update the RAB members on the draft RI report status.

**Kevin Mieczkowski** indicated that the new technical USACE team is familiarized with the technical information in the RI reports and is in a good position to complete all the RI reports by the end of next year (2011) utilizing USACE personnel and/or outsourcing. He said that the USACE plans to follow the CERCLA Process. The next Phase after the completion of the RI reports is the Feasibility Study phase.

**Kevin Mieczkowski stated** that Kinross is a priority and that the USACE is preparing a schedule for completing draft RI reports, preparing responses to comments by MDNRE and working with the MDNRE to finish the reports by the end of 2011.

## **5. Public Comment Period / Questions**

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Phyllis Hockett, USACE PM and Alternate Co-Chair

**Phyllis Hockett** asked if there were any questions. No questions were presented. She proceeded to say that the USACE is reorganized and more efficient with a new scheduling system and software. The new system will help with scheduling and keeping the project on track. The USACE is committed to adherence to the CERCLA process, the project team has been assembled, and is committed to progress and meeting schedules.

**Rick Southwell** asked **Phyllis Hockett** about the local geology. **Kevin Mieczkowski** responded with a brief overview of the local geology. **Rick Southwell** asked a question concerning the geology of the North Bog and why there are no wells in that area given the high levels of mercury. **Scott Schaefer** said the groundwater is very shallow in the North Bog and that temporary "micro wells" were installed to sample water at depths of 0.5 to 1-foot below ground surface. In addition to the "micro wells", several permanent wells were installed on ridges; groundwater has been sampled in the North Bog.

**Rick Southwell** asked to see the data. **Kevin Mieczkowski** indicated that MWH submitted the EOD/North Bog Technical Memorandum to the USACE on March 16, 2010 and the report has not been reviewed by the USACE. After the USACE has completed review and modifications to the draft report, the report shall be submitted to MDNRE for review and comments. The data shall be available to the public when the report has been reviewed by both parties above and the report finalized.

**Don Sare** asked who was doing the sentinel well sampling. **Kevin Mieczkowski** stated the USACE has received proposals and if the proposals are acceptable a contractor may be selected later this month. **Don Sare** said the sentinel wells are there to protect the public water supply and the monitoring of the wells should go to the government entity that is responsible for the water supply to the area and if the USACE ends their sentinel well sampling program they need to inform the Township to let them know ahead of time. The Township must ensure that the water is safe. **Kevin Mieczkowski** agreed that the Township should eventually take responsibility for the sentinel well sampling and that the USACE would work with the Township to provide for an efficient systematic change in monitoring responsibilities. .

**Rick Southwell** asked what is being tested for in the water. He said Kinross Lake has heavy metal contaminants in the sediment and the heavy metals are polluting the potable aquifer; heavy metals have been detected in his drinking water well. **Larry Palma** said that the Township studied that concern and concluded that the heavy metal detections in the lake sediment are natural and there are no problems in Kinross Lake and Dukes Lake. **Scott Schaefer** said there were some studies concerning storm water runoff, but they concluded with “no concern”. **Kevin Mieczkowski** stated that with his current review of technical information in the draft RI reports he concurred with Larry Palma and Scott Schaefer.

**Don Sare** asked that the meeting proceed and that **Rick Southwell** discuss the area geology after the meeting.

**Don Sare** said that **Wes Jourden** has accepted a job offer in Marquette has resigned from the RAB. **John Gains** moved from the area due to health issues and has resigned from the RAB. **Don Sare** said we need new RAB members and better attendance from the existing RAB members.

**Don Sare** asked the USACE if there would be reports ready to review at an October 2010 RAB meeting. **Kevin Mieczkowski** said there will probably not be anything ready for the RAB to review by October 2010. **Don Sare** asked if we need an October 2010 RAB meeting if there is nothing to review? **Ed DeWitt** said we should leave it up to the USACE to schedule the next RAB meeting; no need for a meeting if there is nothing to review. **Kevin Mieczkowski** said the RAB meetings are for the local community. An October 2010 meeting is probably not beneficial since there will not be much to review by that time. **Don Sare** said the USACE should decide on the date of the next RAB meeting, based on the availability of something to review; they can decide later this year.

