




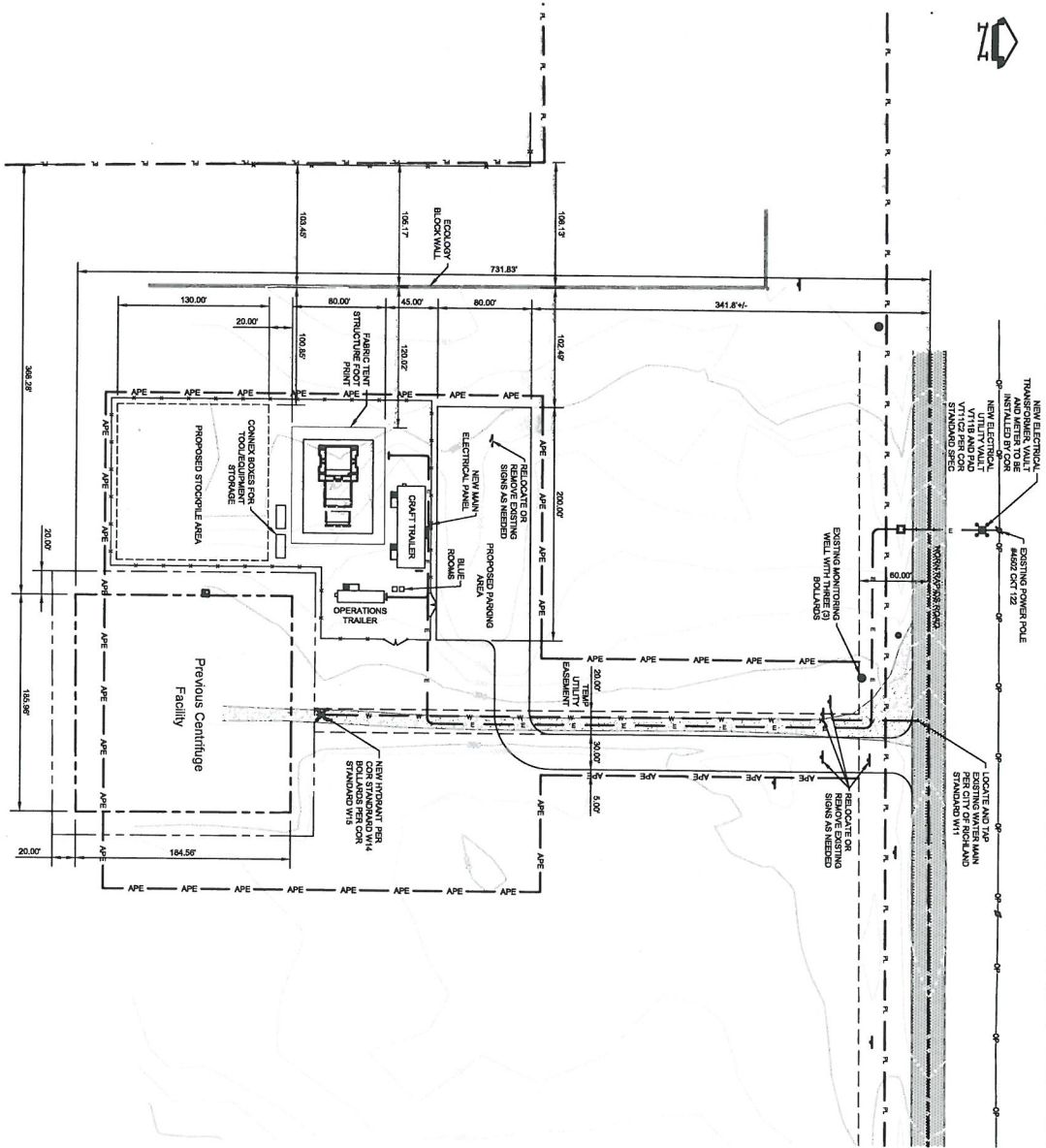
RL-721 REV 7	<b>NEPA REVIEW SCREENING FORM</b>	<b>Document ID Number:</b>  DOE/CX-00141				
<b>I. Project Title:</b> 300-296 Waste Site Retrieval Pilot Project, Categorical Exclusion for Small-Scale Research and Development, Laboratory Operations, and Pilot Projects Under 10 CFR 1021, Subpart D, Appendix B, B3.6.						
<b>II. Project Description and Location (including Time Period over which proposed action will occur and Project Dimensions - e.g., acres displaced/disturbed, excavation length/depth, area/location/number of buildings, etc.):</b> <p>The proposed action entails construction and operation of a small scale pilot project designed as "proof of concept" for the remote retrieval of high activity radioactive soils beneath the 324 Building in the 300 Area of the Hanford Site. The pilot project will be located off of the Hanford Site on AREVA Federal Services property immediately south of Horn Rapids Road, Richland Washington (reference Figure 1, Site Plan). The project will consist of constructing a mock-up of a portion of the 324 Building Radiochemical Engineering Cells (REC) contained within a weather enclosure with nominal dimensions of 60 ft. x 80 ft. Construction will require an excavation to approximately 25 ft below existing grade to install the lower portion of the mock-up REC. Electrical power will be provided to the facility, other utilities such as water and sewer are not planned. Support features may include a gravel parking lot to be established adjacent to the building and temporary mobile trailers utilized for an operations control center and mechanical equipment support.</p> <p>The facility footprint will be on the AREVA site where a previous facility was located and is in a location within, and contiguous to, a previously disturbed and developed area. AREVA operates a large commercial nuclear fuel fabrication plant immediately adjacent to the west. Existing roads and active utilities are readily accessible to the project site, which is to be located on land currently zoned medium-industrial and heavy-manufacturing. Figure 2 depicts a proposed layout of the site with conceptual external features identified. A photograph of the site, looking West, is provided in Figure 3.</p> <p>The proposed action is consistent with, and addressed by, 10 CFR 1021, Subpart D, Appendix B, Categorical Exclusion (CX) B3.6. This CX covers Small-Scale Research and Development, Laboratory Operations, and Pilot Projects frequently conducted to verify a concept before a demonstration action, provided that construction and modification would be within or contiguous to a previously disturbed or developed area. Not included in this category are demonstrations actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial deployment. The proposed project does not constitute a demonstration action as it is a one-time pilot project intended to verify a retrieval design.</p>						
<b>III. Reviews (if applicable):</b> Biological Review Report #: 14-ER-007 (176467) Cultural Review Report #: HCRC #2014-600-009 (176476) Additional Attachments: Location Site plan, conceptual figure of the mock-up facility, photographs of the proposed location, and cultural/biological reviews are attached.						
<b>IV. Existing NEPA Documentation</b> Is the proposed action evaluated in a previous EA, EIS, or under CERCLA?		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">YES</td> <td style="width: 50%; text-align: center;">NO</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table>	YES	NO	<input type="checkbox"/>	<input checked="" type="checkbox"/>
YES	NO					
<input type="checkbox"/>	<input checked="" type="checkbox"/>					
If "NO," proceed to Section V. If "YES," List EA, EIS, or CERCLA Document(s) Title and Number:  <hr/> <hr/>						
And then complete Section VI. Provide electronic copy of Initiator/ECO signed NRSF to DOE NCO for information only. DOE NCO signature is not required.						

