

**APPENDIX A  
SCOPING**

Scoping Notice, Press Release, and Scoping Letters  
Agency Scoping Letter Responses  
Public Scoping Comments

## **Appendix A — Scoping Notice / News Release and Scoping Letters**

Scoping Notice / News Release

U.S. Fish and Wildlife Service

Arizona Game and Fish Department

Arizona State Historic Preservation Office

Church of Jesus Christ of Latter-day Saints

Tribal Letters

Hopi Tribe

Kaibab Paiute

Navajo Nation

Paiute Indian Tribe of Utah

San Juan Southern Paiute

Ute Mountain Ute Tribe

*NOTE: Figures 1 and 2 were distributed with the scoping notice and each of the letters, and are referenced in all letters. However, to avoid unnecessary repetition, the figures are only reproduced one time following the scoping notice.*



National Park Service  
U.S. Department of the Interior

FOR IMMEDIATE RELEASE  
August 24, 2011 11-22

Glen Canyon  
National Recreation Area

Rainbow Bridge  
National Monument

691 Scenic View Dr.  
PO Box 1507  
Page, AZ 86040-1507

CONTACT: Max King  
928-608-6351

## Glen Canyon News Release

### **Scoping Notice — Preparation of an Environmental Assessment for Lees Ferry Road Rehabilitation and Paria River Bank Stabilization, Glen Canyon National Recreation Area**

**Page, AZ** – The National Park Service (NPS) will be preparing an environmental assessment which will analyze the environmental effects of rehabilitating the Lees Ferry Road and stabilizing the banks of the Paria River near and upstream of the Paria River Bridge in Glen Canyon National Recreation Area (NRA).

The purpose of the project is to enhance safety on the Lees Ferry Road by making lane widths consistent and resurfacing the roadway. Curve radii would be adjusted to meet safety standards where necessary and drainage issues also would be addressed. The banks of the Paria River just upstream of the Lees Ferry Road are eroding. This erosion endangers the support abutments and pier of the bridge over the Paria River as well as the adjacent Lonely Dell Access Road, which provides access to the Lonely Dell Ranch National Historic District (about 1,000 feet upstream of the bridge and about 3,000 feet upstream of the confluence of the Paria River and the Colorado River). The project would stabilize the river banks and employ measures to minimize erosion near the bridge and along the Paria River's west bank below the Lonely Dell Access Road.

The project area, in Coconino County, Arizona, includes the Lees Ferry Access Road from its junction with US Highway 89A at Marble Canyon to about six miles northeast at the road's terminus and boat launch-ramp parking lot; the Paria River's banks and river bottom at and adjacent to the Paria River Bridge; and a site along the Paria River where it flows adjacent to the Lonely Dell Access Road, about 0.5 mile upstream of its confluence with the Colorado River. Please refer to the attached Figures 1 and 2 for graphics showing the project location.

Potential solutions being considered to rehabilitate the road involve a resurfacing, restoration, rehabilitation project including milling and paving, minor curve widening (4-foot maximum), and drainage improvements along and across the road, including culvert improvements at many locations. Erosion stabilization (different from just the Paria River area) would consider several options including constructing the following:

- Rock filled wire baskets (gabions) as bank and streambed protection and gabion spur dikes for erosion protection.
- Continuous rock filled wire matt bank protection (revet mattresses) extending upstream about 240 feet from the east Paria River bridge abutment, with spur dikes upstream of the bank protection, the last one located approximately 400 feet upstream;
- Continuous bank and streambed protection under the bridge, with abutment slope paving;
- A retaining wall where the river begins to encroach on the Lonely Dell Access Road, with spur dikes upstream of the wall;

---

EXPERIENCE YOUR AMERICA™

The National Park Service cares for special places saved by the American people so that all may experience our heritage.

- Gabion spur dikes along the Lees Ferry Access Road just upstream of the Cathedral Wash crossing.

The Federal Highway Administration, under an interagency agreement with the National Park Service, will engage a contractor to perform the resurfacing, restoration, rehabilitation work and construct the bank and river bed protection on the Paria River.

An environmental assessment will be prepared in compliance with the National Environmental Policy Act to provide the decision-making framework that 1) analyzes a reasonable range of alternatives to meet project objectives, 2) evaluates issues and impacts to NRA resources and values, and 3) identifies mitigation measures to lessen the degree or extent of these impacts. This project will also be conducted in accordance with Section 106 of the National Historic Preservation Act and other applicable laws, regulations, and policies.

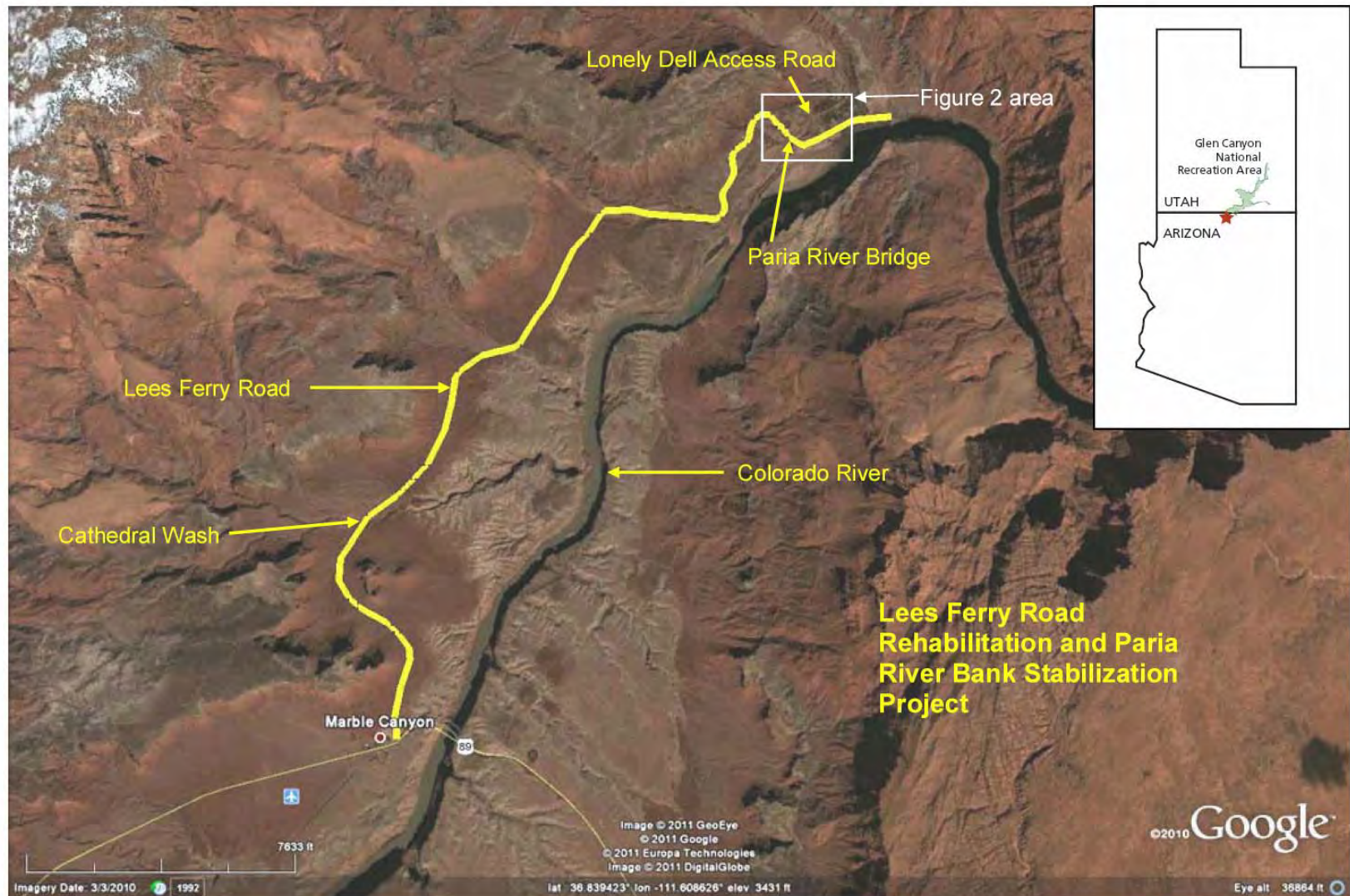
The NRA encourages public participation throughout the planning process. There will be two opportunities to comment formally on the project—once during initial project scoping and again following release of the environmental assessment. The NRA is currently in the scoping phase of the proposed project and invites the public to submit written suggestions, comments, and concerns regarding the project online at the NPS Planning, Environment, and Public Comment (PEPC) website at: <http://parkplanning.nps.gov/glca>. Comments also may be sent to the address below no later than September 26, 2011.

Superintendent, Glen Canyon National Recreation Area  
ATTN: Tim Windle  
PO Box 1507  
Page, AZ 86040

Commentors should be aware that their entire comment – including personal identifying information – may be made publicly available at any time. While commentors can ask that their personal identifying information be withheld from public review, the NPS cannot guarantee that this will be possible.

– [www.nps.gov/glca](http://www.nps.gov/glca) –

**Figure 1.** Lees Ferry Road Rehabilitation and Paria River Bank Stabilization Project - Area Map.





**Figure 2.** Paria River Bridge and Lonely Dell Access Road - Project Locations.



*Glen Canyon National Recreation Area  
Lees Ferry Road Rehabilitation and Paria River Bridge Stabilization*



United States Department of the Interior  
NATIONAL PARK SERVICE  
Glen Canyon National Recreation Area  
691 Scenic View Rd  
PO Box 1507  
Page, AZ 86040  
Tel: 928-608-6200  
Fax: 928-608-6259



IN REPLY REFER TO:  
**L7617**

August 23, 2011

Mr. Steve Spangle, Field Supervisor  
U.S. Fish and Wildlife Service  
2321 West Royal Palm Road, Suite 103  
Phoenix, AZ 85021

Subject: *Scoping Notice – Lees Ferry Road Rehabilitation and Paria River Bank Stabilization  
Environmental Assessment, Glen Canyon National Recreation Area*

The National Park Service (NPS) will be preparing an environmental assessment (EA) which will analyze the environmental effects of rehabilitating the Lees Ferry Road and stabilizing the banks of the Paria River near and upstream of the Paria River Bridge in Glen Canyon National Recreation Area.

The purpose of the project is to enhance safety on the Lees Ferry Road by making lane widths consistent and resurfacing the roadway. Curve radii would be adjusted to meet safety standards where necessary and drainage issues also would be addressed. The banks of the Paria River just upstream of the Lees Ferry Road are eroding. This erosion endangers the support abutments and pier of the bridge over the Paria River as well as the adjacent Lonely Dell Access Road (about 1,000 feet upstream of the bridge and about 3,000 feet upstream of the confluence of the Paria River and the Colorado River). The project would stabilize the river banks and employ measures to minimize erosion near the bridge and along the Paria River's west bank below the Lonely Dell Access Road.

The project area, in Coconino County, Arizona, includes the Lees Ferry Access Road from its junction with US Highway 89A at Marble Canyon to about six miles northeast at the road's terminus and boat launch-ramp parking lot; the Paria River's banks and river bottom at and adjacent to the Paria River Bridge; and a site along the Paria River where it flows adjacent to the Lonely Dell historic area access road, about 0.5 mile upstream of its confluence with the Colorado River. Please refer to the attached Figures 1 and 2 for graphics showing the project location and proposed actions.

Potential solutions being considered to rehabilitate the road involve a resurfacing, restoration, rehabilitation (3R) project including milling and paving, minor curve widening (4-foot maximum), and drainage improvements along and across the road at many locations. Erosion stabilization (different from just the Paria River area) would consider several options including constructing the following:

- Rock filled wire baskets (gabions) as bank and streambed protection and gabion spur dikes for erosion protection;
- Continuous rock filled wire matt bank protection (revet mattresses) extending upstream about 240 feet from the east Paria River bridge abutment, with spur dikes upstream of the bank protection, the last one located approximately 400 feet upstream;
- Continuous bank and streambed protection under the bridge, with abutment slope paving;

*Glen Canyon National Recreation Area  
Lees Ferry Road Rehabilitation and Paria River Bridge Stabilization*

- A retaining wall where the river begins to encroach on the Lonely Dell Access Road, with spur dikes upstream of the wall;
- Gabion spur dikes along the Lees Ferry Access Road just upstream of the Cathedral Wash crossing.

The Federal Highway Administration (FHWA), under an interagency agreement with the National Park Service, will engage a contractor to perform the 3R work and construct the bank and river bed protection on the Paria River.

We are requesting any information your office may have regarding the presence of listed Federal threatened, endangered, or candidate species, species proposed for listing, and designated or proposed critical habitats, which may be affected by this project within Glen Canyon National Recreation Area. This request is being made pursuant to Section 7 of the Endangered Species Act.

