



OREM Stewardship Program

Tools Utilized by Environmental Management to Support the Stewardship Program Needs

POINT OF CONTACT

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Stewardship

Stewardship

- ▶ “Acceptance of the responsibility and the implementation of activities necessary to maintain long-term protection of human health and the environment from hazards posed by residual radioactive and chemically hazardous materials.”

End Use Working Group Stewardship Committee, July 1998

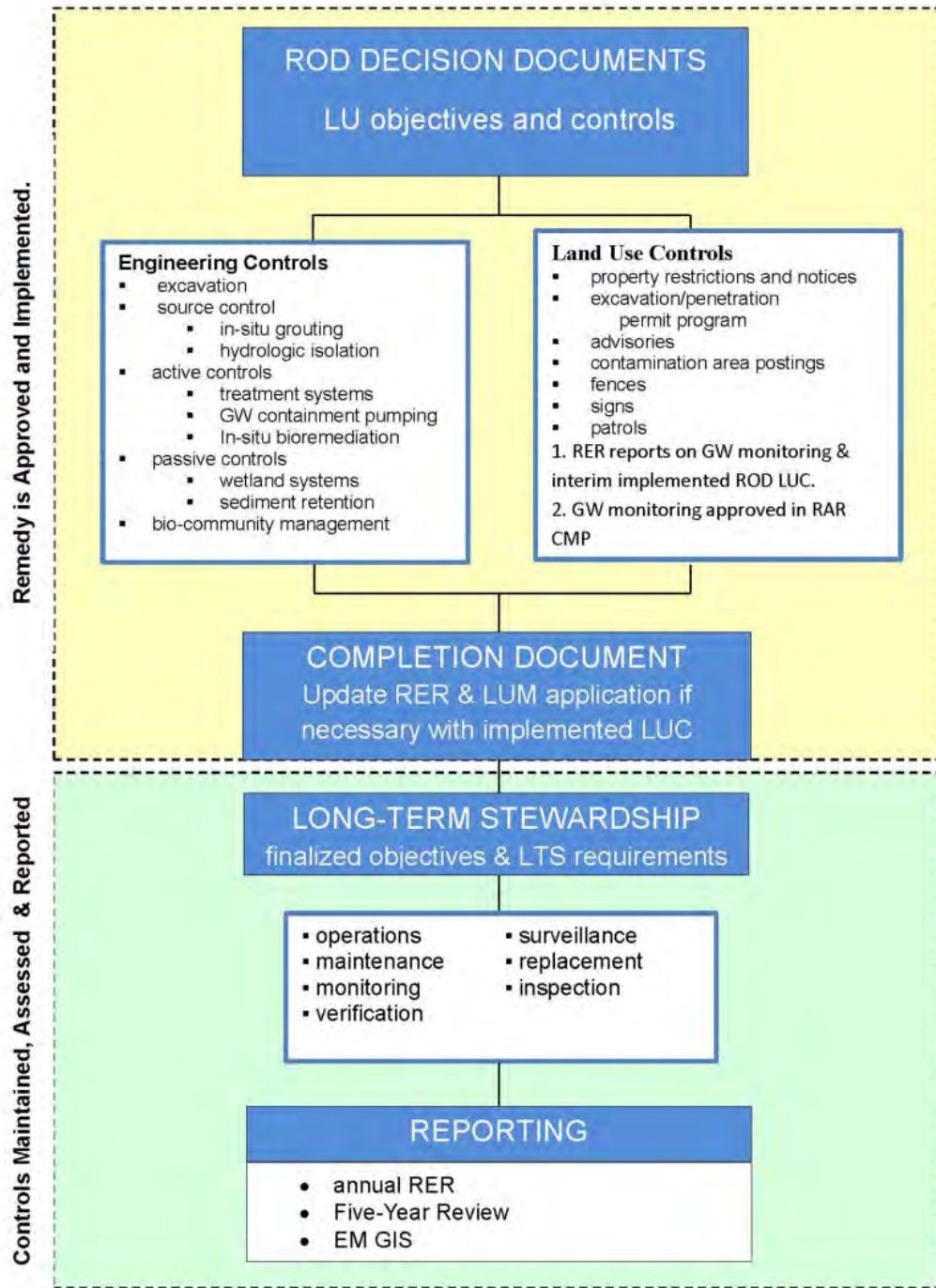
Long Term Protection Drivers

- ▶ CERCLA 121.c: “... or contamination remaining at the site, the President shall review such remedial action no less often than each 5 years ... to assure that the human health and the environment are being protected by the remedial action(s) being implemented.”
- ▶ FFA Section XXXI Five Year Plan: “...the DOE agrees that if the selected remedial action(s) result in hazardous substance, pollutants or contaminants remaining at the Site, the EPA and TDEC will review the remedial action(s) no less often than once every five (5) years after the initiation of the final remedial action(s) to assure that human health and the environment are being protected by the remedial action(s) being implemented.”



