APPENDIX B

ECOLOGICAL AND CULTURAL RESOURCE REVIEWS FOR PROPOSED BORROW SITE LOCATIONS

102946

Environmental Restoration Contractor **ERC Team**

Interoffice Memorandum

Job No. 22192
Written Response Required: No
Due Date: N/A
Actionee: N/A
Closes CCN: N/A
OU: N/A
TSD: N/A
ERA: N/A
Subject Code: 6500

TO: M. A. Buckmaster, X9-11

DATE: September 25, 2002

COPIES: R. C. Havenor, X9-11
K. A. Gano, H0-23
A. L. Johnson, H0-23
T. F. Kisenwether X9-11
J. K. Linville, H9-01
T. E. Marceau, H0-23
J. J. Sharpe, H9-01
Document and Info Services, H0-09

FROM: D. D. Teel
Natural Resources & Environmental
Site Closure
H0-23/372-9633

SUBJECT: ECOLOGICAL RESOURCES REVIEW TO ACTIVATE AND EXPAND BORROW PITS AT 100-F, 100-H, & 100-N (02-ER-029)

This memo is in response to your September 23, 2002, request for an Ecological Resources Review to activate and expand 3 former borrow sites to provide backfill material for the Remedial Action projects at 100-F, 100-H, 100-N, & 100-K. The proposed site at 100-F is located within the 100-F Area perimeter road and has been used as a borrow site previously during the 1970s (attachment 1). The proposed site at 100-H would be located adjacent to the recently revegetated borrow site to include the container queue area (attachment 2). The proposed site at 100-N is located south of the Hanford Generating Plant and was previously used as a borrow site during construction of the Generating Plant in the 1960s. A mound of excavated material was left just north of the former borrow site that is being considered for removal, at the request of the Wanapum Tribe, to return the site to the original contour. This mound of material would also be used to supply backfill for both 100-N and 100-K Remedial Action projects (attachment 3).

Ecological Review

The proposed borrow areas were surveyed for ecological resources by Natural Resources staff on September 16, 2002. The site at 100-F was previously surveyed for ecological resources in April 2000, and the results documented in a letter report (00-ER-014) from D. D. Teel to D. L. Schilperoort, dated May 15, 2000 (CCN 242768). That review described the vegetation in the former borrow area as a very sparse stand of small-stature gray rabbitbrush (*Chrysothamnus nauseosus*) with scattered understory species. The estimated ground area covered with vegetation in the rocky soils was less than 5%. The expansion area to the west was described as lightly disturbed and the vegetation has recovered to a community dominated by cheatgrass (*Bromus tectorum*) and Sandberg's bluegrass (*Poa sandbergii*). No plant or animal species of concern or sensitive habitats were observed in the proposed area and "no adverse impacts to ecological resources are anticipated from using this area as a borrow site." The conditions at this site have not changed since the original review.

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The proposed site at 100-H Area is adjacent to a previously used borrow area and is currently being used as a container queue for 100-H Reactor Interim Safe Storage Project. No vegetation is present on this site and no plant or animal species of concern were identified. The surface of the site is covered with a layer of compacted gravel over the native soil. Prior to using the site for a borrow area, the gravel must be removed and the native soil stockpiled for use in restoring the pit.

The proposed 100-N borrow area is adjacent to and south of the Hanford Generating Plant. The vegetation in the previously used borrow area and the surrounding area is dominated by cheatgrass and Sandberg's bluegrass. In the previously mined area, there is a very sparse stand of small stature gray rabbitbrush. The mound of material north of the proposed borrow pit is dominated by a community of gray rabbitbrush with an understory of Sandberg's bluegrass and cheatgrass. No plant or animal species of concern were identified in the proposed borrow area or the mound area.

There is always a potential for ground nesting birds to occur at all of these sites between March and July. If nesting birds are encountered, contact Ken Gano (372-9316) to determine appropriate mitigation actions. Prior to any material being excavated for use as backfill, the top 12 inches of topsoil will be stockpiled for redistribution across the disturbed pit areas to facilitate successful revegetation. The borrow site at 100-N appears to contain a significant amount of fine-grained material. The operation of this pit should be planned such that this fine-grained material can be placed on the surface of the backfilled waste sites to enhance the success of the revegetation efforts.

If there are any changes in the scope of activities that could result in additional disturbance outside the description of this project or the timing of the project is such that grading/clearing activities could impact nesting birds between March and July, please contact Ken Gano or Jenifer Linville on 372-9570.