<b>V. Categorical Exclusion</b>	YES	NO
Does the proposed action fall within a class of actions that is listed in Appendixes A or B to Subpart D of 10 CFR Part 1021?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Are there extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the proposal connected to other actions with potentially significant impacts or result in cumulatively significant impacts (not precluded by 40 CFR 1506.1 or 10 CFR 1021.211)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
List CX to be applied and complete Categorical Exclusion Integral Elements (where an action might fit within multiple CXs, use the CX that best fits the proposed action):		
10 CFR 1021, Subpart D, Appendix B, B3.6.		

<b>Categorical Exclusion Integral Elements</b>	YES	NO
Does the proposed action threaten a violation of applicable statutory, regulatory, or permit requirements for environmental, safety, or health, including DOE and/or Executive Orders?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the proposed action require siting, construction, or major expansion of waste storage, disposal, recovery, or treatment facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the proposed action disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the proposed action adversely affect environmentally sensitive resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the proposed action involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species such that the action is NOT contained or confined in a manner designed, operated, and conducted in accordance to applicable requirements to prevent unauthorized release into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If "NO" to all Categorical Exclusion Integral Elements questions above, complete Section VI, and provide to DOE NCO for final Approval/ Determination and signature in Section VII.		
If "YES" to any of the Categorical Exclusion Integral Elements questions above, contact DOE NCO for additional NEPA Review.		

