



Preserving America's Heritage

CASE DIGEST: SECTION 106 IN ACTION



ADVISORY COUNCIL ON HISTORIC PRESERVATION

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An independent federal agency, the ACHP promotes the preservation, enhancement, and productive use of our nation's historic resources and advises the President and Congress on national historic preservation policy. It also provides a forum for influencing federal activities, programs, and policies that affect historic properties. In addition, the ACHP has a key role in carrying out the Preserve America program.

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TABLE OF CONTENTS

About this Report	2
Arizona:	Closed Case: Colorado River Fish Control and High-Flow Experiments.....	3
Colorado:	Closed Case: Highway Improvements to US Highway 160.....	4
District of Columbia:	Closed Case: Reuse of the Clara Barton Home and Missing Soldiers Office.....	5
Hawaii:	Closed Case: New Treatment Facility at Tripler Army Medical Center.....	8
Louisiana:	New Case: Iberville-Treme Transformation Plan.....	9
Massachusetts:	Ongoing Case: Pawtucket Dam Modernization.....	10
New York:	Closed Case: Tappan Zee Hudson River Crossing Project.....	13
New York:	Ongoing Case: Cultural Resources Management Program PA at West Point.....	14
Ohio:	Ongoing Case: Zoar Levee and Diversion Dam.....	15
Puerto Rico:	New Case: Photovoltaic System on Roof of Ballaja Building.....	16
Wyoming and Idaho:	Ongoing Case: Gateway West Transmission Line.....	18

Cover: The Pawtucket Dam at Pawtucket Falls, Lowell, Massachusetts, figured prominently in the industrial revolution that transformed America, and was part of a regional model for industrialization that was widely imitated in the United States and Europe. (photo courtesy James Higgins)

ABOUT THIS REPORT

Section 106 of the National Historic Preservation Act requires federal agencies to consider historic preservation values when planning their activities. In the Section 106 process, a federal agency must identify affected historic properties, evaluate the proposed action's effects, and then explore ways to avoid or mitigate those effects.

The federal agency often conducts this process with the Advisory Council on Historic Preservation (ACHP), State Historic Preservation Officers, representatives of Indian tribes and Native Hawaiian organizations, and other parties with an interest in the issues.

Sometimes a Programmatic Agreement (PA) or a Memorandum of Agreement (MOA) is reached and signed by the project's consulting parties. A PA clarifies roles, responsibilities, and expectations of all parties engaged in large and complex federal projects that may have an effect on a historic property. An MOA specifies the mitigation measure that the lead federal agency must take to ensure the protection of a property's historic values.

Each year thousands of federal actions undergo Section 106 review. The vast majority of cases are routine and are resolved at the state or tribal level, without the ACHP's involvement. However some cases present issues or challenges that warrant the ACHP's involvement.

This report presents a representative cross-section of undertakings that illustrate the variety and complexity of federal activities that the ACHP is currently engaged in. In addition, the ACHP's Web site www.achp.gov contains a useful library of information about the ACHP, Section 106 review, and the national historic preservation program.

ARIZONA

Project: Closed Case: Colorado River Fish Control and High-Flow Experiments

Agencies: Bureau of Reclamation

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A pair of Memoranda of Agreement will govern, respectively, attempts to safeguard an endangered native fish species and the effects on culturally significant places of high-volume dam releases of water intended to mimic the natural surges on the Colorado River through Glen Canyon. Extensive and continuing consultation with tribes involved in the areas being affected will be important to the success and proper functioning of the Memoranda of Agreement.

The Bureau of Reclamation, U.S. Department of the Interior, is the lead agency in a pair of Memoranda of Agreement (MOAs) executed on May 22, 2012, that will regulate high-volume water releases from Glen Canyon Dam.

The first MOA is for the management of non-native fish species (mostly trout but also bass and sunfish) that are apparently the proximate cause of the decline of fish species (primarily the Humpback Chub) native to the Colorado River. The second MOA is for the periodic sudden release of large volumes of water through Glen Canyon to simulate pre-dam conditions encountered when the river would periodically flood and scour the banks and bottom of the river.

The Fish and Wildlife Service (FWS) has issued a Biological Opinion that the Humpback Chub is an endangered species. The outcome of extensive discussion with the consulting parties is that all feasible attempts will be undertaken to remove non-native fish alive. If, however, live removal is not working, the Bureau of Reclamation (Reclamation) will re-initiate consultation with the tribes to determine how best to remove the fish, and where this should take place (several specific points on the river are of extreme religious importance to the tribes).

The second MOA calls for Reclamation to consult to determine how best to protect historic properties in and along the river banks and walls that could be adversely affected by the periodic release of fast flowing water.

Each year, Reclamation may release up to 45,000 cubic feet of water per second over a period ranging from 1 hour to 4 days to simulate old flood events. These events move enormous amounts of silt, sand, and debris and redeposit it in sandbars along the river banks. After an event, Reclamation will revisit sites to evaluate how they were (or were not) affected by the water. Reclamation also will initiate a 10-year monitoring plan to review effects to historic properties and fine-tune water releases to ensure properties are impacted as little as possible when releases occur.

Reclamation and FWS, the National Park Service, and the ACHP are the principal federal entities involved in consultations. Also involved are the following federally recognized tribes: the Hopi Tribe, the Hualapai Tribe, the Kaibab Band of the Paiute Indians, the Navajo Nation, the Paiute Indian Tribe of Utah, the Pueblo of Zuni, and the Paiute Indian Tribe of Utah. The Arizona State Historic Preservation Office (SHPO) also is involved in the consultations.

In addition to numerous precontact and historic-period archaeological, historical, and religious sites in the canyon and beneath the waters of Lake Powell, the consulting parties also agree that the Grand, Marble, and Glen Canyons and the Colorado River itself are properties of traditional religious and cultural significance to the consulting tribes (Navajo, Zuni, Hopi, Hualapai, Paiute) and eligible for listing in the National Register of Historic Places. The tribes, led by the Zuni, believe that activities such as any lethal removal of non-native fish is an adverse effect to their cultural world-view and use of this very significant historic property.

