

Successes **in** Stewardship

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The Hoover Dam Bypass Project: Environmental Streamlining through Multi-Agency Collaboration

U.S. Highway 93 is a major north-south highway in the western United States, linking the four states of Montana, Idaho, Nevada, and Arizona. It also serves as the primary commercial corridor between Arizona, Nevada, and Utah. It is designated as a North American Free Trade Agreement (NAFTA) route between Mexico, the United States, and Canada.

To cross the Colorado River and the Arizona-Nevada state line, U.S. 93 has run along the top of the Hoover Dam since its completion in the 1930s. Growing commercial and recreational traffic along this route has led to traffic congestion in recent years, which is exacerbated by the route's reduction from four to two lanes leading up to and then crossing the Dam. The sharp curves and switchbacks, narrow shoulders, and poor sightlines that characterize the sections of highway approaching the Dam only compound this problem. The section of U.S. 93 crossing the top of the Dam can no longer handle this increasing traffic flow.



Artist's rendering of the new Colorado River crossing once it has been completed. (Photo courtesy of HooverDamBypass.org)

The Central Federal Lands Highway Division (CFLHD), part of the Federal Highway Administration (FHWA), is currently coordinating efforts to build a new Colorado River crossing known as the Hoover Dam Bypass Project. The project design was completed in 2001, and the bridge is now under construction and slated for completion in June 2010.

Goals and Objectives of the Hoover Dam Bypass

Congestion on the existing U.S. 93 Colorado River crossing imposes a significant economic burden on neighboring Arizona, Nevada, and Utah. Heavy traffic volumes create a potentially dangerous situation for both pedestrians and vehicles on the Dam crest and on the approaches to the Dam. A catastrophic event on the existing river crossing could have a severe impact on the Hoover Dam, the Colorado River, and nearby Lake Mead, potentially disrupting power and water supplies throughout the Southwest. The solution to addressing these traffic and safety concerns is to create an alternate crossing of the river near the Hoover Dam through the Hoover Dam Bypass Project.

Under this project, a new bridge will be constructed approximately 1,600 feet downstream from the Hoover Dam and the existing 3.5-mile approach to the Dam will be replaced with a modern, four-lane highway. The primary goals of the project are to:

- Improve pedestrian and vehicular safety along the existing U.S. 93 river crossing and Dam approaches.
- Enable current and future traffic to safely cross the Colorado River.
- Reduce traffic congestion.
- Safeguard the Hoover Dam and its facilities and protect the Colorado River and Lake Mead.

After the new bridge and roadway sections are completed in mid to late 2010, the existing Colorado River crossing over the Dam will be open only to visitors and tourists. It will be permanently closed to through traffic.

Project Challenges and Context

The unique physical, cultural, and historical features of the Hoover Dam and the surrounding area present special challenges for the development, design, and construction of a bypass route for U.S. 93:

- Multiple stakeholders have jurisdiction over the Hoover Dam, its facilities, and nearby Colorado River lands, including FHWA, the U.S. Bureau of Reclamation, and several Native American tribes.

- The lower Colorado River and proximate areas have cultural, historical, and religious significance for 13 Native American tribes.
- The Hoover Dam is a registered National Historic Landmark subject to Section 106 of the National Historic Preservation Act (NHPA), which requires Federal agencies to address how activities and programs may affect historic properties. To comply with Section 106, agencies must evaluate and resolve any adverse effects of Federal activities on identified historic sites and consult with representatives from the appropriate State Historic Preservation Office (SHPO), Tribal Historic Preservation Office, and other interested parties, including Native American tribes or members of the public.

Proposals to build a U.S. 93 bypass route have been discussed since the 1960s, but until recently, none had been able to surmount the unique challenges at play in the Hoover Dam area. Managing the complex list of stakeholders and coordinating efforts across multiple agencies and jurisdictions proved to be very challenging. By the late 1990s, the rising traffic and congestion made it clear that renewed attempts to build a bypass were needed. In 1997, the governors of Arizona and Nevada requested that CFLDH be the lead agency to coordinate such an effort. Recognizing the obstacles to prior efforts, CFLHD encouraged a new approach to project planning and design, one that would engage stakeholders and ensure creation of a project plan that all parties could accept.

