

8.15 Cultural Resources Monitoring



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DOE established a cultural resources program in 1987 to identify, preserve, and protect cultural and historic resources. The Pacific Northwest National Laboratory; Bechtel Hanford, Inc.; and Columbia River Exhibition of History, Science, and Technology (CREHST) Museum provided support to DOE for the cultural resources program on the Hanford Site throughout 2004. The U.S. Fish and Wildlife Service has managed cultural resources for DOE on Hanford Reach National Monument lands since October 1999.

To comply with the federal laws and regulations (see Section 5.5.2), DOE maintains the Hanford Cultural and Historic Resource Program. This program is described in detail in the 2003 revision of the *Hanford Cultural Resources Management Plan* (DOE/RL-98-10; <http://www.hanford.gov/doe/history/?history=rmp>). The primary compliance components of this program are to:

- review Hanford project activities to assure that important cultural resources are not inadvertently affected
- monitor resources of cultural and scientific importance to detect problems and address them if possible
- identify and evaluate new cultural resources so that they can be managed appropriately
- confer with tribes and stakeholders to gather input on the identification, documentation, and management of cultural resources important to them
- manage data and collections for long-term preservation.

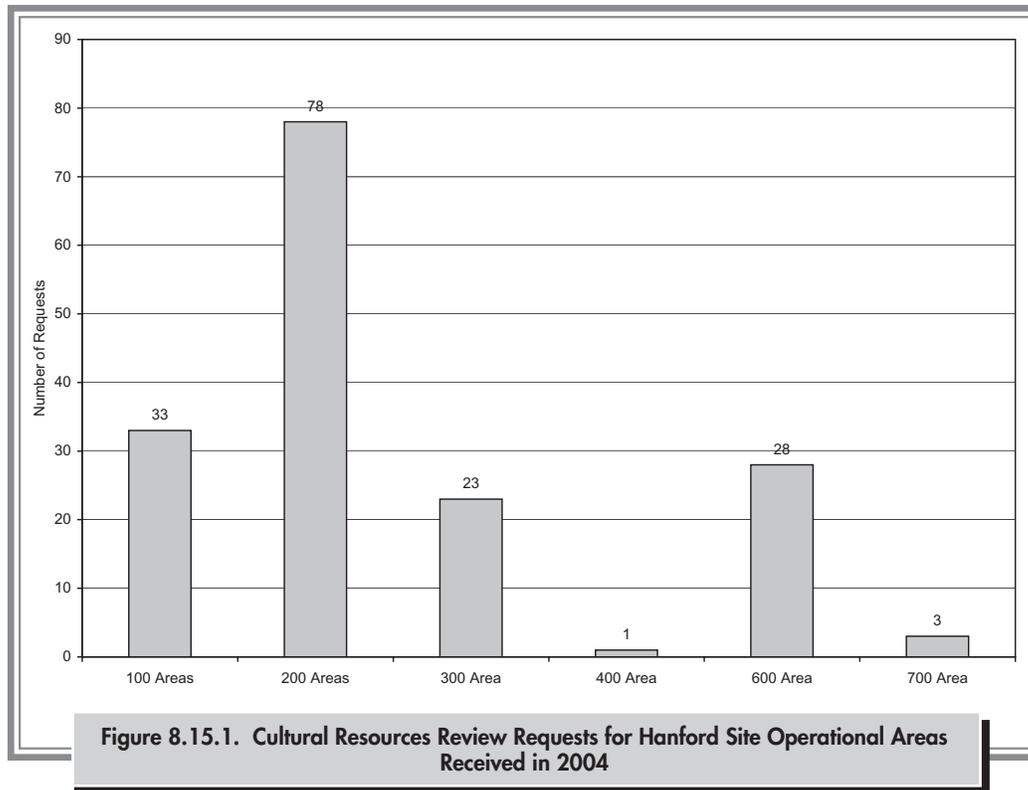
8.15.1 Cultural Resources Reviews

Reviews are conducted of all activities with the potential to affect cultural resources at Hanford to comply with

National Historic Preservation Act Section 106 and the *National Environmental Policy Act*. Cultural resources reviews must be conducted before a federally funded, federally assisted, or federally licensed ground disturbance, building alteration, or demolition project can take place. Because the Hanford Site is a federal facility, cultural resource reviews are required to identify properties within a proposed project area that may be eligible for, or listed in, the National Register of Historic Places (National Register) and evaluate the project's potential to affect those properties.