**Don Sare** said the sentinel wells surround the community’s potable well to provide ten years advance notice of a probable concern with the Township’s water supply well. Well sampling is annual unless a detection is observed in a well, then sampling frequency goes to monthly. The Kinross Township DPW is responsible for the integrity of the public water well and needs to know in advance if the Township is to resume responsibility to monitor the sentinel wells.

**Don Sare** gave the lead back to **Phyllis Hockett**. **Vicky Couch**, USACE Office of Counsel, said the contract for the sentinel well sampling may be awarded next if the proposal is acceptable. **Don Sare** asked that the USACE work with Norm Perkins of the Kinross Township DPW to let him know what is happening.

## 6. Set Date of Next RAB Meeting

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The date for the next RAB meeting was not decided.

Meeting adjourned at **07:55 p.m.**

Approved as written:

\_\_\_\_\_, Acting Community. Co-Chair

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Phyllis Hockett, USACE PM and Alternate Co-Chair

# **ATTACHMENT #3**

# Former Kincheloe Air Force Base Restoration Advisory Board (RAB) Meeting October 25, 2011

Louisville District

600 Dr. Martin Luther King Jr.  
Place

Louisville, Kentucky 40202-  
2232



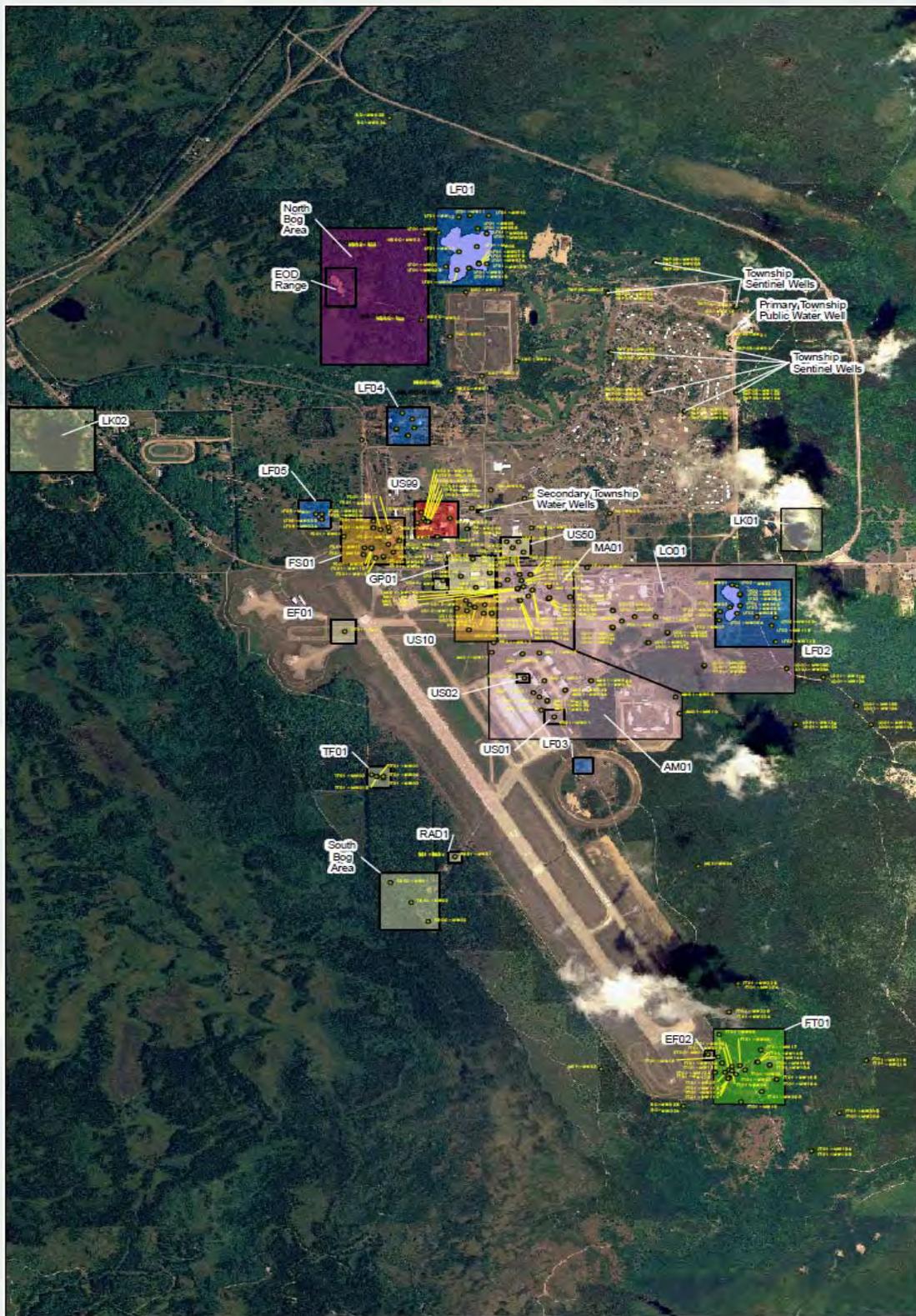
US Army Corps of Engineers  
**BUILDING STRONG®**