DDT:tle

Attachments - 3

Environmental Restoration Contractor **ERC Team**

Interoffice Memorandum

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Job No. 22192
Written Response Required No
Due Date: N/A
Actionee: N/A
Closes CCN: N/A
OU: N/A
TSD: N/A
ERA: N/A
Subject Code: 6500

TO: M. A. Buckmaster, X9-11

DATE: November 4, 2002

COPIES: R. C. Havenor, X9-11
K.A. Gano, H0-23
A.L. Johnson, H0-23
T. F. Kisenwether, X9-11
J. K. Linville, H9-01
T.E. Marceau, H0-23
E. Prendergast, K6-75
J.J. Sharpe H9-01
Document and Info Services H0-09

FROM: D. D. Teel, Manager
Natural Resources & Environmental
Site Closure
H0-23/372-9633

NO HISTORIC PROPERTIES

SUBJECT: **CULTURAL RESOURCE REVIEW TO ACTIVATE AND EXPAND BORROW PITS AT 100-F, 100-H, AND 100-N AREAS (HCRC # 2003-100-001)**

This memo is in response to your request of September 23, 2002, for a Cultural Resource Review to activate and expand three former borrow sites (Figure 1) to provide backfill material for the Remedial Action projects at the 100-F, 100-H, 100-K, and 100-N Areas. The request to use these sources will be evaluated through an Environmental Assessment (EA) under the National Environmental Policy Act (NEPA). This Cultural Resources Review (CRR) provides input for the EA. The Hanford Cultural Resources Management Plan classifies this project as a Class III Undertaking: New Construction in a Disturbed Low-Sensitivity Area.

LITERATURE REVIEW

A records and literature review was conducted for this project on October 2, 2002, by Thomas E. Marceau, Cultural Resources Supervisor. His findings are presented by project area.

100-F Area:
The proposed site at 100-F (Figure 2) is located within the 100-F Area perimeter road and was used previously as a borrow area during the 1970s. The borrow area will be expanded in phases to encompass an area bounded by the perimeter road on the north, existing access roads on the east and south, and the Lewis Canal on the west. Five archeological sites are recorded north, east, and southeast of the proposed project area. Site 45-BN-606 (the Lewis Canal Site) is situated more than 400 meters (¼ mile) north of the outer perimeter road near the junction of Lewis Canal and the Columbia River. This site was documented in the *Excavation Report for Archaeological Sites 45-BN-888 and 45-BN-606 on the Hanford Site, Richland, Washington* (Marceau et al. 2002a). A series of sites (i.e., 45-BN-435, 45-BN-433, 45-BN-432, and 45-BN-431) occur parallel to the Columbia River from more than 400 meters to more than 1,200 meters (¾ mile) east and southeast of the project area (Chatters et al. 1992). Sites 45-BN-433 and 45-BN-432 were test excavated in 1992 (Wright 1993). Testing indicated that these two sites were actually a single site artificially separated by an outfall line. Test excavations conducted in 2001 near UPR-100-F-2 likewise indicated that sites 45-BN-432 and

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45-BN-431 were likely sections of the same linear site (Marceau et al. 2002b). No direct or indirect effects will occur to these sites due to borrow pit expansion or operation. Portions of the proposed expansion area were surveyed for cultural resources as part of the Lewis Canal Remedial Action project in 1997 (HCRC # 97-100-013). No cultural resources were observed during that survey. Areas proposed for expansion not covered by the 1997 survey were surveyed on October 28, 2002, and the results are reported below.

100-H Area:
The proposed borrow site at 100-H (Figure 3) currently functions as the queue (i.e., container transfer area) for the 100-H Remedial Action project. This location forms the western boundary of the borrow area established as a source for gravel for backfill of remediated liquid waste sites in the 100-H Area. One archaeological/traditional cultural site exists east of the proposed project area (Chatters et al. 1992). Site 45-BN-176 is located more than 900 meters (½ mile) east of the expansion area. No direct or indirect effects will occur to this site due to expansion. The existing borrow pit (dug to permissible depth and now revegetated) and the proposed expansion area were surveyed for cultural resources in support of their current uses in 1999 (HCRC # 97-100-013a). No cultural resources were observed during that survey.

100-N Area:
The proposed borrow sites at 100-N (Figure 4) are located south of the Hanford Generating Plant. [Note: Because projections for borrow material needed were adjusted upwards subsequent to the initial project notification, the perimeter of the expansion area at 100-N has been revised in Figure 4 that accompanies this CRR]. Both areas, a mound of excavated material and an existing borrow pit, are associated with construction of the Hanford Generating Plant in the 1960s. Three archeological sites and a traditional cultural site exist northwest, north, and northeast of the proposed project area. The hills comprising *Mooli Mooli*, a traditional cultural site with spiritual significance, form and arch to the north, east, and southeast of the 100-N Area. The eastern edge of the existing borrow pit lies within 400 meters of *Mooli Mooli*. However, two electrical transmission lines and a series of interconnecting railroad tracks are located between the proposed expansion area and *Mooli Mooli* isolating this section of the hills from the project area. These barriers can not be crossed. Sites 45-BN-149 and 45-BN-179/180 are located within 200 meters (⅛ mile) of the backfill mound. However, the mound rests on a high Pleistocene terrace well above the Holocene terrace containing the archaeological sites (Chatters et al. 1992). Consequently no direct or indirect effects will occur to these sites due to removal of the mound. Additionally, it may be argued that use of these areas will have a beneficial effect on *Mooli Mooli* since the mound area will be returned to original grade and the borrow area will be recontoured following use. Also, as a condition of use, both areas will be revegetated with native plants. These actions will restore the project area to its pre-impact condition by removing visual intrusions on the landscape.

