

**MEMORANDUM OF AGREEMENT
BETWEEN THE U.S. DEPARTMENT OF ENERGY, RICHLAND OPERATIONS OFFICE,
THE WASHINGTON DEPARTMENT OF ARCHAEOLOGY AND HISTORIC
PRESERVATION, AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING THE DRILLING OF SIX GROUNDWATER MONITORING WELLS AT THE
100-N AREA OF THE HANFORD SITE, BENTON COUNTY, WASHINGTON
(HCRC#2014-100-013)**

The purpose of this memorandum of agreement (MOA) is to establish mitigation, stipulations and actions. Such actions are associated with findings of adverse effects to historic properties as determined through the *National Historic Preservation Act* (NHPA) Section 106 process. Mitigation, stipulations and actions will be determined through consultation with the Confederated Tribes and Bands of the Yakama Nation, the Confederated Tribes of the Umatilla Indian Reservation, the Nez Perce Tribe, and the Wanapum (hereafter described as Tribes) the Department of Archaeology and Historic Preservation (DAHP) and the Advisory Council on Historic Preservation (ACHP) for adverse effects to National Register eligible archaeological site 45BN1424, in association with undertakings defined in HCRC#2014-100-013 in the 100-N Areas of the Hanford Site, Benton County, Washington.

WHEREAS the U.S. Department of Energy, Richland Operations Office (RL) plans to install six groundwater monitoring wells in the 100-N Area which consists of the preparation, installation, operation, and maintenance of six groundwater monitoring wells in the 100N Area as defined in HCRC#2014-100-013. The new wells are either replacing wells removed during the remediation at 100-N or are needed to address data gaps where there are no wells (undertaking) pursuant to the *Comprehensive Environmental Response, Compensation and Liability Act of 1980* (42 USC 103) (CERCLA); and

WHEREAS RL requires that the actions be performed in accordance with laws, regulations and CERCLA identified Applicable or Relevant and Appropriate Requirements (ARARs), including those pertaining to the protection of historic properties and worker safety and health; and

WHEREAS those laws, regulations and ARARs require the actions to be performed in a manner that minimizes and mitigates impacts to both historic properties and the on-site workers as feasible; and

WHEREAS RL will provide that the undertaking is in accordance with requirements and processes in the National Historic Preservation Act, Archaeological Resources Protection Act, American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, Executive Order 13007, and its government to government relationship with the Tribes; and

WHEREAS RL will provide that the undertaking is consistent with the requirements under the CERCLA Record of Decision and Action Memorandum to complete the undertaking as defined in HCRC#2014-100-013. Any alteration to the project, as defined for this undertaking will require a new NHPA Section 106 review; and

WHEREAS nothing in this MOA expands or diminishes rights reserved in the Treaties and Agreements with the Tribes; and

WHEREAS RL has defined the undertaking's Area of Potential Effects (APE) as the area required to install the six new well pads and access roads to support drilling six groundwater monitoring wells. Each gravel well pad will measure approximately 45 meters (150 feet) by 45 meters (150 feet) and will be constructed to support drilling, installation, operation, and maintenance. The APE encompasses land totaling approximately 8 acres in size, including a 15 meter (50 foot) buffer around each well pad as defined in HCRC#2014-100-013; and

WHEREAS RL will not include well decommissioning activities in this MOA; and

WHEREAS RL has established the undertaking APE in accordance with Section 106 of the NHPA (54 U.S.C. § 306108) under implementing regulations at 36 *Code of Federal Regulations* 800.4 (a), "Protection of Historic Properties," in the 100-N Area as defined in HCRC#2014-100-013; and

WHEREAS DAHP has concurred in the delineation of the APE and concurs that the undertaking overlaps with the eligible site 45BN1424 (Mooli Mooli Traditional Cultural Property); and

WHEREAS RL has determined that the undertaking will have an adverse effect on 45BN1424 (Mooli Mooli Traditional Cultural Property), which is eligible for listing in the National Register of Historic Places, and has consulted with the DAHP pursuant to 36 CFR Part 800, the regulations implementing Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108); and

WHEREAS RL has consulted with the Tribes, for which the Mooli Mooli TCP has religious and cultural significance; and

WHEREAS RL has consulted with the DAHP and Tribes pursuant to 36 CFR 800, the regulations implementing NHPA Section 106 (54 U.S.C. § 306108) to resolve the adverse effects of the undertaking on 45BN1424; and

