
United States Department of Energy

Savannah River Site

RECEIVED

OCT 06 2004

DIVISION OF SITE
ASSESSMENT & REMEDIATION

**Record of Decision Amendment
for the Old F-Area Seepage Basin (904-49G) (U)**

CERCLIS Number: 16

WSRC-RP-2003-4136

Revision 1

April 2004

Prepared by:
Westinghouse Savannah River Company LLC
Savannah River Site
Aiken, SC 29808

The logo for the Savannah River Site (SRS) features the letters "SRS" in a bold, black, sans-serif font. The letters are enclosed within a stylized, black, curved shape that resembles a partial circle or a swoosh, positioned below and to the left of the text.

Prepared for U.S. Department of Energy under Contract No. DE-AC09-96SR18500

DISCLAIMER

This report was prepared by Westinghouse Savannah River Company LLC (WSRC) for the United States Department of Energy under Contract No. DE-AC09-96SR18500 and is an account of work performed under that contract. Reference herein to any specific commercial product, process, or services by trademark, name, manufacturer or otherwise does not necessarily constitute or imply endorsement, recommendation, or favoring of same by WSRC or the United States Government or any agency thereof.

Printed in the United States of America

**Prepared for
U.S. Department of Energy
and
Westinghouse Savannah River Company LLC
Aiken, South Carolina**

This page was intentionally left blank

DECISION SUMMARY
REMEDIAL ALTERNATIVE SELECTION (U)

Old F-Area Seepage Basin (904-49G) (U)

WSRC-RP-2003-4136
Revision 1

April 2004

CERCLIS Number: 16

Savannah River Site
Aiken, South Carolina

Prepared By:

Westinghouse Savannah River Company LLC
for the
U. S. Department of Energy under Contract DE-AC09-96SR18500
Savannah River Operations Office
Aiken, South Carolina

This page was intentionally left blank

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
LIST OF FIGURES	VIII
LIST OF TABLES	VIII
LIST OF ACRONYMS AND ABBREVIATIONS	IX
I. INTRODUCTION TO THE UNIT AND STATEMENT OF PURPOSE	1
II. SITE HISTORY, CONTAMINATION, AND SELECTED REMEDY	12
III. BASIS FOR THE DOCUMENT	15
IV. DESCRIPTION OF SIGNIFICANT DIFFERENCES	16
V. EVALUATION OF ALTERNATIVES	18
VI. SUPPORT AGENCY COMMENTS.....	18
VII. STATUTORY DETERMINATIONS	19
VIII. PUBLIC PARTICIPATION COMPLIANCE	19
IX. REFERENCES.....	20
X. APPENDICES	21

LIST OF FIGURES

FIGURE 1. LOCATION OF THE OLD F-AREA SEEPAGE BASIN AT THE SAVANNAH RIVER SITE2

FIGURE 2. MIXING ZONE WELLS AND OTHER FNB WELLS AT OFASB OU4

FIGURE 3. UPGRADIENT/SIDEGRAIDENT CHARACTERIZATION AREA8

FIGURE 4. LOCATION OF THE GENERAL SEPARATIONS AREA WESTERN GROUNDWATER OPERABLE UNIT9

FIGURE 5. LOCATION OF GROUNDWATER PLUMES WITHIN THE GSA WESTERN GW OU10

FIGURE 6. LOCATION OF EXISTING MONITORING WELLS, SEEPLINE PIEZOMETERS, AND SURFACE WATER STATIONS11

LIST OF TABLES

TABLE 1. CONSTITUENTS OF INTEREST, MCLs, AND MZCLs FOR OFASB OU5

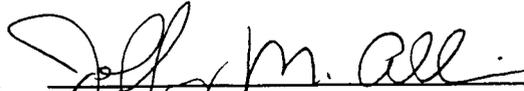
TABLE 2. SUMMARY OF MIXING ZONE STANDARDS, EXCEEDANCES, AND RESPONSE ACTIONS6

LIST OF ACRONYMS AND ABBREVIATIONS

CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
COC	constituent of concern
FFA	Federal Facility Agreement
GSA	General Separations Area
mg/L	milligram per liter
µg/L	microgram per liter
MCL	maximum contaminant level
MZCL	mixing zone concentration limit
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
OFASB	Old F-Area Seepage Basin
OU	operable unit
pCi/L	picocurie per liter
RAO	remedial action objective
ROD	Record of Decision
SARA	Superfund Amendments Reauthorization Act
SCDHEC	South Carolina Department of Health and Environmental Control
SRS	Savannah River Site
USDOE	United States Department of Energy
USEPA	United States Environmental Protection Agency
WSRC	Westinghouse Savannah River Company LLC

9/13/04

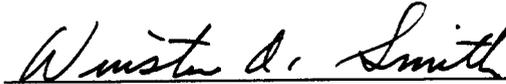
Date



Jeffrey M. Allison
Manager
U. S. Department of Energy
Savannah River Operations Office

9-29-04

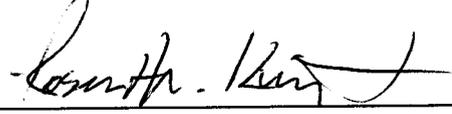
Date



Winston A. Smith
Director
Waste Management Division
U. S. Environmental Protection Agency - Region IV

11/15/04

Date



Robert W. King, Jr.
Deputy Commissioner
Environmental Quality Control
South Carolina Department of Health and Environmental Control

I. INTRODUCTION TO THE UNIT AND STATEMENT OF PURPOSE

Unit Name, Location, and Brief Description

Old F-Area Seepage Basin (904-49G) (U)

Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Identification Number: OU-16

Savannah River Site

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Identification Number: SC1 890 008 989

Aiken, South Carolina

United States Department of Energy (USDOE)

Identification of lead and support agencies

This amended Record of Decision (ROD) is being issued by the United States Department of Energy (USDOE), which functions as the lead agency for SRS remedial activities, with concurrence by the United States Environmental Protection Agency (USEPA) and the South Carolina Department of Health and Environmental Control (SCDHEC) for the Old F-Area Seepage Basin (OFASB) (Figure 1).

Citation of CERCLA Section 117 and NCP Section 300.435 (c)(2)(ii)

The change to the remedy has been determined to be a fundamental change in the remedy selected in the ROD. This ROD amendment is necessary to comply with National Oil and Hazardous Substances Pollution Contingency Plan (NCP) Section 300.435(c)(2)(ii) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 117.