VI. Responsible Contractor Signatures			
	Name (Printed)	Signature	Date
Initiator	Chris Strand, WCH EPL		7/9/14
Cognizant Environmental Compliance Officer	Chris Strand, WCH EPL		7/9/14

<b>VII. Approval/Determination</b>	
DOE NEPA Compliance Officer: <u>Diori L. Kreske, NEPA Compliance Officer (NCO)</u>	
Based on my review of information conveyed to me and in my possession (or attached) concerning the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1B), I have determined that the proposed action fits within the specified class of action:	
NCO Determination - <input checked="" type="checkbox"/> CX <input type="checkbox"/> EA <input type="checkbox"/> EIS	
Signature: <u></u>	Date: <u>7/9/14</u>



**SITE LAYOUT PLAN**  
SCALE: 1" = 50'-0"

- NOTES:
- COORDINATE WITH THE CITY OF RICHLAND ENERGY SERVICES FOR FINAL DESIGN OF UTILITY CONNECTION.
  - DIRECTIONAL BORE HORN RAPIDS ROAD FOR ELECTRICAL UTILITIES IS PREFERRED.

**FOR INFORMATION ONLY**

**UNCONTROLLED COPY**

**LEGEND**

- (dashed line) AREA OF POTENTIAL EFFECT
- (solid line) TENCOR



**PRELIMINARY PLANS**  
**NOT FOR CONSTRUCTION**

**C002**  
SHEET

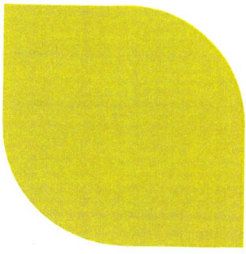
**300-296 SOIL REMEDIATION MOCK-UP FACILITY**

CIVIL  
SITE LAYOUT AND  
SITE UTILITY PLAN

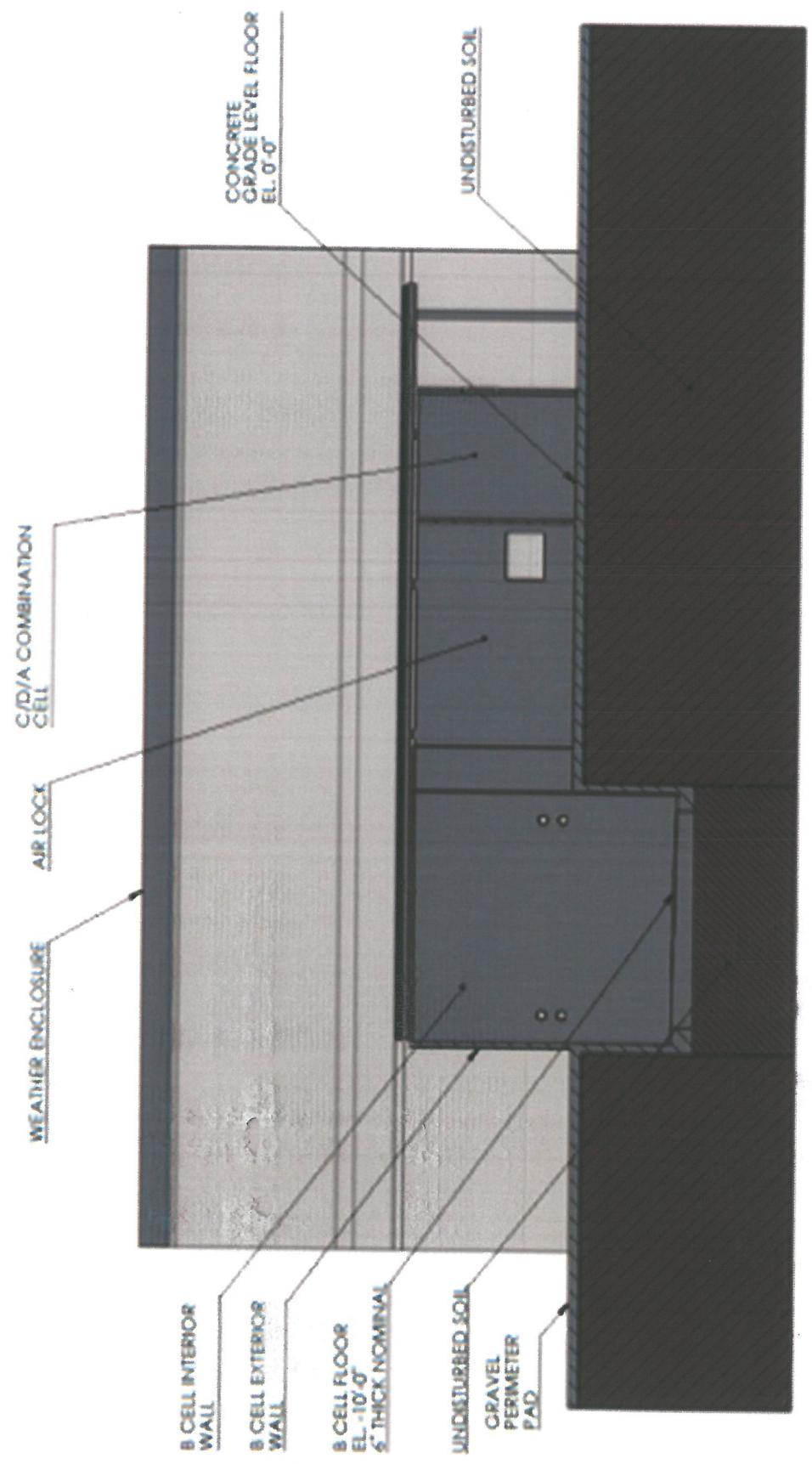
REVISION				
NO.	DESCRIPTION	BY	DATE	PM
B	INCORPORATE CLIENT COMMENTS ISSUED FOR REVIEW		8/25/14	
A				