For more information: www.usbr.gov/uc/feature/GC-hfe/index.html
www.usbr.gov/uc/envdocs/ea/gc/nncf/Appdx-A.pdf

COLORADO

Project: Closed Case: Highway Improvements to US Highway 160 between Durango and Bayfield

Agencies: Federal Highway Administration

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The Federal Highway Administration brings to a close a Section 106 consultation on a controversial project in southwestern Colorado with the execution of a Memorandum of Agreement in June 2012.

The ACHP executed a Memorandum of Agreement (MOA) on June 21, 2012, with the Federal Highway Administration (FHWA) and the Colorado State Historic Preservation Officer (SHPO) to address the effects of the realignment of US 550 and its connection to US 160 at Farmington Hill, near Durango, Colorado. The MOA replaces a 2006 MOA for the project, addressing newly discovered impacts to two historic ranches and five prehistoric archaeological sites.

The Colorado Department of Transportation (CDOT) had already begun construction on improvements to a 16.2 mile stretch of US Highway 160 between Durango and Bayfield when it discovered an active gas well in the proposed right-of-way (ROW). As part of the project, CDOT had approved the expansion of approximately two miles of US 550 south of US 160 from two to four lanes, and the relocation of US 550 to improve safety. Realignment of the route to avoid the gas well in 2008 led to the discovery that the Marie J. Webb Ranch, through which the proposed new route passed, was historically significant and that five prehistoric archaeological sites were present in the proposed ROW. To address these discoveries, FHWA reopened Section 106 consultation and invited the ACHP to participate in consultation to resolve adverse effects.

In reviewing alternatives, CDOT identified a preferred route through the Webb Ranch and the Craig-Limousin Ranch. No buildings or structures will be lost, and the project will physically impact only the far western edge of the Craig-Limousin Ranch. But the project will route the new four-lane highway across Florida Mesa through 41 acres of the 515-acre



Marie J. Webb Ranch with views of the San Juan Mountains. The new route will cut a deep trench through the field in the foreground. (photo by Carol Legard)

Webb Ranch, affecting the rangeland, setting, feel, and association of the Webb Ranch. The newly signed MOA requires CDOT to document the Webb Ranch and Craig-Limousin Ranch in accordance with state guidelines and distribute these documents to the SHPO, the La Plata County Historical Society, the property owners, and a local library or archive. In consultation with the SHPO and other consulting parties, CDOT will also develop an interpretive mitigation plan focused on the broad history of the landscape of the Webb Ranch, Florida Mesa, and the surrounding communities. The MOA also requires that CDOT consult with the SHPO and consulting parties as design plans for US 550 are completed at 30 percent, 70 percent, and 90 percent to minimize harm to the ranches and archaeological properties. As the project design progresses, a data recovery plan will be developed for any archaeological sites in danger from earth-moving activities.

Section 106 consulting parties included FHWA; CDOT; the US Army Corps of Engineers; Colorado SHPO; the ACHP; the owners of the Webb Ranch, Craig-Limousin Ranch, Clark Property, and the Shaferhoff/Cowan Ranch; the Southern Ute Indian Tribe; Laguna Pueblo; and the Hopi Indian Tribe. The Webb Ranch owners have opposed the project, suing CDOT to stop construction of the new US 550/US 160 interchange, and promoting use of the existing US 550 ROW to reduce impacts to the Webb Ranch, which is an excellent example of an early- to mid-20th century ranching complex that continues to operate as a cattle ranch.

For more information: www.achp.gov/docs/CaseDigestSummer2011.pdf

DISTRICT OF COLUMBIA

Project: Closed Case: Restoration and Interpretive Reuse of the Clara Barton Apartment and Missing Soldiers Office

Agencies: U.S. General Services Administration

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A management agreement will guide the selective restoration of Clara Barton's living quarters and Missing Soldiers Office into a museum on 7th Street N.W. in downtown Washington, D.C. The historic property was discovered in 1997 when a General Services Administration employee found artifacts belonging to Barton within the building, which otherwise would have been redeveloped.

The General Services Administration (GSA) recently partnered with the non-profit National Museum of Civil War Medicine (NMCWM), executing a management agreement which will allow for the selective restoration of Clara Barton's living quarters and Missing Soldiers Office into a public museum. The agreement and restoration fulfill the requirements of the Pennsylvania Avenue Development Corporation's (PADC) mission and Memoranda of Agreement (MOA) from 1978 and 2000.

The Pennsylvania Avenue National Historic Site was established in Washington, D.C. in 1965 and listed in the National Register of Historic Places in 1966. Inspired by President John F. Kennedy and under the leadership of Daniel Patrick Moynihan, who was Counselor to the President for Urban Affairs under President Richard M. Nixon, the PADC was established in 1973. In 1974, Congress approved the Pennsylvania Avenue Plan to rejuvenate the corridor between the Capitol and the White House.

In 1978, in compliance with Section 106 of the National Historic Preservation Act, an MOA among PADC, the ACHP, and the DC State Historic Preservation Office (SHPO) provided for mitigation of adverse effects associated with the Pennsylvania Avenue Plan.

In 1996, PADC's real estate holdings were transferred



Original remaining materials, Clara Barton's diaries, office records, and photographs of the other temporary quarters where she supervised disaster relief efforts will inform the NMCWM's selective restoration and curation efforts at the new museum. (photo courtesy GSA)

to GSA for management and disposition. The holdings included a 75,813-square-foot site known as 'Parcel 457-C' which included 437-441 7th Street, Northwest. The building at that address was constructed in 1853-1865 with shops and professional offices at street level and on the second floor, and boarding rooms on the third floor. The building was initially thought to have limited historic significance and integrity. It had suffered from a fire on the second floor in the late 1930s, and PADC replaced the original façade in 1984 due to structural damage associated with construction of the underground Washington Metropolitan Area Transit System.

Just prior to the property's sale and anticipated demolition for residential redevelopment, a GSA employee discovered artifacts which indicated that Clara Barton had lived on the third floor of the building. In 1997, a National Park Service (NPS) historian confirmed that Barton resided in Room 9 between 1861 and 1868, during and immediately after the Civil War.

Room 9, which fronts on the street side of the third floor, retains a remarkable level of historic integrity. Original elements include interior doors and walls, piping for gas lighting, a chimney for a potbellied stove, and fragments of wallpaper selected by Barton herself and installed during her residence. A wood plank wall, installed at the north end of Room 9,

divided Barton's sleeping parlor from a large open space she used to store her battlefield supplies. The storage space eventually served as the Missing Soldier's Office, also known as the "Office of Correspondence with the Friends of the Missing Men of the United States Army," from 1865 to 1868.