Date of Original ROD Signature

The original Record of Decision (ROD) for the F-Area Seepage Basin (WSRC-RP-96-872, Rev. 1.1) (WSRC 1997a), was issued by the three parties (SCDHEC, USDOE, and USEPA) on June 19, 1997.

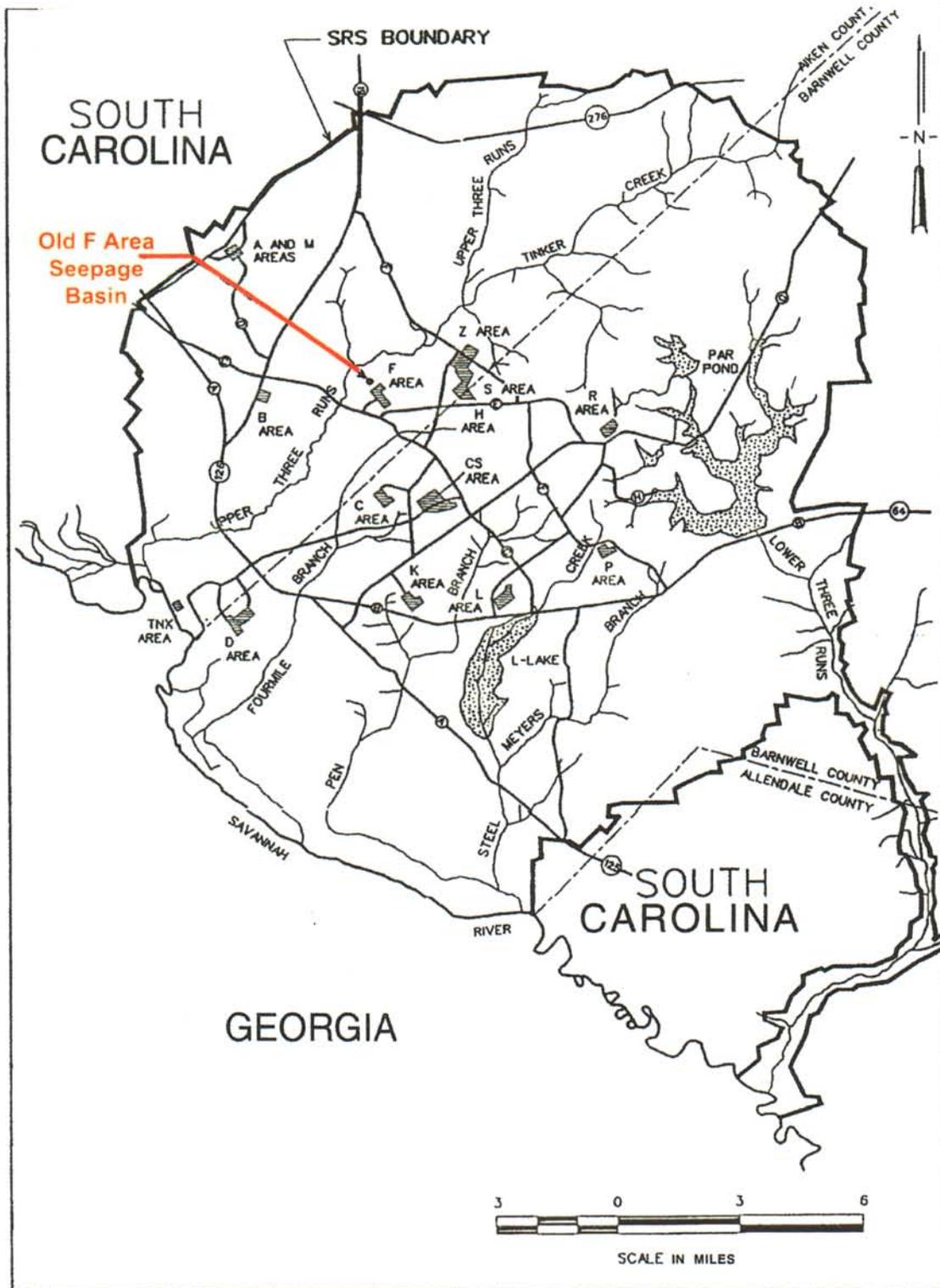


Figure 1. Location of the Old F-Area Seepage Basin at the Savannah River Site

Summary of Circumstances That Led to the Need For a ROD Amendment

The following circumstances led to the need for a ROD Amendment:

- According to the original ROD (WSRC 1997a) and based on the approved groundwater mixing zone application (WSRC 1997b), monitoring of the existing groundwater constituents of concern (COCs) (iodine-129, nitrate, strontium-90, tritium, and total uranium) was the selected remedy for the OFASB OU groundwater. The objective was to achieve the maximum contaminant levels (MCLs) and mixing zone concentration limits (MZCLs) at the compliance point (compliance boundary wells) through natural groundwater mixing processes and other processes such as radioactive decay. For the location of the compliance boundary wells see Figure 2 and for MCLs and MZCLs refer to Table 1. However, samples collected in September 2000 (3Q 2000) from three compliance boundary wells (wells FNB-13, FNB-14 and FNB-15) exceeded applicable MCLs for iodine-129, strontium-90, tritium, and/or nitrate. Samples collected from two plume wells (wells FNB-3 and FNB-5) also exceeded MCLs for lead and radium-226, signaling that these two constituents should also be evaluated for their inclusion in the mixing zone contaminant transport model.
- In accordance with the groundwater mixing zone application (WSRC 1997b), the groundwater monitoring network was resampled and data from the January 2001 (1Q 2001) resampling event confirmed the previous exceedances (3Q 2000 data) indicating additional exceedances for lead and nitrate. For the exceedances noted in the 3Q 2000 and 1Q 2001 data, refer to Table 2.
- The data collected from the sampling events also revealed that the concentrations of several constituents increased to the east along the compliance boundary away from the modeled flow lines originating from the OFASB OU. This fact suggested the presence of contamination in the groundwater derived from sources other than the OFASB OU. The distribution of other constituents (for example, strontium-90 and

