



A1

## GAME & FISH DEPARTMENT

2221 West Greenway Road, Phoenix, Arizona 85023-4399 (602) 942-3000  
www.gf.state.az.us

*Governor*  
Jane Dee Hull  
*Commissioners*  
*Chairmen, Herb Guenther, Tucson*  
Michael M. Colighly, Flagstaff  
William Berla, Tucson  
M. Jean Hassel, Scottsdale  
Dennis D. Manning, Alpine

*Director*  
Duane L. Struble  
*Deputy Director*  
Thomas W. Spalding

November 10, 1998

Mr. Terry Haussler (HDP-16)  
Federal Highway Administration  
555 Zang Street, Room 259  
Lakewood, Colorado 80228

Re: Draft Environmental Impact Statement (EIS) for U.S. 93 Hoover Dam Bypass

Dear Mr. Haussler:

The Arizona Game and Fish Department (Department) has reviewed the draft EIS, dated September, 1998, for the proposed U.S. 93 Hoover Dam Bypass project. The Department appreciates the close interagency cooperation and coordination during development of this draft EIS. The following comments are provided for your consideration.

Along with the No Build Alternative, three build alternatives are evaluated in this document. From north to south, they are Promontory Point, Sugarloaf Mountain, and Gold Strike Canyon. Each alternative would include construction of a four-lane highway, a new steel or concrete four-lane bridge over the Colorado River near Hoover Dam, four-lane approaches, and the approach bridges and tunnels needed for the 3.5-mile-long project. The selection of a preferred alternative will not be made until the alternatives' impacts and comments on the document have been fully evaluated.

### General Comments

#### **Wildlife and Wildlife Habitat Values**

The lands that will be affected by the proposed bridge and associated highway alignments are comprised primarily of the Mohave Desert Scrub habitat type. The associated plant community and unique topography of the area provides exceptional, high-quality bighorn sheep habitat as well as habitat for quail, dove, peregrine falcon, Sonoran desert tortoise, and numerous small game and nongame birds and mammals. The project area also provides habitat for predator/furbearer species such as coyote, bobcat, and some mountain lion. Aquatic species found in this portion of the Colorado River include rainbow trout, striped bass and the Endangered razorback sucker.

An Equal Opportunity Reasonable Accommodations Agency

Mr. Terry Haussler  
November 10, 1998  
2

Past land development and disturbance near Hoover Dam has been substantial, thus diminishing habitat values in the area. However, despite these disturbances, the project area does contain high numbers of desert bighorn sheep and two known peregrine falcon aeries. In addition, the area within the proposed alignments encompasses several minor washes. These drainages and associated vegetation are important to wildlife because they provide feeding, nesting, breeding and resting sites. Washes also serve as important wildlife movement corridors.

#### Proposed Alternatives

Overall, potential environmental impacts associated with the three build alternatives appear to be adequately addressed in the draft EIS. Potential impacts to wildlife, and particularly those species of greatest concern to the Department, such as the desert bighorn sheep and peregrine falcon, have been identified and addressed in the draft EIS.

A1-1 Based on our review of the three build alternatives, the Sugarloaf Mountain alignment, coupled with the proposed mitigation, is expected to have the least amount of adverse impact to wildlife and wildlife habitat. Of the three build alternatives, the Sugarloaf Mountain Alternative will affect the smallest amount of land, including important wildlife habitats such as desert wash habitat and cliff habitat.

#### Mitigation Measures

A1-2 The initial mitigation measures appear suitable and should work to minimize impacts to wildlife resources. As the project moves forward, the Department would appreciate the opportunity to be involved in all aspects of fish and wildlife mitigation associated with this project (in Arizona).

A1-3 Specific mitigation measures proposed for the Sugarloaf Mountain Alternative appear appropriate and should help to minimize impacts to wildlife resources in the project area. The Department recommends that this alternative also include before, during and after construction monitoring of peregrine falcons as a mitigation measure. Currently, the closest peregrine falcon nest site is greater than one mile away from this alignment. However, peregrine falcons will often choose alternative nest sites in the same general area from year to year. Therefore, it is possible that the location of this nest could change over time. In addition, peregrine falcons from the current nest site likely forage within the proposed Sugarloaf Mountain alignment. Significant impacts to cliff habitat from any of the alternatives could potentially affect the peregrine falcon prey base.

#### Response to Comment A1-1

FHWA, the lead agency, has identified the Sugarloaf Mountain Alternative, with the proposed mitigation measures, as the preferred alternative on the basis of minimizing environmental impacts, engineering and operational advantages, and lower construction cost. Section 2.6.2.1 of the FEIS discusses the rationale for its selection.

#### Response to Comment A1-2

FHWA and our respective cooperating agencies commit to involve AGFD in the development and implementation of specific mitigation measures for fish and wildlife affected by the preferred alternative as the project proceeds through final design and construction.

#### Response to Comment A1-3

The lead agency will coordinate with appropriate state and federal agencies to ensure that peregrines will be monitored 3 to 4 times a year for at least 2 years before, during, and after 1 year of public use of the new bridge.

Mr. Terry Haussler  
November 10, 1998  
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A1-4 **Section 3.3.3, Subsection 3.3.3.1, Construction Mitigation:** the following statement appears under Peregrine Falcon: "Biologist from AGFD and NPS would continue to monitor peregrine falcons in the proposed project area..." The Department recently stopped our monitoring efforts on peregrine falcons in the project area. This was due to potential status changes with the peregrine falcon as an Endangered species. The Department supports monitoring efforts on the peregrine falcon in relation to this project. Funding will need to be identified in order to continue monitoring efforts and to ensure that peregrine falcon mitigation objectives are met.