Participants in CFLHD's Multi-Agency Project Team
State of Arizona
State of Nevada
Bureau of Reclamation
Western Area Power Administration (WAPA)
National Park Service (NPS)

A Multi-Agency Collaborative Approach to Project Management

A priority for CFLHD, and a key aspect of its success, was the development of a multi-agency management team to oversee the project's design and construction. This stemmed from the recognition that only through a team approach could the project deliver the safety, mobility, and other improvements that would meet the needs of all affected stakeholders. These stakeholders include the public, Native American tribes, and state and Federal agencies.

CFLHD used a comprehensive project management approach with a continued and ongoing focus on project delivery. For example, rather than producing NEPA-required documentation as stand-alone reports, CFLHD strove to integrate the values underlying NEPA requirements into the project goals. CFLHD also incorporated environmental stewardship into the operating procedures and programmatic agreements governing all phases of project development and delivery, including:

- *Project Operating Agreement*, defining specific roles and responsibilities for each agency on the project management team.
- *Project Delivery Plan*, setting a working-level strategy for implementing the Hoover Dam Bypass Project and guiding all aspects of the project from concept to completion.
- *Programmatic Agreement*, outlining the process for FHWA to work with potentially affected Native American tribes in reducing adverse effects on culturally significant properties resulting from project construction. A key element of this agreement was to establish a Design Advisory Panel (DAP) (see sidebox).
- *Memorandum of Understanding*, establishing the process and procedure for a government-to-government consultation between FHWA and the 13 potentially affected Native American tribes and ensuring that there was tribal input into the context-sensitive design and implementation of the bypass project.

Design Advisory Panel (DAP)

CFLHD and FHWA established the Design Advisory Panel (DAP) in 2001 to ensure that Federal historic preservation concerns would be adequately addressed during project planning and development. DAP members include representatives from all six agencies on the Hoover Dam Bypass Project's multi-agency team, the Arizona and Nevada SHPOs, the Advisory Council on Historic Preservation (ACHP), a National Historic Landmarks (NHL) coordinator; a Native American tribal representative, an independent architectural historian, and a registered landscape architect.

DAP provides a forum to discuss proposed project features, structures, and design elements and how to mitigate any potential impacts that would endanger the historic landmarks status of the Hoover Dam and adjacent properties. For example, DAP input influenced the final bridge-arch design, pedestrian facilities located close to the bridge, and landscaping on bridge approaches.

These procedures and agreements support CFLHD's commitment to designing project elements and implementing a final alternative that satisfies all affected stakeholders. CFLHD has fostered a life-cycle approach to project development, one that encourages multi-party leadership and collaboration from beginning to completion. This approach was successful in building a coalition and maintaining trust and cooperation among CFLHD, the multi-agency project team, and stakeholders.

The Hoover Dam Bypass Project proves that multi-agency management teams can be used with well-defined project operating and programmatic agreements and other collaborative methods to successfully address environmental streamlining and stewardship goals.

For more details on the Final Environmental Impact Statement, along with project updates, newsletters, maps, and other related materials, go to <http://www.hooverdambypass.org>.

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Look What's New!

The 2007 Gallup/FHWA Survey results of resource agencies and transportation agencies by Region are now available at http://www.environment.fhwa.dot.gov/strmlng/gallup_survey_2007.asp.

The U.S. Institute for Environmental Conflict Resolution will be hosting its fifth [National ECR Conference](#) in Tucson, AZ on May 20-22, 2008.

The FHWA/FTA's Transportation Planning Capacity Building (TPCB) Program has recently published an updated version of its [Transportation Planning Process: Key Issues](#), a briefing book for transportation decisionmakers, officials, and staff.

Successes in Stewardship is a Federal Highway Administration newsletter highlighting current environmental streamlining and stewardship practices from around the country. To subscribe, visit http://environment.fhwa.dot.gov/sis_registration/Register.aspx or call 617-494-3137.