**KURION**  
Isolating Waste from the Environment  
1355 Columbia Park Trail  
Richland, Washington 99352  
p. 509.737.1377

DWG NO. - C002-TREM-DH-C002 8/1 C002 REV A



# Mockup





324 Mock-up Site Photograph (looking West)

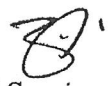
**WCH** Washington  
Closure  
Hanford

## ***Interoffice Memorandum***

TO: C. P. Strand, L4-45

DATE: July 9, 2014

COPIES: J. E. Bernhard, H4-21  
C. S. Dage, H4-21  
W. K. Hudson, H4-21  
D. L. Schilperoort, L4-45  
S. J. Sexton, H4-21  
D. C. Shaw, H4-21  
C. P. Strand, L4-45  
D. G. Sylvester, H4-21  
J. E. Thomson, H4-21  
Records and Document Control H4-11

FROM: J. E. Thomson  7/9/14  
Environmental Services  
H4-21/509-372-9029

SUBJECT: **ECOLOGICAL AND CULTURAL RESOURCES REVIEW FOR THE CONSTRUCTION AND OPERATION OF THE AREVA 324 BUILDING REC CELL MOCKUP. (14-ER-007 and HCRC #2014-600-009).**

This letter is in response to your request for an Ecological and Cultural Resources Review for the construction and operation of the AREVA 324 Building REC cell mockup. Work scope includes:

- Construction of a 60 x 80 ft. steel building to enclose REC cell mock-up
- Installation of gravel parking lot and pads for support trailers
- Installation and routing of electrical

Restoration activities as well as access maintenance are also included. See attached map for project locations and boundaries. In the event that the ecological recommendations are more restrictive than the cultural recommendations, or vice versa, the project shall defer to the more restrictive recommendation. **This review is valid for one year from the publication date above.**

### **Ecological Review (14-ER-007)**

WCH Natural Resources staff conducted a survey of these locations to evaluate the project area and record site specific biological resources. No adverse impacts to ecological resources are anticipated during the remediation of these sites if the following recommendations provided are followed.

The predominant vegetation for this site consists of a gray rabbitbrush (*Ericameria nauseosa*) and cheatgrass (*Bromus tectorum*) community. Sparse occurrences of big sagebrush (*Artemisia tridentata*), green rabbitbrush (*Ericameria teretifolia*) and antelope bitterbrush (*Purshia tridentata*) were noted. Other vegetation observed at this site includes, Bluebunch wheatgrass (*Pseudoroegneria spicata*),

C. P. Strand  
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Sandberg's bluegrass (*Poa sandbergii*) and Russian thistle (*Salsola kali*).