# RAB Presentation Overview

- ❑ Provide information to the public regarding ongoing activities being conducted at Kincheloe Air Force Base (KAFB) by the US Army Corps of Engineers (USACE)
- ❑ Discuss the seven remedial investigation (RI) documents:
  - ❑ US99
  - ❑ Landfill Areas
  - ❑ Fire Training Area
  - ❑ Fuel Storage Area
  - ❑ Industrial Areas
  - ❑ Sitewide Areas
  - ❑ North Bog/Explosive Ordnance Disposal (EOD) range

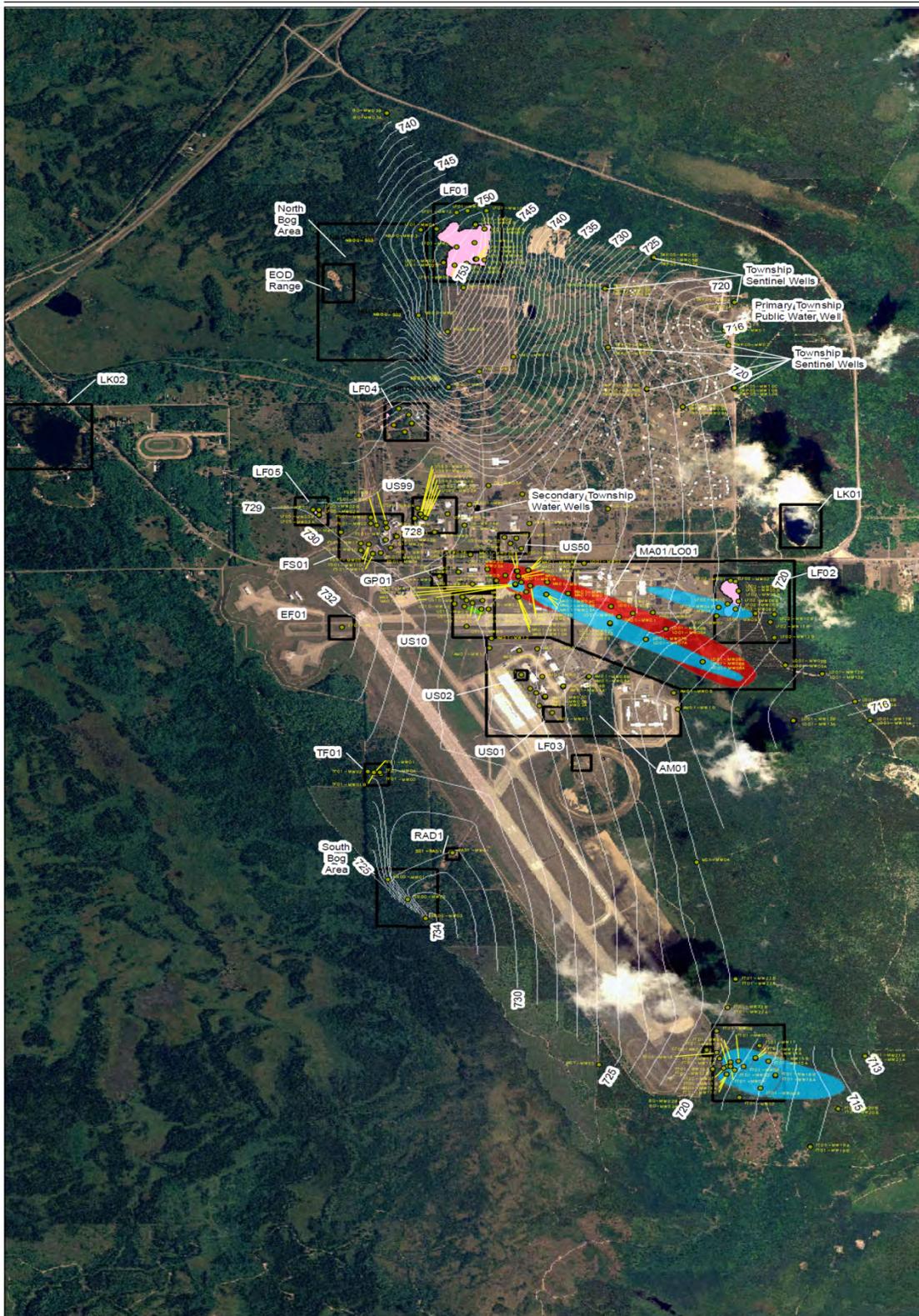




US99  
 Landfill Areas  
 US01/GP/FS01  
 FT01  
 Industrial Areas  
 North Bog Area/EOD Range  
 Site Wide Areas  
 Extent of Landfill Waste  
 Monitoring Wells  
 0 1,000 2,000  
 Feet  
 USACE  
 CH2MHILL

Former Kincheloe AFB  
Site Location Map  
USACE





LEGEND  
 ● Monitoring Wells  
 contours-MAJ  
 contours-MIN  
 sites  
 ■ Extent of Landfill Waste

■ PCE  
 ■ TCE  
 ■ Xylenes  
 ■ TMB

0 500 1,000 2,000  
 Feet

**Former Kincheloe AFB  
 Basewide Plume and Groundwater Flow Map**  
 USACE

GVN: \\CVPRES\SSV\FULL\AMBY\G00P\KINCHELLOE AFB - US99\KINCHELLOE\_BASE\_PORT\RAI\_042011.MXD - 10/19/2011

CH2MHILL



# Underground Storage Tank 99 (US99)

## □ History

- A 550-gallon oil/water separator tank
- Used as pretreatment for wastewater from floor drains at an automotive hobby shop during KAFB operations
- Beneficially reused by the Michigan Department of Corrections (MDOC) from 1978 until 1995 and removed in October 1997