WHEREAS in accordance with 36 CFR § 800.6(a)(1), RL has notified the ACHP of its adverse effect determination with specified documentation, and the ACHP has chosen to participate in the consultation pursuant to 36 CFR § 800.6(a)(1)(iii); and

WHEREAS RL will ensure that any mitigation or stipulation contained in this MOA that extends beyond the project completion date and is not completed by the project will be funded and implemented by DOE-RL to meet mitigation actions. The funding for implementation will not be taken from DOE's Cultural Resource Program budget; and

NOW, THEREFORE, RL the DAHP, and the ACHP agree that RL shall ensure that the undertaking is carried out in accordance with this MOA. The executed and implemented MOA evidences the agency official's compliance with Section 106 of the NHPA and shall govern the undertaking and all of its parts until this MOA expires or is terminated.

STIPULATIONS

RL, the DAHP/SHPO, and the ACHP agree that RL shall ensure that the following measures are carried out:

1. RL will establish administrative and engineered controls for project activities located within 45BN1424, including the following:
 - a. RL will provide the consulting parties an initial seven-day calendar advance notice in accordance with the Tribal Notification Matrix prior to commencement of project activities determined to require monitoring and ensure that Tribal representatives will have the opportunity to monitor and participate in any activity or phase of the project.
 - b. RL will require cultural resources staff to provide cultural sensitivity training for all personnel involved with the undertaking as outlined in this MOA and prior to any work under this agreement.
 - i. RL will present the training to consulting parties for review and comment 30 days prior to commencement of project activities.
 - ii. RL will ensure that full-time cultural resources monitoring of construction of well pads and roads is carried out by or under an archaeologist who meets the Secretary of

Interior's standards for professional archaeologists
(http://www.nps.gov/history/local-law/arch_stnds_9.htm).

- iii. RL will provide a professionally authored monitoring report documenting monitored activities within 30 days of completion of monitoring activity.
 - c. RL will establish an engineered system such as "T" posts and rope, cones, pin flags, stakes, railroad ties or other suitable application to define the project work area boundaries. Project personnel will be directed to remain within the engineered system for the duration of construction activities.
 - d. RL will establish an engineered system such as "T" posts and rope, cones, pin flags, stakes, railroad ties or other suitable application to define the well pads once they are constructed and will remain in place for the lifetime of the well pad.
 - e. RL will install signs along access roads identifying the area as culturally and biologically sensitive, and prohibiting off-road driving.
 - f. RL will ensure that all participants (project personnel, Tribal representatives, and cultural resources staff) are properly briefed on worker health and safety, and follow the provisions and guidelines of the project specific Health and Safety Plan before entering the project area.
 - g. RL will ensure that the well pads constructed to support drilling are reduced from their original design dimensions to a size of 23 meters (75 feet) by 23 meters (75 feet) to minimize the project footprint.
 - h. RL will ensure that the project will maintain good housekeeping processes to eliminate trash and minimize the amount of equipment stored within the project area.
 - i. RL will repair plants in revegetated areas that will be damaged during project activities, following the Hanford Biological Resources Management Plan (BRMP).
2. RL will ensure that if at any time archaeological resources are damaged, the State Historic Preservation Officer and the Tribes will be notified immediately. RL shall undertake a professional archaeological damage assessment using the federal guidelines. The professional archaeologist tasked with undertaking the damage assessment shall not include the archaeologist involved in the original survey or site monitoring in order to assure an independent investigation. RL shall provide the damages assessment scope of the investigations draft reports to DAHP and Tribes for a 30-day review. Following the finalization of any damage assessment, and if any provisions of this stipulation are not followed, RL shall consult with the DAHP and Tribes regarding the restoration and mitigation.
 3. RL will ensure the following actions are taken in the event of a discovery:
 - a. RL will follow 36 CFR 800.13(b).
 - b. Should the groundwater contractor encounter previously unknown cultural resources; find that an action or activity is having an adverse effect that was not anticipated; or find artifacts or features; or other archaeological or burial remains are found that may, in the opinion of the Archaeologist, be the remains of a historic property, grave, or cemetery, the groundwater contractor must immediately stop all work activity within a 30-meter (98-foot) buffer zone around the previously unknown or newly discovered cultural resources. The Archaeologist will follow the construction-related discoveries process in the Hanford Cultural Resources Management Plan (HCRMP), Section 5.4.2.1 (RL-98-10) (attached) and in consultation with consulting parties.