WCH Natural Resources staff identified an active snake hibernaculum within the project boundaries (see map). The hibernaculum exists within the previous centrifuge facility footprint and must not be impacted. Should the project have a need to use this area, WCH Natural Resources staff (James Bernhard 509-521-7920) must be notified so that a mitigation plan can be developed per the Hanford Site Biological Resources Management Plan (BRMaP, DOE/RL 96-32 Revision 1). Should multiple snakes be encountered while excavating, work must stop and WCH Natural Resources Staff must be notified. **Project boundaries, including the identified snake hibernaculum must be staked prior to commencement of project activities.**

**All support vehicles must park on existing roads and graveled areas to minimize impacts to the surrounding areas. All fine grain soil must be salvaged and stockpiled separately to be used to re-dress the site prior to revegetation. All imported gravel shall be removed upon project completion, in addition to all compacted roads and associated surfaces ripped to a depth of no less than 0.3 m (1 ft) to facilitate successful restoration efforts.**

Migratory birds and their active nests are protected from disturbance by the Migratory Bird Treaty Act of 1918. Nesting migratory birds may be encountered if project activities are scheduled to begin during nesting season (mid-March through July). Personnel will need to be made aware of this potential, and instructed to watch for nesting behavior (e.g., birds refusing to leave a project area, feigning injury or carrying sticks).

**A survey of these locations will be necessary for any activity conducted during the nesting season (March through July). Additional surveys will be required if project activities remain inactive for one week or longer during the nesting season. Please contact James Bernhard at least one week prior to schedule a survey. If any active nests or nesting behavior is observed, suspend work immediately and contact James Bernhard for mitigation actions.**

WCH Natural Resources staff urges projects to perform daily inspections of equipment that are in use and bi-weekly (start and end of work week) inspections for stationary equipment during the nesting season. Disassembling nests before they become active is the best way to prevent project delays associated with active nests. Project personnel should be wary of any collection of materials (e.g., sticks, grass, plastic, twine, paper, etc.), as these may become active nests within a couple days. Project personnel should contact WCH Natural Resources staff to conduct a preliminary survey at least 1 month before activities such as demobilization, to eliminate or isolate possible nesting locations that could delay project activities.

**Project personnel are not authorized to handle or disturb an active nest once it has been established. If it is suspected that a nest is no longer active, please contact WCH Natural Resources staff to schedule an exit survey to clear equipment or project activities for continued use or operation. Project personnel are not authorized to deem a nest inactive.**

C. P. Strand  
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If workers encounter wildlife on the job-site, it is important to contact the WCH Natural Resources staff (James Bernhard) for appropriate resolution of any potential issues related to ecological resources. The WCH Natural Resources staff will evaluate whether a situation involving wildlife or plants could pose a potential concern for regulating agencies and/or DOE.

If there are any changes in the scope of these activities that could result in disturbances outside the description of the project, please submit a new WCH-EE-106 form to the email address [^WCH Ecological and Cultural Review Requests](#) and reference 14-ER-007 to determine if a follow-up Ecological Resources Review is required.

### Cultural Resource Review (HCRC#2014-600-009)

Cultural Resource Review HCRC#2014-600-009 described and evaluated potential impacts to cultural resources as a result of construction of a “mockup facility” to be used for testing and training in support of demolition of the 324 Building. Project Activities and Elements described in the CRR include:

- Construction of re-created partial 324 Building REC “hot cells”.
- Excavation using heavy equipment to place clean fill material that simulates the existing geological material below the 324 Building in the 300 Area of the Hanford Site.
- Construction of the REC cell re-creation on top of the placed fill material.
- Construction of a weather enclosure with nominal dimensions of 33 m (108 ft) wide by 26 m (85 ft) long by 8 m (26 ft) below grade, to house the re-created A, B, C, and D cells.
- Installation of electrical power to be run along the north-south access road to the mock facility and tied into the existing line along Horn Rapids Road. No other utility needs (i.e., water and sewer) are required for this project.
- Construction of a control room, equipment maintenance, and support area inside the APE.
- Deactivation and restoration of the mock up facility location. Activities may include site recontouring, and revegetation as appropriate.

The cultural resource review process associated with this scope of work did not identify any archaeological sites or TCP's within the project area. Based on the project scope of work, previous ground disturbance, and the location of project activities within these disturbed areas, a finding of “No Historic Properties Affected” was sent to the RL Cultural and Historic Resources Program Staff. On July 7, 2014, the DOE-RL Cultural and Historic Resources Program Staff responded and determined, per 36CFR800.3(a)(1), this project, as described in HCRC#2014-600-009, will result in “No Historic Properties Affected”. The GIS analysis and archaeological survey conducted as a part of this review identified several areas of extensive ground disturbance throughout the APE. Cultural resource monitoring is not required for this project.

