Comment and Response Document
for the
Environmental Assessment for Selection and Operation of the Proposed Field Research Centers for the NABIR Program

Comment	Location of Response (if applicable)	Commentor
DOE assured the State that the NABIR Program would not interfere with CERCLA remedial actions. At least two of the nine proposed test plots depicted in Figure 3-2 appear to lie in close proximity to the S-3 Ponds Reactive Barriers….CERCLA integration issues should be fully addressed in the final EA.	Section 3.1 and Section 5.1 Cumulative Impacts	State of Tennessee Department of Environment and Conservation - DOE Oversight Division
Some mention is needed concerning contamination from the S-3 Ponds into the Upper East Fork Poplar Creek Hydrogeologic Regime as well.	Section 3.1.3.3 - Groundwater	
This section does not mention precautions taken to prevent downhole contamination from contaminated soils into deeper fracture zones in the bedrock that might take place during advancement of soil borings or drilling into bedrock.	Section 4.1.1.2 - Geology	
The EA should address the fact that the USACOE and TDEC have responsibility for Wetland (sic) management and for proposed mitigation for impacted resources areas. The backfilling of soil borings and abandonment of wells should mention the use of bentonite or make reference to a procedure utilizing such material during backfilling and abandonment. Bentonite should be used to prevent downhole migration of groundwater and associated contaminants into fracture zones connected to well or boring annular space.	Section 4.1.3.2 Floodplains and Wetlands	
There is no discussion of drilling operations possibly impacted contaminated groundwater and creating additional paths for migration of contaminants to other aquifers, etc.	Section 4.1.3.3 Groundwater	

Comment	Location of Response (if applicable)	Commentor
The Endangered Species Act should be referenced on the pertinent regulation listings	Section 9.0	
Section 4.1.4.1 should be modified to more accurately define the presence of various bat species and the extent of bat surveys and research in the East Fork Poplar Creek and Bear Creek watersheds	Section 4.1.4.1 and Appendix G	United States Department of Interior - Fish and Wildlife Service, Cookeville TN.
Section 9.0 of the draft EA should also be modified to include the Endangered Species Act as a applicable environmental regulation pertaining to proposed DOE activities on the ORR	Section 9.0	
As part of this DOE assessment we recommend that all potential summer roosting habitat for the Indiana bat in the East Fork Poplar Creek and Bear Creek watersheds be identified.	Appendix G	
A third listed species is the bull trout *(Savelinus confluentus)* which can be found in the Hanford Reach and should be included in the text where appropriate.	Section 3.2.4.2 and Section 4.2.4.2	State of Washington Department of Fish and Wildlife
We have noted 2 federal environmental statues missing under Applicable Environmental Regulations….For the Hanford Site the Migratory Bird Treaty Act and Endangered Species Act would be applicable. Please add.	Section 9.0	
If a FRC is located at the Hanford Site, we ask that the USDOE follow guidance established in the *draft Hanford Site Biological Resource Management Plan* and *draft Hanford Site Biological Resources Mitigation Strategy Plan*.	Section 9.0	
ERDF cannot accept liquids so I am assuming ERDF should be replaced with ETF.	Section 4.2.3.1 and Section 4.2.9	State of Washington Environmental Protection Agency
Need to add a statement that any work will not have any adverse impact on current remediation.	Section 4.2.2 and Section 5.2.6	
EPA is not opposed to including waste generated under science work into the IDW strategy if it appears to support overall remediation. This would mean waste control plans would need to describe the work/waste.	Section 4.2.8 and Appendix A - Section 2.2.1	

NORMAN A. MULVENON
118 Concord Road, Oak Ridge, TN 37830-7126 USA

Tel: 423.482.3153 Fax: 423.483.9234 E-mail: mulvenon@juno.com

March 4, 2000

Mr. Paul Bayer
Office of Biological and Environmental Research
US Department of Energy
SC-74, GTN
19901 Germantown Road
Germantown, MD 20874

Dear Mr. Bayer:

REFERENCE: DRAFT ENVIRONMENTAL ASSESSMENT FOR SELECTION AND OPERATION OF THE PROPOSED FIELD RESEARCH CENTERS FOR THE NATURAL AND ACCELERATED BIOREMEDIATION RESEARCH (NABIR) PROGRAM, DOE/EA-1196. DECEMBER 22, 1999.

Due to an oversight on my part, I missed the deadline for comments on the above referenced Environmental Assessment (EA). I reviewed the EA and I completely support the use of Oak Ridge Operations Site in Bear Creek Valley.