# Underground Storage Tank 99 (US99)

## ❑ Contaminants of Concern

- ❑ Volatile organic compounds (VOCs)
- ❑ Semi-volatile organic compounds (SVOCs)
- ❑ Cadmium, chromium, and lead

## ❑ Risks

- ❑ The only contaminant of concern exceeding risk-based cleanup criteria (5 µg/L) was Tetrachloroethylene (PCE)
- ❑ PCE concentrations have been decreasing from 2000 to 2008 in the three wells containing PCE (MW01A - 58 µg/L to 26 µg/L, MW02A – 68 µg/L to 15 µg/L, and MW03A – 22 µg/L to 16 µg/L), which are consistent with the contaminant fate and transport model



# Underground Storage Tank 99 (US99)

## □ Status

- Contaminants of concern in soil and groundwater have been adequately characterized and no further field investigation is necessary to complete the RI
- The Michigan Department of Environmental Quality (MDEQ) provided comments regarding the RI report during August 2011
- USACE is responding to the MDEQ comments and anticipates submitting the Final RI report to the MDEQ in November 2011
- Beneficially reused after DOD property transfer and no indication of a CERCLA release resulting from only DOD use; therefore, not eligible for remedial action under the Department of Defense Formerly Used Defense Site (FUDS) Program



# Landfill Areas

- ❑ Five landfills identified at the former KAFB:
  - ❑ LF01
  - ❑ LF02
  - ❑ LF03
  - ❑ LF04
  - ❑ LF05



