

# REMEDATION EFFECTIVENESS REPORT ANNOTATED OUTLINE

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## ACRONYMS

BCV	Bear Creek Valley
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
DOE	U. S. Department of Energy
ETTP	East Tennessee Technology Park
EEVOC	East End Volatile Organic Compound
FFA	Federal Facility Agreement
FY	fiscal year
LTS	long-term stewardship
LUC	land use control
LUCIP	Land Use Control Implementation Plan
ORO	Oak Ridge Operations
ORR	Oak Ridge Reservation
PCCR	Phased Construction Completion Report
RAO	Remedial Action Objective
RAR	Remedial Action Report
RER	Remediation Effectiveness Report
ROD	Record of Decision
RmAR	Removal Action Report
UEFPC	Upper East Fork Poplar Creek

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## REMEDATION EFFECTIVENESS REPORT

### EXECUTIVE SUMMARY

The *EXECUTIVE SUMMARY* provides a synopsis of the report contents, summarizing current-year conditions and trends of each watershed and the salient achievements of the remedial actions on the Oak Ridge Reservation (ORR), as well as any deviations from the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) decisions or any agreed-to changes. The Remediation Effectiveness Report (RER) is published annually and addresses only those completed actions that have follow-on monitoring and/or long-term stewardship (LTS) requirements. It provides an assessment of the effectiveness of those actions within each watershed as measured by monitoring, and includes a review of compliance with LTS requirements. Particular mention is made of issues associated with the effectiveness of any remedy or compliance with LTS requirements.

The *EXECUTIVE SUMMARY* also states which Land Use Control Implementation Plans (LUCIPs) are certified.

## 1. INTRODUCTION

The *INTRODUCTION* provides the objectives of the RER, to assess and document effectiveness of each completed remedy and compliance with any LTS requirements. A section is included explaining how this RER differs from previous RERs (information presented in the *EXECUTIVE SUMMARY* detailed above is also included in the *INTRODUCTION*), and presents the organization of the current report. In general, the report is divided into chapters for each administrative watershed and a chapter for the off-site actions. Generally, each chapter is then divided into (1) watershed-scale actions, (2) single-action projects (remedial and removal), and (3) monitoring changes and recommendations. This chapter contains a description of all LTS/LUC-approved requirements. It also provides the annual certification of approved LUCIPs by the Manager of the Department of Energy (DOE) Oak Ridge Operations (ORO) (Appendix A). The certification verifies that the ORR is implementing the approved LUCIPs and identifies any non-compliance and describes the steps taken to address any such non-compliance(s).

To provide a frame of reference for technical discussions throughout the remainder of the RER, the *INTRODUCTION* also provides relevant information affecting monitoring results reservation-wide, such as rainfall data over the past fiscal year (FY), as well as for the past several years.

Lastly, technical issues, recommendations, and follow-up actions are summarized in table format in the *INTRODUCTION*. These issues have been identified throughout subsequent chapters of the RER through evaluations of current or past performance monitoring data and are provided as a means of tracking issues through resolution. As issues are resolved in the current FY, they are included in a separate table and will no longer be carried in subsequent RERs.

## 2. CERCLA ACTIONS IN BETHEL VALLEY WATERSHED

An *INTRODUCTION AND OVERVIEW* section, including a discussion of *Status and Updates*, for the Bethel Valley Watershed is included. The *INTRODUCTION AND OVERVIEW* provides a table summary of all watershed-scale actions and completed single-action projects (remedial and removal) and their status (i.e., whether the action is ongoing or completed), and, if completed, the date of the completion report [Phased Construction Completion Report (PCCR), Remedial Action Report (RAR), Removal Action Report (RmAR)] approval, as of the end of the fiscal reporting year. In addition, the associated LTS requirements and status are summarized in table format. An update to CERCLA activities completed in Bethel Valley during the current reporting year (i.e., since the previous RER) is provided in *Status and Updates*.

Only actions completed as part of the watershed Record of Decision (ROD) and completed single-action projects with on-going monitoring and/or LTS requirements are discussed in following sections of the chapter. For each completed action, a summary of performance goals and associated monitoring objectives [i.e., Remedial Action Objectives (RAOs)] is provided, as well as an evaluation of performance monitoring data and compliance with any LTS requirements, as appropriate. For the Interim Action ROD for Bethel Valley, few individual actions have been completed, so monitoring data collected to document current conditions are presented. Both current year data and trends are provided, as well as the status of aquatic biota in the watershed.

*CHAPTER 2* concludes with monitoring changes/issues carried forward from previous years' reports or from this FY's data evaluations, as well as recommendations to resolve the issues.

### **3. CERCLA ACTIONS IN MELTON VALLEY WATERSHED**

*CHAPTER 3* includes an *INTRODUCTION AND OVERVIEW* section, including a discussion of *Status and Updates*, for the Melton Valley Watershed. The *INTRODUCTION AND OVERVIEW* provides a table summary of all watershed-scale actions and completed single-action projects (remedial and removal) and their status (i.e., whether the action is ongoing or completed), and, if completed, the date of the completion report (PCCR, RAR, RmAR) approval, as of the end of the fiscal reporting year. In addition, the associated LTS requirements and status are summarized in table format. An update to CERCLA activities completed in Melton Valley during the current reporting year (i.e., since the previous RER) is provided in *Status and Updates*.

Implementation of remedial activities associated with the ROD for Interim Actions for the Melton Valley Watershed and completed single-action projects with on-going monitoring and/or LTS requirements are discussed in following sections of the chapter. For each completed action, a summary of performance goals and associated monitoring objectives is provided, as well as an evaluation of performance monitoring for both surface water and groundwater data. Surface water quality goals and monitoring requirements are discussed for both current year results and trends at both the integration point and at tributary locations. Groundwater level monitoring results are provided at hydrologic isolation units and both current year and trend data are provided for groundwater quality evaluations. The status of the aquatic biota in the watershed is also discussed.

Considerable discussion is devoted to compliance with LTS requirements of the Melton Valley ROD, which requires certification (provided in Appendix A). *CHAPTER 3* concludes with monitoring changes/issues carried forward from previous years' reports or from this FY's data evaluations, as well as recommendations to resolve the issues.

### **4. CERCLA ACTIONS IN BEAR CREEK VALLEY WATERSHED**

*CHAPTER 4* provides the same types of information as in Chapter 2.

### **5. CERCLA ACTIONS ON CHESTNUT RIDGE**

*CHAPTER 5* provides the same types of information as in Chapter 2.

### **6. CERCLA ACTIONS IN UPPER EAST FORK POPLAR CREEK WATERSHED**

*CHAPTER 6* provides the same types of information as in chapter 2.

## **7. CERCLA OFF-SITE ACTIONS**

*CHAPTER 7* provides the same types of information as in Chapter 2.

Currently, the Lower East Fork Poplar Creek, Clinch River/Poplar Creek, and Lower Watts Bar Reservoir are included in Chapter 7.

## **8. CERCLA ACTIONS AT EAST TENNESSEE TECHNOLOGY PARK**

*CHAPTER 8* provides the same types of information as in Chapter 2.

## **9. CERCLA ACTIONS AT OTHER SITES ON THE RESERVATION**

*CHAPTER 9* provides the same types of information as in Chapter 2.

Currently, the White Wing Scrap Yard Surface Debris Remedial Action and the Oak Ridge Associated Universities South Campus Facility are included in Chapter 9.

## **10. REFERENCES**

A list of all references used or cited in preparation of the report is provided.

## **APPENDIX—A: CERTIFICATION OF LAND USE CONTROL IMPLEMENTATION**