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FIELD WORK

On October 25, 2002, each of the proposed borrow pits was inspected by Wanapum Elders Rex Buck, Jr, and Lester Umtuch accompanied by Annabelle Rodriguez (RL Cultural and Historical Resources Program Manager) and Mr. Marceau. The purpose of the inspection was to identify any Traditional Cultural Places (TCPs) or other places of Native American interest that may be affected by the reactivation/expansion of these pits. No TCPs or areas of interest were identified during this on-site inspection.

On October 28, 2002, James J. Sharpe (CHI Cultural Resources Specialist) and Mr. Marceau walked the areas proposed for expansion of the 100-F Area borrow pit not surveyed during the field inspection for Lewis Canal in 1997. Vegetation of gray rabbitbrush, thistles, and cheatgrass indicated the area had received previous ground disturbance. During the survey, a small scatter of Hanford-era debris (i.e., metal pipe, scrap iron, and broken glass) was observed adjacent to the shoulder of the east/west oriented gravel road. Near the eastern edge of Lewis Canal, three small white ceramic fragments and a bottle base fragment from the pre-Hanford era were observed in a back dirt pile. This back dirt is believed to have been bladed out of the Lewis Canal during its original construction.

Aerial photographs (AAR-10A-50) taken in 1941 indicate that no pre-Hanford farms were located in the project area. Hanford era photographs (Negative 3740) indicate that soils from Lewis Canal were deposited in this area about 40 feet east and west of the canal during construction. Given these conditions, the pre-Hanford artifacts observed are isolated materials out of context and are not considered eligible for inclusion in the National Register of Historic Places.

FINDINGS

- The TCP inspection resulted in negative findings for all project areas.
- No cultural resources exist within the proposed project areas at 100-H or 100-N.
- The archaeological survey at 100-F resulted in the discovery of a few non-diagnostic artifacts that individually or collectively do not qualify for eligibility for listing in the National Register.
- No additional cultural resource work will be required for this project.

The State Historic Preservation Office (SHPO) and the Tribes have 30 days from their receipt of this document to provide an opinion. Following receipt of their comment, if any, we will notify the Project of any additional conditions required in order for this project to proceed.

If any changes occur relative to the work scope or areas to be impacted, it is imperative that you contact the Cultural Resources Staff for additional review/action that might be required. Please use HCRC # 2003-100-001 for further correspondence concerning this project.

This interoffice memorandum has been reviewed and signed by Annabelle Rodriguez, Manager Cultural Resources Program, DOE/RL, as official documentation.

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M. A. Buckmaster
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REFERENCES

Chatters, J.C., H.A. Gard, and P.E. Minthorn, 1992, "Fiscal Year 1991 Report on Archaeological Surveys of the 100 Areas, Hanford Site, Washington," PNL-8143, UC-600, Pacific Northwest Laboratory, Richland, Washington.

HCRC # 97-100-013, April 1997, "Survey Report for the Lewis Canal (116-F-1)."

HCRC # 97-100-013a, February 1999, "Ecological and Cultural Resources Review for 100-H Area Group 4 Access Roads, Temporary Borrow Areas, and Air Monitoring Stations."

Marceau, T.E., J.J. Sharpe, K.R. Fecht, and D.L. Olson, 2002a, *Excavation Report for Archaeological Sites 45-BN-888 and 45-BN-606 on the Hanford Site, Richland, Washington*, BHI-01645, Bechtel Hanford, Inc., Richland, Washington.

Marceau, T.E., J.J. Sharpe, K.R. Fecht, and D.L. Olson, 2002b, *Report of Archaeological Excavations Conducted at UPR-100-F-2 on the Hanford Site, Richland, Washington*, BHI-01649, Bechtel Hanford, Inc., Richland, Washington.

Wright, M.K., 1993, "Fiscal Year 1992 Report on Archaeological Surveys of the 100 Areas, Hanford Site, Washington," PNL-8819, UC-900, Pacific Northwest Laboratory, Richland, Washington.