I am the Chair of the Citizens' Advisory Panel (CAP) of the Oak Ridge Reservation Local Oversight Committee, Inc. (LOC). I have consulted with the majority of the members of both groups and they all support this NABIR Program. Please recall that we wrote a letter of support during the previous phase.

I have a copy of the State of Tennessee Department of Environment and Conservation DOE Oversight Division letter commenting on this EA. I concur with their remarks that the NABIR Program not interfere with CERCLA remedial actions. Please take special care to incorporate their comments.

Please call me at 865.482.3153 if I can clarify or expand on my comments.

Sincerely,

Norman A. Mulvenon

Norman A. Mulvenon

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DOE OVERSIGHT DIVISION
761 EMORY VALLEY ROAD
OAK RIDGE, TENNESSEE 37830-7072

February 18, 2000

Mr. Paul Bayer
Office of Biological and Environmental Research
US Department of Energy
SC-74, GTN
19901 Germantown Road
Germantown, MD 20874

Dear Mr. Bayer

Document NEPA Review: ***Draft Environmental Assessment for Selection and Operation of the Proposed Field Research Centers for the Natural and Accelerated Bioremediation Research (NABIR) Program, DOE/EA-1196.*** **December 22, 1999**

The Tennessee Department of Environment and Conservation, DOE Oversight Division (TDEC/DOE-O) has reviewed the subject document in accordance with the requirements of the National Environmental Policy Act (NEPA) and associative regulations of 40 CR 1500-1508 and 10 CFR 1021 as implemented.

The State recognizes the importance of developing safe and effective remediation and cleanup technologies and the need to test under actual field conditions. After reviewing the Draft Environmental Assessment (EA), the State supports the use of the Bear Creek site if the following comments can be addressed. In past discussion, DOE assured the State that the NABIR Program would not interfere with CERCLA remedial actions. At least two of the nine proposed test plots depicted in Figure 3-2 appear to lie in close proximity to the S-3 Ponds Reactive Barriers. The barriers are CERCLA remedial actions designed to prevent contaminants of concern from entering Bear Creek. These barriers are currently not performing as planned; indicating some alterations or upgrade to the system will be required in future CERCLA decisions. In addition, there are several areas where it appears the remediation experiments could increase the migration of or provide additional pathways for existing contaminants. CERCLA integration issues should be fully addressed in the final EA.

The following specific comments are also offered for your consideration.

Section 3.1.3.3, page 3-9, Groundwater
This section focuses on groundwater flow from the S-3 Ponds hydrologic divide into Bear Creek and it tributaries. Some mention is needed concerning contamination from the S-3 Ponds into the Upper East Fork Poplar Creek Hydrogeologic Regime as well.

Section 4.1.1.2, page 4-1, Geology
This section does not mention precautions taken to prevent down hole contamination from contaminated soils into deeper fracture zones in the bedrock that might take place during advancement of soil borings or drilling into bedrock.

Section 4.1.3.2, page 4-7, Floodplains and Wetlands
The EA should address the fact that the USACOE and TDEC have responsibility for Wetland management and for proposed mitigation for impacted resource areas. The backfilling of soil borings and abandonment of wells should mention the use of bentonite or make reference to a procedure utilizing such material during backfilling and abandonment. Bentonite should be used to prevent downhole migration of groundwater and associated contaminants into fracture zones connected to well or boring annular space.

Section 4.1.3.3, page 4-8, Groundwater:
There is no discussion of drilling operations possibly impacting contaminated ground water, and creating additional paths for the migration of contaminants to other aquifers, etc.

Section 9.0, page 9-1, Applicable Environmental Regulations, Permits, and DOE Orders
The Endangered Species Act should be referenced on the pertinent regulation listings.

Appendix C
It appears that several of the notices are incomplete, and their arrangement in the Appendix is incorrectly presented (pages do not follow numerical sequences).

If you have any questions concerning the above comments, please contact me at (865) 481-0995.

Sincerely

Earl C. Leming
Director

xc: Justin P. Wilson
Dodd Galbreath
Dick Green
Rod Nelson
Bob Poe

ecl518.99

United States Department of the Interior

FISH AND WILDLIFE SERVICE
446 Neal Street
Cookeville, TN 38501

February 10, 2000

Mr. Paul Bayer
U.S. Department of Energy
Office of Biological and Environmental Research
SC-74, GTN
19901 Germantown Road
Germantown, Maryland 20874

Dear Mr. Bayer:

U.S. Fish and Wildlife Service (Service) personnel have reviewed the draft Environmental Assessment for Selection and Operation of the Proposed Field Research Centers for the Natural and Accelerated Bioremediation (NABIR) Program. This draft environmental assessment (EA) indicates that the Bear Creek watershed on the Oak Ridge Reservation (ORR) is the Department of Energy's (DOE) preferred alternative for siting the field research center (FRC) associated with the NABIR program. Please consider the following comments during preparation of a final EA for the project.