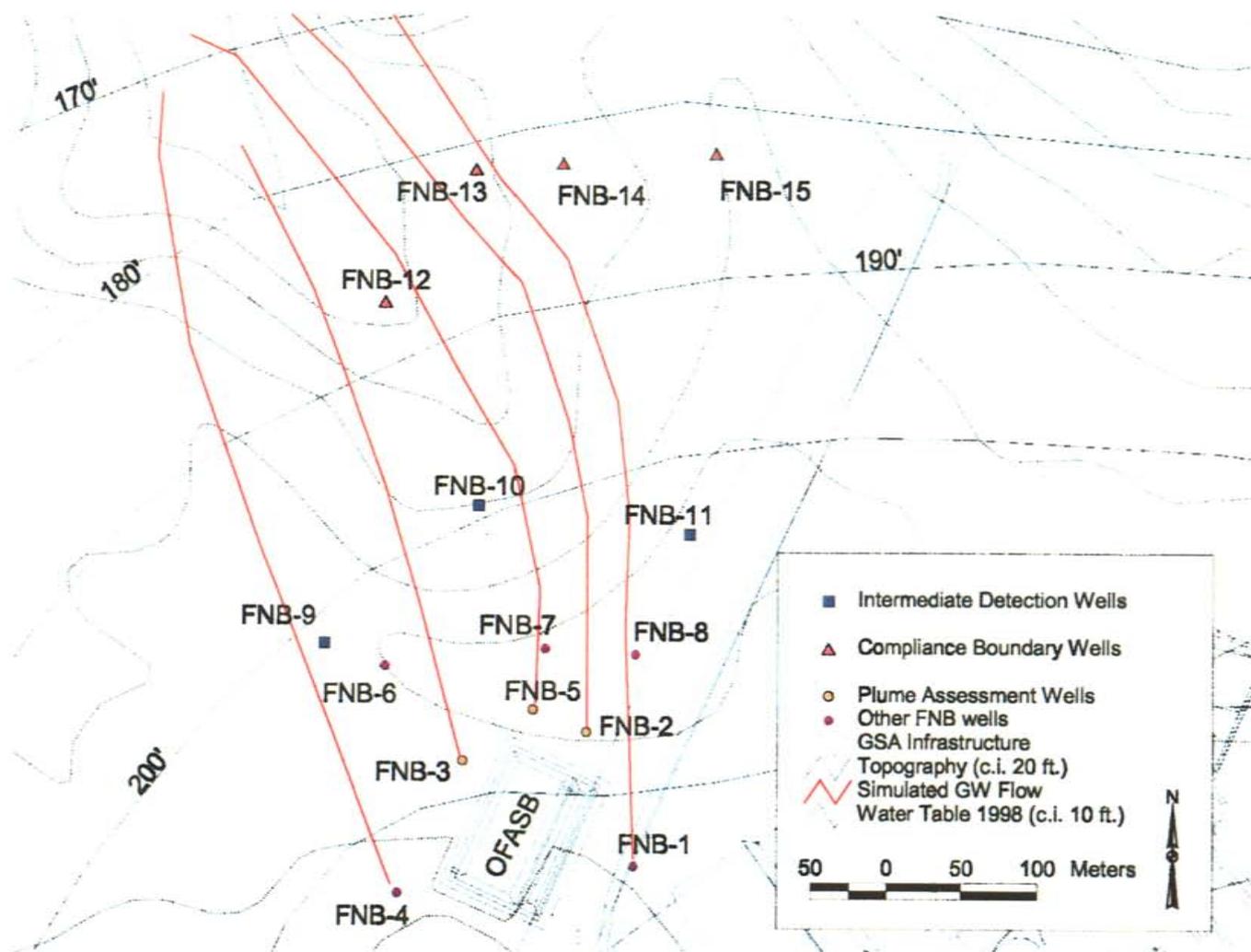


Figure 2. Mixing Zone Wells and Other FNB Wells at OFASB OU

Table 1. Constituents of Interest, MCLs, and MZCLs for OFASB OU

Constituents of Concern	MCL	MZCL
Tritium	20,000 pCi/L	216,000 pCi/L
Iodine-129	1 pCi/L	48 pCi/L
Nitrate	10 mg/L	20.9 mg/L
Strontium-90	8 pCi/L	146 pCi/L
Total Uranium	30 µg/L*	83 µg/L
Constituents Requiring Further Evaluation	MCL	MZCL
Lead	15 µg/L	not calculated
Radium-226	5 pCi/L	not calculated
Radium-228	5 pCi/L	not calculated
Radionuclide Indicator Parameters	MCL	MZCL
Gross alpha activity	15 pCi/L	not calculated
Non-volatile beta activity	4 mrem/year total effective dose	not calculated

*The groundwater mixing zone application cited 20 µg/L as the proposed MCL for total uranium. The MCL for total uranium is 30 µg/L.

Table 2. Summary of Mixing Zone Standards, Exceedances, and Response Actions

Well	Monitoring Network Significance	3Q2000 Exceedances	1Q2001 Exceedances	Applicable Standard
FNB-3	Plume Assessment	Pb* = 17.6 µg/l	Pb = 39.5 µg/l	not calculated
FNB-5	Plume Assessment	²²⁶ Ra = 6.36 pCi/l	²²⁶ Ra = 7.67 pCi/ml Pb = 18.1 µg/l (J)	
FNB-13	Compliance Boundary	¹²⁹ I = 2.65 pCi/l (J) ⁹⁰ Sr = 14.7 pCi/l ³ H = 68,700 pCi/l	¹²⁹ I = 1.86 pCi/l (J) ⁹⁰ Sr = 29.5 pCi/l ³ H = 64,900 pCi/l	MCL ¹²⁹ I = 1 pCi/l MCL ⁹⁰ Sr = 8pCi/l MCL ³ H = 20,000 pCi/l
FNB-14	Compliance Boundary	¹²⁹ I = 2.63 pCi/l (J) ³ H = 94,600 pCi/l	¹²⁹ I = 2.82 pCi/l (J) N = 11 mg/l ³ H = 101,000 pCi/l	MCL ¹²⁹ I = 1 pCi/l MCL N = 10 mg/l MCL ³ H = 20,000 pCi/l
FNB-15	Compliance Boundary	¹²⁹ I = 5.69 pCi/l N = 15.3 mg/l ⁹⁰ Sr = 9.68 pCi/l ³ H = 165,000 pCi/l	¹²⁹ I = 5.5 pCi/l N = 19.3 mg/l ⁹⁰ Sr = 10.7 pCi/l ³ H = 165,000 pCi/l	MCL ¹²⁹ I = 1 pCi/l MCL N = 10 mg/l MCL ⁹⁰ Sr = 8pCi/l MCL ³ H = 20,000 pCi/l

*Pb-lead, ²²⁶ Ra-radium-226, ¹²⁹ I-iodine-129, ⁹⁰ Sr-strontium-90, ³H-tritium, N-nitrate

non-volatile beta activity) further suggested the presence of two more discrete plumes – one derived from the OFASB and the other derived from upgradient sources. However, with the configuration of wells existing at the OFASB and in the F-Area, it was difficult to determine the presence (and, therefore, the extent) of upgradient and sidegradient contamination and the degree to which upgradient and sidegradient contamination might have commingled with plumes derived from the OFASB. This limitation was recognized and hence, in October 2001, it was agreed that additional groundwater data associated with the OFASB OU and characterization of groundwater immediately upgradient/sidegradient to the OFASB OU were required. Subsequently, as proposed in the OFASB OU Groundwater Mixing Zone Plan for Corrective Action (WSRC 2001b), additional data were collected from the area between the OFASB, the F-Area fenceline and sidegradient of the OFASB. For the location and extent of area for additional characterization see Figure 3. The resultant data indicated the presence of upgradient contaminant sources.