Long Term Stewardship Requirements

- ▶ Stewardship controls are necessary wherever contamination remains in place following the completion of the ROD remedial actions and/or ROD identified land use objectives/controls. Land use controls are the mechanisms necessary to assure human health and the environment are protected.
 - ▶ Mechanisms:
 - Pre-/post-remediation FFA primary documents
 - Annual Remediation Effectiveness Reports (RER)
 - Five Year Review (FYR) of remediation protectiveness
 - Surveillance and Maintenance
 - Controls (flowchart)
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FFA Primary Documents w/ Stewardship Requirements

- ▶ Record of Decision (ROD): Identifies the required remedial actions and the Land Use Objectives and Controls.
 - ▶ Watershed Remedial Action Report Comprehensive Monitoring Plan (RAR CMP): Watershed ROD groundwater monitoring requirements.
 - ▶ Phased Construction Completion Report (PCCR): Subproject completion report for where contamination has been removed, left in place, and/or requires LUC(s).
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FFA Primary Documents w/ Stewardship Requirements (cont.)

- ▶ Remedial Action Report (RAR): Finalizes all ROD required completed remedial actions and updates engineering/LU controls, monitoring requirements, and when necessary changes to LU objectives.
 - ▶ Remedial Effectiveness Report (RER): Annually produced report addressing the effectiveness of the completed ROD remedial actions. Also reports on the ROD implemented LUC(s) and completed remedial action implemented land use controls.
 - Single annually provided primary document addressing all completed remedial action approved and implemented LUCs where contamination remains.
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OREM Stewardship Tools used to report on long term protectiveness

- ▶ **EM GIS:** Publically available Geographic Information System map and fact sheets for the Oak Ridge NPL Site.
 - ▶ **Oak Ridge Environmental Information System (OREIS):** Environmental sampling database containing historical and CERCLA characterization sampling, State environmental permit monitoring data, and OR Site monitoring data. Recent GIS enhancements.
 - ▶ **Land Use Management (LUM) Application:** Utilized to monitor the approved LUCs as implemented.
 - ▶ **Five Year Review (FYR):** protectiveness reporting tool.
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EM GIS – Stakeholder Available Map of the OR Site

- ▶ Environmental Baseline Surveys [CERCLA 120(H)] were completed and approved in 2013/2014 by the FFA Parties identifying the non-impacted lands on the ORR. The NPL Site reflects contaminated areas both on and off the Reservation resulting from Federal programs. The EM GIS map reflects where contamination is known to exist and is to be addressed under a CERCLA ROD.
 - ▶ Based on this approval FFA modifications were made in both the Appendix B Oak Ridge Site Description and Appendix C Oak Ridge Remediation Sites.
 - Appendix B now includes a new map of the Oak Ridge Site. All Reservation units/areas determined clean were removed from the Appendix C (listed in Appendix B).
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Web Site Links

- ▶ The Federal Facility Agreement and the Appendices:
 - http://www.ucor.com/ettp_ffa.html

 - ▶ New web address to OREM GIS map:
 - <http://energy.gov/orem/services/program-management/environmental-stewardship/oak-ridge-cleanup-areas>

 - ▶ Shortcut to EM GIS map:
 - <https://emgis.oro.doe.gov/>
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OREIS – No longer just a database!