Artifacts discovered within the site, inventoried in 2000 and placed in controlled storage under GSA's supervision, include men's clothing, medicine bottles, early maps, almanacs, government reports, a dispatch pouch, and copies of stationery portfolios which were likely used for fundraising purposes. GSA also catalogued hundreds of used socks found on the premises, apparently worn by soldiers and reclaimed by Barton for an undetermined purpose.

Original hand-painted signage denoting the "Missing Soldiers Office" and boxes of Civil War-era documents also were discovered. Records indicate that Barton's office responded to more than 63,000 inquiries from grieving parents, family, and friends, with more than 100,000 handwritten and form letters. To inform her responses, she published and distributed lists of the names of the missing – "Rolls of Missing Soldiers" – so that anyone with knowledge of their whereabouts or deaths could contact her. By the time the office closed in 1868, Barton and her small staff had provided information to families about the fate of more than 21,000 men.

At the time of the important discovery, GSA was soliciting bids for disposal and private development of Parcel 457-C. To inform next steps, GSA had meetings with the ACHP, NPS, National Capital Planning Commission (NCPC), SHPO, National Trust for Historic Preservation, American Red Cross, District of Columbia Preservation League, and others. The group agreed the room and surrounds should not be moved. GSA decided to preserve in perpetuity for educational purposes the majority of the third floor of the property, the stairway from the entrance to the third floor, and the southernmost street level commercial space.

In 2000, pursuant to Section 106, an MOA among GSA, the ACHP, NCPC, and SHPO was executed, and in 2001 a related Declaration of Easements and Covenants for the Clara Barton Building was executed with GSA's private development partner,



In 1997, a GSA employee discovered artifacts—including this original hand-painted sign—at a building slated for disposal and private development. (photo courtesy GSA)

Jefferson at Penn Quarter, L.P. (JPI, LLC). That year, GSA stabilized the significant areas and set up a dehumidification system for operation during the anticipated construction. Upon property transfer in summer 2001, JPI, LLC spent \$8 million to install a new roof; restrooms; utilities; life safety and egress facilities; a shared elevator; structural wall reinforcements; replica doors, windows, and trim where missing; and, a façade that better reflected the building's original design. GSA's Regional Historic Preservation Officer provided oversight for the work.

The developer adaptively reused the majority of the building's street level for retail, and developed the remainder of Parcel 457-C for residential use. The developer also funded a mold remediation project following storm damage to the roof, and provided permanent educational signage in front of the building. Work was completed in 2006, and the property was sold in 2007.

While searching for a museum partner, GSA surveyed the remaining building materials and finishes, and conducted research at the American Red Cross and the NPS, the latter of which is responsible for the Clara Barton National Historic Site in nearby Glen Echo, Maryland. The research yielded historic photographs of Barton's temporary Red Cross disaster relief quarters at other locations, providing important clues to the

likely appearance of her rooms in Washington. Working with volunteers and no-cost partners, in 2008 GSA and the American Red Cross developed an educational film on the property entitled, “A Call to Service: Clara Barton’s Office of Missing Soldiers.” GSA also conducted research at the Library of Congress.

Under the Declaration of Easements and Covenants for the Clara Barton Building, GSA retains a perpetual easement to access, perform maintenance, and conserve and interpret significant spaces on the third floor, along with the street level commercial space. The building owner continues to fund operating costs for base building utilities in those areas.

In 2010, as the sesquicentennial of the Civil War approached, GSA commenced negotiations with the NMCWM, which operates a museum in Frederick, Maryland, and the Pry House located within the Antietam Battlefield in Keedysville, Maryland. Under the authority of the National Historic Preservation Act (Section 111(c)), a letter of intent was signed that fall, which permitted the NMCWM to begin its fundraising efforts for the 4,000-square-foot Clara Barton Museum. That same year, the Public Broadcasting Service’s program “History Detectives” aired an episode exploring the origins of an 1866 letter from Clara Barton’s Office of Missing Soldiers.

In March 2012, GSA and the NMCWM executed a management agreement wherein the museum assumed responsibility for exhibit development, museum build-out, educational programs, marketing, and ongoing operations. GSA agreed to complete utility systems distribution within the museum spaces, restore interior finishes, and rehabilitate the street level museum reception area. GSA’s improvements, totaling \$1.5 million, are funded by proceeds set aside at the time of the property’s sale to JPI, LLC in 2001.

The new museum will contribute to GSA’s compliance with the Preserve America program (Executive Order 13287), which calls for federal agencies to support heritage tourism. The NMCWM and future museum visitors will benefit from GSA’s extensive stewardship and research efforts. NMCWM has tentative plans to open a welcome center on the site in late 2012, and the entire museum in 2013.



Contemporary view of the exterior of the building containing the historic third floor Clara Barton residence and Missing Soldiers Office. (photo courtesy GSA)

For more information:

www.gsa.gov/historicbuildings

<http://ncr.gsa.gov/historicpreservation/clarabarton/index.htm>

www.civilwarmed.org/clarabarton-missing-soldiers-office/

www.pbs.org/historydetectives/about/tunein.html

HAWAII

Project: Closed Case: New Treatment Facility at Tripler Army Medical Center

Agencies: Department of Veterans Affairs

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A new Post Traumatic Stress Disorder Clinic at a U.S. Army medical center will be built for the Department of Veterans Affairs. Its siting will result in some adverse affects to a designed historic landscape, and the site selection was made before the Section 106 process commenced. A Memorandum of Agreement signed in November 2011 provides for minimizing negative impacts.

The Department of Veterans Affairs plans to build a Post Traumatic Stress Disorder (PTSD) treatment facility with a 30,000 square foot footprint on the grounds of the Tripler Army Medical Center (TAMC).