Section 4.1.4.1 of the draft EA states that mistnetting for bats had been conducted in the East Fork Poplar Creek basin and that no bats were captured. According to information provided by Oak Ridge National Laboratory and Dr. Michael J. Harvey of Tennessee Technological University in Cookeville, Tennessee, significant mistnetting efforts were conducted in the East Fork Poplar Creek watershed, including Bear Creek, in 1992 and 1997. The 1997 efforts resulted in the collection of fourteen bats representing six species. No Indiana bats (*Myotis sodalis*) or gray bats (*Myotis grisescens*) were captured in the 1997 efforts. The 1992 efforts were not as extensive as those in 1997, and four bats representing two species were collected. It was noted in both surveys that significant potential habitat for the Indiana bat existed in the East Fork Polar Creek watershed. An Indiana bat was collected on the ORR in the 1950's, and survey efforts on the ORR have not been extensive enough to definitively establish or refute current use by this species.

In 1994, a moribund gray bat was found in the Beta-3 building of the Y-12 complex, near areas proposed for siting of the FRC. This specimen was identified by researchers at the University of Tennessee and submitted to the Service. The condition of this juvenile specimen indicated it may have utilized the building as roosting habitat. Other suitable buildings on the ORR may also serve as roosting habitat for a variety of bat species. Little Turtle Cave, located on the ORR near the Y-12 plant, was surveyed by the Tennessee Department of Environment and Conservation in 1996. Ten male gray bats were found in the cave and it was determined that the cave could serve as a

hibernaculum for a bachelor colony. Based on the best information available to the Service, it does not appear that the upper reaches of Bear Creek have been sufficiently surveyed to support a conclusion that the area is not utilized by gray or Indiana bats.

Section 4.1.4.1 should be modified to more accurately define the presence of various bat species and the extent of bat surveys and research in the East Fork Poplar Creek and Bear Creek watersheds. Section 9.0 (Applicable Environmental Regulations, Permits and DOE Orders) of the draft EA should also be modified to include the Endangered Species Act as an applicable environmental regulation pertaining to proposed DOE activities on the ORR.

The Service does not anticipate that the injection of dyes or electron donors/receptors into groundwater would adversely affect the gray bat or Indiana bat. Delineation of groundwater flowpaths in these karst areas may, in fact, aid in determining the potential migration of site-related contaminants to bat hibernacula on the ORR. As part of this DOE assessment, we recommend that all potential summer roosting habitat for the Indiana bat in the East Fork Poplar Creek and Bear Creek watersheds also be identified. We would appreciate periodic updates on the results and findings of activities associated with the NABIR program on the ORR.

Since the draft EA states that the construction and operation of the proposed FRC would occur outside of a 100-foot buffer zone along Bear Creek, the Service can concur with a not likely to adversely affect finding for the gray bat. Since construction, operation, and support activities for the FRC will occur in previously disturbed areas, the Service can concur with a not likely to adversely affect finding for the Indiana bat. In view of these, we believe that the requirements of Section 7 of the Endangered Species Act of 1973, as amended, are fulfilled. Obligations under Section 7 of the Act must be reconsidered if (1) new evidence reveals impacts of the proposed action that may affect listed species or critical habitat in a manner not previously considered, (2) the proposed action is subsequently modified to include activities which were not considered during this consultation, or (3) new species are listed or critical habitat designated that might be affected by the proposed action.

We appreciate the opportunity to comment on the proposed action. Should you have any questions, please contact Steve Alexander of my staff at 931/528-6481 (ext. 210) or via e-mail at *steven_alexander@fws.gov*.