- ▶ Available to the Public and the regulatory Parties.
 - ▶ FFA required database to contain and store all sampling data related to ROD decisions, groundwater monitoring, and post-remediation activities for the OR FFA cleanup efforts.
 - ▶ Recently OREIS GIS enhancements were made to better reflect sampling locations and data (pre- and post-remediation) related to single ROD units and watershed ROD subprojects activities.
 - ▶ OREIS stores the approved water monitoring sampling/location data for Remediation Effectiveness Report (RER) trending efforts
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OREIS Land Use Control efforts

- ▶ Necessary to define and map the post- ROD and/or remediation areas where long term stewardship controls are/will be required.
- ▶ Efforts are currently underway to add ROD shape files to the OREIS Spatial Query Tool. Shape files must be attribute defined: actual land surveys (capped area), GPS coordinates (EU boundaries), and/or validated sampling location data.

OAK RIDGE ENVIRONMENTAL INFORMATION SYSTEM



WHAT IS OREIS?

WEB ACCESS INSTRUCTIONS

OREIS INFORMATION

OREIS SPATIAL QUERY TOOL

ACCESS OTHER OREIS DATA

GENERAL INTEREST

[SSAB Map](#) [TORC](#) (10mb download)

OREIS supports the Department of Energy - Oak Ridge Operations (DOE-ORO) Environmental Management Program, managed by UCOR.

This page has been accessed 57834 times since August 17, 2006.

Please send comments or questions about the information on this site to [OREIS Support \(oreis@ettp.doe.gov\)](mailto:oreis@ettp.doe.gov)