Constructed from 1944-1948, the TAMC is significant for its contribution to the broad patterns of World War II on the American home front as well as its association with Gen. Robert C. Richardson II, who was involved with the procurement of the architects and builders and who oversaw the design of the facility. TAMC is also significant as a strong example of midcentury modern architecture, including its landscape which was designed by Robert O. and Catherine Thompson to be a tranquil environment in which soldiers could recuperate. Primary elements of the landscape design include earthen berms, which accentuate view planes and also provide privacy barriers that separate living and work space. The facility's broad open spaces and flowering trees are integrated with the architecture and take advantage of the island's temperate trade winds. The property was determined eligible for listing in the National Register of Historic Places, and a nomination form is currently being prepared.

The MOA ensures that the Department of Veterans Affairs (VA) will construct a facility that is architecturally compatible with the historically significant medical facility. Sympathetic design elements will include appropriate paint colors and exterior finishes, roof profile and materials, and compatible windows and doors. Though the general location of the PTSD facility is fixed by both clinical requirements and the TAMC's



Tripler Army Medical Center, Honolulu, Hawaii (photo courtesy Department of Veterans Affairs)

planning priorities, VA will continue to consult to further consider measures to lessen the impact on the nearby earthen berm, which contributes to the significance of the facility. In particular, VA will consider design refinements relative to a driveway and parking spaces in order to reduce the impact to the berm.

The MOA documents that the VA is able to retain three of five monkey pod trees within the construction area; the VA continues to consult to determine the feasibility of retaining, replanting, or replacing the other two monkey pod trees. During the construction process, VA will also take actions to ensure that the berm is not damaged. The VA has committed to document the existing historic landscape features within the PTSD site. Because the site for the PTSD facility was chosen prior to VA initiating consultation and alternate sites that provided similar pastoral features were not available, the MOA requires that the VA and the Army develop an inter-agency agreement that will ensure consultation for proposed future undertakings for site selections and design decisions at the earliest planning stages.

In addition to the ACHP, which has been involved since October 2009, other consulting parties included the Hawaii State Historic Preservation Office, Historic Hawaii Foundation, National Trust for Historic Preservation, and the Outdoor Circle.

For more information: www.tamc.amedd.army.mil/

LOUISIANA

Project: New Case: Iberville-Treme Transformation Plan

Agencies: City of New Orleans

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The City of New Orleans, through funding from the Choice Neighborhoods Initiative grant program, plans to demolish a significant portion of the Iberville Public Housing Complex, build new units, and develop ancillary structures to provide services to the area. Some dispute exists over such issues as defining the Area of Potential Effects and destruction of much of what is the last remaining pre-Katrina architecturally unique public housing area.

The City of New Orleans and the Housing Authority of New Orleans (HANO) have received a \$30.5 million Choice Neighborhoods Initiative grant from the U.S. Department of Housing and Urban Development for the redevelopment of the Iberville-Treme Transformation Plan. The city has been designated as the lead agency for the purposes of Section 106. As the plan currently stands, the city proposes to demolish a significant portion of the 821-unit Iberville Public Housing Complex to restore the street grid and to build 913 units, 300 of which will be available for public housing. The site will contain some mixed-use areas as well, including retail. Of the 74 buildings on-site, approximately 20 are slated for preservation.

The Iberville Public Housing Complex is eligible for listing on the National Register of Historic Places (NRHP) under Criterion A for its association with the establishment of the federal low-income housing program. St. Louis Cemeteries 1 and 2 are both adjacent to the Iberville Public Housing Complex, and are also listed on the NRHP. The undertaking also is in close proximity to at least five NRHP-listed historic districts.

It is a unique resource. Iberville is one of the last remaining traditional public housing structures in New Orleans—most of the others were demolished post-Katrina. It has an aesthetic architectural style and is well-built. However, project proponents believe selective demolition is necessary to allow for the necessary upgrades in electrical, heating and cooling systems,



Portion of the Iberville Public Housing Complex (photo courtesy City of New Orleans)

and to create units with an appropriate amount of living space.

There is disagreement about the Area of Potential Effects (APE) and whether it is large enough to incorporate other activities that will be undertaken as part of the Transformation Plan. As such, it is difficult to determine whether there has yet been sufficient effort to identify historic properties, and how those properties may be affected by the undertaking. Questions have been raised about the level of public outreach and adequate identification of other consulting parties as well. Identified consulting parties are concerned about such large-scale demolition, when there could be other alternatives that could preserve more of the original buildings' fabric while still meeting the project's needs.

The City plans to comply with Section 106 through a Programmatic Agreement. The ACHP began participating in the case on March 30, 2012. Since then, there have been a May 3 onsite meeting and tour with consulting parties and a May 30 public meeting. In addition to the ACHP, consulting parties include the Louisiana State Historic Preservation Office, Mississippi Band of Choctaw Indians, Save Our Cemeteries, National Trust for Historic Preservation, Foundation for Historical Louisiana, and many others.

For more information: www.ibervilletreme.org/

MASSACHUSETTS

Project: Ongoing Case: Pawtucket Dam Modernization

Agencies: Federal Energy Regulatory Commission

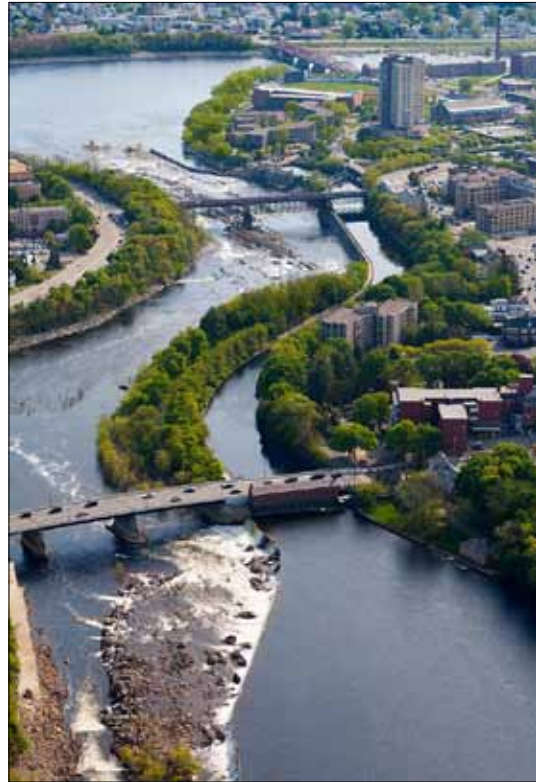
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An iconic, richly historic dam that figured prominently in the American Industrial Revolution and reminds present generations of what was once leading edge dam design requires modernization to reduce periodic flooding and resolve other issues. An innovative contemporary system was proposed that some consulting parties feared would damage the integrity of the structure. Following a recent consultation meeting, a solution preserving some of the historic Yankee technology while utilizing contemporary state of the art dam building solutions is being considered among consulting parties.