During 2004, 166 cultural resource review requests were received across the Hanford Site, mostly for projects in the 200 Areas (Figure 8.15.1). Bechtel Hanford Inc., the environmental restoration contractor, received 16 review requests in 2004 and completed all 16 reviews during the year. Of the 150 review requests received by the Pacific Northwest National Laboratory, 146 reviews were completed in 2004 and 4 were not completed. Of those completed reviews, it was determined that 120 activities would have no effect on historic properties; 20 activities were exempted by the *Programmatic Agreement Among the U.S. Department of Energy, Richland Operations Office, the Advisory Council on Historic Preservation, and the Washington State Historic Preservation Office for the Maintenance, Deactivation, Alteration, and Demolition of the Built Environment on the Hanford Site, Washington* (DOE/RL-96-77). The programmatic agreement exempts undertakings that involve routine maintenance, energy conservation measures, or replacements that matched the original materials used in the structure in terms of dimensions, detail, and color. Six reviews required walk-throughs of historic buildings to assess their contents to identify artifacts, which may have interpretive or educational value as potential museum exhibits.





As occurred in 2003, the increase in the number of review requests per week, particularly those termed “Not the type of activity with the potential to cause effects to historic properties,” or “No Potential to Effect,” continued this year. The “No Potential to Effect” class designation continued to be used in cases where an undertaking was determined to not be the type of activity with potential to affect historic properties. To make this determination, an assessment of the undertaking’s effect on cultural resources and existing ground disturbance is made. DOE tends to use this classification cautiously because it is often difficult to confirm whether or not there is existing ground disturbance. The cultural resources program is developing a programmatic agreement to exempt these types of activities from cultural resources reviews. At this date, this programmatic agreement has not been completed.

Major cultural resource reviews conducted by Pacific Northwest National Laboratory in 2004 are summarized in Table 8.15.1. Two of these project reviews were initiated in 2003 and are still in the mitigation process and have not been completed (U.S. Bureau of Land Management [BLM] Survey of the Fitzner/Eberhardt Arid Lands Ecology [ALE] Reserve Unit Boundary and the DOE Ownership Transfer of Hanford Reach National Monument to the U.S. Fish and Wildlife Service).

Bechtel Hanford, Inc. conducted four major cultural resource reviews for DOE in 2004.

- A review was conducted of the proposed characterization of waste sites 128-F-2 and 1607-F-5 in the 100-F Area. Archaeological testing was conducted at both locations and results were reported (BHI-01743).
- A review was conducted of the proposed characterization of waste sites 128-B-2 and 128-B-3 in the 100-B/C Area. Archaeological testing was conducted at both locations and results were reported (BHI-01742). In addition, a determination of National Register eligibility was prepared for a historic site (45BN722) located northeast of the 100-B/C Area near the Columbia River. It was recommended to DOE as not eligible. Also, subsurface prehistoric materials were discovered during remediation activities of waste sites 128-B-2 and 128-B-3. These resources will be collected in 2005.
- A review was conducted for the proposed removal of debris at waste sites 600-129 and 600-191 in the 600 Area near the White Bluffs town site. A determination of National Register eligibility was prepared for a historic archaeological site (HT-95-006) near the waste sites and it was recommended to DOE as not eligible.