- In August 2002, a team of representatives from the USDOE, USEPA, and SCDHEC convened again and reviewed the additional groundwater data associated with the OFASB OU. Based on the review of the data the team decided to separate the groundwater associated with the OFASB OU from its surface unit and incorporate the OFASB OU groundwater into a larger F-Area groundwater operable unit. Accordingly, the team decided to form a larger General Separations Area (GSA) Western Groundwater OU (Western GW OU) which will also include OFASB OU groundwater. Subsequently, the scope of the GSA Western GW OU was developed. The scope included the OFASB OU groundwater, F-Area Canyon Groundwater OU, F-Area Tank Farm OU, F-Area Burning/Rubble Pits, and various spills that occurred in F-Area. Figure 4 shows the proposed extent of the GSA Western GW OU and the waste units encompassed by this OU. Figure 5 shows the locations of groundwater plumes within the GSA Western GW OU and Figure 6 shows the locations of the

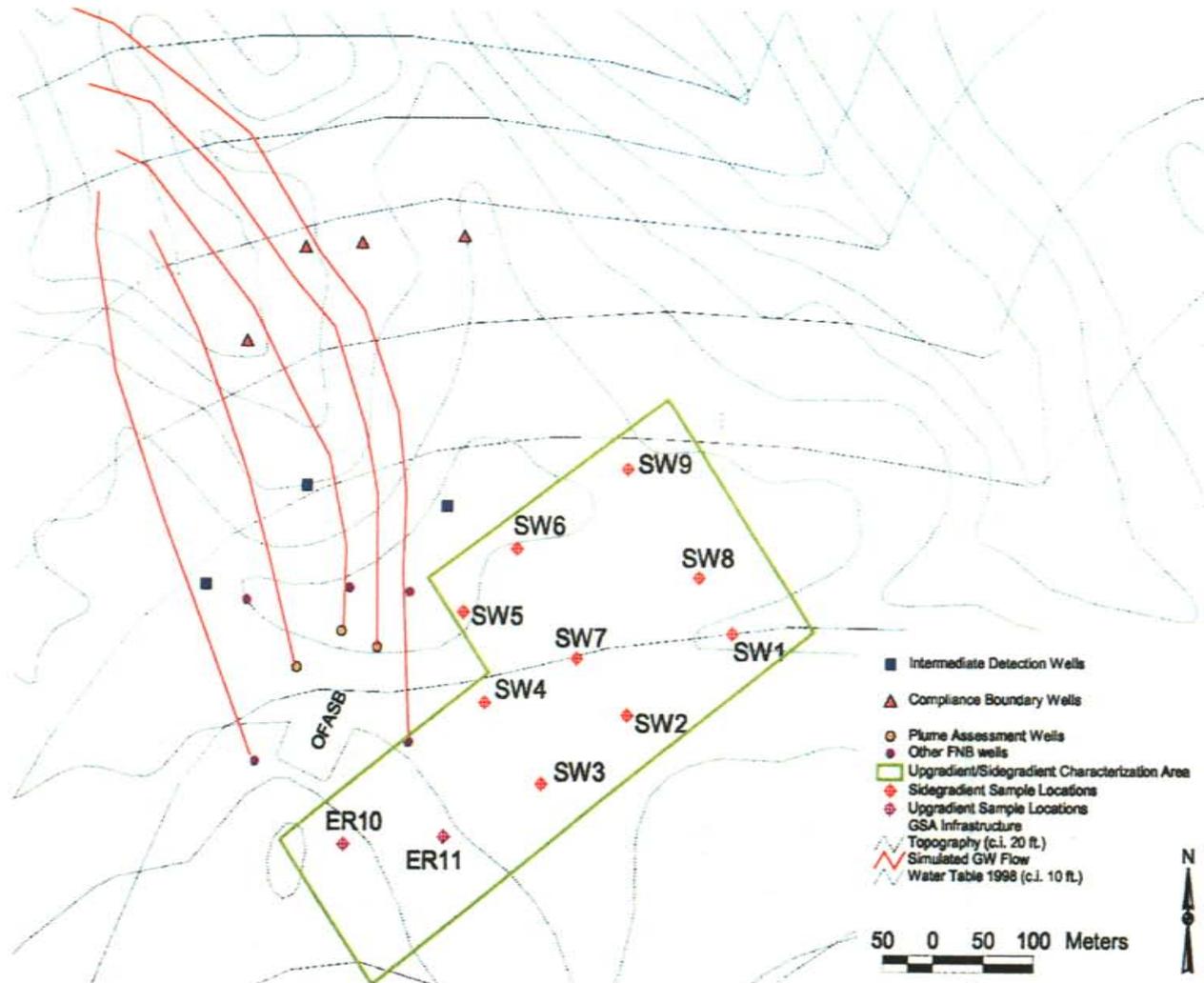


Figure 3. Upgradient/Sidegradient Characterization Area

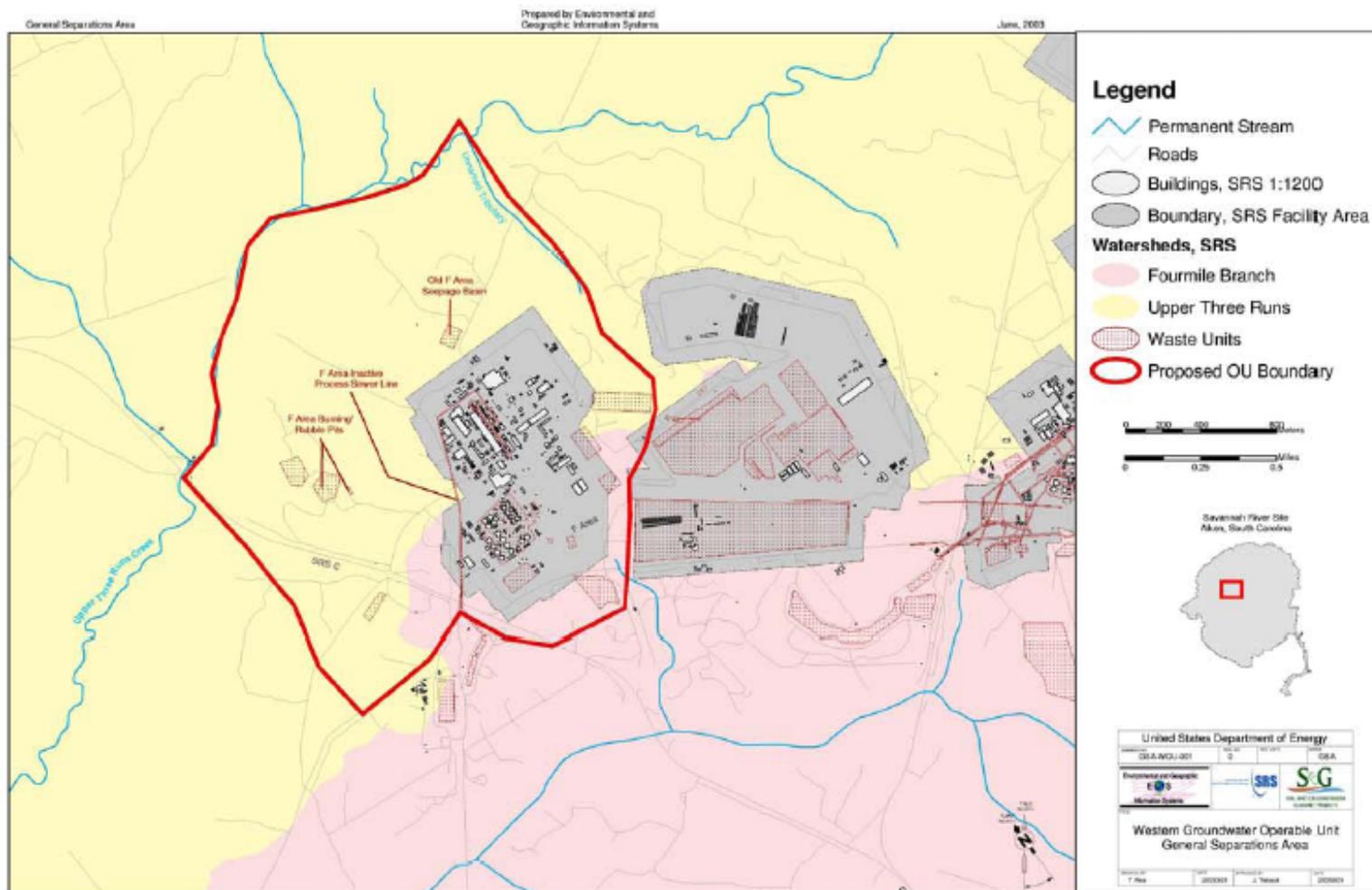


Figure 4. Location of the General Separations Area Western Groundwater Operable Unit