# Landfill LF01

## □ History

- KAFB disposed municipal waste materials (scrap metal, wood, building debris, plastics, glass and paper) from 1952 to 1977
- Unauthorized surface disposal of municipal waste materials (furniture, appliances, construction and yard debris, plastics and other domestic wastes) post DOD use

## □ Contaminants of Concern

- Based on the historic use for waste disposal, contaminants of concern include:
  - VOCs
  - SVOCs
  - Metals



# Landfill LF01

## ❑ Risks

- ❑ Arsenic (20,700  $\mu\text{g}/\text{kg}$ ) in soil sample LF01-MW03 33-35' bgs exceeded the risk-based residential drinking water protection criteria (4,600  $\mu\text{g}/\text{kg}$ )
- ❑ Arsenic concentrations (302  $\mu\text{g}/\text{L}$ ) in groundwater sample LF01-MW03 were above the risk-based residential drinking criteria (10  $\mu\text{g}/\text{L}$ ) in the most recent sampling event (2005)
- ❑ The soil and groundwater samples indicating arsenic above the risk-based criteria are contained within the footprint of LF01
- ❑ No other contaminants of concern have exceeded any risk-based criteria within the footprint of LF01
- ❑ No contaminants of concern exceed any risk-based cleanup criteria within monitoring wells located outside the footprint of LF01



# Landfill LF01

## □ Status

- Contaminants of concern in soil and groundwater have been adequately characterized and no further field investigation is necessary to complete the RI
- USACE submitted the draft RI report to the MDEQ in September 2011
- Upon receipt of comments from MDEQ, USACE will respond and finalize the RI report and continue the CERCLA remedial action process



# Landfill LF02

## □ History

- KAFB disposed of municipal waste materials (concrete blocks, glass bottles, metal cans, car batteries, sheet metal, and fly ash) from 1942 to 1950, and from 1960 to 1967
- Construction of surface water drainage ditch and regrading of municipal solid waste was performed post DOD use

## □ Contaminants of Concern

- Based on the historic use for waste disposal, contaminants of concern include:
  - VOCs
  - SVOCs
  - Metals



# Landfill LF02

## ❑ Risks

- ❑ No contaminants of concern exceed any risk based criteria in soil or groundwater

## ❑ Status

- ❑ USACE submitted the draft RI report to the MDEQ in September 2011
- ❑ Upon receipt of comments from MDEQ, USACE will respond and finalize the RI report
- ❑ Subsequent operations may have CERCLA liability implications; therefore, future remedial actions will be addressed under the PRP process



# Landfill LF03

## □ History

- LF03 was approximately 1 acre in size and used exclusively for the disposal of low-level radioactive wastes during KAFB operations
- Records indicate that the low-level radioactive wastes were excavated and disposed of at an off-site facility

## □ Contaminants of Concern

- Based on the historic use low-level radioactive waste contaminants of concern include:
  - Radioactive materials



# Landfill LF03

## Risks

- Geophysical survey indicated no anomalies confirming that waste was removed

## Status

- USACE submitted the draft RI report to the MDEQ in September 2011
- Upon receipt of comments from MDEQ, USACE will respond and finalize the RI report
- No further action (as concurred by MDEQ)



# Landfill LF04

## □ History

- KAFB disposed of waste materials during the 1960s and 1970s
- Test pit investigations indicate the disposal of metal debris and tires
- Commercial scrap recycling operations with similar contaminants of concern operated post DOD use

## □ Contaminants of Concern

- Based on the historic use the contaminants of concern include:
  - VOCs
  - SVOCs
  - Metals



# Landfill LF04

## ❑ Risks

- ❑ No contaminants of concern exceed any risk based criteria in soil or groundwater

## ❑ Status

- ❑ USACE submitted the draft RI report to the MDEQ in September 2011
- ❑ Upon receipt of comments from MDEQ, USACE will respond and finalize the RI report
- ❑ Subsequent operations may have CERCLA liability implications; therefore, future remedial actions will be addressed under PRP process



# Landfill LF05

## □ History

- LF05 was used for disposal of building rubble during KAFB closure
- The Township used LF05 for disposal of municipal wastes until the early 1980s