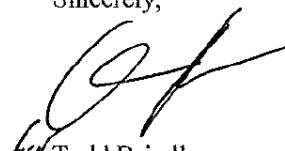
We look forward to your participation in this process and believe that it will help ensure that federally listed species are adequately considered and evaluated in the EA. In keeping with the requirements of Section 7 consultation and National Park Service policy, when the EA is complete, we will make a copy available for your review and comment.

We would appreciate any preliminary input you may have by September 26, 2011. If you have questions about the project or would like more information, please call Lonnie Pilkington, (928) 608-6269 or email [Lonnie\\_Pilkington@nps.gov](mailto:Lonnie_Pilkington@nps.gov).

Comments can be sent to:

Superintendent, Glen Canyon National Recreation Area  
ATTN: Tim Windle  
Glen Canyon National Recreation Area  
PO Box 1507  
Page, AZ 86040

Sincerely,

  
for Todd Brindle  
Superintendent



*Glen Canyon National Recreation Area  
Lees Ferry Road Rehabilitation and Paria River Bridge Stabilization*



United States Department of the Interior  
NATIONAL PARK SERVICE  
Glen Canyon National Recreation Area  
691 Scenic View Rd  
PO Box 1507  
Page, AZ 86040  
Tel: 928-608-6200  
Fax: 928-608-6259



IN REPLY REFER TO:  
**L7617**

August 23, 2011

Ms. Laura Canaca  
Arizona Game and Fish Department - WMHB  
5000 West Carefree Highway  
Phoenix, AZ 85086

RE: *Scoping Notice – Lees Ferry Road Rehabilitation and Paria River Bank Stabilization Environmental Assessment, Glen Canyon National Recreation Area*

The National Park Service (NPS) will be preparing an environmental assessment (EA) which will analyze the environmental effects of rehabilitating the Lees Ferry Road and stabilizing the banks of the Paria River near and upstream of the Paria River Bridge in Glen Canyon National Recreation Area.

The purpose of the project is to enhance safety on the Lees Ferry Road by making lane widths consistent and resurfacing the roadway. Curve radii would be adjusted to meet safety standards where necessary and drainage issues also would be addressed. The banks of the Paria River just upstream of the Lees Ferry Road are eroding. This erosion endangers the support abutments and pier of the bridge over the Paria River as well as the adjacent Lonely Dell Access Road (about 1,000 feet upstream of the bridge and about 3,000 feet upstream of the confluence of the Paria River and the Colorado River). The project would stabilize the river banks and employ measures to minimize erosion near the bridge and along the Paria River's west bank below the Lonely Dell Access Road.

The project area, in Coconino County, Arizona, includes the Lees Ferry Access Road from its junction with US Highway 89A at Marble Canyon to about six miles northeast at the road's terminus and boat launch-ramp parking lot; the Paria River's banks and river bottom at and adjacent to the Paria River Bridge; and a site along the Paria River where it flows adjacent to the Lonely Dell Access Road, about 0.5 mile upstream of its confluence with the Colorado River. Please refer to the attached Figures 1 and 2 for graphics showing the project location and proposed actions.

Potential solutions being considered to rehabilitate the road involve a resurfacing, restoration, rehabilitation (3R) project including milling and paving, minor curve widening (4-foot maximum), and drainage improvements along and across the road at many locations. Erosion stabilization (different from just the Paria River area) would consider several options including constructing the following:

- Rock filled wire baskets (gabions) as bank and streambed protection and gabion spur dikes for erosion protection;
- Continuous rock filled wire matt bank protection (revet mattresses) extending upstream about 240 feet from the east Paria River bridge abutment, with spur dikes upstream of the bank protection, the last one located approximately 400 feet upstream;
- Continuous bank and streambed protection under the bridge, with abutment slope paving;

*Glen Canyon National Recreation Area  
Lees Ferry Road Rehabilitation and Paria River Bridge Stabilization*

- A retaining wall where the river begins to encroach on the Lonely Dell Access Road, with spurs dikes upstream of the wall;
- Gabion spur dikes along the Lee's Ferry Access Road just upstream of the Cathedral Wash crossing.

The Federal Highway Administration (FHWA), under an interagency agreement with the National Park Service, will engage a contractor to perform the 3R work and construct the bank and river bed protection on the Paria River.

We are requesting any information your office may have regarding the presence of state-listed threatened or endangered species, species of special concern, species proposed for listing, and designated or proposed critical habitats, which may be affected by this project within Glen Canyon National Recreation Area.

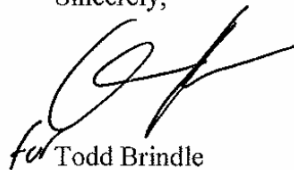
We look forward to your participation in this process and believe that it will help ensure that state-listed species are adequately considered and evaluated in the EA. We are consulting with the U.S. Fish and Wildlife Service to evaluate federally listed species. When the EA is complete, we will make a copy available for your review and comment.

We would appreciate any preliminary input you may have by September 26, 2011. If you have questions about the project or would like more information, please call Mr. Lonnie Pilkington, (928) 608-6269 or email [Lonnie\\_Pilkington@nps.gov](mailto:Lonnie_Pilkington@nps.gov).

Comments can be sent to:

Superintendent, Glen Canyon National Recreation Area  
ATTN: Tim Windle  
Glen Canyon National Recreation Area  
PO Box 1507  
Page, AZ 86040

Sincerely,



Todd Brindle  
Superintendent



**United States Department of the Interior**  
**NATIONAL PARK SERVICE**  
Glen Canyon National Recreation Area  
PO Box 1507  
Page, AZ 86040

IN REPLY REFER TO:  
L7617

August 23, 2011

**Mr. James Garrison**  
**State Historic Preservation Officer**  
**Arizona State Parks**  
**1300 W. Washington Street**  
**Phoenix, AZ 85007**

**RE: Initiation of the Section 106 Process, Lees Ferry Road Rehabilitation and Paria River Bank Stabilization, Glen Canyon National Recreation Area**

Dear Mr. Garrison,

The National Park Service (NPS) proposes to rehabilitate the Lees Ferry Road and stabilize the banks of the Paria River near and upstream of the Paria River Bridge in Glen Canyon National Recreation Area (NRA). Portions of the proposed project area are located within the Lees Ferry and Lonely Dell Ranch National Historic District and intersects segments of the historic Honeymoon Trail.

The purpose of the project is to enhance safety on the Lees Ferry Road by making lane widths consistent and resurfacing the roadway. Curve radii would be adjusted to meet safety standards where necessary and drainage issues also would be addressed. The banks of the Paria River just upstream of the Lees Ferry Road are eroding. This erosion endangers the support abutments and pier of the bridge over the Paria River as well as the adjacent Lonely Dell Historic Area Access Road (about 1,000 feet upstream of the bridge and about 3,000 feet upstream of the confluence of the Paria River and the Colorado River). The project would stabilize the river banks and employ measures to minimize erosion near the bridge and along the Paria River's west bank below the Lonely Dell Access Road.

The project area, in Coconino County, Arizona, includes the Lees Ferry Access Road from its junction with US Highway 89A at Marble Canyon to about six miles northeast at the road's terminus and boat launch-ramp parking lot; the Paria River's banks and river bottom at and adjacent to the Paria River Bridge; and a site along the Paria River where it flows adjacent to the Lonely Dell Access Road, about 0.5 mile upstream of its confluence with the Colorado River. Please refer to the attached Figures 1 and 2 for graphics showing the project location.

Potential solutions being considered to rehabilitate the road involve a resurfacing, restoration, rehabilitation (3R) project including milling and paving, minor curve widening (4-foot maximum), and drainage improvements along and across the road at many locations. Erosion stabilization (different from just the Paria River area) would consider several options including constructing the following:

- Rock filled wire baskets (gabions) as bank and streambed protection and gabion spur dikes for erosion protection.
- Continuous rock filled wire matt bank protection (revet mattresses) extending upstream about 240 feet from the east Paria River bridge abutment, with spur dikes upstream of the bank protection, the last one located approximately 400 feet upstream;
- Continuous bank and streambed protection under the bridge, with abutment slope paving;
- A retaining wall where the river begins to encroach on the Lonely Dell Access Road, with spur dikes upstream of the wall;
- Gabion spur dikes along the Lees Ferry Access Road just upstream of the Cathedral Wash crossing.

The Federal Highway Administration, under an interagency agreement with the NPS, will engage a contractor to perform the 3R work and construct the bank and river bed protection on the Paria River.

An environmental assessment will be prepared in compliance with the National Environmental Policy Act to provide the decision-making framework that 1) analyzes a reasonable range of alternatives to meet project objectives, 2) evaluates issues and impacts to Glen Canyon NRA resources and values, and 3) identifies mitigation measures to lessen the degree or extent of these impacts. This project will also be conducted in accordance with Section 106 of the National Historic Preservation Act and other applicable laws, regulations, and policies.

In accordance with 36 CFR §800.3(c), we take this opportunity to formally initiate the Section 106 consultation process with you. We are currently in the scoping phase of this project, and invite you to submit your written comments online at the NPS Planning, Environment, and Public Comment website at <http://parkplanning.nps.gov/glca>. Or, you may submit written comments to the Superintendent at the address provided on the letterhead. We would also like to request your recommendations for additional consulting parties who may possess a demonstrated interest in the undertaking or concern with potential effects on the historic properties.

Please provide all comments by September 26, 2011. We will consider these comments during the next steps of the environmental compliance process. Thank you in advance for your comments, and we look forward to hearing from you. If you have questions or need additional information, please contact Thann Baker by email at [thann\\_baker@nps.gov](mailto:thann_baker@nps.gov) or by phone at (928) 608-6263, or Rosemary Sucec by email at [rosemary\\_sucec@nps.gov](mailto:rosemary_sucec@nps.gov) or by phone at (928) 608-6277.

Sincerely,



Todd Brindle  
Superintendent

Enclosure:

Figures 1 and 2 illustrating the project area

Cc: Mr. Reid Nelson, Advisory Council on Historic Preservation



United States Department of the Interior  
NATIONAL PARK SERVICE  
Glen Canyon National Recreation Area  
PO Box 1507  
Page, AZ 86040

IN REPLY REFER TO:  
L7617

August 23, 2011

Ms. Jennifer L. Lund  
Manager Historic Sites Division, History Department  
Jesus Christ of Latter-day Saints  
15 East North Temple  
SLC, UT 84150-1600

**RE: Initiation of the Section 106 Process and Public Scoping, Lees Ferry Road Rehabilitation and Paria River Bank Stabilization, Glen Canyon National Recreation Area**

Dear Ms. Lund,

The National Park Service (NPS) proposes to rehabilitate the Lees Ferry Road and stabilize the banks of the Paria River near and upstream of the Paria River Bridge in Glen Canyon National Recreation Area (NRA). Please refer to the enclosed map.

An environmental assessment will be prepared in compliance with the National Environmental Policy Act to provide the decision-making framework that 1) analyzes a reasonable range of alternatives to meet project objectives, 2) evaluates issues and impacts to NRA resources and values, and 3) identifies mitigation measures to lessen the degree or extent of these impacts. This project will also be conducted in accordance with Section 106 of the National Historic Preservation Act (NHPA) and other applicable laws, regulations, and policies.

We hereby extend this opportunity to you for comment on this project. Specifically, we would like to know 1) if there are any ethnographic resources that are of concern to you and 2) if you would like to be involved in this project in more detail. You may submit your written comments online at the NPS Planning, Environment, and Public Comment website at <http://parkplanning.nps.gov/>. Or, you may submit written comments to the Superintendent at the address on the letterhead. Or, you may contact Thann Baker. See below for the contact information.

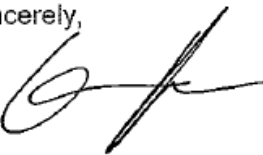
We do wish you to know that we are in the process of conducting a cultural sites inventory in the proposed Area of Potential Effect (APE). To date we have found sites that contain ceramics, an historic trash dump, and lithic scatters. The proposed construction area also transects the Arizona Road/Honeymoon Trail at six locations. Once the draft report of this work is complete, we will be providing a copy for your review.



*Glen Canyon National Recreation Area  
Lees Ferry Road Rehabilitation and Paria River Bridge Stabilization*

Please provide all comments on this proposed project by September 26, 2011. We will consider these comments during the next steps of the environmental compliance process. Thank you in advance for your comments, and we look forward to hearing from you. If you have questions or need additional information, please contact Thann Baker by email at [thann\\_baker@nps.gov](mailto:thann_baker@nps.gov) or by phone at 928-608-6263.