In 2010, Boott Hydropower, Inc. and the Eldred L. Field Hydroelectric Facility Trust (Boott), co-licensees for the Lowell Hydroelectric Project (Lowell Hydro) in the city of Lowell, Middlesex County, Massachusetts, filed a non-capacity amendment for its license with the Federal Energy Regulatory Commission (FERC), proposing alterations to Pawtucket Dam on the Merrimack River. Boott proposed to make modifications to the dam that would more efficiently maintain an operating pool for the hydroelectric facility and also address concerns expressed by local residents about flooding associated with Pawtucket Dam operations over the past several years.

Pawtucket Dam is a masonry dam built in 1847 and modified in 1875 at the Pawtucket Falls, replacing earlier masonry and wood dams built between 1826 and 1833. The dam was constructed as part of a system of canals and mills developed in Lowell between 1796 and 1848, incorporating technological innovations and engineering achievements that received international recognition and enabled the growth of an industrial community that became a model widely imitated in the United States and Europe.

According to the Keeper of the National Register of Historic Places (Keeper): “During its heyday, based upon the power of harnessed water, Lowell developed



Aerial view of Lowell looking northeast with Pawtucket Dam in center foreground (photo courtesy James Higgins)

into the cotton textile manufacturing center of the United States. By 1850 almost six miles of canals traversed the city, driving the waterwheels of 40 mill buildings, powering 320,000 spindles and almost 10,000 looms and giving employment to more than 10,000 workers. These canals depended on water drawn from the Merrimack River, and the Pawtucket Dam played (and continues to play) a pivotal role in providing water to the canals . . .”

The Pawtucket Dam is a nationally significant historic engineering resource listed in the National Register of Historic Places (National Register) and is a National Historic Landmark (NHL) within the Lowell Locks and Canals Historic District (LLCHD). The LLCHD is nationally significant as representative of America’s first great industrial city and today encompasses the most historically significant extant aggregation of early 19th century industrial structures and artifacts in the United States. The Pawtucket Dam is also included as a nationally significant structure in the Lowell Historic Preservation District (LHPD) and the National Park Service’s List of Classified Structures (LCS) for Lowell National Historic Park (LNHP), both listed on the National Register.

The initially proposed modifications to Pawtucket Dam involved removal of the existing five-foot-high wooden flashboard system at the crest of the dam and its replacement with an inflatable, pneumatic crest gate system and associated compressor building.

The flashboard system is a 19th century technology utilizing stacked boards to increase the height of masonry dams. The flashboards are supported by steel pins or rods inserted in holes in the capstones on the crest of the dam. The flashboards have been used to increase the operating pool level for hydropower facilities, and are designed to fail, releasing water downstream, when the river level reaches flood stages. Flashboards have been installed on the dam since the dam was modified to its current configuration in 1875. With its flashboards in place, the dam is capable of ponding the river for a distance of about 18 upstream miles. Through the 20th century, changes in the steel rods used to support the flashboards and more recent use of plywood sheets instead of stacked boards have resulted in inconsistent and unreliable performance maintaining stable operating pool levels during normal operations and reducing upstream backwater and flooding effects during high flows and flooding events. The proposed pneumatic crest gate system would consist of multiple-operating-zone inflatable bladders anchored into the dam crest, with hinged steel panels (the “crest gates”) on the upstream side of the bladders. By controlling air pressure within the bladders to increase or decrease crest gate height, the pneumatic crest gate system can maintain the normal headpond elevation and adjust quickly to high flow events. Initial plans included laying concrete across the crest of the dam to help anchor the crest gate.

The Section 106 consultation carried out by FERC for the undertaking has been complex. Consulting parties have included FERC, Boott, the Massachusetts State Historic Preservation Officer (SHPO), LNHP, other representatives of the National Park Service (NPS) and Department of the Interior (DOI), and the City of Lowell. The ACHP initially issued a number of letters addressing consulting party concerns about the consultation and FERC’s findings and determinations, and then formally entered the consultation in August 2011 to facilitate resolution of consulting party concerns.

The ACHP recommended that FERC address the concerns of the consulting parties before development of the Memorandum of Agreement (MOA) proceeds. In January 2012, FERC informed the consulting parties that it was terminating consultation. At roughly the same time, Boott filed a modification of its design plans and proposed an alternative process for the installation of the crest gate system which would not require large volumes of concrete or other materials to be irreversibly installed on the Pawtucket Dam. In February 2012, the ACHP responded to FERC’s termination notice, suggesting that there were procedural flaws in FERC’s termination, and that FERC misinterpreted the consulting parties’ responses to the draft MOA. The ACHP advised FERC to address the shortcomings in the consultation process, acknowledge adverse effects to LLCHD and LNHP as well as to Pawtucket Dam, and further consider alternatives to the undertaking, such as the newest revised proposal by Boott. In April 2012, LNHP suggested that FERC hold the first consultation meeting for this Section 106 review, to enable consulting parties, including technical staff and leadership, to come together and discuss the issues in depth.

On May 31, 2012, the consulting parties met on site in Lowell. The face-to-face consultation enabled consulting parties to seek more detailed information about the undertaking, to clarify their concerns about how it will affect historic properties, and to propose and discuss alternatives. The project proponent was able to respond to inquiries and concerns and provide the additional information necessary to consider these issues. Representatives of the consulting parties included several with relevant technical and engineering expertise who were able to pose and respond to questions about the project goals, variable ways to meet those goals, and differing effects to historic properties. During this meeting, FERC also allowed interested members of the public in attendance to make short statements about their concerns regarding the effects of the undertaking on historic properties.

This productive exchange led to an open discussion of possible alternatives to the revised design proposal that might meet project goals but minimize adverse effects to the significant historic properties. The alternatives discussed included rehabilitation of the 19th

century flashboard system along the entire dam, or along a portion of the dam combined with implementation of a pneumatic crest gate system along another portion of the dam. The utility of construction of a deep gate at one end of the dam, in coordination with a rehabilitated flashboard system, either obviating or supplementing construction of a pneumatic crest gate system along a portion of the dam, was also discussed.