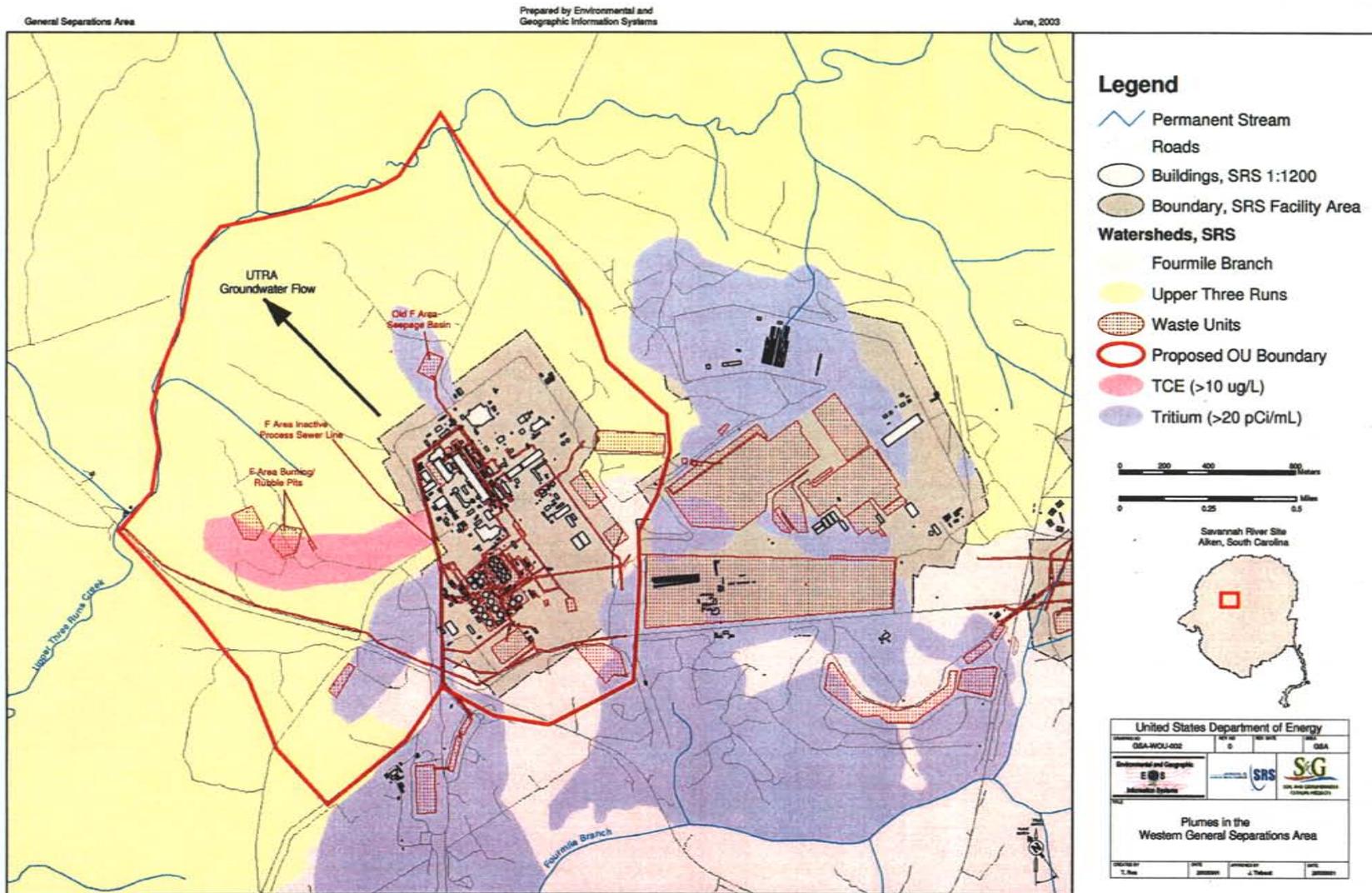


Figure 5. Location of Groundwater Plumes Within the GSA Western GW OU

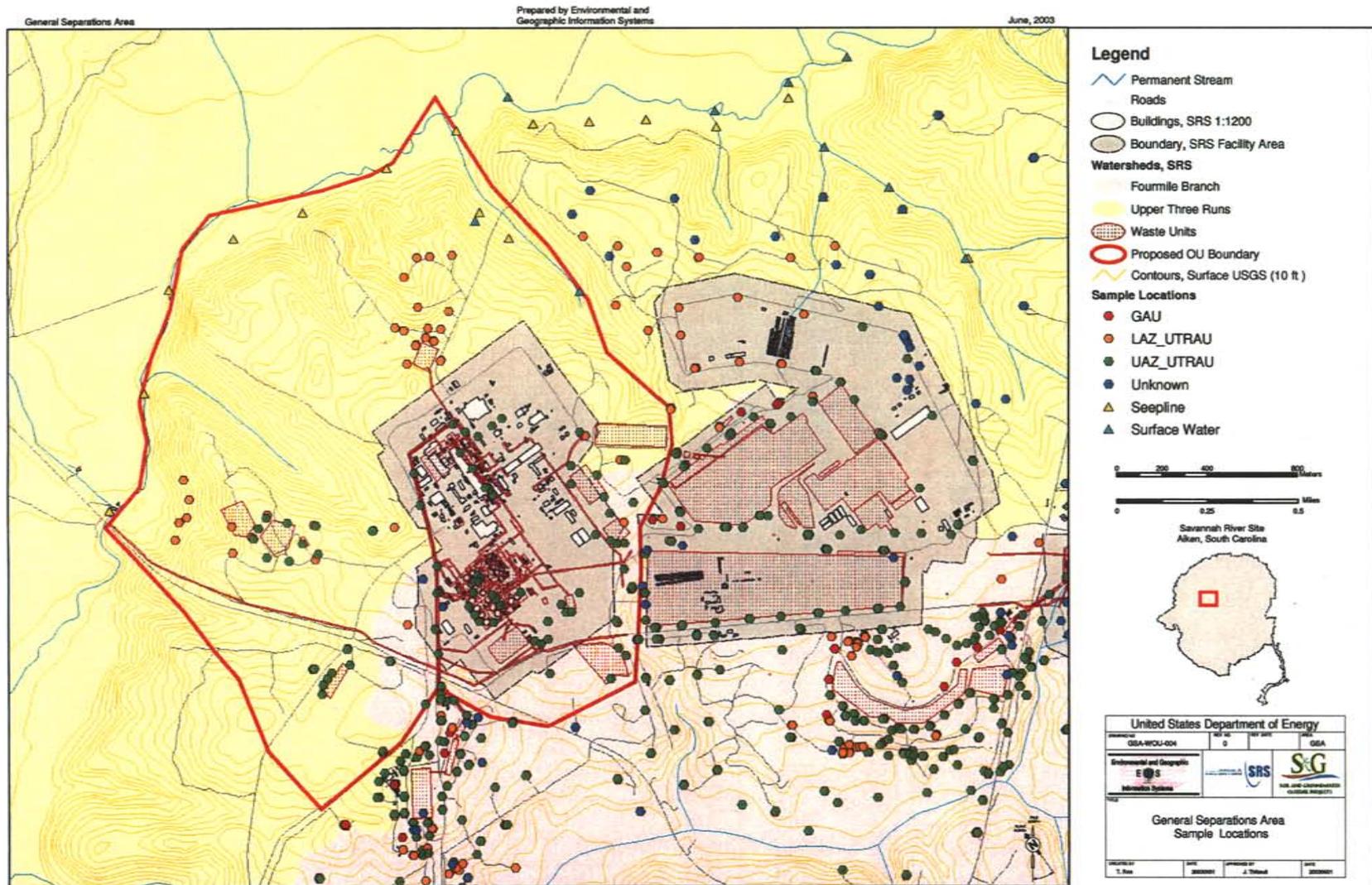


Figure 6. Location of Existing Monitoring Wells, Seep line Piezometers, and Surface Water Stations

existing monitoring wells, the seepline piezometers, and the surface water stations included in the GSA Western GW OU.

Statement that ROD Amendment Will Become Part of Administrative Record File (NCP 300.825(a)(2))

Information presented in this amendment will become part of the Administrative Record File in accordance with the requirements of the NCP, Section 300.825(a)(2), because it (1) supports the need to significantly alter the response actions, (2) is not contained elsewhere in the Administrative Record File, and (3) was not available for public review when the ROD (WSRC 1997a) was issued.

The Federal Facility Agreement (FFA) (1993) Administrative Record File, which contains the information pertaining to the selection of the response action, is available at the following locations:

US Department of Energy
Public Reading Room
Gregg-Graniteville Library
University of South Carolina – Aiken
171 University Parkway
Aiken, South Carolina 29801
(803) 641-3465

Thomas Cooper Library
Government Documents Department
University of South Carolina
Columbia, South Carolina 29208
(803) 777-4866

Hours of availability:
Monday – Thursday: 8:00am – 11:00pm