Sincerely,

  
for Todd Brindle  
Superintendent

Enclosure:

Figures 1 and 2, Maps illustrating the project area

## **DETAILS OF PROPOSED ROAD WORK AT LEES FERRY**

The purpose of this project is to enhance safety on the Lees Ferry Road by making lane widths consistent and resurfacing the roadway. The work would entail:

- Curve radii would be adjusted to meet safety standards where necessary;
- Drainage issues would be addressed;
- Stabilize the Paria River banks that are eroding near the bridge and along the Paria River's west bank below Lonely Dell Access Road. The banks of the Paria River just upstream of the Lees Ferry Road are eroding. This erosion endangers the support abutments and pier of the bridge over the Paria River as well as the adjacent Lonely Dell Access Road (about 1,000 feet upstream of the bridge and about 3,000 feet upstream of the confluence of the Paria River and the Colorado River).

Please refer to the attached map for an estimate of the area of potential effect (APE). The project area, in Coconino County, Arizona, includes the Lees Ferry Road Access Road from its junction with US Highway 89A at Marble Canyon to about six miles northeast at the road's terminus and boat launch-ramp parking lot, the banks and river bottom at and adjacent to the Paria River Bridge, and at a site along the Paria River as it flows adjacent to the Lonely Dell historic area access road, about 0.5 mile upstream of its confluence with the Colorado River. Please refer to the attached Figures 1 and 2 for graphics showing the project location and proposed actions.

Potential solutions being considered to rehabilitate the road involve resurfacing, restoration, rehabilitation (3R) including milling and paving, minor curve widening (4-foot maximum), and drainage improvements along and across the road at many locations. Erosion stabilization (different from just the Paria River area) would consider several options including constructing:

- Rock filled wire baskets (gabions) as bank and streambed protection and gabion spur dikes for erosion protection.
- Continuous rock filled wire matt bank protection (revet mattresses) extending upstream about 240 feet from the east Paria River bridge abutment, with spur dikes upstream of the bank protection, the last one located approximately 400 feet upstream;
- Continuous bank and streambed protection under the bridge, with abutment slope paving;
- A retaining wall where the river begins to encroach on the Lonely Dell Access Road, with spurs dikes upstream of the wall;
- Gabion spur dikes along the Lees Ferry Access Road just upstream of the Cathedral Wash crossing.

The Federal Highway Administration (FHWA), under an interagency agreement with the National Park Service, will engage a contractor to perform the 3R work and construct the bank and river bed protection of the Paria River.



**United States Department of the Interior**  
**NATIONAL PARK SERVICE**  
**Glen Canyon National Recreation Area**  
**PO Box 1507**  
**Page, AZ 86040**

IN REPLY REFER TO:  
L7617

August 23, 2011

**Mr. Leroy Ned Shingoitewa, Chairman**  
**Hopi Tribe**  
**PO Box 123**  
**Kykotsmovi, AZ 86039**

**RE: Initiation of the Section 106 Process, Lees Ferry Road Rehabilitation and Paria River Bank Stabilization, Glen Canyon National Recreation Area**

Dear Mr. Shingoitewa,

The National Park Service (NPS) proposes to rehabilitate the Lees Ferry Road and stabilize the banks of the Paria River near and upstream of the Paria River Bridge in Glen Canyon National Recreation Area (NRA). Please refer to the enclosed maps.

An environmental assessment will be prepared in compliance with the National Environmental Policy Act to provide the decision-making framework that 1) analyzes a reasonable range of alternatives to meet project objectives, 2) evaluates issues and impacts to NRA resources and values, and 3) identifies mitigation measures to lessen the degree or extent of these impacts. This project will also be conducted in accordance with §106 of the National Historic Preservation Act (NHPA) and other applicable laws, regulations, and policies.

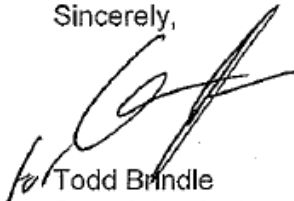
To honor our government-to-government relationship, we hereby extend this opportunity to you for comment on this project. Specifically, we would like to know 1) if there are any ethnographic resources that are of concern to you and 2) if you would like to be involved in this project in more detail. You may submit your written comments online at the NPS Planning, Environment, and Public Comment website at <http://parkplanning.nps.gov/>. Or, you may submit written comments to the Superintendent at the address on the letterhead. Or, you may contact Thann Baker. See below for the contact information.

We do wish you to know that we are in the process of conducting a cultural sites inventory in the proposed Area of Potential Effect (APE). To date we have found sites that contain ceramics, an historic trash dump, and lithic scatters. The proposed construction area also transects the Arizona Road/Honeymoon Trail at six locations. Once the draft report of this work is complete, we will be providing a copy for your review.

Please provide all comments on this proposed project by September 26, 2011. We will consider these comments during the next steps of the environmental compliance process. Thank you in advance for your comments, and we look forward to hearing from you. If you

have questions or need additional information, please contact Thann Baker by email at [thann\\_baker@nps.gov](mailto:thann_baker@nps.gov) or by phone at 928-608-6263.

Sincerely,



Todd Brindle  
Superintendent

Enclosure:

Figures 1 and 2, Maps illustrating the project area

Cc: Mr. Lee Wayne Lomayestewa, NAGPRA Consultant, Hopi Tribe  
Mr. Leigh Kuwanwisiwma, Director, Cultural Preservation Office, Hopi Tribe  
Mr. Terry Morgart, Research Assistant, Hopi Tribe

## **DETAILS OF PROPOSED ROAD WORK AT LEES FERRY**

The purpose of this project is to enhance safety on the Lees Ferry Road by making lane widths consistent and resurfacing the roadway. The work would entail:

- Curve radii would be adjusted to meet safety standards where necessary;
- Drainage issues would be addressed;
- Stabilize the Paria River banks that are eroding near the bridge and along the Paria River's west bank below Lonely Dell Access Road. The banks of the Paria River just upstream of the Lees Ferry Road are eroding. This erosion endangers the support abutments and pier of the bridge over the Paria River as well as the adjacent Lonely Dell Access Road (about 1,000 feet upstream of the bridge and about 3,000 feet upstream of the confluence of the Paria River and the Colorado River).

Please refer to the attached map for an estimate of the area of potential effect (APE). The project area, in Coconino County, Arizona, includes the Lees Ferry Road Access Road from its junction with US Highway 89A at Marble Canyon to about six miles northeast at the road's terminus and boat launch-ramp parking lot, the banks and river bottom at and adjacent to the Paria River Bridge, and at a site along the Paria River as it flows adjacent to the Lonely Dell historic area access road, about 0.5 mile upstream of its confluence with the Colorado River. Please refer to the attached Figures 1 and 2 for graphics showing the project location and proposed actions.

Potential solutions being considered to rehabilitate the road involve resurfacing, restoration, rehabilitation (3R) including milling and paving, minor curve widening (4-foot maximum), and drainage improvements along and across the road at many locations. Erosion stabilization (different from just the Paria River area) would consider several options including constructing:

- Rock filled wire baskets (gabions) as bank and streambed protection and gabion spur dikes for erosion protection.
- Continuous rock filled wire matt bank protection (revet mattresses) extending upstream about 240 feet from the east Paria River bridge abutment, with spur dikes upstream of the bank protection, the last one located approximately 400 feet upstream;
- Continuous bank and streambed protection under the bridge, with abutment slope paving;
- A retaining wall where the river begins to encroach on the Lonely Dell Access Road, with spurs dikes upstream of the wall;
- Gabion spur dikes along the Lees Ferry Access Road just upstream of the Cathedral Wash crossing.

The Federal Highway Administration (FHWA), under an interagency agreement with the National Park Service, will engage a contractor to perform the 3R work and construct the bank and river bed protection of the Paria River.





United States Department of the Interior  
NATIONAL PARK SERVICE  
Glen Canyon National Recreation Area  
PO Box 1507  
Page, AZ 86040

IN REPLY REFER TO:  
L7617

August 23, 2011

**Mr. Manuel Savala, Chairperson  
Kaibab Paiute Tribe  
HC 65 Box 2  
Fredonia, AZ 86022**

**RE: Initiation of the Section 106 Process, Lees Ferry Road Rehabilitation and Paria River Bank Stabilization, Glen Canyon National Recreation Area**

Dear Mr. Savala,

The National Park Service (NPS) proposes to rehabilitate the Lees Ferry Road and stabilize the banks of the Paria River near and upstream of the Paria River Bridge in Glen Canyon National Recreation Area (NRA). Please refer to the enclosed maps.

An environmental assessment will be prepared in compliance with the National Environmental Policy Act to provide the decision-making framework that 1) analyzes a reasonable range of alternatives to meet project objectives, 2) evaluates issues and impacts to NRA resources and values, and 3) identifies mitigation measures to lessen the degree or extent of these impacts. This project will also be conducted in accordance with Section 106 of the National Historic Preservation Act (NHPA) and other applicable laws, regulations, and policies.

To honor our government-to-government relationship, we hereby extend this opportunity to you for comment on this project. Specifically, we would like to know 1) if there are any ethnographic resources that are of concern to you and 2) if you would like to be involved in this project in more detail. You may submit your written comments online at the NPS Planning, Environment, and Public Comment website at <http://parkplanning.nps.gov/>. Or, you may submit written comments to the Superintendent at the address on the letterhead. Or, you may contact Thann Baker. See below for the contact information.

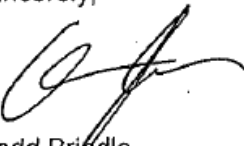
We do wish you to know that we are in the process of conducting a cultural sites inventory in the proposed Area of Potential Effect (APE). To date we have found sites that contain ceramics, an historic trash dump, and lithic scatters. The proposed construction area also transects the Arizona Road/Honeymoon Trail at six locations. Once the draft report of this work is complete, we will be providing a copy for your review.

Please provide all comments on this proposed project by September 26, 2011. We will consider these comments during the next steps of the environmental compliance process. Thank you in advance for your comments, and we look forward to hearing from you. If you

*Glen Canyon National Recreation Area  
Lees Ferry Road Rehabilitation and Paria River Bridge Stabilization*

have questions or need additional information, please contact Thann Baker by email at [thann\\_baker@nps.gov](mailto:thann_baker@nps.gov) or by phone at 928-608-6263.

Sincerely,

  
for Todd Brindle  
Superintendent

Enclosure:

Figures 1 and 2, Maps illustrating the project area

Cc: Ms. Brittani Wero, Kaibab Paiute Tribe  
Mr. Charley Bullets, Director, Southern Paiute Consortium, Kaibab Paiute Tribe  
Ms. Glendora Homer, Cultural Preservation Officer, Kaibab Paiute Tribe  
Ms. Maxine Mayo, Cultural Preservation, Kaibab Paiute Tribe

## **DETAILS OF PROPOSED ROAD WORK AT LEES FERRY**

The purpose of this project is to enhance safety on the Lees Ferry Road by making lane widths consistent and resurfacing the roadway. The work would entail:

- Curve radii would be adjusted to meet safety standards where necessary;
- Drainage issues would be addressed;
- Stabilize the Paria River banks that are eroding near the bridge and along the Paria River's west bank below Lonely Dell Access Road. The banks of the Paria River just upstream of the Lees Ferry Road are eroding. This erosion endangers the support abutments and pier of the bridge over the Paria River as well as the adjacent Lonely Dell Access Road (about 1,000 feet upstream of the bridge and about 3,000 feet upstream of the confluence of the Paria River and the Colorado River).

Please refer to the attached map for an estimate of the area of potential effect (APE). The project area, in Coconino County, Arizona, includes the Lees Ferry Road Access Road from its junction with US Highway 89A at Marble Canyon to about six miles northeast at the road's terminus and boat launch-ramp parking lot, the banks and river bottom at and adjacent to the Paria River Bridge, and at a site along the Paria River as it flows adjacent to the Lonely Dell historic area access road, about 0.5 mile upstream of its confluence with the Colorado River. Please refer to the attached Figures 1 and 2 for graphics showing the project location and proposed actions.

Potential solutions being considered to rehabilitate the road involve resurfacing, restoration, rehabilitation (3R) including milling and paving, minor curve widening (4-foot maximum), and drainage improvements along and across the road at many locations. Erosion stabilization (different from just the Paria River area) would consider several options including constructing:

- Rock filled wire baskets (gabions) as bank and streambed protection and gabion spur dikes for erosion protection.
- Continuous rock filled wire matt bank protection (revet mattresses) extending upstream about 240 feet from the east Paria River bridge abutment, with spur dikes upstream of the bank protection, the last one located approximately 400 feet upstream;
- Continuous bank and streambed protection under the bridge, with abutment slope paving;
- A retaining wall where the river begins to encroach on the Lonely Dell Access Road, with spur dikes upstream of the wall;
- Gabion spur dikes along the Lees Ferry Access Road just upstream of the Cathedral Wash crossing.