Sincerely,

Lee A. Barclay, Ph.D.
Field Supervisor

xc: Jim Lee, DOI-OEPC, Atlanta
Bruce Bell, FWS-ES, Atlanta
Doug McCoy, TDEC, Oak Ridge
Bob Hatcher, TWRA, Nashville

OAK RIDGE

TENNESSEE

CITY OF OAK RIDGE
MUNICIPAL BUILDING
POST OFFICE BOX 1 37831-0001
TELEPHONE: (865) 425-3550
FAX: (865) 425-3420

February 11, 2000

Mr. Paul Bayer
Office of Biological and
Environmental Research
U.S. Department of Energy
SC-74, GTN
19901 Germantown Road
Germantown, MD 20874

Dear Mr. Bayer:

ENVIRONMENTAL ASSESSMENT FOR THE NATURAL AND ACCELERATED BIOREMEDIATION RESEARCH PROGRAM DOE/EA-1196

Thank you for the opportunity to review the draft environmental assessment for the selection and operation of field research centers under the Natural and Accelerated Bioremediation Research (NABIR) Program.

While staff has reviewed the draft EA and found no substantive concerns, I believe it is important to communicate my support for the preferred alternative at the Y-12 site, and for the program overall. Research and controlled field testing involving innovative methods such as bioremediation is extremely important to Oak Ridge, and this project may help the Department of Energy address challenging subsurface contamination such as groundwater.

Please keep the City informed, and I wish you success as you move forward with the program.

Sincerely,

Paul C. Boyer, Jr.
City Manager

STATE OF WASHINGTON
DEPARTMENT OF FISH AND WILDLIFE
1701 S 24th Avenue • Yakima, Washington 98902-5720 • (509) 575-2740 FAX (509) 575-2474

1315 W 4th Ave.
Kennewick, WA 99336

2 February, 2000

Rebecca Inman
Environmental Coordination Section
Washington Department of Ecology
P.O. Box 47600
Olympia, WA 98504

Dear Ms. Inman:

Subject: Comments on *Environmental Assessment for Selection and Operation of the Proposed Field Research Centers for the Natural and Accelerated Bioremediation Research (NABIR) Program*, Draft December 22, 1999, DOE/EA-1196.

The Washington Department of Fish and Wildlife appreciates the opportunity to comment on the aforementioned document. We are commenting because the PNNL/Hanford Site could potentially be identified and funded as a Field Research Center at some point in the future. We also want to make U.S. Department of Energy (USDOE) aware of species of concern and mitigation guidance in the event a FRC is sited at the Hanford Site.

The Section on Aquatic Resources in Chapter 3 mentions only 2 federally listed salmonids. A third listed species is the bull trout (*Salvelinus confluentus*) which can be found in the Hanford Reach. This species was identified by USFWS in their letter dated May 11, 1999 and should be included in the text where appropriate. Also, it would appear that USDOE has not coordinated with the National Marine Fisheries Service (NMFS) since no letter appears in Appendix D. However, USDOE does recognize the need to consult NMFS under Section 7 of the Endangered Species Act prior to implementation of any field research.

We have noted 2 federal environmental statutes missing under the Applicable Environmental Regulations, Permits and USDOE Orders. For the Hanford Site, the Migratory Bird Treaty Act and Endangered Species Act would be applicable. Please add.

If a FRC is located at the Hanford Site, we ask that USDOE follow guidance established in the *draft Hanford Site Biological Resource Management Plan* and *draft Hanford Site Biological Resources Mitigation Strategy Plan.*

Again, thank you for the opportunity to provide comments. If you have any questions regarding these comments, please contact me at 509/736-3095.

Sincerely,

Jay McConnaughey
Habitat Biologist, Hanford Site

cc:
Paul Dunigan, USDOE
Jane Hedges, Ecology
Ted Clausing, WDFW
Cynthia Pratt, WDFW

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

P.O. Box 47600 • Olympia, Washington 98504-7600
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

February 8, 2000

Mr. Paul Bayer
Office of Bio. & Envir. Research
US Dept of Energy
SC-74, GTN
19901 Germantown Rd
Germantown MD 20874

Dear Mr. Bayer

Thank you for the opportunity to comment on the environmental assessment for the selection and operation of the proposed field research centers for the NABIR Program (DOE/EA-1196). The Department of Ecology has been designated to coordinate Washington State agency review and response for documents issued under the National Environmental Policy Act. In that capacity we enclose a comment letter received from Washington Department of Fish and Wildlife (WDFW).

WDFW has concerns about additional information and coordination needed to address the Endangered Species Act and the Migratory Bird Treaty Act. They have also requested that the guidance contained in the draft Hanford Site Biological Resource Management Plan and the draft Hanford Site Biological Resources Mitigation Strategy Plan be followed should the Department of Energy chose to site a field research center at the Hanford Site.

If you have any questions, please contact Mr. Jay McConnaughey with WDFW at (509) 736-3095.