All consulting parties, including the project proponent, appear genuinely focused on developing an alternative that would minimize adverse effects to the historic properties and achieve the goals of the undertaking. Based on the discussions, it appears that a combined technological approach, utilizing 19th century and modern technology, could provide a reliable means to maintain a stable operating pool level that would also be responsive to high water and flood conditions. Rehabilitation of the flashboard system along at least a portion of the dam so that it better approximates the original 19th century design would serve to restore that portion of the dam more closely to its 19th century appearance and function and also contribute to greater reliability in control of water levels. Such an achievement would be a preferred preservation outcome. The LNHP and Boott have agreed to coordinate further to investigate the details of potential modifications and alternatives to the current proposal, including the hybrid of modern and 19th century technology proposed during the meeting.



Pawtucket Dam at Pawtucket Falls showing flashboard and pin system with NPS visitors, east side of dam (photo courtesy James Higgins)

NEW YORK

Project: Closed Case: Tappan Zee Hudson River Crossing Project

Agencies: Federal Highway Administration

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Execution of a Memorandum of Agreement on June 28, 2012, completes the Section 106 review process for the replacement of the Tappan Zee Bridge over the Hudson River.

The ACHP signed a Memorandum of Agreement (MOA) with the Federal Highway Administration (FHWA), New York State Department of Transportation (NYSDOT), New York Thruway Authority (NYTA), and New York State Historic Preservation Officer (SHPO) regarding the effects of the proposed Tappan Zee Hudson River Crossing project on historic properties. Execution of the MOA was a critical step in the expedited environmental review for this project, one of three transportation projects selected last year as a priority by the Obama Administration. A Record of Decision, the final approval required under the National Environmental Policy Act (NEPA), is planned for early September for this \$5 billion replacement bridge, which will likely be built as twin spans, one for each direction, under a design build process.

The 3.1-mile-long Tappan Zee Bridge is the longest bridge in the state of New York, and one of the longest in the nation. It carries Interstate Highways 87/287 across the Hudson River, connecting Rockland and Westchester counties, New York. Built in the 1950s, the bridge has exceptional significance in transportation and engineering history. The proposed project will result in demolition of the existing bridge but will avoid impacts to all other historic buildings and structures in the area. No known archaeological properties will be affected; however, the project team is accounting for the possibility for deeply buried underwater archaeological sites and shipwrecks that may be in the path of the new bridges. Archaeological fieldwork to identify underwater sites and shipwrecks is in progress.

Section 106 consultation on the new project was initiated by FHWA in December 2011. Section 106



The Tappan Zee Bridge, seen spanning the Hudson River, will be replaced by two new structures. (photo courtesy FHWA)

consulting parties include the ACHP and SHPO, individuals and organizations representing local governments in the vicinity, the Delaware Nation Indian tribe, Friends of the Old Croton Aqueduct, Historical Society of Rockland County, Historical Society of the Nyacks, Lyndhurst (National Trust for Historic Preservation), Riverkeeper, Saint Regis Mohawk Tribe, Shinnecock Indian nation, Stockbridge-Munsee Band of Mohican Indians, and Westchester County Historical Society. The MOA negotiated among the parties requires NYSDOT and the NYTA to complete: (1) archaeological investigations to determine if any submerged sites or shipwrecks will be affected by construction; (2) detailed documentation of the Tappan Zee Bridge prior to its demolition; (3) interpretive and educational materials about the history and significance of the bridge; and (4) a construction protection plan to ensure the avoidance of inadvertent damage to nearby historic buildings and structures.

For more information: Spring 2012 *Case Digest*
www.achp.gov/docs/CaseDigestSpring2012.pdf

NEW YORK

Project: Ongoing Case: Cultural Resources Management Program Programmatic Agreement for West Point NHL

Agencies: Department of the Army, United States Army Garrison, West Point

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The United States Army Garrison, West Point, is developing an operations and maintenance Programmatic Agreement as an integral part of a comprehensive cultural resources management program at the United States Military Academy. The goal is to ensure proper management of the USMA National Historic Landmark in accordance with the National Historic Preservation Act.

This National Historic Landmark (NHL) is truly iconic in American history. Troops have been stationed at West Point, a pivotal spot guarding the Hudson River, since January 1778, making it the oldest continuously occupied military post in the country. Benedict Arnold commanded the post during the Revolutionary War and attempted to convey it to the British in 1780. Congress established the United States Military Academy (USMA) here in 1802. Buildings and memorials at the Academy attest to its long history, and its list of graduates reads like a Who's Who of American military service.

The proposed Programmatic Agreement (PA) is anticipated to provide United States Army Garrison, West Point, (USAG-WP) with a proactive tool for management of the NHL. The PA will focus on streamlining consultation for recurring activities that pose no effects or no adverse effects to the NHL and other identified historic properties managed by USAG-WP. By providing processes for such relatively benign activities beforehand, this will allow more meaningful and effective consultation on projects and activities that may result in adverse effects.

Among consulting parties in development of this PA are, in addition to USAG-WP and the ACHP, the Army Environmental Command, Department of the Army (Army); National Park Service; and the New York State Historic Preservation Office (SHPO). The ACHP has begun to focus its involvement with individual Army installations regarding the development and revisions to real property master plans in accordance with the newly released Department of Defense (DoD) Instruction



Thayer Hall (photo courtesy U.S. Army, West Point)

4165.70, Real Property Management (May 2012). These management plans are a requirement of active military installations across the services and result in projects that would be undertakings as defined by 36 CFR Part 800. The DoD envisions effective long-term development and management of military resources with thoughtful and thorough master planning.

Similar to the Section 106 process, the analytical process involved in master planning is sequential building upon preceding steps providing a logical framework for the planning effort. Many of the resources and infrastructures at installations are historic properties, including NHLs. The most proactive Section 106 consultation involving these historic properties will occur during the development of master plans. This is the point in the process that provides consulting parties with the greatest opportunity to evaluate and discuss alternatives to avoid and minimize adverse effects. Traditionally, consulting parties do not see projects resulting from master plans until after location and designs have been decided upon, making discussions involving avoidance alternatives difficult.