Table 8.15.1. Major Cultural Resources Reviews Conducted by Pacific Northwest National Laboratory in 2004

Project Name	Finding
Well Drilling/Groundwater Protection	A review was conducted of the 100-KR-4 pump-and-treat well drilling site. Archaeological testing of the site consisted of the excavation of a 1 x 1 meter (3 x 3 feet) test unit. No cultural resources were identified that would be affected by the proposed drilling.
Bonneville Power Administration Wood Pole Replacement Program Along 13-Mile Stretch of the Midway-Benton #1 Transmission Line in the 600 Area of the Hanford Site	A cultural resources survey was conducted of the Bonneville Power Administration right-of-way and the proposed replacement of wooden power poles along the #1 transmission line. A historic archaeological site (HT-2004-001) was recorded outside the area to be affected by the wooden pole replacement project. It was determined that the replacement of the wooden poles would have no adverse effect to the archaeological site and the National Register eligible Bonneville Power Administration Midway-Benton #1 115-kV transmission line.
DOE Ownership Transfer of Hanford Reach National Monument to the U.S. Fish and Wildlife Service	A programmatic agreement is being developed by the U.S. Fish and Wildlife Service, Tribes, Washington State Historic Preservation Officer, DOE, and Federal Advisory Council on Historic Preservation for the protection and management of significant cultural resources in the Hanford Reach National Monument lands to be transferred.
U.S. Bureau of Land Management (BLM) Survey of the Fitzner/Eberhardt Arid Lands Ecology (ALE) Reserve Unit Boundary	During this survey, no historic properties were identified that would be adversely affected by the BLM survey of the Fitzner/Eberhardt ALE Reserve Unit boundary. Intermittent monitoring of BLM Fitzner/Eberhardt ALE Reserve Unit survey activities will continue through 2006.
Remediation of the 618-10 and 618-11 Solid Waste Burial Sites in the 600 Area of the Hanford Site	A cultural resources survey was conducted of the 618-10 and 618-11 solid waste burial sites located in the 600 Area of the Hanford Site near Energy Northwest. No historic properties were identified or will be affected by the proposed remediation of the waste sites.
Transfer of the 748 Building Emergency Decontamination Facility from DOE to Kadlec Medical Center, Richland	<p data-bbox="776 1108 1455 1165">During the review, four historic artifacts were identified for preservation in the 748 Building:</p> <ol data-bbox="776 1176 1455 1346" style="list-style-type: none"> <li data-bbox="776 1176 1455 1203">1. A chair used by Harold McCluskey (a contaminated patient). <li data-bbox="776 1205 1455 1262">2. Patient bed/shielded body wash tank, made of stainless steel and lead. <li data-bbox="776 1264 1455 1320">3. Hanging lead mask/shield (used to protect medical personnel during surgical procedures on contaminated patients). <li data-bbox="776 1323 1455 1350">4. Suspension gurney located in emergency patient wash tank. <p data-bbox="776 1360 1455 1415">Several of the artifacts were transferred to the CREHST Museum in Richland to be curated into Hanford's artifact collection.</p>
<p data-bbox="186 1455 1455 1482">CREHST = Columbia River Exhibition of History, Science, and Technology.</p> <p data-bbox="186 1484 1455 1512">DOE = U.S. Department of Energy.</p>	

- A review was conducted for an expansion of the Environmental Restoration and Disposal Facility. No significant cultural resources were identified.

A complete listing of all reviews conducted can be found on the Hanford Cultural and Historic Resources website (<http://www.hanford.gov/doe/history>).

In addition to Hanford projects, the Bonneville Power Administration has also been conducting activities

onsite and consulting with DOE to assure that significant resources are not affected.

8.15.2 Cultural Resources Protection

Activities to assure protection of cultural resource sites across the Hanford Site are conducted to comply with



National Historic Preservation Act Section 110, the *Native American Graves Protection and Repatriation Act*, and the *Archaeological Resources Protection Act*. The Hanford Site has had a monitoring program since 1987 to assess the effects of weathering and erosion or unauthorized excavation and collection upon the site's significant cultural resources. Activities include onsite inspections of important sites to monitor site conditions, assess the impact observed, and respond with protective measures when the impact observed is significant.