Sincerely,

Rebecca J. Inman

Rebecca J. Inman
Environmental Coordination Section

#000290
cc: Jay McConnaughey, Kennewick
Cynthia Pratt, WDFW

United States Department of the Interior

NATIONAL PARK SERVICE
Columbia Cascades Support Office
909 First Avenue
Seattle, Washington 98104-1060

IN REPLY REFER TO:

L7619(SSO-PPR)
Hanford Reach, WA-W&S

January 19, 2000

Paul Bayer
Department of Energy
SC-74, GTN
19901 Germantown Road
Germantown, Maryland 20874

Dear Mr. Bayer:

We have reviewed the provided documents on the proposed addition of a Field Research Center component to the existing Natural and Accelerated Bioremediation Research Program. We do not believe the addition would have any significant negative impacts on the proposed wild and scenic river designation, nor would any impacts be sufficient to trigger a review and determination under Section 7 of the Wild and Scenic Rivers Act.

Thank you for consulting with the National Park Service. If you have any questions, please contact me at (206) 220-4120.

Sincerely,

Daniel Haas
National Rivers Program

cc:
Jeff Haas, Deputy Project Leader
Arid Lands National Wildlife Refuge Complex

Bayer, Paul

From: Long, Philip E [philip.long@pnl.gov]
Sent: Thursday, January 27, 2000 4:20 PM
To: 'Paul Bayer'
Cc: Weeks, Regan S
Subject: FW: EA for NABIR

Paul, FYI. Phil

From: Faulk, Dennis A
Sent: Thursday, January 27, 2000 10:51 AM
To: Hansen, James E; Long, Philip E
Cc: Soper, Wayne W; Tortoso, Arlene C
Subject: EA for NABIR

All,

Wanted to let you know EPA looked over the EA and would recommend a couple of changes:

1. on page 4-22 as well as other locations statements are made that water would be sent to ERDF. ERDF cannot accept liquids so I am assuming ERDF should be replaced with ETF.

2. Need to add statement that any work will not have any adverse impact on current remediation.

3. Global issue for all science projects is how waste will be handled. EPA is not opposed to including waste generated under science work into the IDW strategy if it appears to support overall remediation. This would mean waste control plans would need to describe the work/waste.

Dennis

Bayer, Paul

From: Hickey, Clarence
Sent: Friday, March 17, 2000 11:40 AM
To: Bayer, Paul
Cc: Dyson, Emily; 'Annabelle Rodriguez'; 'Paul Dunigan'; Hickey, Clarence
Subject: Discussion with Dennis Carlson, NMFS Re: NABIR EA

Paul,

I received a telephone call at about 11:00 am this morning from Dennis Carlson of the U.S. National Marine Fisheries Service (NMFS), Lacey, Washington. Mr. Carlson is the reviewing official for marine fisheries endangered species issues relative to the Hanford Site. Mr. Carlson stated that he had received the Draft EA (DOE/EA-1196) of December 22, 1996, for the NABIR Program's selection and operation of the proposed Field Research Centers. He also received your fax of information on March 16, 1999, requesting his feedback on marine fisheries and endangered species issues as analyzed in the EA.

Mr. Carlson and I discussed the information in the EA and its analysis of endangered fish species in the Columbia River with respect to the NABIR proposals. We specifically discussed EA section 4.2.4.2 Aquatic Resources (page 4-29) on the PNNL/Hanford Alternative Site, which Mr. Carlson had read. We discussed the EA's conclusion that the proposed action would not affect endangered fishes of the Columbia River. Mr. Carlson stated that he agrees with the EA conclusions and that he can concur with the EA. He found no glaring issues and concurs that the EA's conclusions seem reasonable. If there are no changes to the proposed action as described in the EA, then DOE's call (as the action agency) of no effect would stand.

Mr. Carlson understands that DOE's preferred location for the proposed action is the Oak Ridge, Tennessee, site. If the project were to occur at the PNNL/Hanford Site at a future time, and specifically if the proposed action were to change from that described in the EA, then DOE would re-initiate further consultation with the NMFS. We discussed this and Mr. Carlson agreed.

Mr. Carlson stated that this telephone call would suffice as the official response from the NMFS on the EA and the matter of the analysis of potential effects to fish species under its jurisdiction.

I tried to connect you with this phone call, but you were out of the office. I suggest that this email could be forwarded to GC-51 and to EH-42 in order to close the final loop on the consultations, for completion of the EA and for our recommendation to SC-1 that a Finding of No Significant Impact appears to be appropriate.

If there are questions, please call.

Clarence Hickey
NEPA Compliance Officer
Office of Science
(301) 903-2314