- c. In the event that human remains are encountered during groundwater activities, all work will stop within 30 meters (98 feet) of the discovery, the Archaeologist will follow the protocol as outlined in the HCRMP, Section 5.4.2.1. Work will stop in the area of the discovery and the discovery will be protected and treated with respect by all present.
4. RL will ensure that the following actions are taken to mitigate adverse effects on 45BN1424:
 - a. RL will ensure that a person or persons meeting the Secretary of Interior Professional Qualifications for Archaeology will monitor the project area at the same frequency as routine groundwater sampling activities for the duration of the project.
 - i. RL will provide the consulting parties a seven-day calendar advance notice in accordance with the Tribal Notification Matrix prior to routine monitoring.
 - ii. In the event that vehicle traffic is observed off of established roadways or well pads, photographs and documentation will be provided to RL and project managers. RL will provide this information to the Tribes and DAHP for possible follow up actions.
 - b. RL will provide to the Tribes seed volume necessary to replant traditional/medicinal plants and Tribes may conduct Tribal plant studies in an area comparable to the project APE (up to approximately 8 acres). The seeds will be selected according to the Hanford Biological Resources Management Plan (BRMP) and in consultation with the Tribes.
 - c. RL will conduct a geospatial analysis using GIS technology to compare historic and modern topography of 45BN1424. The portion of the Mooli Mooli geospatial comparison analysis not contained in the Combined MOA (HCRC#2011-100-104 and HCRC#2012-100-017) is added to this 6 Wells MOA (HCRC#2014-100-013).
 - i. RL will ensure that a presentation is provided to Tribes based on the results of the GIS study in this MOA and on the results of the GIS study completed in response to MOA Stipulation II.2 for HCRC#2011-100-104 and HCRC#2012-100-017 if available.
 5. RL will update the archaeological site form 45BN1424 to include unrecorded features north of the HCRC#2014-100-013 project area previously identified during FY12 monitoring activities.

DURATION

This MOA will remain in effect as long as the wells remain and project activities continue to affect historic properties, as defined in Stipulations 1, 2, 3, 4 and/or 5. The MOA will be reviewed every 5 years by all consulting parties and revised if needed.

This MOA will expire if the project is not initiated within five (5) years from the date of its execution. Prior to such time, RL may consult with the other signatories to reconsider the terms of the MOA and amend it in accordance with Effective Date and Termination section below.

ADMINISTRATIVE PROVISIONS

Submission of this executed MOA to the ACHP provides evidence that RL has afforded the ACHP a reasonable opportunity to comment on the undertaking and its effects on historic properties, and that RL has adequately taken into account the effects of the undertaking on historic properties prior to approving the undertaking in order to meet the requirements of NHPA Section 106.

Dispute Resolution

Should any signatory or concurring party to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, RL shall consult with such party to resolve the objection. If RL determines that such objection cannot be resolved, RL will:

- a. Forward all documentation relevant to the dispute, including the RL's proposed resolution, to the ACHP. The ACHP shall provide RL with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, RL shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide them with a copy of this written response. RL will then proceed according to its final decision.
- b. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, RL may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, RL shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the MOA, and provide them and the ACHP with a copy of such written response.
- c. RL's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged.

Amendments

The signatories may propose, in writing, and will consider amendments to this MOA. This MOA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all of the signatories is filed with the ACHP.

Effective Date and Termination

If any signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other signatories to attempt to develop an amendment as described above. If within thirty (30) days an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories.

Once the MOA is terminated, and prior to work continuing on the undertaking, RL must either (a) execute an MOA pursuant to 36 CFR § 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. RL shall notify the signatories as to the course of action it will pursue.

This MOA will become effective on the date that it is signed by all signatory parties. This MOA will terminate when all stipulations are met. Any signatory party who wishes to terminate the MOA must do so in accordance with 36 CFR 800.6 (c)(8) regulations.

Anti-Deficiency Act

RL obligations under this MOA are subject to availability of appropriated funds, and the stipulations of this MOA are subject to the provisions of the Anti-Deficiency Act. RL shall make reasonable and good faith efforts to secure the necessary funds to implement this MOA in its entirety. If compliance with the Anti-Deficiency Act alters or impairs RL's ability to implement the stipulations of this agreement, RL shall consult in accordance with the amendment and termination procedures found in this MOA.