8.15.2.1 Monitoring Cultural Sites for Natural and Visitor Impact

Monitoring efforts included surveillances of important cultural and scientific sites. Monitoring cultural sites for natural and visitor impact began during 1989 and continued during 2004. In 2004, 127 sites, which fit into the following categories (some sites are included in more than one category) were visited:

- places that were either listed or determined eligible for listing in the National Register of Historic Places

- Native American cemeteries or places where human remains were observed
- archaeological sites identified as “high risk” because of a history of impacts, and because they were at risk from human disturbance or natural degradation
- pre-1943 buildings
- eroding cut banks in sensitive areas
- traditional cultural property sites (any site included, or eligible for inclusion, in the National Register of Historic Places because of its association with cultural practices or beliefs of a living community that are rooted in the community's history and are important in maintaining the continuing cultural history of the community).

Site visits typically were conducted in cooperation with tribal cultural resource staff. Site conditions were documented on monitoring forms; if significant damage was observed, the DOE Hanford Cultural and Historical Resources Program Manager was contacted. Types of impact that have been observed during the history of the monitoring program are illustrated in Figure 8.15.2.

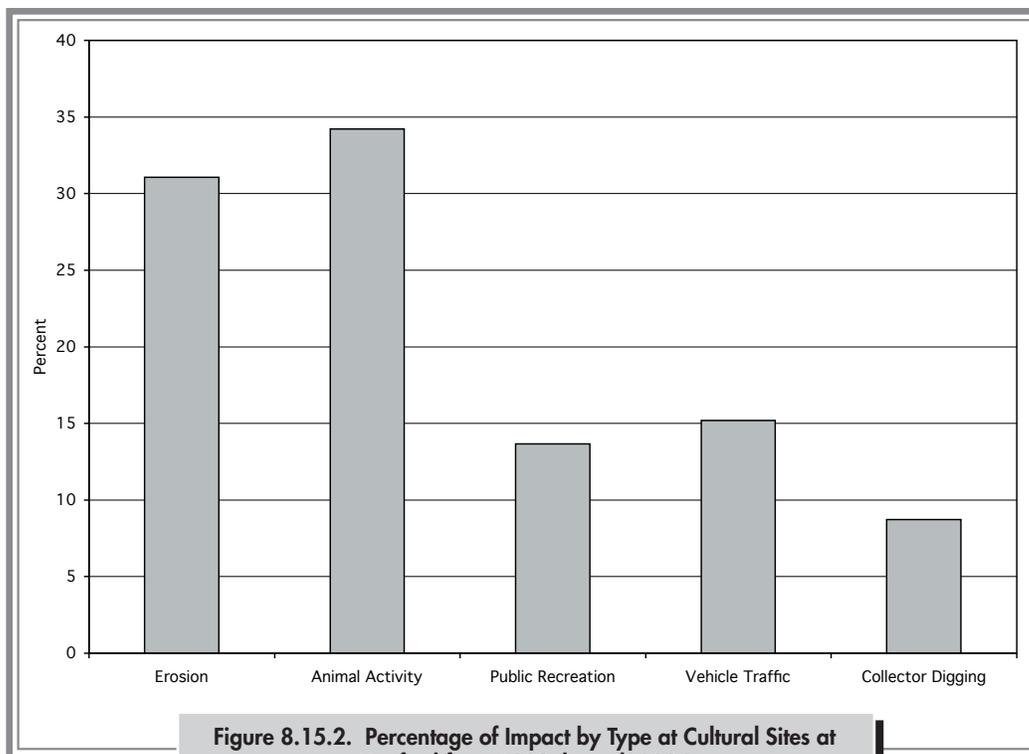


Figure 8.15.2. Percentage of Impact by Type at Cultural Sites at Hanford from 1989 through 2004