Attachment: (maps)

Author Signature James J. Sharpe
James J. Sharpe
Cultural Resources Specialist

Approval Signature Thomas E. Marceau
Thomas E. Marceau
Cultural Resources Supervisor

Review and Concurrence Signature Annabelle L. Rodriguez
Annabelle L. Rodriguez, Manager
Cultural Resources Program
DOE, Richland

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STATE OF WASHINGTON
OFFICE OF COMMUNITY DEVELOPMENT
Office of Archaeology and Historic Preservation
1063 S. Capitol Way, Suite 106 • PO Box 48343 • Olympia, Washington 98504-8343 • (360) 586-3065 Fax Number (360) 586-3067 • http:www.oahp.wa.gov

November 27, 2002

Mr. Joel Hebdon
Regulatory Compliance & Analysis Division
Richland Operations Office
PO Box 550
Richland, WA 99352

Log No: 112602-12-DOE
Re: Proposed Borrow Pits at 100-F, H and N Areas
HCRC # 2003-100-001

Dear Mr. Hebdon;

Thank you for providing a copy of the cultural resources survey assessment of the proposed Activation and Expansion of Borrow Pits at 100-F, 100-H and 100-N Areas of the Hanford site.

We concur with their professional recommendations and your finding of no historic properties effected. We would appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR800.4(a)(4).

These comments are based on the information available at the time of this review and on the behalf of the State Historic Preservation Officer in conformance with Section 106 of the National Historic Preservation Act, as amended, and its implementing regulations 36CFR800. Should additional information become available, our assessment may be revised.

In the event that archaeological or historic materials are discovered during project activities, work in the immediate vicinity should be discontinued, the area secured, and this office notified. Thank you for the opportunity to comment and a copy of these comments should be included in subsequent environmental documents.

Sincerely,

Robert G. Whitlam, Ph.D.
State Archaeologist
(360) 586-3080
email: robw@cted.wa.gov

RECEIVED
DEC 03 2002
DOE-RL/RLCC

WANAPUM

December 2, 2002

Annabelle Rodriguez
Department of Energy
Richland Operations Office
PO Box 550
Richland, WA 99352

SUBJECT: HCRC#2003-100-001

Dear Annabelle,

This letter is in regard to work that seeks to expand borrow pits at 100-F, 100-H, and 100-N. We appreciate the work DOE is doing to ensure protection of our important cultural resources in the area. We would like to address the cultural resources review and have the following comments.

It appears that the project will not impact cultural sites of any sort, we concur with these findings. However, there are areas just outside of the footprint of the project that are in need of recontouring and revegetation due to previous work in the area. Lester Umtuch and I recognized several such areas on our visit to the site with Tom Marceau in October.

Because activities at the site are scheduled for mitigation by recontouring and revegetation, we request that at the same time work crews restore portions of the old borrow areas, spoilage dumps and other scars that were caused prior to NHPA and other relevant laws that deal with cultural resources.

Please feel free to contact me at (509) 932-3571 extension 3113 if you have any questions. Alternatively, my address is:

Rex Buck Jr.
PO Box 878
Ephrata, WA 98823

Sincerely,

Rex Buck Jr.
Wanapum

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DOE-RL/RLCC

Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

03-RCA-0176

MAR 19 2003

Mr. Rex Buck, Jr.
Wanapum
P.O. Box 878
Ephrata, Washington 98823

Dear Mr. Buck:

RESPONSE TO COMMENTS ON CULTURAL RESOURCE REVIEW (CRR) FOR REACTIVATION AND USE OF THREE FORMER BORROW SITES IN THE 100-F, 100-H, AND 100-N AREAS (HCRC#2003-100-001)

The U.S. Department of Energy, Richland Operations Office (RL) has received your comments on the subject CRR and would like to thank you for your consideration and support of the proposed action for the reactivation and use of three former borrow sites. The proposed action is intended to prevent impacts to natural resources and will be performed in accordance with applicable management plans. Mitigation, recontouring, and revegetation of the Remedial Action sites as well as the Proposed Action locations will be performed in compliance with the "Mitigation Action Plan for the 100 and 600 Areas of the Hanford Site (DOE/RL-2002-19, Rev. 0) and the Hanford Site Biological Resources Management Plan" (DOE/RL-96-32, Rev. 0). The spoilage dumps at the 100-N site referred to in your comments will be addressed under the interim remedial action Record of Decision for the 100-NR-1 and 100-NR-2 Operable Units. A copy of your comments and this response will be placed in the Waste Site Information Database file for this site to track this commitment.

If you have any questions, please contact Annabelle Rodriguez, of my staff, on (509) 372-0277.

Sincerely,

Joel Hebdon, Director
Regulatory Compliance and Analysis Division

RCA:ALR

cc: Admin. Record (H6-08)