Friday: 8:00am – 5:00pm
Saturday: 10:00am – 5:00pm
Sunday: 2:00pm – 11:00pm

Hours of availability:
Monday – Friday: 7:30am – 12:00
midnight
Saturday: 10:00am – 8:00pm
Sunday: 1:00pm – 12:00 midnight

II. SITE HISTORY, CONTAMINATION, AND SELECTED REMEDY

Brief Summary of Contamination Problems and Operable Unit History

The Old F-Area Seepage Basin was an unlined basin that operated from 1954 to 1969 and received 9 to 14 million gallons of wastewater. Discharges to the basin included

wastewater, occasional cooling water, collected rainfall, and spent nitric acid etching solutions containing uranium. The OFASB OU is included in Appendix C of the SRS Federal Facility Agreement (FFA). The OFASB OU comprised the seepage basin, associated soil and vegetation, an adjacent ditch, a pipeline, and groundwater associated with the basin. In March 1997, USEPA and SCDHEC approved the ROD for OFASB OU (WSRC 1997a). The final remedial action selected for the OFASB OU soils included: in-situ stabilization/solidification of contaminated materials (contaminated soil and vegetation); construction of a low-permeability cover over the stabilized/solidified contaminated materials; and implementation of institutional controls to limit access to the site and associated ditch and pipeline and to restrict future site use to industrial use. For the groundwater the selected remedial action included: implementation of a groundwater mixing zone.