8.15.2.2 Assessing Natural and Visitor Impact

Natural and visitor impact is assessed following site visits and at the end of the year to determine if any protective measures need to be put in place. No impact requiring protective measures was observed in 2004. Erosion along the Hanford Reach of the Columbia River continues to occur. For example, Locke Island has been affected by river erosion, particularly during the mid-1990s. As illustrated in Figure 8.15.3, since 1998 the rate of erosion has slowed considerably. DOE continues to visit Locke Island to measure erosion so that protective measures can be taken if erosion rates begin to increase. Measurements taken at other sites and cut banks also support this finding (Sharpe 2004). Impact from collector digging and recreational activities has also been of concern over the years (Figures 8.15.4 and 8.15.5).

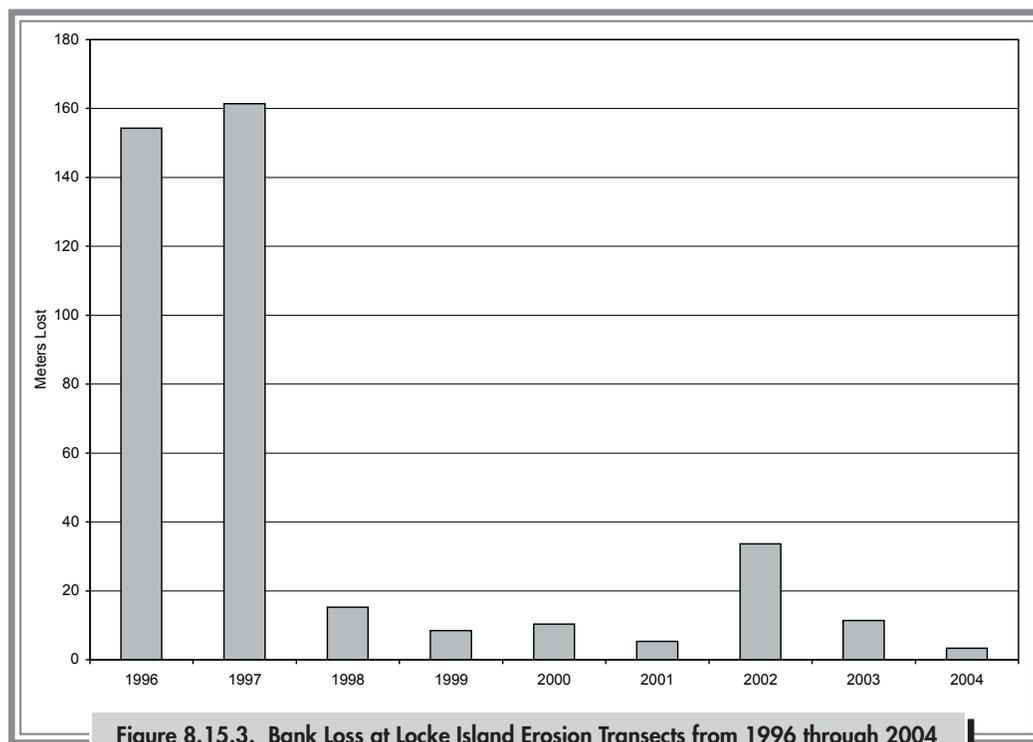
8.15.2.3 Responding to Impact with Protective Measures

DOE has responded in various ways to significant problems identified in impact assessments. For example, at one

location, recreationalists had continued to affect the area by creating new roads and dumping trash. As a protective measure, the access road to the location was blocked in 2003, and observations made in 2004 indicated that no new impact had occurred.

At another location, wind erosion had unearthed human remains in 2002. In 2003 and 2004, joint efforts conducted with tribes temporarily stabilized the site, and evaluations of different options for long-term stabilization were made. Currently, it appears as if the site is naturally revegetating. DOE will continue to monitor onsite conditions to confirm that no additional efforts are needed.