Taking into account sustainability and energy efficiency policies and directives, the ACHP is working with consulting parties to develop a PA that will work in conjunction with the installation's master plan and management practices. This will ensure meaningful consultations between consulting parties in the continued management of an active institution of higher learning and NHL, potentially allowing the USAG-WP to avoid unnecessary consultation on those activities that produce no effects or no adverse effects. This should reduce the work load of both the USAG-WP and the SHPO. The ACHP will take lessons learned from this PA's development and apply them to ongoing and future consultations with other Army installations currently undergoing master plan revisions and updates.

OHIO

Project: Ongoing Case: Zoar Levee and Diversion Dam

Agencies: U.S. Army Corps of Engineers

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The Village of Zoar, which is included on the National Trust for Historic Preservation's 11 Most Endangered Historic Places for 2012 list, is threatened by measures that may be taken to avert the potential failure of the Zoar Levee and Diversion Dam.

The Village of Zoar, built alongside the Tuscarawas River in Tuscarawas County by religious separatists in 1817, had little flood risk until 1937 when the Dover Dam was built by the U.S. Army Corps of Engineers (USACE) to manage flooding in the Muskingum River Watershed. (The Tuscarawas is a tributary to the Muskingum.) As part of that project, the Zoar Levee and Diversion Dam were built to protect Zoar Village from inundation by the waters impounded by the Dover Dam. Now, the levee protecting Zoar Village is failing due to seepage under the levee during high water conditions. USACE has assigned the Zoar Levee its highest risk level, stating that the need for action is "urgent and compelling." Risk reduction alternatives under consideration by USACE to alleviate this problem may create adverse effects to the historic village.

The entire Village of Zoar was listed on the National Register of Historic Places in 1969. Zoar was established by Zoarites, religious dissenters from Germany, and became a communal society continuing until 1898 when the group disbanded. It is significant both for its distinctive and well-preserved collection of 19th century German folk architecture and as a unique utopian community. Documented by the Historic American Building Survey (HABS) in the 1930s, it was deemed the "most successful communist experiment in the United States."

Currently, alternative solutions to solve the seepage problem are being proposed, evaluated, and are under consultation. Once USACE has reached the



Zoar Village is threatened by proposed construction related to the Dover Dam flood management project. (photo courtesy U.S. Army Corps of Engineers)

point in consultation that an alternative solution (Recommended Risk Management Plan) can be selected, an agreement to resolve adverse effects will be developed. This is anticipated to occur in late 2013.

Among consulting parties are USACE, the ACHP, the Zoar Community Association, the Ohio Historical Society, Heritage Ohio, and the National Trust for Historic Preservation.

For more information: www.zca.org
[http://ohsweb.ohiohistory.org/places/ne10/index/
shtml](http://ohsweb.ohiohistory.org/places/ne10/index.shtml)

PUERTO RICO

Project: New Case: Photovoltaic System on Roof of Ballaja Building

Agencies: Department of Energy

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The building housing the Puerto Rico State Historic Preservation Office was constructed between 1854 and 1864 as a barracks for the Spanish army, and is considered the last example of monumental military architecture built by the Spanish monarchy in the Americas. The new meets the old as a project to install a solar photovoltaic system on the Ballaja Building proceeds.

The Puerto Rico State Historic Preservation Office (SHPO) received a grant from the Department of Energy's State Energy Plan (SEP) for the installation of a 150.88 kilowatt photovoltaic system. It is proposed for the rooftop of the Ballaja Building, which serves as the location of the SHPO's office and the Museum of the Americas. Formally known as El Cuartel de Ballaja, the building was constructed by the Spanish army between 1854 and 1864, as the Ballaja Infantry Barracks building. The building is located on a three-acre lot and occupies the equivalent of six city blocks in Old San Juan. Considered one of the most impressive buildings constructed by Spain in the New World, it represents the last example of monumental military architecture by the Spanish monarchy in the Americas.

Used until 1898 as infantry barracks and permanent housing for approximately 1,000 soldiers, the building consisted of rooms for officers and soldiers and their families, as well as storage, kitchens, dining rooms, jail cells, and stables for horses. Constructed around a large interior courtyard, with three floors, character-defining features include the ascending vaulted ceilings above the main staircase, a feature unique in Puerto Rico.

Following its use as barracks, the building functioned as a hospital while owned by the United States federal government. In 1976, the government of Puerto Rico acquired the Ballaja Infantry Barracks from the federal government by way of a transfer with a commitment to restore and use the building for



Interior patio of the Ballaja Barracks (photo courtesy Wikipedia Commons)

cultural, educational, and touristic purposes. In 1986, the restoration of the building began under the San Juan Interior Historic Zone Restoration. The majority of restoration work continued through 1993, while work to maintain the building and introduce new systems is ongoing. The building is a contributing property to the San Juan Historic District.

In identifying ways to introduce green and sustainable systems and technologies for the Ballaja Building, the SHPO received a SEP grant from the Department of Energy (DOE) to fund the installation of a rooftop photovoltaic system. The original 19th century rooftop was replaced in the 20th century with a reinforced concrete T-beam slab. A deep parapet surrounds the roof, which provides ideal visual screening for solar panels on the roof, which allowed the SHPO to identify the project as a strong candidate for this undertaking. Under the executed Programmatic Agreement for DOE's Weatherization Assistance Program, Energy Efficiency and Conservation Block Grant, and SEP grant programs, based on the prototype Programmatic Agreement, the project is considered an exempted activity under Stipulation III: "Solar systems (including photovoltaic and solar thermal) not visible from the public right of way and if ground-mounted can be installed without ground disturbance and, if roof-mounted will not require new building reinforcement."

While the installation of the photovoltaic system is deemed an exempt activity without requiring a full Section 106 review, the fact that the SHPO office itself was the applicant ensured that the project would still be sensitive to the historic character of the building. Working with the Puerto Rico Department of Energy

and its contractor, SHPO staff planned the project so that the installation of the photovoltaic panels could occur in a manner where they would not be visible from any of the public rights-of-way adjacent to the building, as well as not otherwise compromise the building's historic integrity.

In addition to the installation of the photovoltaic modules and cells, a green roof has been incorporated on the rooftop to further enhance the approach of the SHPO to introduce green and sustainability components to this historic building to ensure its longevity. In addition, a new HVAC system was installed for the building, utilizing existing storage facilities while replacing cooling tanks.