The seepage basin was remediated in 2000 and the Post-Construction Report for OFASB OU was approved in August 2001 (WSRC 2001a).

To pursue the remedial action selected for the groundwater, SRS submitted a groundwater mixing zone application in 1997 (WSRC 1997b). The application was approved in 1998. In 1999, SRS established a groundwater monitoring network to monitor the groundwater associated with the unit. The network included three plume assessment wells, three intermediate wells, and four compliance boundary wells (for location of wells see Figure 2).

The groundwater mixing zone application included a site-specific groundwater flow and transport model (WSRC 1998b), which was used to predict contaminant concentrations expected at the compliance boundary wells. Predicted concentrations were screened against maximum contaminant levels (MCLs) for contaminants of interest. Results indicated that, except for iodine-129, contaminants of interest would remain lower than their respective MCLs in the compliance boundary wells. Iodine-129 was predicted to slightly exceed its MCL at the compliance boundary in the future, and then decline slightly.

Mixing zone concentrations limits (MZCLs) were calculated for the plume assessment wells, which are located between the OFASB and the compliance boundary. The contaminants of interest and applicable groundwater standards are summarized in Table 1.

In accordance with the mixing zone application, the monitoring well network required sampling twice annually for COCs (iodine-129, nitrate, strontium-90, tritium, and total uranium). Additionally, the network required sampling for contaminants requiring further evaluation (lead, radium-226, and radium-228) and for radionuclide indicator parameters (gross alpha activity and non-volatile beta activity).

Per the groundwater mixing zone application, SRS initially sampled the OFASB OU monitoring well network in September 2000 for establishing a baseline for post-remedial-action groundwater conditions and for providing the basis for verifying the predictions of the mixing zone application. However, samples collected in September 2000 (3Q 2000) from three compliance boundary wells (wells FNB-13, FNB-14 and FNB-15) exceeded applicable MCLs for iodine-129, strontium-90, tritium, and/or nitrate. Samples from two plume assessment wells (wells FNB-3 and FNB-5) also exceeded MCLs for lead and radium-226, signaling that these constituents should also be evaluated for inclusion in the mixing zone contaminant transport model. Subsequently, the well network was resampled in January 2001. Data from the January 2001 (1Q 2001) resampling event confirmed the previous exceedances and indicated additional exceedances for lead and nitrate. The exceedances noted in 3Q 2000 and 1Q 2001 data are summarized in Table 2.

In August 2001, SRS notified SCDHEC and USEPA that contaminants had exceeded the predicted levels in several wells that monitor groundwater quality near the OFASB OU. Subsequently, a team of representatives from USDOE, SCDHEC, and USEPA met in September 2001 to examine the data and recommended a plan for performing additional investigation to resolve the source(s) of the observed contamination. Pursuant to the plan additional groundwater data were collected which were reviewed in August 2002. Based

on the review of the data it was decided to separate the groundwater associated with the OFASB OU from its surface unit and manage it as a part of the GSA Western GW OU. The agreement to include OFASB OU groundwater in the GSA Western GW OU was made in June 2003.

Selected Remedy

The selected remedy, as stipulated in the approved ROD (WSRC 1997a) and as amended by the Explanation of Significant Differences (ESD) (WSRC 1998a), included the following key elements (the ESD only changed the disposal of the contaminated soil from off-site to on-site disposal):

- In situ stabilization/solidification (S/S) of the contaminated soil and vegetation
- Construction of an engineered low-permeability soil cover over the stabilized/solidified materials
- Implementation of a regulatory approved groundwater mixing zone application
- Implementation of institutional controls to limit access to the site and associated pipelines and the restrict future use of this site to industrial use

The OFASB OU was remediated and closed in 2000. The closure was in accordance with the applicable and relevant federal, state and local laws and statutes.

III. BASIS FOR THE DOCUMENT

Information That Prompted and Supports Fundamentally Changing the Remedy Selected in the ROD

The USDOE, USEPA and SCDHEC have agreed to separate the groundwater associated with OFASB OU from its surface unit and manage it as a part of a larger GSA Western GW OU. The amendment to the ROD for the OFASB OU will remove the groundwater

monitoring part of the selected remedy from the ROD and incorporate it into the GSA Western GW OU. As a result, the groundwater mixing zone for the OFASB OU is no longer valid and the groundwater will be monitored in accordance with the GSA Western GW OU Work Plan. The RFI/RI Phase I Work Plan was submitted to the regulators on December 31, 2003. Any future ROD for the GSA Western GW OU will include the groundwater institutional control requirements for the OFASB OU.

IV. DESCRIPTION OF SIGNIFICANT DIFFERENCES

This section describes the selected remedy as stipulated in the original ROD and the amended remedy.

Description of the Original Selected Remedy

The selected remedy for the groundwater associated with OFASB OU included continuation of the existing institutional controls and monitoring the groundwater contaminant plume. A groundwater mixing zone application was approved by the appropriate regulatory agencies based on the data from monitoring wells located around the OFASB and the results of the groundwater modeling. Implementation of this remedy involved installation and monitoring of groundwater wells as described in the groundwater mixing zone application.

Description of the Amended Remedy

The amended remedy separates the OFASB groundwater from the OFASB surface unit and manages it as part of the larger GSA Western GW OU. Implementation of the amended remedy will involve monitoring of the groundwater wells as described in the future GSA Western GW OU Work Plan. The amended remedy will no longer include monitoring the groundwater as described in the Mixing Zone Application (WSRC 1997b); however, until the GSA Western GW OU RFI/RI Characterization is complete, the groundwater monitoring will continue for those COCs identified in the mixing zone application as a part of the GSA Western GW OU. Based upon the data obtained during the GSA Western GW OU Characterization, SRS may recommend changes to the COC

list and to the monitoring locations. The future monitoring well locations, COC list, and sampling frequency will be determined after the characterization is complete.