The historic First Bank of White Bluffs building continues to deteriorate. In 2003, DOE granted a lease to the U.S. Fish and Wildlife Service to facilitate their volunteer efforts for stabilization. Stabilization and planning for the rehabilitation of the bank building continued in 2004. The polyvinyl tarp that had been placed over the roof in 2003 to hold the rafters in place and protect the walls from further water intrusion had to be removed. It had been damaged by extremely high winds during the winter. The wooden support braces constructed on both the inside and outside of the west wall to stabilize it remain in place.



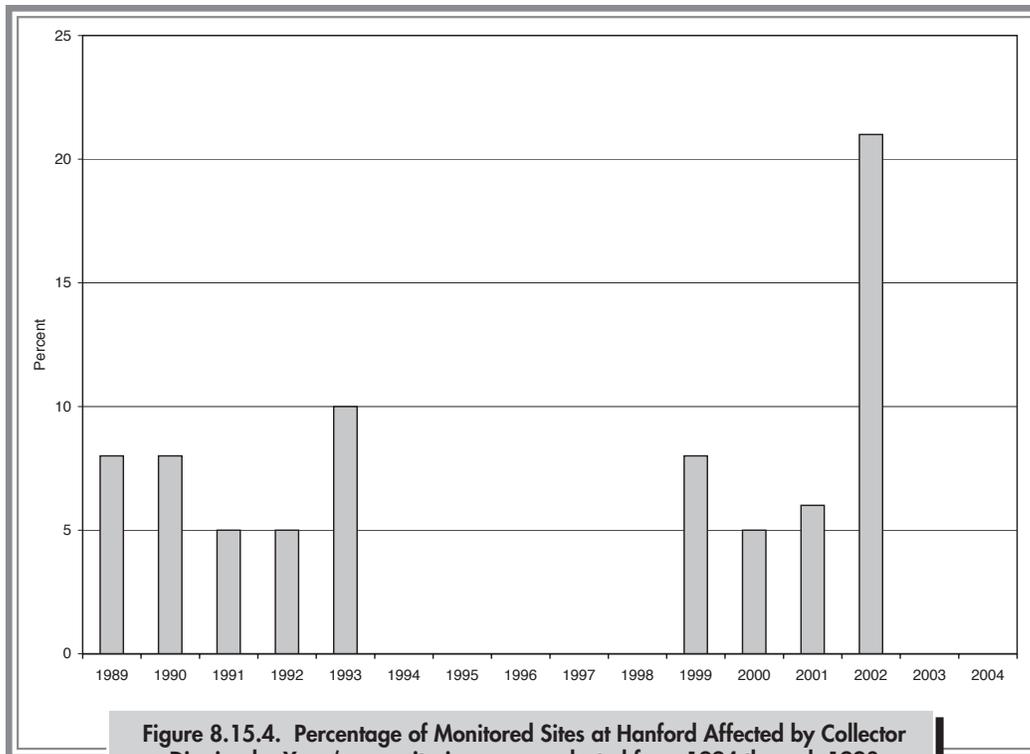


Figure 8.15.4. Percentage of Monitored Sites at Hanford Affected by Collector Digging by Year (no monitoring was conducted from 1994 through 1998 and 2003 through 2004)