The Federal Highway Administration, under an interagency agreement with the National Park Service, will engage a contractor to perform the 3R work and construct the bank and river bed protection of the Paria River.



**United States Department of the Interior**  
**NATIONAL PARK SERVICE**  
Glen Canyon National Recreation Area  
PO Box 1507  
Page, AZ 86040

IN REPLY REFER TO:  
L7617

August 23, 2011

**President Ben Shelly**  
**The Navajo Nation**  
**PO Box 7440**  
**Window Rock, AZ 86515**

**RE: Initiation of the Section 106 Process, Lees Ferry Road Rehabilitation and Paria River Bank Stabilization, Glen Canyon National Recreation Area**

Dear President Shelly,

The National Park Service (NPS) proposes to rehabilitate the Lees Ferry Road and stabilize the banks of the Paria River near and upstream of the Paria River Bridge in Glen Canyon National Recreation Area (NRA). Please refer to the enclosed maps.

An environmental assessment will be prepared in compliance with the National Environmental Policy Act to provide the decision-making framework that 1) analyzes a reasonable range of alternatives to meet project objectives, 2) evaluates issues and impacts to NRA resources and values, and 3) identifies mitigation measures to lessen the degree or extent of these impacts. This project will also be conducted in accordance with Section 106 of the National Historic Preservation Act (NHPA) and other applicable laws, regulations, and policies.

To honor our government-to-government relationship, we hereby extend this opportunity to you for comment on this project. Specifically, we would like to know 1) if there are any ethnographic resources that are of concern to you and 2) if you would like to be involved in this project in more detail. You may submit your written comments online at the NPS Planning, Environment, and Public Comment website at <http://parkplanning.nps.gov/>. Or, you may submit written comments to the Superintendent at the address on the letterhead. Or, you may contact Thann Baker. See below for the contact information.

We do wish you to know that we are in the process of conducting a cultural sites inventory in the proposed Area of Potential Effect (APE). To date we have found sites that contain ceramics, an historic trash dump, and lithic scatters. The proposed construction area also transects the Arizona Road/Honeymoon Trail at six locations. Once the draft report of this work is complete, we will be providing a copy for your review.

Please provide all comments on this proposed project by September 26, 2011. We will consider these comments during the next steps of the environmental compliance process. Thank you in advance for your comments, and we look forward to hearing from you. If you

*Glen Canyon National Recreation Area  
Lees Ferry Road Rehabilitation and Paria River Bridge Stabilization*

have questions or need additional information, please contact Thann Baker by email at [thann\\_baker@nps.gov](mailto:thann_baker@nps.gov) or by phone at 928-608-6263.

Sincerely,



Todd Brindle  
Superintendent

Enclosure:

Figures 1 and 2, Maps illustrating the project area

Cc: Dr. Alan S. Downer, Director Historic Preservation and Tribal Historic Preservation Office  
Mr. Alex Bitsinnie, President of the Navajo Mountain Chapter of the Navajo Nation  
Mr. Billy Arizona, Jr., President of the Bodaway/Gap Chapter of the Navajo Nation  
Mr. David Laughter, Elder, Shonto House Chapter of the Navajo Nation  
Mr. Francis Shorty, Elder, Oljato Chapter of the Navajo Nation  
Mr. Fred White, Deputy Director of the Division of Natural Resources, Navajo Nation  
Mr. Hubert Laughter, Elder, Shonto Chapter of the Navajo Nation  
Ms. Irene Nez-Whitekiller, LeChee Chapter  
Mr. James Black, President, Oljato Chapter  
Mr. Kelly Francis, Historic Preservation Office, Navajo Nation  
Mr. Leo Manheimer, Consultant, Navajo Mountain Chapter of the Navajo Nation  
Ms. Lucille Saganitsokra (Krauss), Grazing Official, Navajo Mountain Chapter of the Navajo Nation  
Mr. Tim Begay, NAGPRA Consultant, Navajo Nation  
Ms. Victoria Bydone, Community Service Coordinator, Ts'ah Biikin Chapter House of the Navajo Nation  
Mr. Willie Grayeyes, Elder, Navajo Mountain Chapter of the Navajo Nation  
Mr. Larry Goodman, President, Ts'ah Biikin Chapter of the Navajo Nation



## **DETAILS OF PROPOSED ROAD WORK AT LEES FERRY**

The purpose of this project is to enhance safety on the Lees Ferry Road by making lane widths consistent and resurfacing the roadway. The work would entail:

- Curve radii would be adjusted to meet safety standards where necessary;
- Drainage issues would be addressed;
- Stabilize the Paria River banks that are eroding near the bridge and along the Paria River's west bank below Lonely Dell Access Road. The banks of the Paria River just upstream of the Lees Ferry Road are eroding. This erosion endangers the support abutments and pier of the bridge over the Paria River as well as the adjacent Lonely Dell Access Road (about 1,000 feet upstream of the bridge and about 3,000 feet upstream of the confluence of the Paria River and the Colorado River).

Please refer to the attached map for an estimate of the area of potential effect (APE). The project area, in Coconino County, Arizona, includes the Lees Ferry Road Access Road from its junction with US Highway 89A at Marble Canyon to about six miles northeast at the road's terminus and boat launch-ramp parking lot, the banks and river bottom at and adjacent to the Paria River Bridge, and at a site along the Paria River as it flows adjacent to the Lonely Dell historic area access road, about 0.5 mile upstream of its confluence with the Colorado River. Please refer to the attached Figures 1 and 2 for graphics showing the project location and proposed actions.

Potential solutions being considered to rehabilitate the road involve resurfacing, restoration, rehabilitation (3R) including milling and paving, minor curve widening (4-foot maximum), and drainage improvements along and across the road at many locations. Erosion stabilization (different from just the Paria River area) would consider several options including constructing:

- Rock filled wire baskets (gabions) as bank and streambed protection and gabion spur dikes for erosion protection.
- Continuous rock filled wire matt bank protection (revet mattresses) extending upstream about 240 feet from the east Paria River bridge abutment, with spur dikes upstream of the bank protection, the last one located approximately 400 feet upstream;
- Continuous bank and streambed protection under the bridge, with abutment slope paving;
- A retaining wall where the river begins to encroach on the Lonely Dell Access Road, with spurs dikes upstream of the wall;
- Gabion spur dikes along the Lees Ferry Access Road just upstream of the Cathedral Wash crossing.

The Federal Highway Administration, under an interagency agreement with the National Park Service, will engage a contractor to perform the 3R work and construct the bank and river bed protection of the Paria River.



United States Department of the Interior  
NATIONAL PARK SERVICE  
Glen Canyon National Recreation Area  
PO Box 1507  
Page, AZ 86040

IN REPLY REFER TO:  
L7617

August 23, 2011

**Ms. Jeanine Borchardt, Chairwoman  
Paiute Indian Tribe of Utah  
440 North Paiute Drive  
Cedar City, UT 84720**

**RE: Initiation of the Section 106 Process, Lees Ferry Road Rehabilitation and Paria River Bank Stabilization, Glen Canyon National Recreation Area**

Dear Ms. Borchardt,

The National Park Service (NPS) proposes to rehabilitate the Lees Ferry Road and stabilize the banks of the Paria River near and upstream of the Paria River Bridge in Glen Canyon National Recreation Area (NRA). Please refer to the enclosed maps.

An environmental assessment will be prepared in compliance with the National Environmental Policy Act to provide the decision-making framework that 1) analyzes a reasonable range of alternatives to meet project objectives, 2) evaluates issues and impacts to NRA resources and values, and 3) identifies mitigation measures to lessen the degree or extent of these impacts. This project will also be conducted in accordance with Section 106 of the National Historic Preservation Act (NHPA) and other applicable laws, regulations, and policies.

To honor our government-to-government relationship, we hereby extend this opportunity to you for comment on this project. Specifically, we would like to know 1) if there are any ethnographic resources that are of concern to you and 2) if you would like to be involved in this project in more detail. You may submit your written comments online at the NPS Planning, Environment, and Public Comment website at <http://parkplanning.nps.gov/>. Or, you may submit written comments to the Superintendent at the address on the letterhead. Or, you may contact Thann Baker. See below for the contact information.

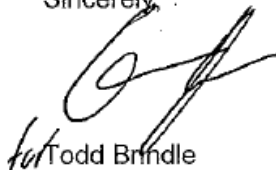
We do wish you to know that we are in the process of conducting a cultural sites inventory in the proposed Area of Potential Effect (APE). To date we have found sites that contain ceramics, an historic trash dump, and lithic scatters. The proposed construction area also transects the Arizona Road/Honeymoon Trail at six locations. Once the draft report of this work is complete, we will be providing a copy for your review.

Please provide all comments on this proposed project by September 26, 2011. We will consider these comments during the next steps of the environmental compliance process.

*Glen Canyon National Recreation Area  
Lees Ferry Road Rehabilitation and Paria River Bridge Stabilization*

Thank you in advance for your comments, and we look forward to hearing from you. If you have questions or need additional information, please contact Thann Baker by email at [thann\\_baker@nps.gov](mailto:thann_baker@nps.gov) or by phone at 928-608-6263.

Sincerely,

  
for Todd Brindle  
Superintendent

Enclosure:

Figures 1 and 2, Maps illustrating the project area

Cc: Ms. Dorena Martineau, Cultural Resources, Paiute Indian Tribe of Utah  
Ms. Charlotte Lomeli, Chairwoman, Shivwits Band of Paiute Indian Tribe of Utah  
Ms. Corrina Bow, Chairwoman, Kanosh Band of Paiute Indian Tribe of Utah  
Mr. Eliot Yazzie, Chairman, Koosharem Band of Paiute Indian Tribe of Utah

## **DETAILS OF PROPOSED ROAD WORK AT LEES FERRY**

The purpose of this project is to enhance safety on the Lees Ferry Road by making lane widths consistent and resurfacing the roadway. The work would entail:

- Curve radii would be adjusted to meet safety standards where necessary;
- Drainage issues would be addressed;
- Stabilize the Paria River banks that are eroding near the bridge and along the Paria River's west bank below Lonely Dell Access Road. The banks of the Paria River just upstream of the Lees Ferry Road are eroding. This erosion endangers the support abutments and pier of the bridge over the Paria River as well as the adjacent Lonely Dell Access Road (about 1,000 feet upstream of the bridge and about 3,000 feet upstream of the confluence of the Paria River and the Colorado River).

Please refer to the attached map for an estimate of the area of potential effect (APE). The project area, in Coconino County, Arizona, includes the Lees Ferry Road Access Road from its junction with US Highway 89A at Marble Canyon to about six miles northeast at the road's terminus and boat launch-ramp parking lot, the banks and river bottom at and adjacent to the Paria River Bridge, and at a site along the Paria River as it flows adjacent to the Lonely Dell historic area access road, about 0.5 mile upstream of its confluence with the Colorado River. Please refer to the attached Figures 1 and 2 for graphics showing the project location and proposed actions.

Potential solutions being considered to rehabilitate the road involve resurfacing, restoration, rehabilitation (3R) including milling and paving, minor curve widening (4-foot maximum), and drainage improvements along and across the road at many locations. Erosion stabilization (different from just the Paria River area) would consider several options including constructing:

- Rock filled wire baskets (gabions) as bank and streambed protection and gabion spur dikes for erosion protection.
- Continuous rock filled wire matt bank protection (revet mattresses) extending upstream about 240 feet from the east Paria River bridge abutment, with spur dikes upstream of the bank protection, the last one located approximately 400 feet upstream;
- Continuous bank and streambed protection under the bridge, with abutment slope paving;
- A retaining wall where the river begins to encroach on the Lonely Dell Access Road, with spurs dikes upstream of the wall;
- Gabion spur dikes along the Lees Ferry Access Road just upstream of the Cathedral Wash crossing.

The Federal Highway Administration, under an interagency agreement with the National Park Service, will engage a contractor to perform the 3R work and construct the bank and river bed protection of the Paria River.



**United States Department of the Interior**  
**NATIONAL PARK SERVICE**  
Glen Canyon National Recreation Area  
PO Box 1507  
Page, AZ 86040

IN REPLY REFER TO:  
L7617

August 23, 2011

**Mr. Lee Choe, Interim Chairman**  
**San Juan Southern Paiute**  
PO Box 882  
Tonalea, AZ 86044

**RE: Initiation of the Section 106 Process, Lees Ferry Road Rehabilitation and Paria River Bank Stabilization, Glen Canyon National Recreation Area**

Dear Mr. Choe,

The National Park Service (NPS) proposes to rehabilitate the Lees Ferry Road and stabilize the banks of the Paria River near and upstream of the Paria River Bridge in Glen Canyon National Recreation Area (NRA). Please refer to the enclosed maps.