Ballaja Barracks is sited near El Morro in San Juan, Puerto Rico. (photo courtesy Ballaja.com)

WYOMING AND IDAHO

Project: Ongoing Case: Gateway West Transmission Line

Agencies: Bureau of Land Management

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The Gateway West Transmission Line is an interstate and interagency project that aims to construct a new transmission line approximately 1,100 miles long from Glenrock, Wyoming, to 30 miles southwest of Boise, Idaho. This route will cross multiple federal, state, and local jurisdictions and the ancestral and traditional landscapes of several Indian tribes. The Section 106 process for this project has been challenging but is approaching its conclusion with completion of a Programmatic Agreement.

The proposed line would extend approximately 1,100 miles with a 300-foot-wide right-of-way and may involve lands or permits administered by the Bureau of Land Management (BLM), U.S. Forest Service, Bureau of Reclamation, U.S. Army Corps of Engineers, National Park Service (NPS), and Idaho National Guard. It may also cross the Fort Hall Indian Reservation, and requires the involvement of the Bureau of Indian Affairs. The BLM is lead federal agency for the project, with its Rawlins Field Office in Wyoming primarily responsible for handling the Section 106 process.

Because this is an extraordinarily long transmission line crossing multiple jurisdictions, the ACHP opted to participate in the Section 106 consultations to provide expertise and guidance to the process. There was also concern that the proposed line could have substantial impacts on historic properties.

In addition to the agencies noted above, also participating were the Wyoming State Historic Preservation Officer (SHPO); the Idaho SHPO; the Idaho Power Company and Rocky Mountain Power (proponents); and the Alliance for Historic Wyoming. The BLM is conducting government-to-government consultations with the Shoshone-Paiute Tribes, the Shoshone-Bannock Tribes, the Ute Indian Tribe of the Uintah and Ouray Reservation, the



Birdseye view of insulators and transmission lines (photo courtesy Rocky Mountain Power Company and Idaho Power Company)

Eastern Shoshone, the Northern Arapaho, the Northern Cheyenne, the Northwestern Band of Shoshone, and the Oglala Sioux. Alternative routes, although unlikely to be chosen, cross the Fort Hall Indian Reservation of the Shoshone-Bannock Tribe and part of Nevada. If one of these alternatives is selected, the Shoshone-Bannock and the Nevada SHPO would become required signatories to the Programmatic Agreement (PA) that was negotiated to address possible adverse effects.

All transmission line proposals, including Gateway West, involve a variety of developments that must be taken into account. The towers supporting overhead cable can be 80 to 200 feet tall, depending on the kilovolt (kV) load on the line, and come in a variety of styles, although most are what is known as steel lattice. For Gateway West, about 300 miles of the proposed transmission line will be 230 kV, with approximately 800 miles planned as 500 kV line. The towers for the 500 kV portion of Gateway West will be lattice and 150 to 190 feet tall, spaced 1,200 to 1,300 feet apart. Other construction necessary to transmission lines includes new or improved roads, new substations, connections to existing substations, communication sites, staging areas, tensioning sites, and construction sites.

The Section 106 consultations for transmission lines tend to be challenging because of the length of the project lines, the multiple jurisdictions involved, and the large areas of potential effect (APEs) that ensue. This is

complicated by the fact that there are ordinarily several major routes under consideration with many local variations that may require consultation on thousands of miles of potential corridor. This can mean the alternatives considered in the Section 106 process are two or three times longer than the proposed route. For Gateway West, approximately 3,000 miles of alternative routes are under consideration.

Some properties eligible for or listed in the National Register of Historic Places (National Register) are affected by several different transmission lines, and some lines have multiple phases of construction, with National Environmental Policy Act (NEPA) and Section 106 accomplished separately for each phase because they are developed years apart and with independent funding sources. As a result of all these challenges, project-specific PAs are formulated that take a phased approach to identification and evaluation of historic properties to fulfill Section 106 requirements. This is the process BLM is using for the Gateway West Transmission Line.

A number of salient historic properties could be affected by the proposed line. Alternative routes may affect:

- (1) the City of Rocks National Reserve, a unit of the NPS and a National Historic Landmark;
- (2) Minidoka National Historic Site, a unit of the NPS that is listed on the National Register as a nationally significant historic property;
- (3) Hagerman Fossil Beds National Monument, a unit of the NPS, containing a portion of the Oregon National Historic Trail; and,
- (4) intact segments of the Oregon and California National Historic Trails, which are administered by the NPS.

Another challenge on all transmission lines is effectively addressing indirect effects, such as visual, atmospheric, and audible elements that diminish the integrity of the characteristics that make the property eligible for the National Register. For Gateway West, this included defining an APE for indirect effects that extends for five miles or to the visual horizon, whichever is closer, on either side of the proposed alternatives. The stipulations of the PA include the use of BLM's Visual Contract Ratings and potential photo simulations to determine the visual effects on all historic properties, and particularly on the historic trails. Cumulative effects



A 500 kV transmission line crosses remnants of an orchard. (photo courtesy Rocky Mountain Power Company and Idaho Power Company)

and those reasonably foreseeable effects caused by the proposed transmission line that may occur later in time or be farther removed in distance, are also taken into account. All effects are addressed in the PA crafted in the Section 106 consultations.

The PA specifies the creation of a Historic Properties Treatment Plan (HPTP) that will outline a strategy to mitigate adverse effects to the specific characteristics of the historic property that make it eligible for listing in the National Register. Given the nature of the phased construction, specific treatment plans may be developed in stages with input from the consulting parties. For indirect effects, mitigation such as topographic screening will be used to the extent possible to reduce the visibility of the transmission line from historic properties. The HPTP will also provide specific avoidance or mitigation measures to lessen any potential cumulative effects. Further, the HPTP will address the assessment of effects and how adverse effects to historic properties will be resolved in consultation with the consulting parties; preparation of a monitoring plan, including tribal participation; and methods to document proposed treatment and reporting of mitigation. The BLM is completing consultations on the PA and anticipates executing it in late summer or fall 2012.

For additional information:

www.wy.blm.gov/nepa/cfodocs/gateway_west/
www.gatewaywestproject.com/default.aspx



Preserving America's Heritage

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