Effect of Changes on Remedial Action Objectives

The ROD specified the following remedial action objectives (RAOs) applicable to the groundwater associated with OFASB OU:

- Prevent or mitigate the impact to the nearest groundwater receptor located at the Upper Three Runs Creek by restoring the aquifer through natural groundwater mixing processes and other processes (radioactive decay) to achieve the MCLs throughout the groundwater plume (groundwater mixing zone application modeling estimates that MCLs throughout the entire groundwater aquifer will be achieved in approximately 200 years), and
- Achieve the State of South Carolina groundwater mixing zone objectives by (a) controlling the source to minimize addition of contaminants to the groundwater, (b) establishing plume monitoring and compliance wells to ensure compliance with mixing zone concentrations limits (MZCLs) and/or MCLs established in the groundwater mixing zone application, and (c) monitoring the groundwater movement to ensure that the contaminated groundwater remains on SRS until MCLs are achieved throughout the plume and that the groundwater plume is decreasing in its size/or concentrations.

Since the amended remedy removes the groundwater component and eliminates the Mixing Zone, these RAOs are no longer applicable to the remedy. RAOs that address groundwater will be developed as a part of the GSA Western GW OU.

Changes in the Expected Outcome That Will Result From the ROD Amendment

This amendment to the ROD will not result in any permanent impact to the expected outcome for the OFASB OU remedial action. The groundwater monitoring activities will continue as described in the planned GSA Western GW OU Work Plan. The remedy, as amended per this amendment to the ROD, will remain protective of human health and the environment under the restricted (industrial) land use scenario.

V. EVALUATION OF ALTERNATIVES

The nine USEPA evaluation criteria established by the NCP [40 CFR-300.430 (e)(9)] provide the basis for evaluating alternatives and selecting remedies. Since this amendment to the ROD simply transfers all groundwater monitoring to the GSA Western GW OU, there is no need to develop and evaluate any new alternatives. The remedy selected by the ROD has been determined to be protective of human health and the environment, easily implementable, cost-effective and acceptable to the regulatory agencies. The Statement of Basis/Proposed Plan (SB/PP) for the Old F-Area Seepage Basin (WSRC 1996) has previously been available for public comment and the ROD has been approved by both SCDHEC and USEPA. However, the community will be provided an opportunity to review and comment on the amendment as proposed by this document. A Responsiveness Summary prepared to address any comment received during the public comment period will be provided in Appendix A of this document.

VI. SUPPORT AGENCY COMMENTS

Following is the strategy that USEPA and SCDHEC have developed in concurrence with the USDOE:

- A mixing zone is no longer an appropriate mechanism for managing groundwater at OFASB OU, and that the OFASB OU mixing zone will not be revised and maintained.

- The OFASB OU ROD will be amended to decouple groundwater from the surface unit and incorporate the Old F-Area Seepage Basin OU groundwater into the GSA Western GW OU.
- A ROD amendment for the Old F-Area Seepage Basin OU that separates the groundwater from the OU and removes the groundwater mixing zone from the remedy will be issued.
- The RFI/RI Work Plan for the GSA Western GW OU incorporated the Old F-Area Seepage Basin groundwater subunit and was submitted to the regulators for review and comment on December 31, 2003.

VII. STATUTORY DETERMINATIONS

Based on information currently available, the amendment to the ROD satisfies the statutory requirements as stipulated in CERCLA Section 121(b). The remedy will: (1) be protective of human health and the environment under the industrial land use scenario, (2) comply with ARARs, (3) be cost-effective, and (4) utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable.

VIII. PUBLIC PARTICIPATION COMPLIANCE

The public participation requirements as set out in NCP Section 300.435(c)(2)(ii) will be met. The Responsiveness Summary will be included as Appendix A to this document.

IX. REFERENCES

Federal Facility (FFA), 1993. Federal Facility Agreement for the Savannah River Site, Administrative Docket No. 89-05-FF

WSRC, 1996. *Statement of Basis/Proposed Plan for the Old F-Area Seepage Basin (904-49G) (U)*, WSRC-RP-95-1557, Rev. 1, Westinghouse Savannah River Company, Aiken, SC

WSRC, 1997a. *Record of Decision Remedial Alternative Selection for the Old F-Area Seepage Basin (904-49G) (U)*, WSRC-RP-96-872, Rev. 1.1, March, Westinghouse Savannah River Company, Aiken, SC

WSRC, 1997b. *Groundwater Mixing Zone Application for the Old F-Area Seepage Basin (U)*, WSRC-RP-97-39, Rev. 1, March, Westinghouse Savannah River Company, Aiken, SC

WSRC, 1998a. *Explanation of Significant Differences to the Revision 1.1 Record of Decision for the Old F-Area Seepage Basin*, WSRC-RP-98-4123, Rev 0, Westinghouse Savannah River Company, Aiken, SC

WSRC, 1998b. *Old F-Area Seepage Basin Transport Analyses In Support of a SCDHEC Mixing Zone Application*, WSRC-TR-98-00307, Rev. 0, September, Westinghouse Savannah River Company, Aiken, SC

WSRC, 2001a. *Post-Construction Report for Old F-Area Seepage Basin (Building 904-49G) (U)*, WSRC-RP-2000-4100, Rev. 1, August, Westinghouse Savannah River Company, Aiken, SC

WSRC, 2001b. *Old F-Area Seepage Basin Operable Unit Groundwater Mixing Zone Plan for Corrective Action (U)*, WSRC-RP-2001-4239, Rev. 0, October, Westinghouse Savannah River Company, Aiken, SC

WSRC, 2002. *Old F-Area Seepage Basin Operable Unit Groundwater Mixing Zone Scoping Summary (U)*, WSRC-RP-2001-4187, August, Westinghouse Savannah River Company, Aiken, SC

WSRC, 2003. RFI/RI Work Plan for the General Separations Area Western Groundwater Operable Unit (U), WSRC-RP-2003-4147, Rev. 0, December, Westinghouse Savannah River Company, Aiken, SC

X. APPENDICES

Appendix A Responsiveness Summary

APPENDIX A

RESPONSIVENESS SUMMARY

Responsiveness Summary

The 45-day public comment period for the ROD Amendment for the Old F-Area Seepage Basin began on June 14, 2004 and ended on July 28, 2004. No comments were received from the public.