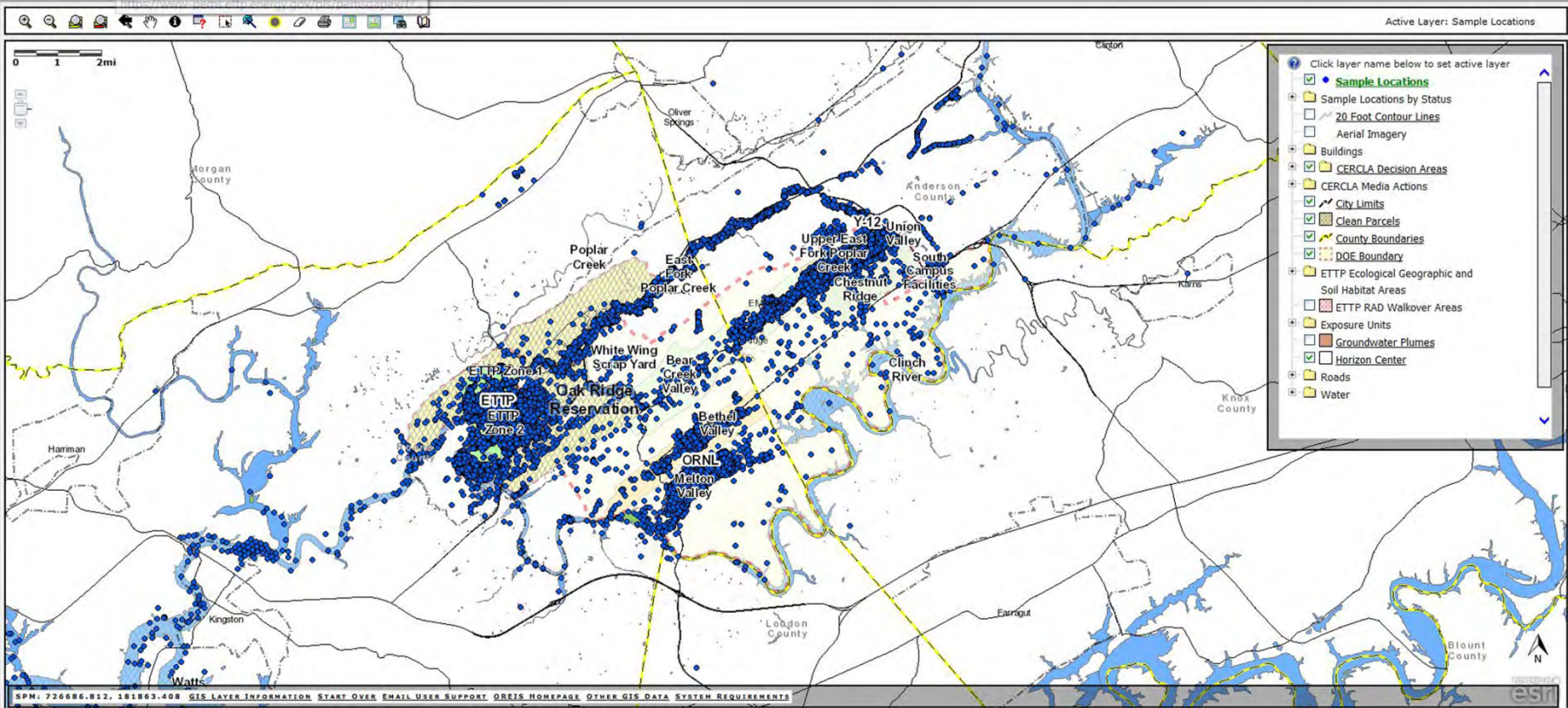
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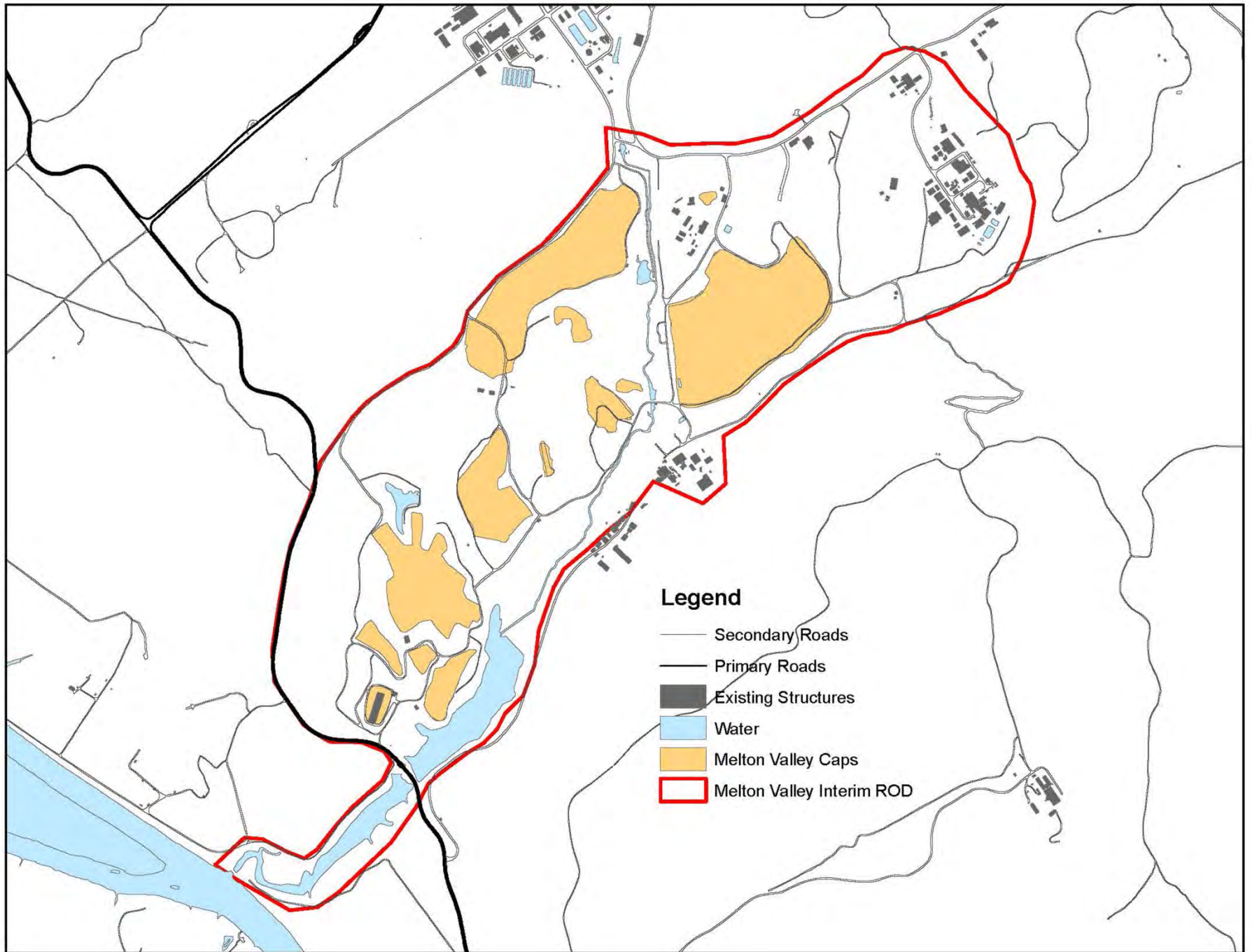