If all requirements are adhered to, the project, as currently designed, will result in a finding of “no historic properties affected.” However, if there are any changes to the scope as defined in the project description, please contact Stacie Sexton or Chantry Dage and submit a new WCH-



C. P. Strand  
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EE-106 request form to ^WCH Ecological and Cultural Review Requests with reference #2014-600-009 to initiate a new cultural resources review.

Although no cultural resources are anticipated within the project area, all workers must be directed to watch for cultural materials (e.g., bones, stone tools, mussel shell) during all work activities. If any cultural materials are encountered, work in the vicinity of the discovery must stop until a Cultural Resources Specialist has been notified, the significance of the find assessed, appropriate Tribes notified, and if necessary, arrangements made for mitigation of the find. In the event of any discoveries, please contact Stacie Sexton (509-713-6806).

### **Guidelines for the Unanticipated Discovery of Cultural Resources during Remediation Activities**

The following guidelines are the actions to be performed in the event cultural resources are encountered during project activities. The guidelines contain information on recognizing cultural resources, and on on and off-site responsibilities in the event of a cultural resource discovery.

#### **Recognizing Cultural Resources**

A cultural resource is an item of historical, traditional, or cultural importance. The item could be prehistoric or historic. Examples include:

- A multi-species accumulation of shell (shell-midden) with associated bone, stone, burned rocks or charcoal.
- Bones that appear to be human or animal bones associated with a shell-midden (i.e. with associated artifacts or cooking features).
- An area of charcoal or very dark stained soil with associated artifacts.
- Artifacts made of chipped or ground stone (i.e. an arrowhead) or an accumulation (more than one) of cryptocrystalline stone flakes (lithic debitage).
- Clusters of tin cans or bottles, or agricultural equipment that appears to be older than 50 years.

#### **ON-SITE RESPONSIBILITIES**

**STEP 1: STOP WORK IMMEDIATELY.** If any employee, contractor or subcontractor believes that he or she has uncovered any cultural resource during remediation related activities, all work adjacent to the discovery must stop. The discovery location should not be left unsecured at any time.

**STEP 2: NOTIFY MONITOR.** If there is an archaeological monitor for the project, notify that person. If there is a monitoring plan in place, the monitor will follow its provisions. If an archaeological monitor is not available contact the WCH Environmental Services Manager.

**STEP 3: NOTIFY PROJECT MANAGEMENT IMMEDIATELY.** Contact the WCH Environmental Services Manager:

Jill Thomson  
Office: 509-372-9029

C. P. Strand  
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Cell: 509-845-9455

**STEP 4: WCH PROJECT MANAGEMENT WILL CONTACT THE DOE/RL CULTURAL RESOURCE MANAGER.**

The WCH Environmental Services Manager or Cultural Resource Specialist will contact the DOE Cultural Resources Program Manager to inform them of the discovery:

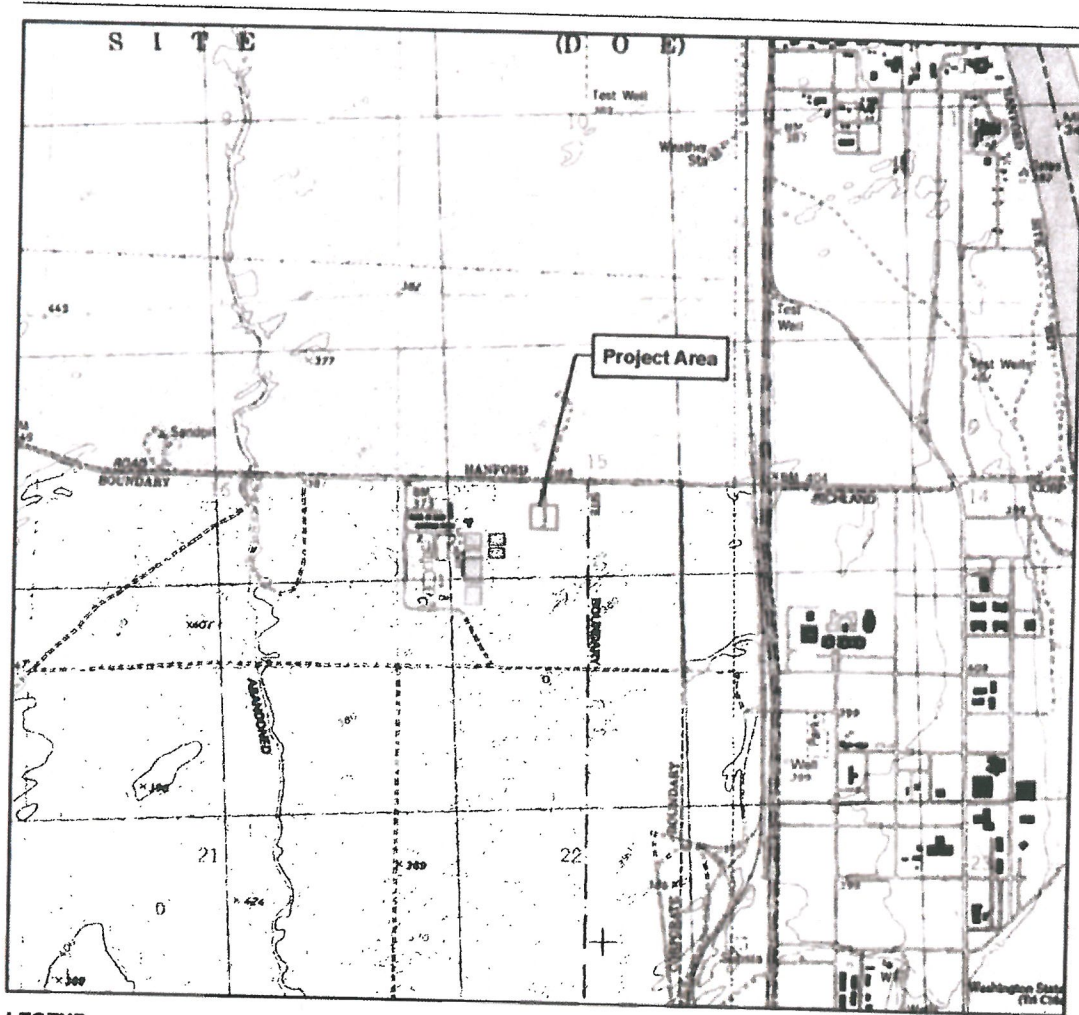
Mona Wright  
Office: 509-376-4069  
Cell: 509-392-2923

If you can't reach the WCH Environmental Services Manager or the DOE Cultural Resources Program Manager contact your project's assigned Cultural Resources Specialist: Stacie Sexton (509-713-6806) or Chantry Dage (509-554-0073).

Cultural Resources Review HCRC#2014-600-009 was prepared by Doug McFarland, Stacie Sexton, and Sydelle Harrison. Doug McFarland and Stacie Sexton meet the Secretary of the Interior's Standards for Professional Archaeologists.

JEB: SJS

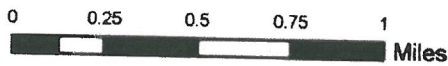
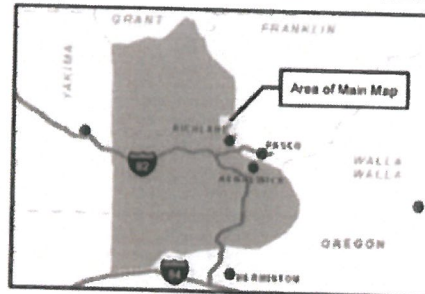
Attachment(s): Map(s)



**LEGEND**

 Area of Potential Effect (APE)

Richland, WA 7.5' USGS Quad  
Township 10 N Range 28 E  
Section 15



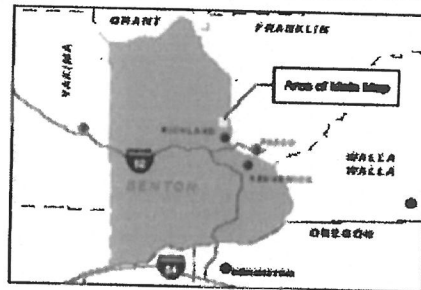
**Project Location**  
300 Area  
Hanford Site, Benton County, Washington



**LEGEND**

-  Area of Potential Effect (APE)
-  Snake Hibernaculum

NOTES: Aerial Imagery served by ESRI.



**Detail of Area of Potential Effect (APE)**  
HCR02014-600-009 | 300 Area  
Hanford Site, Benton County, Washington