Coordination

RL will ensure that each signatory and consulting party is provided a copy of the signed MOA. Execution of this MOA by RL and the DAHP will be considered to be an agreement on how the adverse effects will be resolved in accordance with 36 CFR 800.6(b)(2).

Execution of this MOA by RL, the DAHP, and the ACHP and implementation of its terms evidence that RL has taken into account the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment.

SIGNATORY PARTIES:

U.S. Department of Energy, Richland Operations Office

By: Stacy Charbonneau Date: 12/21/15
Stacy Charbonneau
Site Manager

Washington Department of Archaeology and Historic Preservation

By: [Signature] Date: 12/23/15
Dr. Allyson Brooks
Washington State Historic Preservation Officer/Director

Advisory Council on Historic Preservation

By: John M. Fowler Date: 1/16/16
John M. Fowler
Executive Director
Advisory Council on Historic Preservation

INVITED SIGNATORY PARTIES:

Confederated Tribes and Bands of the Yakama Nation

By: [Signature] Date: 12-18-15
JoDe L. Goudy
Chairman
Yakama Nation Tribal Council

HANFORD CULTURAL RESOURCES MANAGEMENT PLAN, SECTION 5.4.2.1

5.4.2.1 Discovery

All inadvertent discoveries of recognized or potential human skeletal remains will be immediately reported to the responsible manager or supervisor. Depending on the circumstances of the discovery, an inadvertent discovery could be made through any one of several situations—during cultural resources monitoring of construction activities; chance discoveries by workers during non-monitored construction; or a report of possible human skeletal materials from any non-construction area within the site.

Until a final evaluation can be made, all reports of potential NAGPRA discoveries will be taken seriously and dealt with expeditiously by all personnel involved in the discovery.

If applicable, e.g., the inadvertent discovery occurs in connection with an ongoing activity, responsible personnel will take measures to cease activity in the area where the discovery is made. Work will not proceed until proper notifications have been made, and a full professional evaluation of the nature of the discovery has been completed.

Securing and providing protection to the discovered remains is initially the responsibility of the discoverers, if during an on-going activity. In addition to stopping the activity in the area of the inadvertent discovery, on-site workers will provide initial security by both avoiding the discovery site proper, and by ensuring that other personnel do not intrude on to the discovery site. All cultural items are to be left in place, without further disturbance, and a temporary perimeter (flagging tape, stakes, etc.) may be established, if appropriate, until notifications have been made and a cultural resources professional has appeared. Covering the exposed remains with some type of natural material may be appropriate.

Depending on the outcome of the professional evaluation and the sensitivity of the discovery, longer-term protection may be required in the form of onsite guards and/or periodic patrols. It may also be necessary to establish additional security perimeters and access control to the area.

Depending on the circumstances of the discovery, notification may take several avenues. For example, if made during monitoring of construction, either by an archaeologist or a site worker, the initial notification will be to the appropriate contractor cultural resource manager, who will then notify the DOE-RL Hanford Cultural and Historic Resources Program Manager. Other feasible avenues of notification include a site worker notifying their supervisor or site security or a member of the public notifying the sheriff's department or the county coroner.