## □ Contaminants of Concern

- Based on the historic use of waste disposal, contaminants of concern include:
  - VOCs
  - SVOCs
  - Metals



# Landfill LF05

## ❑ Risks

- ❑ Lead (1,430,000 µg/kg) was detected in one soil sample (LF05-MW01, 0-2' below ground surface) at concentrations above the risk-based residential (400,000 µg/kg) and non-residential (900,000 µg/kg) direct contact criteria
- ❑ Lead (1,430,000 µg/kg) and silver (40,900 µg/kg) were also detected in the same soil sample (LF05-MW01, 0-2' below ground surface) at concentrations above the risk-based residential drinking water protection criteria (700,000 µg/kg and 4,500 µg/kg, respectively)
- ❑ Samples collected from 2-4 feet below ground surface in boring LF05-MW01 were below the risk based residential drinking water protection criteria
- ❑ No other contaminants of concern in soil and groundwater exceed any risk based cleanup criteria



# Landfill LF05

- ❑ Status
  - ❑ Contaminants of concern in soil and groundwater have been adequately characterized and no further field investigation is necessary to complete the RI
  - ❑ USACE submitted the draft RI report to the MDEQ in September 2011
  - ❑ Upon receipt of comments from MDEQ, USACE will respond and finalize the RI report
  - ❑ Subsequent operations may have CERCLA liability implications; therefore, future remedial actions will be addressed under PRP process



# Fire Training Area – FT01

## □ History

- The area consisted of approximately three acres of land with an earthen berm constructed around the perimeter
- KAFB conducted fire-training exercises between 1952 and 1977
- Exercises consisted of extinguishing fires created by igniting fuels on a airplane fuselage
- The commercial airport authority continued to use the area from 1977 to 1991 for fire training exercises by extinguishing fires created using scrap wood and fuels
- USACE installed soil vapor extraction interim remedial action system in 2001 to treat soil



# Fire Training Area – FT01

## ☐ Contaminants of Concern

- ☐ Based on the historic use of waste disposal, contaminants of concern include:
  - VOCs
  - SVOCs

## ☐ Risks

- ☐ Five VOCs (benzene; 1,2,4 TMB; 1,3,5 TMB; ethyl benzene and toluene) were detected in concentrations above the risk-based residential drinking-water protection criteria in some soil samples collected during 2007
- ☐ These VOCs were not detected in groundwater samples collected during 2008 and 2009; therefore, there does not appear to be an increased risk of these five VOCs regarding groundwater use



# Fire Training Area – FT01

- ❑ Risks Continued
  - ❑ TCE and PCE concentrations were above the risk-based residential drinking-water criteria in groundwater samples collected down gradient of the source area in September 2009
  - ❑ The PCE/TCE groundwater plume may have migrated onto State of Michigan property located to the east of the area
  - ❑ Based on the TCE and PCE detected in groundwater in concentrations above the risk-based drinking-water criteria, risks related to use of groundwater at FT01 as a drinking water source are present



# Fire Training Area – FT01

## □ Status

- The TCE and PCE plume in groundwater has been delineated utilizing a groundwater model and the model indicates that the plume has not migrated beyond the farthest down gradient wells
- The existing monitoring wells down gradient do not adequately confirm the extent of the modeled plume; therefore, additional monitoring wells may be required to complete the RI
- USACE submitted the draft RI report to the MDEQ in August 2011
- Upon receipt of comments from MDEQ, USACE will respond and finalize the RI report
- USACE is scheduled to continue operation of the interim remedial action SVE system until December 31, 2011



# Fire Training Area – FT01

- ❑ Status Continued
  - ❑ Contract awarded to collect and analyze soil samples (2012) and prepare report to support the discontinued operation of the interim remedial action SVE system
  - ❑ Subsequent operations may have CERCLA liability implications; therefore, future remedial actions will be addressed under PRP process