An environmental assessment will be prepared in compliance with the National Environmental Policy Act to provide the decision-making framework that 1) analyzes a reasonable range of alternatives to meet project objectives, 2) evaluates issues and impacts to NRA resources and values, and 3) identifies mitigation measures to lessen the degree or extent of these impacts. This project will also be conducted in accordance with Section 106 of the National Historic Preservation Act (NHPA) and other applicable laws, regulations, and policies.

To honor our government-to-government relationship, we hereby extend this opportunity to you for comment on this project. Specifically, we would like to know 1) if there are any ethnographic resources that are of concern to you and 2) if you would like to be involved in this project in more detail. You may submit your written comments online at the NPS Planning, Environment, and Public Comment website at <http://parkplanning.nps.gov/>. Or, you may submit written comments to the Superintendent at the address on the letterhead. Or, you may contact Thann Baker. See below for the contact information.

We do wish you to know that we are in the process of conducting a cultural sites inventory in the proposed Area of Potential Effect (APE). To date we have found sites that contain ceramics, an historic trash dump, and lithic scatters. The proposed construction area also transects the Arizona Road/Honeymoon Trail at six locations. Once the draft report of this work is complete, we will be providing a copy for your review.


Please provide all comments on this proposed project by September 26, 2011. We will consider these comments during the next steps of the environmental compliance process.



*Glen Canyon National Recreation Area  
Lees Ferry Road Rehabilitation and Paria River Bridge Stabilization*

Thank you in advance for your comments, and we look forward to hearing from you. If you have questions or need additional information, please contact Thann Baker by email at [thann\\_baker@nps.gov](mailto:thann_baker@nps.gov) or by phone at 928-608-6263.

Sincerely,



Todd Brindle  
Superintendent

Enclosure:

Figures 1 and 2, Maps illustrating the project area

Cc: Mr. Cecil Homer, Elder, San Juan Southern Paiute  
Ms. Natalie Edgewater, Council Member, San Juan Southern Paiute

## **DETAILS OF PROPOSED ROAD WORK AT LEES FERRY**

The purpose of this project is to enhance safety on the Lees Ferry Road by making lane widths consistent and resurfacing the roadway. The work would entail:

- Curve radii would be adjusted to meet safety standards where necessary;
- Drainage issues would be addressed;
- Stabilize the Paria River banks that are eroding near the bridge and along the Paria River's west bank below Lonely Dell Access Road. The banks of the Paria River just upstream of the Lees Ferry Road are eroding. This erosion endangers the support abutments and pier of the bridge over the Paria River as well as the adjacent Lonely Dell Access Road (about 1,000 feet upstream of the bridge and about 3,000 feet upstream of the confluence of the Paria River and the Colorado River).

Please refer to the attached map for an estimate of the area of potential effect (APE). The project area, in Coconino County, Arizona, includes the Lees Ferry Road Access Road from its junction with US Highway 89A at Marble Canyon to about six miles northeast at the road's terminus and boat launch-ramp parking lot, the banks and river bottom at and adjacent to the Paria River Bridge, and at a site along the Paria River as it flows adjacent to the Lonely Dell historic area access road, about 0.5 mile upstream of its confluence with the Colorado River. Please refer to the attached Figures 1 and 2 for graphics showing the project location and proposed actions.

Potential solutions being considered to rehabilitate the road involve resurfacing, restoration, rehabilitation (3R) including milling and paving, minor curve widening (4-foot maximum), and drainage improvements along and across the road at many locations. Erosion stabilization (different from just the Paria River area) would consider several options including constructing:

- Rock filled wire baskets (gabions) as bank and streambed protection and gabion spur dikes for erosion protection.
- Continuous rock filled wire matt bank protection (revet mattresses) extending upstream about 240 feet from the east Paria River bridge abutment, with spur dikes upstream of the bank protection, the last one located approximately 400 feet upstream;
- Continuous bank and streambed protection under the bridge, with abutment slope paving;
- A retaining wall where the river begins to encroach on the Lonely Dell Access Road, with spurs dikes upstream of the wall;
- Gabion spur dikes along the Lees Ferry Access Road just upstream of the Cathedral Wash crossing.

The Federal Highway Administration (FHWA), under an interagency agreement with the National Park Service, will engage a contractor to perform the 3R work and construct the bank and river bed protection of the Paria River.



**United States Department of the Interior**  
**NATIONAL PARK SERVICE**  
**Glen Canyon National Recreation Area**  
**PO Box 1507**  
**Page, AZ 86040**

IN REPLY REFER TO:  
L7617

August 23, 2011

**Mr. Gary Hayes, Chairman**  
**Ute Mountain Ute Tribe**  
**PO Box JJ**  
**Towaoc, CO 81334**

**RE: Initiation of the Section 106 Process, Lees Ferry Road Rehabilitation and Paria River Bank Stabilization, Glen Canyon National Recreation Area**

Dear Mr. Hayes,

The National Park Service (NPS) proposes to rehabilitate the Lees Ferry Road and stabilize the banks of the Paria River near and upstream of the Paria River Bridge in Glen Canyon National Recreation Area (NRA). Please refer to the enclosed maps.

An environmental assessment will be prepared in compliance with the National Environmental Policy Act to provide the decision-making framework that 1) analyzes a reasonable range of alternatives to meet project objectives, 2) evaluates issues and impacts to NRA resources and values, and 3) identifies mitigation measures to lessen the degree or extent of these impacts. This project will also be conducted in accordance with Section 106 of the National Historic Preservation Act (NHPA) and other applicable laws, regulations, and policies.

To honor our government-to-government relationship, we hereby extend this opportunity to you for comment on this project. Specifically, we would like to know 1) if there are any ethnographic resources that are of concern to you and 2) if you would like to be involved in this project in more detail. You may submit your written comments online at the NPS Planning, Environment, and Public Comment website at <http://parkplanning.nps.gov/>. Or, you may submit written comments to the Superintendent at the address on the letterhead. Or, you may contact Thann Baker. See below for the contact information.

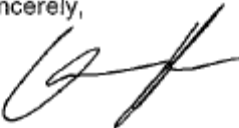
We do wish you to know that we are in the process of conducting a cultural sites inventory in the proposed Area of Potential Effect (APE). To date we have found sites that contain ceramics, an historic trash dump, and lithic scatters. The proposed construction area also transects the Arizona Road/Honeymoon Trail at six locations. Once the draft report of this work is complete, we will be providing a copy for your review.

Please provide all comments on this proposed project by September 26, 2011. We will consider these comments during the next steps of the environmental compliance process. Thank you in advance for your comments, and we look forward to hearing from you. If you

*Glen Canyon National Recreation Area  
Lees Ferry Road Rehabilitation and Paria River Bridge Stabilization*

have questions or need additional information, please contact Thann Baker by email at [thann\\_baker@nps.gov](mailto:thann_baker@nps.gov) or by phone at 928-608-6263.

Sincerely,

  
for Todd Brindle  
Superintendent

Enclosure:

Figures 1 and 2, Maps illustrating the project area

Cc: Ms. Lynn Hartman, ALP Cultural Resources Contractor Administrator, Ute Mountain Ute Tribe  
Mr. Terry Knight Sr., Tribal Historic Preservation Officer, Ute Mountain Ute Tribe  
Ms. Elaine Atcity, Council Representative, White Mesa Ute Band, Ute Mountain Ute Tribe  
Ms. Mary Jane Yazzie, Ute Mountain Ute Tribe

## **DETAILS OF PROPOSED ROAD WORK AT LEES FERRY**

The purpose of this project is to enhance safety on the Lees Ferry Road by making lane widths consistent and resurfacing the roadway. The work would entail:

- Curve radii would be adjusted to meet safety standards where necessary;
- Drainage issues would be addressed;
- Stabilize the Paria River banks that are eroding near the bridge and along the Paria River's west bank below Lonely Dell Access Road. The banks of the Paria River just upstream of the Lees Ferry Road are eroding. This erosion endangers the support abutments and pier of the bridge over the Paria River as well as the adjacent Lonely Dell Access Road (about 1,000 feet upstream of the bridge and about 3,000 feet upstream of the confluence of the Paria River and the Colorado River).

Please refer to the attached map for an estimate of the area of potential effect (APE). The project area, in Coconino County, Arizona, includes the Lees Ferry Road Access Road from its junction with US Highway 89A at Marble Canyon to about six miles northeast at the road's terminus and boat launch-ramp parking lot, the banks and river bottom at and adjacent to the Paria River Bridge, and at a site along the Paria River as it flows adjacent to the Lonely Dell historic area access road, about 0.5 mile upstream of its confluence with the Colorado River. Please refer to the attached Figures 1 and 2 for graphics showing the project location and proposed actions.

Potential solutions being considered to rehabilitate the road involve resurfacing, restoration, rehabilitation (3R) including milling and paving, minor curve widening (4-foot maximum), and drainage improvements along and across the road at many locations. Erosion stabilization (different from just the Paria River area) would consider several options including constructing:

- Rock filled wire baskets (gabions) as bank and streambed protection and gabion spur dikes for erosion protection.
- Continuous rock filled wire matt bank protection (revet mattresses) extending upstream about 240 feet from the east Paria River bridge abutment, with spur dikes upstream of the bank protection, the last one located approximately 400 feet upstream;
- Continuous bank and streambed protection under the bridge, with abutment slope paving;
- A retaining wall where the river begins to encroach on the Lonely Dell Access Road, with spur dikes upstream of the wall;
- Gabion spur dikes along the Lees Ferry Access Road just upstream of the Cathedral Wash crossing.

The Federal Highway Administration, under an interagency agreement with the National Park Service, will engage a contractor to perform the 3R work and construct the bank and river bed protection of the Paria River.

## **Appendix A—Agency Scoping Letter Responses**

USFWS

ADGF

Church of Jesus Christ of Latter-day Saints

Hopi Tribe

Navajo Nation



**United States Department of the Interior**

**U.S. Fish and Wildlife Service**  
**Arizona Ecological Services Office**  
2321 West Royal Palm Road, Suite 103  
Phoenix, Arizona 85021-4951  
Telephone: (602) 242-0210 Fax: (602) 242-2513



In reply refer to:

AESO/SE  
22410-2011-I-0510

September 7, 2011

**Memorandum**

**To:** Superintendent, Glen Canyon National Recreation Area, Page, Arizona  
**From:** Field Supervisor  
**Subject:** Lees Ferry Road Rehabilitation and Paria River Bank Stabilization

Thank you for your August 23, 2011, memorandum regarding the subject proposed action in Coconino County, Arizona. The scoping notice memorandum stated that the National Park Service will prepare an environmental assessment of the proposed action. The memorandum also requested comments including information regarding listed species that may occur in the project area.

The project area includes the Lees Ferry Access Road from its junction with U.S. Highway 89A at Marble Canyon and northeast approximately six miles to the road terminus and boat-ramp parking lot. It includes the banks and river bottom of the Paria River at and adjacent to the Paria River Bridge. It also includes a site along the Paria River adjacent to the Lonely Dell historic area access road approximately 0.5 mile upstream of the confluence of the Paria and Colorado rivers. We offer the following comments.

The endangered Brady pincushion cactus (*Pediocactus bradyi*) occurs in or in the vicinity of the proposed project area.

A segment of critical habitat of the endangered razorback sucker (*Xyrauchen texanus*) includes the Colorado River and its 100-year flood plain from the confluence with the Paria River to Hoover Dam.

California condors (*Gymnogyps californianus*) may occur in the project area. We have previously provided you with conservation measures designed to prevent adverse interactions between humans and condors during implementation of projects. We recommend that appropriate measures be tailored for and implemented during the project. We are prepared to assist you in tailoring the conservation measures to this particular action.

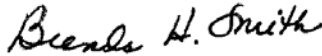
Mexican spotted owl (*Strix occidentalis lucida*) canyon habitat may occur in the vicinity of the proposed action. We are prepared to assist you in determining whether Mexican spotted owl habitat exists in the project area or vicinity.




Southwestern willow flycatcher (*Empidonax traillii extimus*) habitat may occur in the Paria River in or in the vicinity of the proposed action. We are prepared to assist you in determining whether vegetation in the project area constitutes flycatcher habitat.

The State of Arizona and various American Indian Tribes maintain lists of sensitive species that may not be protected by Federal law. We recommend that you contact the Arizona Game and Fish Department (AGFD) and any affected Tribes to determine if sensitive species may occur in your action area. We also encourage you to invite the AGFD, any affected Tribes, and the BIA to participate in the review of your proposed action.

Thank you for the opportunity to provide initial scoping comments. If we can be of further assistance, please contact Bill Austin (x102) or Brenda Smith (x101) at (928) 226-0614.