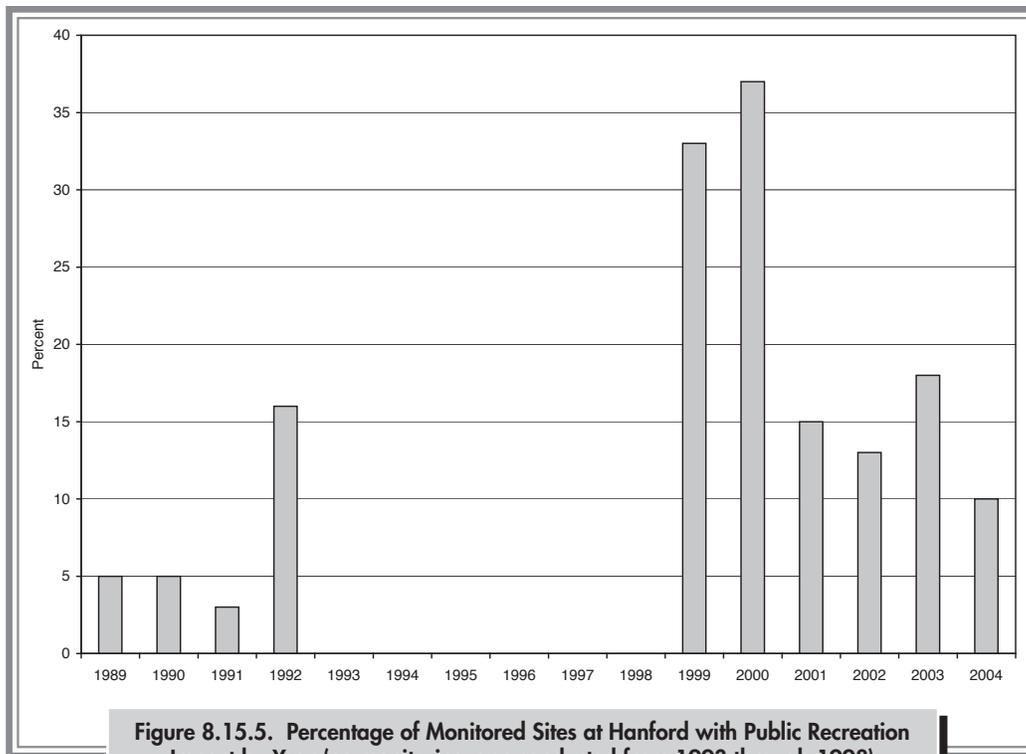


Figure 8.15.5. Percentage of Monitored Sites at Hanford with Public Recreation Impact by Year (no monitoring was conducted from 1993 through 1998)

Plans for the rehabilitation of the bank building are moving forward. In 2004, measurements were taken of the building, including the dimensions of the different types of concrete blocks that will be reproduced, and will form the basis of a reconstruction work plan. The plan will also outline steps for the replacement of the roof, restoration of the wood frame windows and interior walls, and construction of a new wood floor. Fifty to sixty percent of current walls will need to be reconstructed with new blocks.

DOE will continue to assist the U.S. Fish and Wildlife Service in future stabilization and rehabilitation efforts.

8.15.2.4 Identification and Evaluation Activities

Identification and evaluation activities are performed to comply with *National Historic Preservation Act* Section 106 and Section 110. In 2004, approximately 1,335 hectares (3,300 acres) were surveyed. Twenty-one historic period archaeological sites and 32 isolated finds, 25 of which date to the prehistoric period, were recorded in 2004.

Evaluation efforts in 2004 focused on generating information about the Hanford Site's pre-1943 agricultural landscape and White Bluffs town site in order for DOE to make its determination on the eligibility of these resources for listing in the National Register. DOE will make a final determination on their eligibility in 2005.

Two Bonneville Power Administration cultural resource reviews resulted in two resources being determined eligible for listing in the National Register of Historic Places (National Register) during 2004. The Midway-Benton #1 115-kV transmission line, which traverses a portion of the Hanford Site was determined to be a contributing feature of Bonneville Power Administration Master Grid District, significant because of its continuous use since 1941 as a distribution line for electricity from the National Register-eligible Midway Substation. This line was one of the first distribution lines built by the Bonneville Power Administration, which delivered power to lower Columbia Basin and Walla Walla valley communities. Archaeological site 45BN135 was also determined to be National Register-eligible for its potential to provide valuable information to understand the prehistoric past of the Columbia Plateau and the Hanford Reach. Recent subsurface testing and excavation suggest use of this area as long as 6,300 years ago.