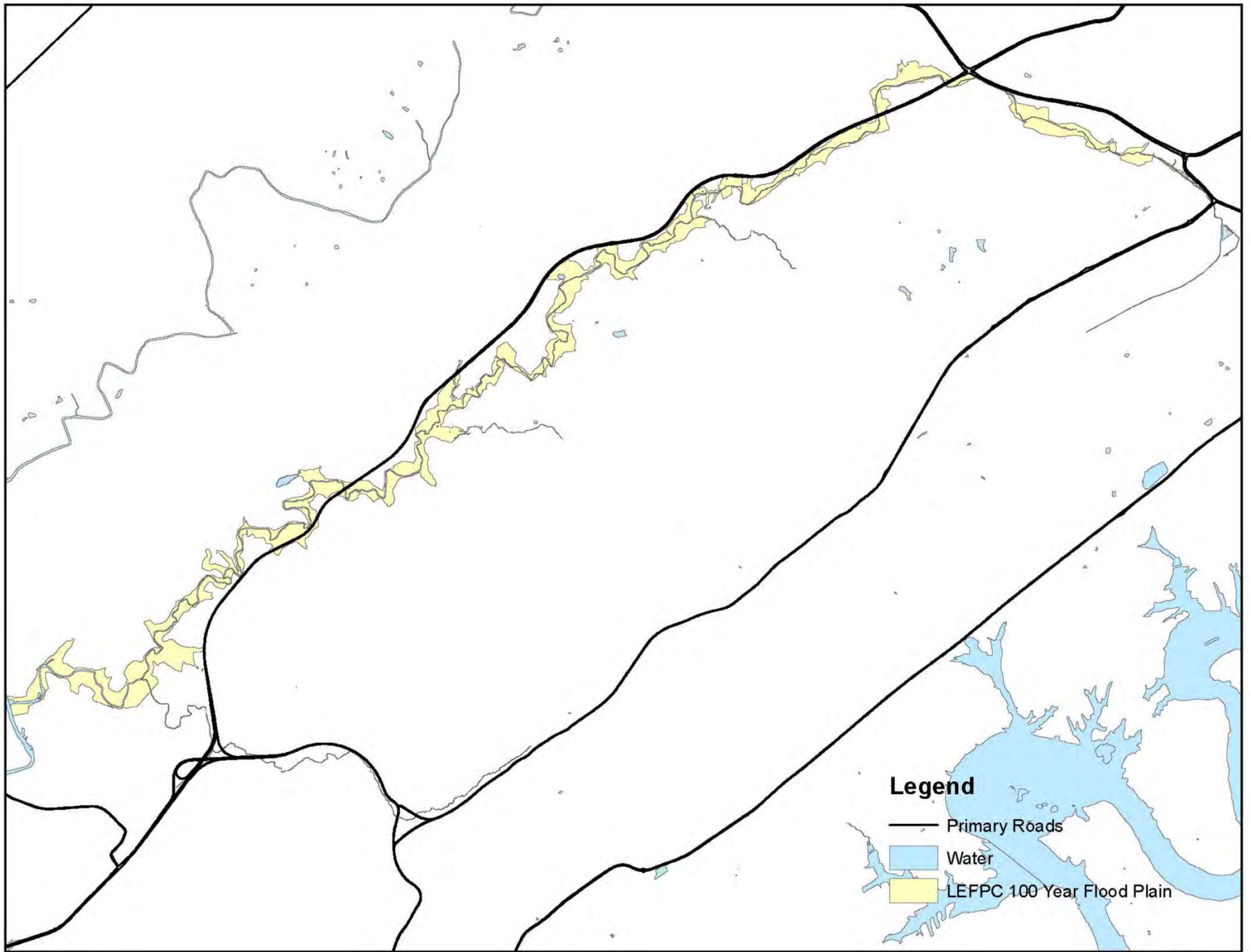
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