 Steven L. Spangle

cc (hard copy):

Tim Windle, Glen Canyon National Recreation Area, Page, AZ  
Director, Cultural Resource Center, Chemehuevi Tribe, Havasu Lake, CA  
Cultural Compliance Technician, Museum, Colorado River Indian Tribes, Parker, AZ  
Director, Hopi Cultural Preservation Office, Kykotsmovi, AZ  
Director, Cultural Resources, Kaibab Band of Paiute Indians, Fredonia, AZ  
Director, Historic Preservation Department, Navajo Nation, Window Rock, AZ  
Environmental Specialist, Environmental Services, Western Regional Office, Bureau of  
Indian Affairs, Phoenix, AZ

cc (electronic):

Shaula Hedwall, Fish and Wildlife Service, Flagstaff, AZ  
Chief, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ  
Regional Supervisor, Arizona Game and Fish Department, Flagstaff, AZ



THE STATE OF ARIZONA  
**GAME AND FISH DEPARTMENT**

5000 W. CAREFREE HIGHWAY  
PHOENIX, AZ 85086-5000  
(602) 942-3000 • WWW.AZGFD.GOV

**GOVERNOR**

JANICE K. BREWER

**COMMISSIONERS**

CHAIRMAN, ROBERT R. WOODHOUSE, ROLL

NORMAN W. FREEMAN, CHINO VALLEY

JACK F. HUSTED, SPRINGVILLE

J.W. HARRIS, TUCSON

ROBERT E. MANSELL, WINSLOW

**DIRECTOR**

LARRY D. VOYLES

**DEPUTY DIRECTORS**

GARY R. HOVATTER

BOB BROSCHEID



September 26, 2011

Superintendent, Glen Canyon National Recreation Area  
ATTN: Tim Windle  
Glen Canyon Recreation Area  
PO Box 1507  
Page, AZ 86040

Re: Review of: Scoping Notice – Lees Ferry Road Rehabilitation and Paria River Bank  
Stabilization Environmental Assessment, Glen Canyon National Recreation Area

Dear Mr. Windle:

The Arizona Game and Fish Department (Department) has received your letter, dated August 23, 2011 regarding the proposed "Lees Ferry Road Rehabilitation and Paria River Bank Stabilization Environmental Assessment" at Glen Canyon National Recreation Area. The Department's Heritage Data Management System (HDMS) has been accessed and current records show that the special status species listed on the attachment have been documented as occurring in the vicinity (3-mile buffer).

The Department's HDMS data are not intended to include potential distribution of special status species. Arizona is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity.

We have reviewed the information packet provided to us in your letter. Since the proposed project is located in previously disturbed areas and/or includes modifications to existing structures, the Department does not anticipate any significant adverse impacts to wildlife resources would occur as a result of this project.

The receipt you received from the On-Line Environmental Review Tool should provide general recommendations and additional contact information. If you have any questions in regard to this letter, please contact me at (623) 236-7486.

*Glen Canyon National Recreation Area  
Lees Ferry Road Rehabilitation and Paria River Bridge Stabilization*

Sincerely,



Chip Young  
Project Evaluation Specialist, Habitat Branch  
Arizona Game and Fish Department

cc: Laura Canaca, Project Evaluation Program Supervisor  
Dave Dorum, Habitat Program Manager, Region I  
Sarah Reif, Habitat Program Manager, Region II

AGFD# M11-08295555

**Response email from the Church of Jesus Christ of Latter-day Saints**

**Benjamin Pykles <benjamin.pykles@ldschurch.org>**

09/19/2011 11:07 AM To "thann\_baker@nps.gov"  
<thann\_baker@nps.gov>

Subject Lee's Ferry Road  
Rehabilitation Project

Dear Thann:

I am writing to confirm that the Church History Department of The Church of Jesus Christ of Latter-day Saints would like to be involved as a consulting party in the section 106 review for the proposed Lee's Ferry Road Rehabilitation project. Although the APE will not directly impact any Church owned land, it may impact sites that are significant to the history of the Church. Accordingly, I have been asked to serve as the primary contact for the Church History Department for the public scoping process. I look forward to seeing a copy of the cultural sites inventory report when it is completed, and to participating in the section 106 review as this project moves forward. Thank you for inviting us to participate. Please feel free to contact me with any questions or requests for additional information.

Sincerely,

Benjamin C. Pykles

Curator, Church Historic Sites  
Church History Department  
The Church of Jesus Christ of Latter-day Saints  
Church History Library  
15 East North Temple St.  
Salt Lake City, Utah 84150-1600  
Office: 801-240-3588; Fax: 801-240-8689  
pykles@ldschurch.org

NOTICE: This email message is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply email and destroy all copies of the original message.



LeRoy N. Shingoitewa  
CHAIRMAN

Herman G. Honanie  
VICE-CHAIRMAN

August 31, 2011

Todd Brindle, Superintendent  
National Park Service, Glen Canyon National Recreation Area  
P.O. Box 1507  
Page, Arizona 86040

Dear Superintendent Brindle,

This letter is in response to your correspondence dated August 23, 2011, regarding the National Park Service proposing to rehabilitate the Lees Ferry Road and stabilize the banks of the Paria River upstream of the Paria River Bridge in Glen Canyon National Recreation Area. The Hopi Tribe claims cultural affiliation to prehistoric cultural groups in Glen Canyon National Recreation Area. The Hopi Cultural Preservation Office supports the identification and avoidance of prehistoric archaeological sites and Traditional Cultural Properties, and we consider the archaeological sites of our ancestors to be "footprints" and Traditional Cultural Properties. Therefore, we appreciate Glen Canyon National Recreation Area's continuing solicitation our input and efforts to address our concerns.

The Hopi Cultural Preservation Office requests consultation any proposal that may adversely affect cultural resources in Glen Canyon National Recreation Area. We understand a cultural resources survey is being conducted and that sites that contain ceramics and lithics have been identified. The so called Arizona Road/Honeymoon Trail is the Hopi-Paiute Trail.

And therefore, to assist in determining if this proposal may affect cultural resources significant to the Hopi Tribe, please provide us with a copy of the cultural resource survey report of the area of potential effect for review and comment. If prehistoric sites are identified that will be adversely affected by project activities, we request continuing consultation on this proposal including to be provided with a copy of any proposed treatment plans for review and comment.

If you have any questions or need additional information, please contact Terry Morgart at the Hopi Cultural Preservation Office. Thank you for your consideration.

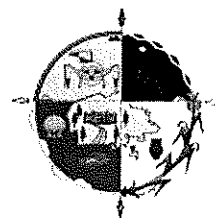
Respectfully,

Leigh J. Kuwanwisiwma, Director  
Hopi Cultural Preservation Office

xc: Arizona State Historic Preservation Office



THE  
NAVAJO  
NATION



Historic Preservation Department, POB 4950, Window Rock, AZ 86515 • PH: 928.871-7198 • FAX: 928.871.7886

BEN SHELLY  
PRESIDENT

REX LEE JIM  
VICE-PRESIDENT

October 18, 2011

Todd Brindle, Superintendent  
National Park Service  
Glen Canyon National Recreation Area  
PO Box 1507  
Page, AZ 86040

Dear Mr. Brindle:

The Navajo Nation Historic Preservation Department-Traditional Culture Program (NNHPD-TCP) is in receipt of the proposed project regarding Lees Ferry Road Rehabilitation and Paria River Bank Stabilization, Glen Canyon National Recreation Area.

After reviewing your consultation documents, NNHPD-TCP has concluded the proposed undertaking/project area **will not impact** Navajo traditional cultural resources. The NNHPD-TCP, on behalf of the Navajo Nation has no concerns at this time.

However, the determination made by the NNHPD-TCP does not necessarily mean that the Navajo Nation has no interest or concerns with the proposed project. If the proposed project inadvertently discovers habitation sites, plant gathering areas, human remains and objects of cultural patrimony, the NNHPD-TCP request that we be notified respectively in accordance with the Native American Graves Protection and Repatriation Act (NAGPRA).

The NNHPD-TCP appreciates the Glen Canyon National Recreation Area's consultation efforts, pursuant to 36 CFR Pt. 800.1 (c)(2)(iii). Should you have any additional concerns and/or questions, do not hesitate to contact me electronically at [tony@navajohistoricpreservation.org](mailto:tony@navajohistoricpreservation.org) or telephone at 928-871-7750.

Sincerely,

Tony H. Joe, Jr., Supervisory Anthropologist (Section 106 Consultations)  
Historic Preservation Department-Traditional Culture Program

## Appendix A—Public Scoping Comments

### Comment # 1

#### Author Information

<b>Name:</b>	Jane E. Rodgers
<b>Organization:</b>	Grand Canyon National Park
<b>Organization Type:</b>	I - Unaffiliated Individual
<b>Address:</b>	1824 S. Thompson St. Suite 200 Flagstaff, AZ 86001 USA
<b>E-mail:</b>	jane_rodgers@nps.gov

#### Correspondence Information

<b>Status:</b> New	<b>Park Correspondence Log:</b>
<b>Date Sent:</b> 09/19/2011	<b>Date Received:</b> 09/19/2011 1:08 PM
<b>Number of Signatures:</b> 1	<b>Form Letter:</b> No
<b>Contains Request(s):</b> No	<b>Type:</b> Web Form

#### Correspondence Text

Grand Canyon National Park crews, in partnership with Glen Canyon National Recreation Area (GLCA) staff, have completed invasive plant management activities at or near this project location for the past 15 years. Several invasive plant species occur in this area, but the primary species of concern are Sahara mustard (*Brassica tournefortii*), which grows along the roadsides and Russian olive (*Elaeagnus angustifolia*), which grows along the river banks. Typically, Russian olive treatment occurs in the fall or winter, and Sahara mustard treatment occurs in the spring. Because of the high potential for invasive plants found at Lees Ferry to migrate into GRCA, we would like to recommend the following:

- GLCA's Invasive Plant Biologist should visit the project site and implement invasive plant treatment prior to ground disturbance. If necessary, GRCA's Vegetation Program staff could assist.
- All equipment used for the site should be pressure-washed prior to entering GLCA to minimize the potential transport of seed and plant material.
- Any fill material required for this project should come from a borrow pit that has been surveyed for invasive plant species. The surveys should focus on species listed on Arizona noxious weed list, and other species that could potentially pose significant impacts at the Lees Ferry area and downriver. GRCA Vegetation Program staff complete bi-annual surveys of borrow pits and could provide our survey results upon request; however, the majority of the sites are in Flagstaff, with only one in Fredonia.
- If possible, the roadside area should be seeded with native grass species to minimize erosion and the opportunity for invasive plants to establish in the newly disturbed area.

### Comment #2

#### Author Information

<b>Name:</b>	Not provided
<b>Organization:</b>	
<b>Organization Type:</b>	I - Unaffiliated Individual
<b>Address:</b>	Lubbock, TX 79416 USA
<b>E-mail:</b>	Not provided



### Correspondence Information

<b>Status:</b> New	<b>Park Correspondence Log:</b>
<b>Date Sent:</b> 09/25/2011	<b>Date Received:</b> 09/25/2011 8:01 AM
<b>Number of Signatures:</b> 1	<b>Form Letter:</b> No
<b>Contains Request(s):</b> No	<b>Type:</b> Web Form

### Correspondence Text

I'm not sure the gabions are the best way to stabilize the bank with the best results for aquatic wildlife.

## APPENDIX B: FLOODPLAIN STATEMENT OF FINDINGS

U.S. Department of the Interior  
National Park Service  
Glen Canyon National Recreation Area, Arizona

---

**Statement of Findings for Floodplains**


---



---

**Lees Ferry Road Rehabilitation and  
Paria River Bridge Stabilization**


---

Recommended:  
Todd Brindle

\_\_\_\_\_  
Superintendent

\_\_\_\_\_  
Date

Certification of  
Technical Adequacy:  
Gary Rosenlieb

\_\_\_\_\_  
Acting Chief, Water Resources Division

\_\_\_\_\_  
Date

Recommended:  
John Wessels

\_\_\_\_\_  
Regional Director, Intermountain Region

\_\_\_\_\_  
Date

Executive Order 11988, Floodplain Management, requires the National Park Service (NPS) to evaluate the likely impacts of actions in floodplains, avoid adverse impacts associated with the occupancy and modification of floodplains, and avoid support of floodplain development wherever there is a practicable alternative. *Director's Order 77-2: Floodplain Management* (NPS 2003) and its companion document, *Procedural Manual 77-2* (NPS 2004), provide NPS policies and procedures for complying with Executive Order 11988. This statement of findings documents compliance with these NPS floodplain management procedures.

This floodplain statement of findings reviews the project to rehabilitate the Lees Ferry Road and stabilize the Paria River Bridge in Coconino County, Arizona. It describes the flood hazard associated with selected alternative (without mitigation), analyzes risks at alternative sites, describes the effects on floodplain values, and describes and evaluates mitigation measures.