# Fuel Storage Area (FS01) and Underground Storage Tank 10 (US10)

## □ History

- The FS01 Project Area was used for the bulk storage of petroleum (primarily aviation fuel) and de-icing agents
- The US10/PL02 Project Area has historically been called the Airport Terminal area. Three USTs (USTs 10, 11, and 45) were located in the US10 Project Area. The USTs stored jet fuel for dispensing along Taxiway 6. An 8-inch pipeline dispensed aviation fuel from the FS01 Project Area to the US10 Project Area
- Post DOD use includes lumber company and lumber piles
- USACE continues to remove free product from wells, if present



# Fuel Storage Area (FS01) and Underground Storage Tank 10 (US10)

## Contaminants of Concern

- Based on the historic use of fuel storage the contaminants of concern include:
  - VOCs
  - SVOCs

## Risks

- No contaminants of concern associated with aviation fuels or deicing agents exceed any risk based criteria in soil or groundwater at FS01 or US10



# Fuel Storage Area (FS01) and Underground Storage Tank 10 (US10)

## ❑ Risks Continued

- ❑ PCE (4.7 to 6.9  $\mu\text{g/L}$ ) has been detected in groundwater samples collected from one US10 area well (US10-MW11) from 2002 through 2009. Concentrations have been stable near the risk-based residential drinking-water criteria (5  $\mu\text{g/L}$ )
- ❑ Risks associated with groundwater used as a drinking-water source are present at US10



# Fuel Storage Area (FS01) and Underground Storage Tank 10 (US10)

## ☐ Risks Continued

- ☐ Soil samples FS01-HP06 0-2 ft bgs (60 mg/kg), FS01-HP15 0-1 ft bgs (20 mg/kg), and FS01-HP17 0-1 ft bgs (11.5 mg/kg) contained arsenic at concentrations exceeding the risk-based residential direct contact criteria at the fuel storage area
- ☐ Increased risks associated with direct contact with soil are present at FS01; however, arsenic is not a contaminant of concern associated with historical DOD operations



# Fuel Storage Area (FS01) and Underground Storage Tank 10 (US10)

## □ Status

- Contaminants of concern in soil and groundwater have been adequately characterized at the fuel storage and US10 areas; therefore, no further field investigation is necessary to complete the RI report
- USACE is completing the current FS01/US10 RI report
- USACE anticipates submitting the RI report to MDEQ for review November 2011
- Interim remedial action contracted to continue free product removal until December 31, 2011 and prepare a report to analyze the feasibility of continued operation
- Continue remedial activities associated with PCE in accordance with the CERCLA process



# Industrial Areas

- ❑ Includes eight project sites located within the main operational area of the former KAFB property:
  - ❑ Maintenance Area (MA01) which includes UST 56
  - ❑ The Liquid Oxygen Area (LO01) which includes the Prison Area (PR01) and Building 445
  - ❑ The Aircraft Maintenance Area (AM01)
  - ❑ UST 01 (US01)
  - ❑ UST 02 (US02)



# Industrial Areas

- ❑ Contaminants of Concern
  - ❑ Based on the historic fuel storage and maintenance activities at the industrial area sites, contaminants of concern include:
    - VOCs
    - SVOCs
    - Metals (Maintenance areas only)



# Industrial Areas

## □ Risks

### □ MA01

- TCE and PCE concentrations in groundwater were above the risk-based residential drinking-water criteria at the MA01 site in the most recent sampling event, 2008
- PCE concentrations have remained relatively stable in the center of the plume, ranging from 20 to 40 µg/L
- TCE concentrations have been declining in the plume from a maximum of 188 µg/L in 2000 to 79 µg/L in 2008
- Based on concentrations of TCE and PCE in groundwater above the risk-based drinking-water criteria, risks are present related to use of groundwater as a drinking-water source at MA01



# Industrial Areas

## □ Risks Continued

### □ LO01

- TCE (maximum 85 µg/L) and PCE (maximum 34 µg/L) concentrations in groundwater were above the risk-based residential-drinking water criteria at the LO01 site in the most recent sampling event, 2008
- PCE and TCE concentrations have been declining in monitoring wells located in the LO01 area since 2002
- Based on the presence of TCE and PCE concentrations above the risk-based drinking-water criteria, risks are present related to use of groundwater as a drinking-water source at LO01



# Industrial Areas

## ❑ Risks Continued

### ❑ AM01

- Currently there is no known increase in risk associated with any chemicals of concern at AM01