8.15.2.5 Management of Artifact and Data Collections

The Hanford Cultural Resources Project manages archaeological and historical collections, DOE cultural resource records, a reference library, and an assortment of supporting documentations required to facilitate compliance efforts. Over 1,400 site files and curated archaeological collections from over 80 sites are stored in the archive room. During 2004, the database and geographic information system underwent improvements with new data sets being added. A digital archive was employed, using the Total Records Information Management database for efficient retrieval of representative site photos, site monitoring photos, and historic photos. The Total Records Information Management database was also used for archival of all electronic documents produced by project activities. In 2004, data management procedures and release agreements were developed and implemented to improve data quality and address security issues. Data sharing continued with the Washington State Historic Preservation Officer, DOE, Bechtel Hanford, Inc., U.S. Fish and Wildlife Service, Yakama Nation, Confederated Tribes of the Umatilla Indian Reservation, Nez Perce Tribe, and Wanapum Band.

The application of the curation strategy for artifacts and records associated with the Hanford Site Manhattan Project and Cold War Era Historic District continued during 2004. The strategy is stipulated in the Programmatic Agreement for the Built Environment (DOE/RL-96-77), which directs DOE to assess the contents of Hanford's historic buildings and structures prior to the commencement of deactivation, decontamination, or decommissioning activities. The purpose of DOE's assessments of the contents of Hanford's historic buildings is to identify and preserve any artifacts (e.g., control panels, signs, scale models, and machinery) that may have interpretive or educational value as exhibits within national, state, or local museums. The assessments are accomplished by conducting walk-throughs of the contributing properties within the historic district by teams of cultural resource specialists, historians, archivists and curators, and facility experts. Twenty walk-throughs were conducted during 2004, in four buildings in the 300 Area, seven buildings in the 200 Area, two facilities in the 700 Area (downtown Richland), and seven buildings in the 100-N Area.



One reassessment of all identified artifacts in the 100-K Area was also conducted. The reassessment was for the purpose of relocating all the tagged artifacts in the 100-K Area facilities for final disposition and curation into the Hanford collection. During 2004, a number of the smaller tagged artifacts from the 100-K Area were collected and transferred to DOE's Hanford collection managed and curated by the Columbia River Exhibition of History, Science and Technology Museum located in Richland. Artifacts that are too heavy and/or large to be removed immediately will be removed to a secure facility in the 100-K Area for temporary storage.

During 2004, staff from the Pacific Northwest National Laboratory; Columbia River Exhibition of History, Science and Technology Museum; and Bechtel Hanford, Inc. continued to review the status of important Manhattan Project and Cold War era artifacts and the applicability of the criteria used to identify artifacts for the Hanford collection. Duplicate artifacts were removed from the collection. In selected 100 and 300 Areas buildings, staff monitored the condition of artifacts tagged for preservation; artifact tags were replaced with newer, more identifiable ones; and a number of artifacts from buildings proposed for demolition were transferred to the Hanford collection storage facility.

After the artifact review was completed, important Manhattan Project and Cold War era artifacts were documented with photographs and narratives in a booklet format. This initial or pilot effort focused on significant artifacts that could not be curated into the Hanford collection because they were too large for long-term storage and/or exhibit purposes or were radiologically contaminated. During this effort, additional tagged artifacts were identified that could not be curated into the Hanford collection; it was recommended that during 2005 they be photo-documented and included in the booklet.

Finally, to complete the mitigation of the proposed demolition of the National Register-eligible Emergency Decontamination Facility (Building 748) and loss of important artifacts that could not be curated into DOE's Manhattan Project and Cold War era artifact collection because of potential contamination concerns, a video was produced in 2004 that documented the historic significance of the Emergency Decontamination Facility and its contents. Special attention was paid to the important medical artifacts.