**BRIEF DESCRIPTION OF THE PROPOSED ACTION**
**Lees Ferry Road Components**

Under the proposed action, the Lees Ferry Road would be restored, rehabilitated, and resurfaced. The entire 6-mile road would be pulverized, reshaped, compacted, and repaved with consistent lane widths. The radii of curves that are too tight would be widened by up to 4 feet.

The road profile would be raised by about 6 inches for approximately 4,700 feet, starting 0.6 miles north of the intersection of U.S. Highway 89A and Lees Ferry Road. This action would remove

existing pavement undulations, provide a smoother driving surface, and improve the pavement structure. The concrete pad at the fee station would be removed as part of the proposed action.

Multiple pullouts provide vehicle parking for access to scenic viewpoints, trailheads, or other points of interest. Some of these pullouts are planned, paved parking areas, while others have developed over time as a result of use. Alternative B would close some of these pullouts and improve others:

- About 0.9 acre (39,429 square feet) of existing pullouts would be removed. All removed pullouts would be graded to blend with the landscape and revegetated.
- About 0.21 acre (9,099 square feet) would be paved to accommodate revised designs of pullouts at Cathedral Wash and Balanced Rock and to formalize a river overlook approximately 0.1 mile south of the Lees Ferry Campground turnout. Each of these pullouts would be approximately 300 feet long. Parking and pullout areas at Cathedral Wash and Balanced Rock would meet the Architectural Barriers Act Accessibility Standard so that people with impaired mobility could access the interpretive signs.
- In addition to the lengthened pullout at Cathedral Wash, the Cathedral Wash trailhead would be formalized. The trailhead change would allow pedestrians to access Cathedral Wash on the same side of the road as the pullout instead of crossing the road as is currently done.

### Staging Areas

Construction materials would be stockpiled and construction equipment would be staged at various NPS-approved locations along the Lees Ferry Road. The primary staging area would be several hundred feet east of the Paria River Bridge along the Lees Ferry Road. Staging locations would be in existing and designated NPS staging areas and in areas along the road corridor that have been previously disturbed. Equipment and materials would be stored in areas approved by the National Park Service. The asphalt and concrete batch plant would be outside the national recreation area in a previously disturbed area and would not affect natural or cultural resources in or outside the national recreation area.

### Drainage Components

Drainage improvements would occur along and across Lees Ferry Road, including culvert improvements, providing positive drainage along ditches, and installing revet mattresses (wire enclosed riprap) adjacent to the road to prevent future erosion at many locations. The following improvements would be made to drainage components along Lees Ferry Road.

- All paved ditches would be evaluated for effectiveness and rehabilitated or reconstructed accordingly. Existing U-shaped ditches would be replaced with straight-sloped paved ditch sections (with curb and gutter in the Cathedral Wash area). These types of paved ditch sections may also be used where new roadside drainage improvements were required. Revet mattress or loose riprap may be placed at the end of paved ditches to prevent future erosion.
- Curb reconstruction/extension would be completed as needed along the road to ensure fill slope protection.
- Solutions to preventing culvert cross-drains from becoming plugged with sediment would be implemented. Actions could include replacing some culverts with larger diameters and/or installing additional cross-culverts to improve drainage capacity. Additional solutions could include skewing cross-culverts relative to the road for improved hydraulic flow.
- Existing drop inlets along the roadside would be replaced with flared end sections.

The following actions would take place in areas along the Lees Ferry Road:

- Near Cathedral Wash, the existing pullout would be lengthened approximately 150 feet to the south to better accommodate visitor vehicles. Embankment protection, in the form of revet mattresses and gabions (cylindrical wire baskets filled with rock), would be placed on the east bank of Cathedral Wash to protect the bank and the Lees Ferry Road from further erosion (see figure 4). Improvements associated with Cathedral Wash also would include outlet protection for the large box culvert under the road to prevent further erosion and scour.
- At No Name Wash, larger culverts sized to pass design discharges would be constructed to prevent road overtopping. Slope paving and a headwall would be installed to minimize erosion.
- Undermining of Lees Ferry Road a quarter-mile north of the Lees Ferry campground turnoff would be repaired by installing erosion protection using a gabion wall adjacent to the road.

### **Paria River Banks**

Erosion stabilization along the banks of the Paria River would consist of added bank protection with channel spurs, also known as spur dikes, to deflect the strongest high-water flows away from the bank. A gabion retaining wall and revet mattresses would be installed to cover vulnerable slopes.

**Upstream and Downstream West Bank.** The bridge's western end-walls would be extended upstream and downstream 10 to 15 feet, and the areas above it would be graded to allow runoff from the road to flow onto the slope paving. This would reduce the potential for water and rock to flow onto the bridge deck and would to minimize erosion at the end of the bridge. Concrete lining at the toe of the west and east slope paving would be extended to the bridge pier footing.

**East Bank.** Bank protection would consist of a 1-foot-thick revet mattress placed on the riverbank (wire-enclosed riprap) at a 2 horizontal to 1 vertical slope, extending approximately 240 feet upstream from the existing left bridge abutment and incorporating two channel spurs upstream. Plan views of the preliminary design are shown in figures 5 and 6. The revet mattress would be underlain with a geotextile fabric and filled with 4- to 8-inch diameter rock. Larger riprap would be preferable, but is not locally available and hauling costs would be prohibitive. The toe of the revet mattress would be tied to a row of 3-foot by 3-foot gabion baskets embedded at least 6 feet below the minimum channel bed profile.

The channel spurs would reduce the risk of flanking of the revetment by limiting channel bank erosion immediately upstream of the revetment and redirecting the flood flows away from the susceptible banks. The spurs would extend into the channel approximately 30 feet from the top of bank, be embedded approximately 20 feet horizontally, and be at least 3 feet below the channel elevation at the bank line. The two spurs would be adjacent to an existing sandbar, with contact limited to flood level flows.

### **Bridge Abutment**

Additional concrete paving would be added to the riverbed area under the bridge to protect the existing bridge abutment fills and pier footing, and minimize the potential for scour. This will extend from the east side to the west side bottom edge of the existing slope paving. A low-flow channel for fish passage would be incorporated into the lining. This area is approximately 45 feet long by 45 feet wide under the bridge. Approximately 6 inches of riverbed would be excavated to prepare the surface for placement of concrete. Turndown walls would be installed on the upstream and downstream edges to prevent undercutting.

## Lonely Dell Access Road

A gabion retaining wall at the Lonely Dell Access Road would stabilize the bank slope and restore the road section. In addition, two channel spurs would be installed to prevent further bank erosion. As shown in figure 6, the gabion wall would span approximately 40 feet of riverbank and be founded on the bedrock formation, which is approximately 15 feet below the road surface. The two channel spurs would be immediately upstream at approximately 50-foot intervals. They would be oriented downstream, extending into the channel approximately 20 feet from the top face of the bank and transitioning down to the channel bed.

Because of the highly erosive upstream bank, the spurs have a high risk of flanking (FHWA 2009). However, the other alternative is to armor a longer portion of the upstream channel, which would have greater environmental impacts and higher costs. Therefore, alternative B includes future maintenance of the spurs in response to channel migration.

The Lonely Dell Access Road could be closed for up to two weeks during construction of the bank stabilization. The adjacent parking area could be used for staging materials and equipment, but would be restored to its original condition following completion of the work. The construction contractor would maintain rough vehicular access around the excavation to facilitate construction, and this access could be used for emergency response, if needed. Staging and disturbance would be limited to the Lonely Dell Access Road prism and would not extend into the uphill cut-slope.

When it was necessary to perform work from within the riverbed, equipment would enter the river near the Paria River Bridge and travel through the riverbed. If riverbed access was unavailable, an alternate route using an old gravel-surfaced road east and south of the Lonely Dell work site would be used.

## Concrete Removal

A concrete slab (24 feet x 10 feet with a thickness of 0.5 to 3 feet) is in the Paria River channel about 700 feet upstream from the proposed Lonely Dell channel improvements. The concrete was part of a road that previously crossed the Paria River. Alternative B would remove this slab and dispose of the waste outside Glen Canyon National Recreation Area. Because of the steep riverbanks at this location, it would be accessed through the riverbed by driving equipment up from the Lonely Dell work site. Work would be done during low flow to minimize impacts. Care would be taken to minimize disturbance to vegetation and the streambed when accessing and removing the concrete.

## BRIEF SITE DESCRIPTION

The project area includes the Lees Ferry Road from its junction with U.S. Highway 89A at Marble Canyon to the road's terminus at the boat launch parking lot about 6 miles to the northeast; the Paria River's banks and river bottom at and adjacent to the Paria River Bridge; and a site along the Paria River where it flows adjacent to the Lonely Dell Access Road, about 0.5 mile upstream of its confluence with the Colorado River. The project location is shown in figures B-1 and B-2.

Most of the development in the Lees Ferry area consists of Class I actions. As shown in table B-1, these are man-made features that by their nature entice or require individuals to occupy the site, are prone to flood damage, or result in impacts to natural floodplain values. Class I actions are subject to the floodplain policies and procedures if they lie within the 100-year floodplain. The Lees Ferry area includes roads (Lees Ferry Road and Lonely Dell Access Road) and bridges that fall within a 100-year floodplain, and as a result, are subject to the floodplain policies and procedures. None of the man-made features around Lees Ferry are Class II or Class III actions.