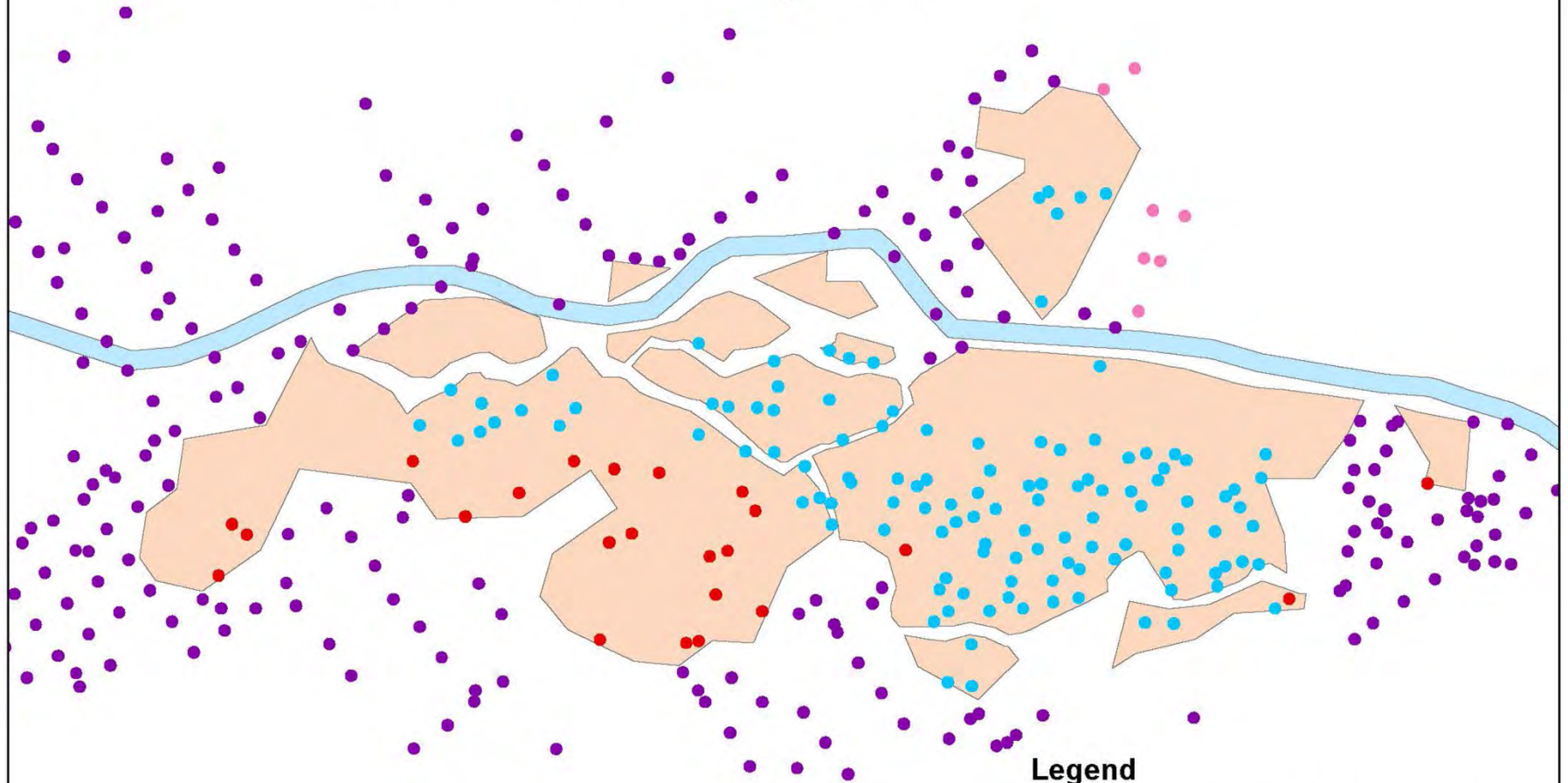