### ❑ US01

- No contaminants of concern have ever been identified at concentrations exceeding any risk-based cleanup criteria

### ❑ US02

- Currently there is no known increase in risk associated with any chemicals of concern



# Industrial Areas

- ❑ Status
  - ❑ Contaminants of concern in soil and groundwater at all the industrial sites have been adequately characterized and no further field investigation is necessary to complete the RI
  - ❑ USACE is completing the current Industrial Area RI report and is scheduled to submit the report to MDEQ in November 2011 for review
  - ❑ Subsequent operations may have CERCLA liability implications; therefore, future remedial actions will be addressed under PRP process



# Sitewide Areas

- ❑ Includes 16 smaller individual areas of concern located at the former KAFB property:
  - ❑ Ground Power Area (GP01)
  - ❑ Transformer Area (TF01)
  - ❑ South Bog (SBOG)
  - ❑ Radar Area (RAD1)
  - ❑ Dukes Lake (LK01)
  - ❑ Kinross Lake (LK02)
  - ❑ Emergency Fuel Dump Area 1 (EF01)
  - ❑ Emergency Fuel Dump Area 2 (EF02)
  - ❑ Rocket Motor Stick Area (FSDA)
  - ❑ Underground Storage Tank 44 (US44)
  - ❑ Underground Storage Tank 50 (US50)
  - ❑ Perimeter Road (PR02)
  - ❑ Township Observation Wells (TWP)
  - ❑ OA Monitoring Wells (OA)
  - ❑ Mystery Well Site (MYS)
  - ❑ Kinross Manufacturing Corporation (KMC)



# Sitewide Areas

## ❑ Status

- ❑ Analysis of the data has not been completed at this time
- ❑ USACE is scheduled to complete the report and submit to MDEQ for review in December 2011
- ❑ Projects with subsequent operations that may have CERCLA liability implications will be addressed under the PRP process



# Explosive and Ordnance Disposal (EOD) Range/North Bog Area

- ❑ Located on the northwest portion of the former KAFB property
- ❑ KAFB utilized area for surplus explosive ordnance disposal by burning and detonation
- ❑ Coal ash cinders present at site
- ❑ Subsequent activities may have similar potential contaminants of concern



# Explosive and Ordnance Disposal (EOD) Range/North Bog Area

- ❑ Status
  - ❑ Analysis of the data has not been completed at this time
  - ❑ USACE is scheduled to complete the report and submit to MDEQ for review in December 2011
  - ❑ Subsequent operations may have CERCLA liability implications; therefore, future remedial actions will be addressed under PRP process



# Sentinel Well Sampling

- ❑ Historically no concentrations detected above contingency plan “trigger” concentrations
- ❑ No contaminants of concern above risk based drinking water criteria outside of landfill limits, the only up gradient area of concern to the drinking water supply wells
- ❑ USACE will complete 2011 annual sampling and analytical analysis of sentinel wells
- ❑ If 2011 data is consistent with historical data, then USACE plans to end the sentinel well sampling
- ❑ Abandon sentinel wells or transfer ownership/maintenance/future abandonment to Kinross Township?



# Summary

- ❑ USACE has ensured a safe water supply with sentinel well sampling
- ❑ Interim remedial action (SVE system) at Fire Training area for contaminated soil.
  - ❑ Operation until December 31, 2011
  - ❑ Contract awarded to perform soil sampling (2012) and prepare report to demonstrate that interim remedial action (SVE system) can cease operation
- ❑ Interim remedial action for removal of free petroleum product at the fuel storage area.
  - ❑ Operation until December 31, 2011
  - ❑ Contract awarded to prepare a report (2012) to demonstrate that interim remedial action can cease operation.



# Summary

- ❑ Scheduled Completion of RI reports in 2012
- ❑ Preliminary Assessment scheduled for award in 2012 to compile existing research and provide additional historical data on operations performed on the former KAFB property
- ❑ Complete FUDS eligible projects utilizing the CERCLA process for non PRP projects
- ❑ Projects with subsequent operations that may have CERCLA liability implications are to be completed under the PRP process