# REFERENCES

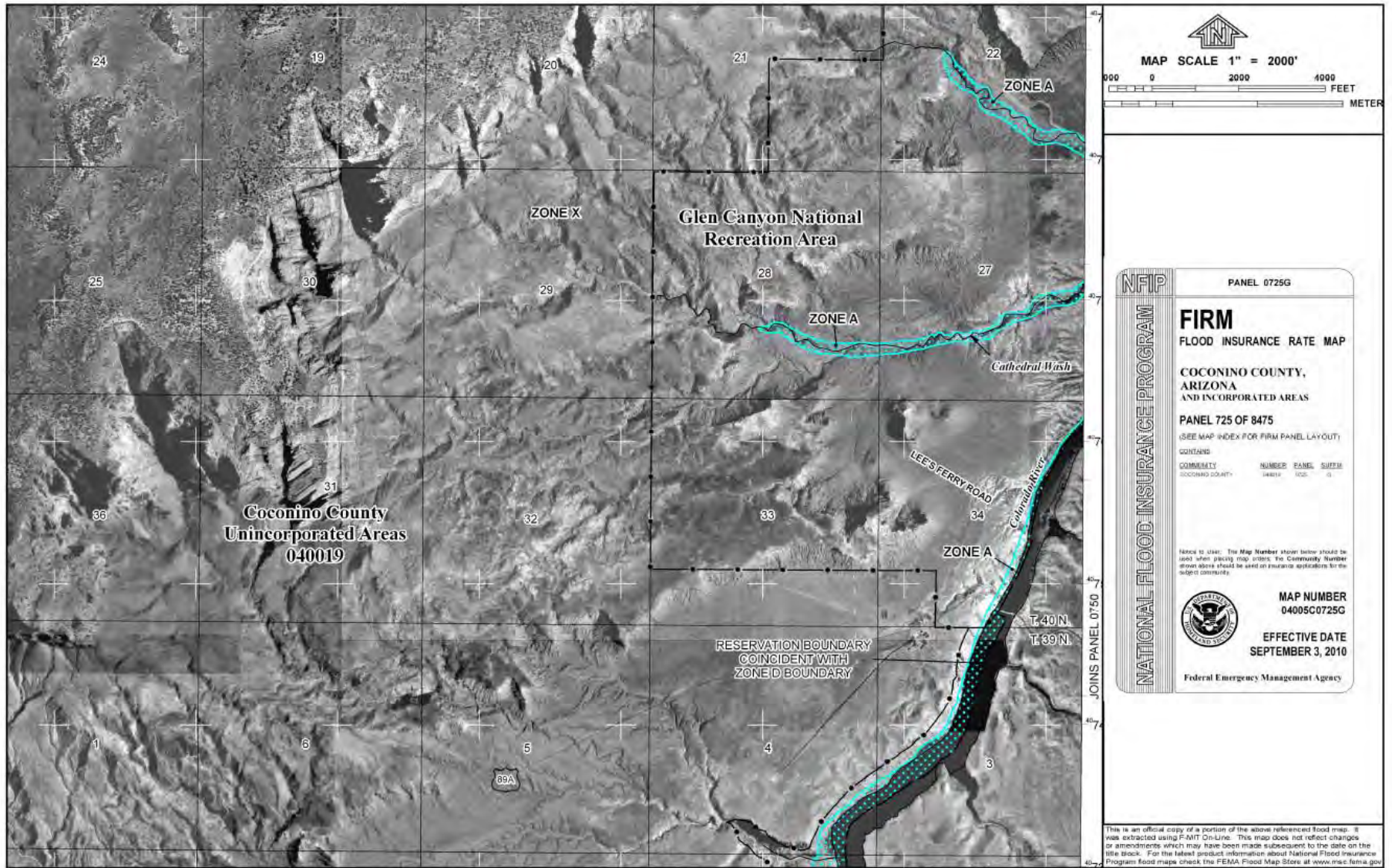
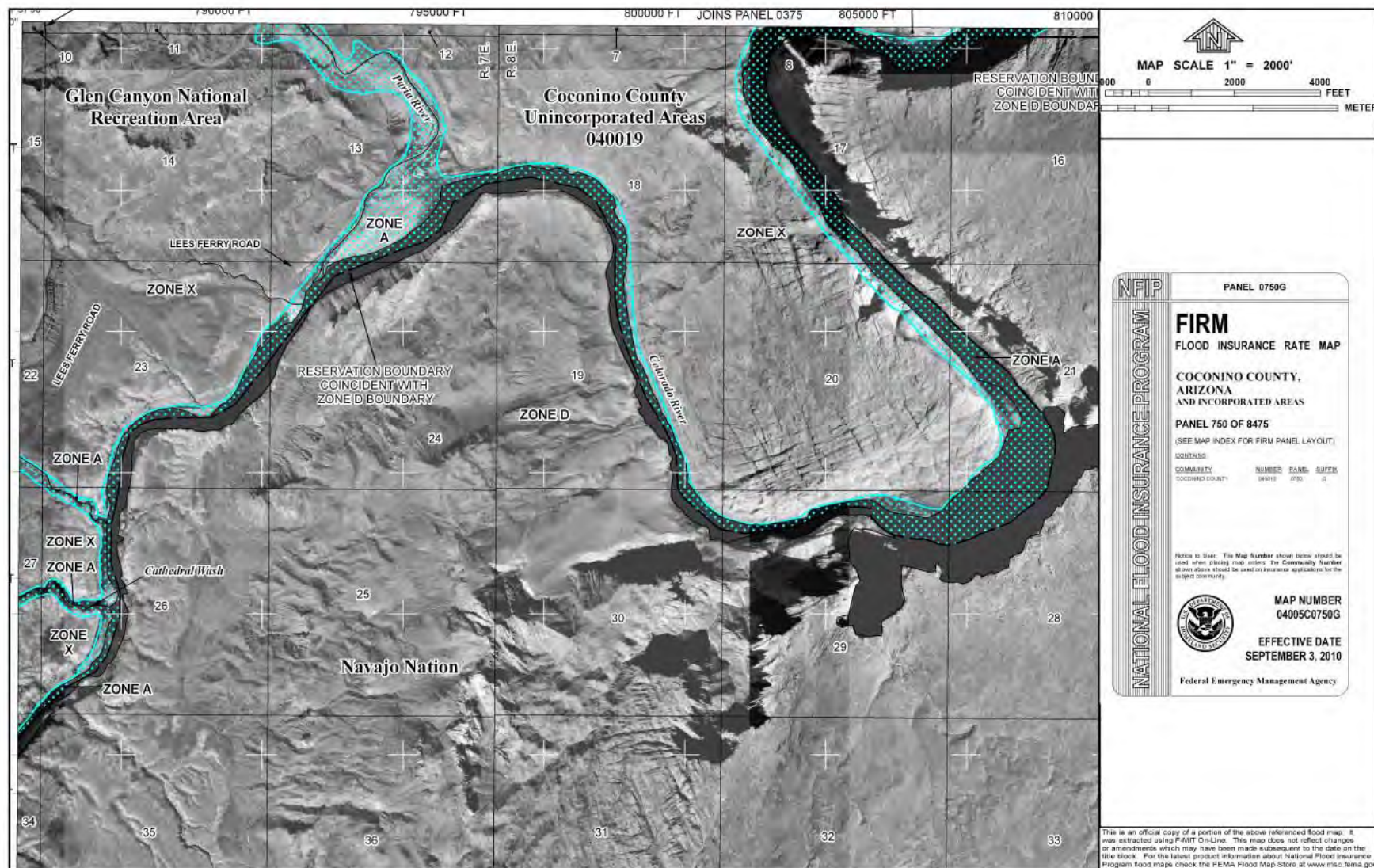


Figure B-1: FEMA Floodplain Map, Panel 04005C0725G





Source: FEMA Flood Insurance Rate Map September 3, 2010

Figure B-2: FEMA Floodplain Map, Panel 04005C0750G



**Table B-1: Floodplain Action Classes**

Action Class	Description
Class I	Include location or construction of administrative, residential, warehouse, and maintenance buildings; non-excepted parking lots; or other man-made features which by their nature entice or require individuals to occupy the site, are prone to flood damage, or result in impacts to natural floodplain values. Class I actions are subject to the floodplain policies and procedures if they lie within the 100-year floodplain (the base floodplain).
Class II	<p>Include any activity for which even a slight chance of flooding is too great. Class II actions are subject to the floodplain policies and procedures if they lie within the 500-year floodplain. Examples of Class II actions are the location or construction of:</p> <ul style="list-style-type: none"> <li>• Schools, hospitals, clinics, or other facilities occupied by people with physical or medical limitations;</li> <li>• Emergency services;</li> <li>• Fuel storage facilities, 40,000 gallons per day or larger sewage treatment plants, and storage of toxic or water-reactive materials, including hazardous materials; and</li> <li>• Irreplaceable records, museums, and storage of archeological artifacts.</li> </ul>
Class III	Include Class I or Class II actions in high hazard areas, which include coastal high hazard areas and areas subject to flash flooding. In high hazard areas, picnic facilities, scenic overlooks, foot trails, and associated day-time parking facilities may be placed within the 100-year floodplain, but these facilities must contain signs informing visitors of flood risk and suggested actions in the event of flooding. Consideration should be given to providing additional levels of flood protection. For other activities, Class III actions are subject to the floodplain policies and procedures if they lie within the extreme floodplain.

Source: NPS 2003.

### Characterization of the Flooding and Associated Floodplain Processes

The main channel of the Paria River in the vicinity of the bridge is approximately 80 to 100 feet wide, with bank heights ranging from 8 to 20 feet. The 100-year Paria River floodplain in this area is about 1,000 feet wide. Flow depths can range from around 6 inches for normal low flows to nearly 20 feet during a 100-year event (FHWA 2009).

### Justification for Use of the Floodplain

**Why the Proposed Action Must be in a Floodplain.** The road rehabilitation and bank stabilization can only be performed in the floodplain because that is where the issues that need to be addressed are located. The road must cross the Paria River to reach the Lees Ferry boat ramp and this requires crossing the floodplain. Likewise, the bank stabilization efforts can only be implemented on the Paria River banks, which are within the floodplain. It would be logistically impractical and prohibitively expensive to relocate the road and/or to bridge the river so that none of the infrastructure would be in the floodplain. Therefore, proposed actions must be implemented within the floodplain.

The bank stabilization at Cathedral Wash and No Name Wash also must be in the floodplain because that is where the problem exists. Although the bank hardening would be implemented in the floodplain, adverse effects on the ability to convey a flood flow would be minimal as the potential for serious bank erosion would be minimized. The channels of the washes would retain their ability to convey flood flows downstream even after an event that overtopped existing capacity.

**Investigation of Alternative Sites.** The proposed action to stabilize the Paria River banks upstream of the Paria River Bridge, by its nature, must be implemented in the floodplain along the river. No alternative site would be feasible. Alternative approaches to implementing the stabilization included the use of additional spur dikes, increased length of bank armoring with revet mattresses, and the installation of as many as six bendway weirs that would have been directly tied into the revet mattress bank protection at 50-foot intervals. These options were dismissed because of a

combination of feasibility questions, too great an adverse environmental impact, and/or the inability to meet the Paria River Bridge protection element of the project's purpose and need.

### **Description of Site-Specific Flood Risk**

**Recurrence Interval of Flooding.** As shown in figure B-1, parts of the Lees Ferry Road and Paria River Bridge are in the 100-year floodplain based on the FEMA map. As described below, the main channel cannot contain flows greater than those resulting from a 2-year precipitation event.

**Hydraulics of Flooding at the Site.** Results of a hydraulic analysis performed by the U.S. Department of Transportation, Federal Highway Administration indicate that flood flows upstream of the bridge are contained within the main channel up to approximately a 2-year event. Water from larger events spills into the floodplain area south of the main channel where it ponds behind the Lees Ferry Road, eventually draining back into the channel to pass under the bridge. When the discharge exceeds a 10-year event, flows overtop the Lees Ferry Road (FHWA 2009).

**Opportunity for Evacuation and Protection of Human Life.** The best way to protect people traveling the Lees Ferry Road during a large event is to provide a warning system and evacuation plan. This is challenging because of the sudden nature of flooding in the area and the difficulty in predicting intense rainfall events. National Weather Service predictions and observations continue to improve, and the National Park Service will continue to monitor information from this agency regarding dangerous storms in the Paria River watershed. When conditions of concern are detected, the National Park Service will notify personnel in the Lees Ferry area to take appropriate actions to warn and protect visitors. An evacuation plan is currently being prepared and is expected to be operational in 2014. This plan will facilitate notifying people using the Paria River and Lees Ferry Road area so they can be rapidly and effectively evacuated when a warning is issued.

**Geomorphic Considerations.** As indicated by the eroded, vertical banks in the project reach, velocities and shear stresses during flood flows are relatively high. During a 2-year event, the average depth and velocity are around 9 feet and 6 feet per second, respectively. As flood flows increase, depths approach 20 feet at some locations, and average channel velocities reach 8 feet per second. The highest velocities occur at the bridge, where the channel narrows and flows accelerate. High velocities also occur upstream of the bridge along the outside (south side) of the channel bend (FHWA 2009).

### **Floodplain Mitigation Measures**

The following flood mitigation measures would be used to minimize adverse effects to floodplain values (for example, aquatic life habitat, water quality, and channel capacity for flood flows) and to ensure the safety of construction workers and national recreation area visitors.

Conduct work during low-flow conditions.

Prior to working in the stream, divert the stream flow around the work area. Use structures such as temporary sediment traps, erosion check screens, coffer dams, or water-inflated coffer dams to divert the main flow and reduce turbidity downstream from the project site.

Construct diversions in a manner that would provide a continuous flow to downstream reaches and would not affect the quality, quantity, or temperature of flows below the diversion in a manner that would adversely affect fish or other aquatic life.

Limit fill for temporary diversions to the minimum amount necessary to accomplish the work.

Remove temporary fills and diversions upon completion of the work at that location.

Slowly and carefully drive heavy equipment operated in the stream channel to minimize channel alterations, sediment movement, and water turbidity.

Prior to anticipated high flows, remove from the natural bed of the waterway all temporary structures not designed to withstand high water flows and materials considered deleterious to aquatic life if inundated.

Minimize disturbance to vegetation and the streambed when accessing and removing the concrete and when installing bank protection.

### Summary

The proposed action would reduce the potential for flood damage on the Class I actions of roads and the bridge in the Paria River floodplain by improving drainage, reducing erosion along the Lees Ferry Road, and reducing erosion in the river channel near the bridge and along the Lonely Dell Access Road. Erosion protection measures and drainage improvements along the Lees Ferry Road would reduce erosion and overtopping of the road as water flowed in washes toward the Paria River. Stabilization features along the Paria River would help reduce erosion of the riverbank. These features would slightly alter river processes at the installation sites by changing the speed and direction of the flow and reducing the erosive capability of the river.

The proposed action would result in beneficial effects on existing infrastructure in the floodplain, consisting of the Paria River Bridge, Lees Ferry Road, and Lonely Dell Access Road. No long-term, adverse impacts on floodplains would result from this alternative.

Mitigation and compliance with regulations and policies to prevent impacts to water quality, floodplain values, and loss of property or human life would be strictly adhered to during and after construction. Individual permits from local, state, and other federal agencies would be obtained prior to construction.

Therefore, the NPS finds the preferred alternative to be acceptable under Executive Order 11988 for the protection of floodplains.

### References Cited

Federal Highway Administration (FHWA), U. S. Department of Transportation,

- 2009      *Summary of Channel Stabilization Alternatives, CHFLHD Project No. AZ GLCA 99(1), Lees Ferry Bridge Abutment Protection, Glen Canyon National Recreation Area, Coconino County, Arizona.* Technical memorandum from Scott Hogan, P.E. to Chris Longley, P.E., May 4.

National Park Service (NPS), U.S. Department of Interior

- 2003      *Director's Order #77-2, Floodplain Management.* National Park Service, Washington D.C. September. Available on the Internet at <http://home.nps.gov/applications/npspolicy/DOrders.cfm>.
- 2004      *Procedural Manual 77-2, Floodplain Management.* National Park Service, Washington D.C. Available on the Internet at <http://www.nature.nps.gov/rm77/floodplain.cfm>.