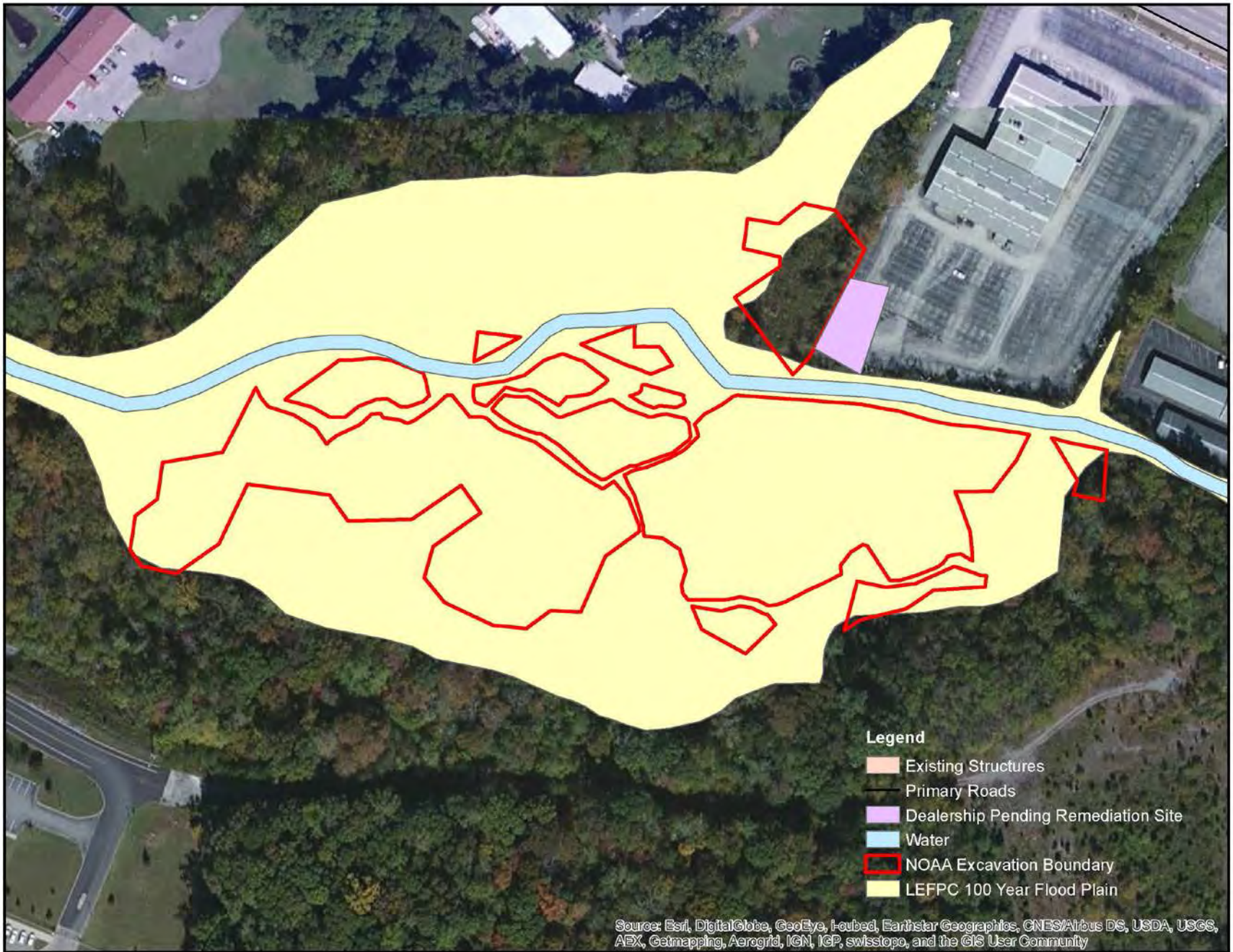


Updated Sample Statuses for the NOAA Area



Legend

- Remediation Pending Sample Locations
- Excavated Sample Locations
- Multiple Status Sample Locations
- No Action Required Sample Locations
- Revised LEFPC 100 Year Flood Plain
- Surface Water
- NOAA Excavation Areas



Legend

- Existing Structures
- Primary Roads
- Dealership Pending Remediation Site
- Water
- NOAA Excavation Boundary
- LEFPC 100 Year Flood Plain

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



OREIS Enhancements Presentation

- ▶ Enhancements to the OREIS database were initiated to ensure the Administrative Record data requirements were being met. The results greatly enhanced the usability of the database to the ongoing projects.
- ▶ Contractors' efforts in DQO session preparation process were eased and lead to increased the validation of data sampling location accuracy.
- ▶ Shape file efforts are now being captured to ensure the long term stewardship areas are captured. Shape files for completed ROD actions requiring controls are being identified and will be captured in OREIS and linked to the LUMs applications.
- ▶ An OREIS presentation on enhancements and shape files is available.