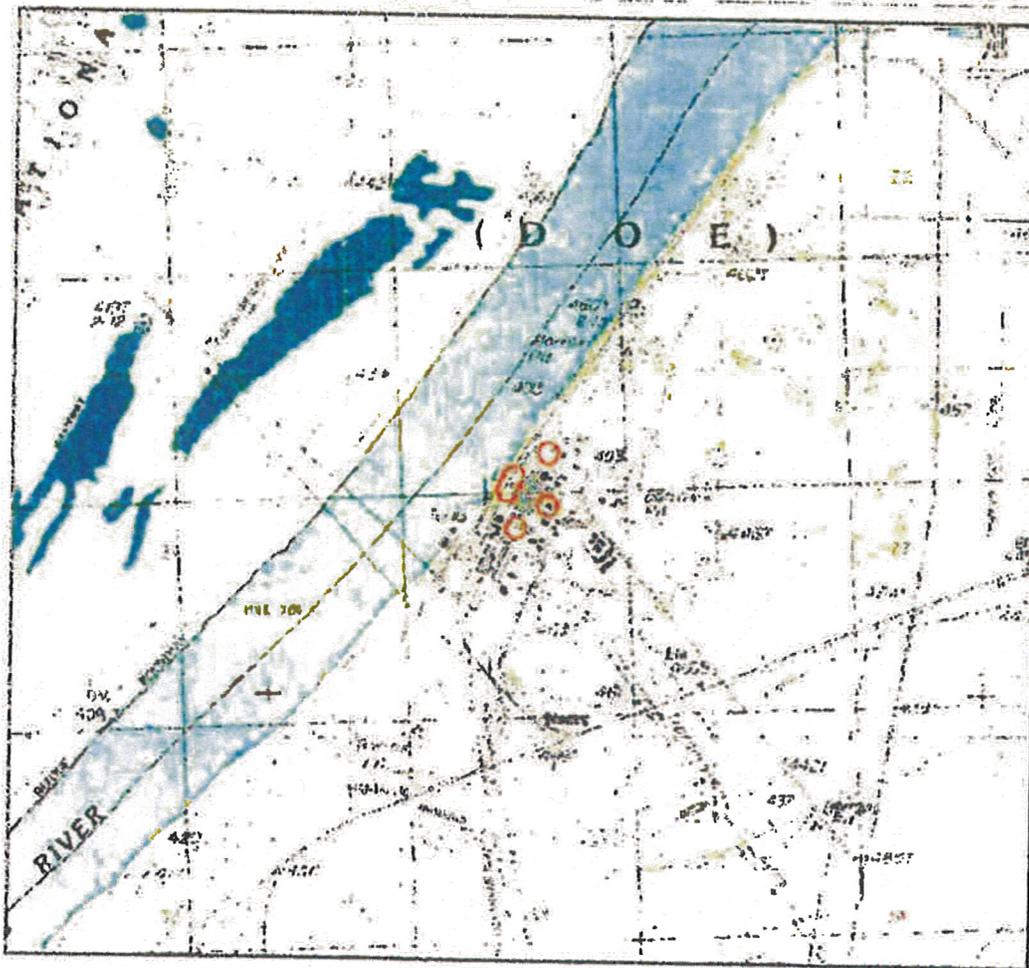
The key notification is to the responsible manager at DOE-RL, the DOE-RL Hanford Cultural and Historic Resources Program Manager, who will coordinate subsequent notifications, as necessary, following the professional evaluation of the discovery.

As soon as possible following the discovery and initial notification, the discovery will be evaluated to verify that the remains are human and that they are not a crime scene. Following this, determination will be made on whether the remains are Native American. This will be accomplished by technical staff from the DOE-RL Hanford Cultural and Historic Resources Program in consultation with

Native American representatives. If a clear determination can not be made, additional expertise will be obtained. If the skeletal remains are not determined to be Native American, disposition will be determined by the DOE-RL Hanford Cultural and Historic Resources Program Manager in consultation with interested parties.

If the discovery is determined to be Native American, and therefore subject to NAGPRA, the DOE-RL Hanford Cultural and Historic Resources Program Manager will initiate consultation and additional notifications as per requirements in 43 CFR 10, Section 10.4. Notifications include the DOE Federal Preservation Officer and the State Historic Preservation Officer. Within 24 hours, the DOE-RL Cultural and Historic Resources Program Manager will telephonically notify tribal technical contacts and within 3 working days will provide written notification, which may be provided by fax or certified mail, to the designated tribal NAGPRA points of contact. As soon as practicable, an emergency meeting with designated tribal personnel will be held to continue NAGPRA formal consultation, and to develop a coordinated plan of action for disposition of the inadvertent discovery.

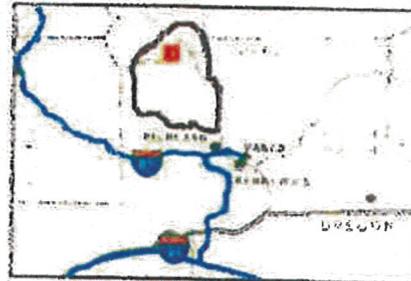
If the inadvertent discovery occurred as a result of an ongoing activity such as construction, resumption of the activity will depend on the consultation process and the overall significance of the discovery. NAGPRA and 43 CFR 43 provide for resumption of the activity 30 days after the certified notification of the discovery. However, resumption may occur at an earlier date if a written, binding agreement is executed between DOE-RL and the affected Indian tribes for the mitigation of the impacts to the remains.



LEGEND

 Area of Potential Effect (APE)

Coyote Rapids, WA 7.5' USGS Quad
Township 14 N Range 20 E
Section 28



Project Location

Map of the project area showing the location of the project area in red within the larger regional context.