A1-5 **Section 3.3.3 Subsection 3.3.3.1:** On page 3-34, under Peregrine Falcon, we recommend that breeding territories located within 1 mile of construction activities have no blasting or excavation activities conducted during the breeding season (March through July). A 0.5-mile buffer may not be an adequate distance to minimize disturbances to peregrine falcons due to blasting and excavation work. The Department is interested in working with the cooperating agencies on this issue in order to minimize potential adverse impacts to the peregrine falcon.

A1-6 The bighorn sheep mitigation appears adequate. The use of underpasses and overpasses by bighorn sheep is of interest to the Department and we look forward to monitoring the effectiveness of these structures. The use of fencing should facilitate the use of these structures by sheep and other wildlife. Additional operational mitigation could include speed reductions within two miles approaching the bridge, and roadside signing warning motorists of the possibility of encountering wildlife in area. We would appreciate the opportunity to be involved in all aspects of mitigation as it relates to bighorn sheep.

A1-7 Measures to minimize and eliminate impacts to water resources also appear adequate. All storm-water and potential chemical spill related runoff collected and drained to settling basins should be covered and fenced. This will reduce the likelihood of wildlife coming into contact with these contaminated water sources.

A1-8 The status of bat populations in Arizona is of concern to the Department. National Park Services biologists have found bat densities to be low near Hoover Dam. The Department believes that opportunities exist to create and enhance bat habitat in the Hoover Dam Bypass project area. Bridge structures are often used as day roosts for a variety of bat species. Simple modifications of bridge design features can easily create bat habitat. We recommend that where feasible, as detailed design planning is initiated, efforts be made to incorporate bat-friendly structures within the bridge design. The Department would be willing to assist in this planning effort.

#### **Response to Comment A1-4**

FHWA will coordinate with the Arizona Game and Fish Department to reinitiate the monitoring program for peregrines. Section 3.3.3, Subsection 3.3.3.1 of the EIS has been changed to delete the wording "continue to," implying that AGFD is still monitoring peregrines in the project area when in fact this practice has recently stopped.

#### **Response to Comment A1-5**

Consistent with the Biological Opinion of USFWS for this project, if occupied peregrine falcon nests are found within 0.5 mile of construction activities, consultation will be reinitiated with USFWS to determine appropriate mitigation measures.

#### **Response to Comment A1-6**

The following sentence has been added in Section 3.3.3.1, Desert Bighorn Sheep: "Roadside signing will be installed warning motorists of the possibility of encountering wildlife in the area."

#### **Response to Comment A1-7**

These settling basins will periodically need to be cleaned. Any fences that may be incorporated into the basin design must be compatible with basin maintenance and function. The FEIS, Section 3.4.3.2, has been clarified.

#### **Response to Comment A1-8**

There were no areas with high densities of bats found during surveys conducted for this project by NPS (see Table 3-12). Hence, there is not a demonstrated need for providing bat roosts on the bridge structures.

Mr. Terry Haussler  
November 10, 1998  
4

Specific Comments

**Table 3-14**

A1-9 Under impacts associated with the Sugarloaf Alternative - peregrines, it states that "impact unlikely; bridge site is in area buffered by existing disturbances, and breeding area is greater than 1 mile". We suggest this be reworded to state that impacts are possible without mitigation. As stated previously, nest sites may change from year to year and peregrine falcons located at the nest site downstream of this alternative likely forage within the project area associated with this alternative.

**Table 3-12**

A1-10 Page 3-23 should include the status symbol ASC for Las Vegas bear paw poppy and bicolored penstemon. On page 3-24, the status symbol ASC should be added to the Peregrine falcon and banded Gila monster. On page 3-25, the status symbol AT should be deleted for desert bighorn sheep and the status symbol ASC should be added to all of the bat species except the small-footed myotis bat.

Thank you for the opportunity to review this draft EIS. Again, the Department appreciates the close interagency coordination during development of this draft EIS. We look forward to participating in the development of fish and wildlife mitigation measures associated with this project. If you have any questions regarding this letter, please contact me at (602) 789-3602. If you would like to schedule a meeting to discuss these comments and specific mitigation measures in more detail, please contact Tom Presques, Region III Habitat Specialist, at (520) 692-7700, extension 118.

Sincerely,



Duane L. Shroufe  
Director

DLS:jk

cc: Dave Walker, Habitat Branch Chief, Phoenix  
Tom Presques, Habitat Specialist, Region III, Kingman

AGFD# 10-20-98(08)

**Response to Comment A1-9**

The note regarding peregrine falcon impacts from the Sugarloaf Mountain Alternative in Table 3-14 has been changed to say: "Impact possible without mitigation; peregrines may forage within the project area."

**Response to Comment A1-10**

All of the requested changes in Table 3-12 have been made.

BOB MILLER  
Governor

A2  
STATE OF NEVADA

JOHN P. COMEAUX  
Director



DEPARTMENT OF ADMINISTRATION  
209 E. Musser Street, Room 200  
Carson City, Nevada 89701-4298  
Fax (702) 687-3983  
(702) 687-4065

November 12, 1998

Terry Hausler  
Federal Highway Administration  
555 Zang Street Room 259  
Lakewood, CO 80228

Re: SAI NV #E1999-040  
HPD-16

Project: DEIS for the Hoover Dam Bypass Project

Dear Terry Haussler:

Enclosed is an additional comment from the Nevada Health Division that was received after our previous letter to you. Please incorporate this comment into your decision making process. If you have any questions, please contact me at (702) 687-6367.

Sincerely,

A handwritten signature in cursive script that reads "Heather K. Elliott".

Heather K. Elliott  
Nevada State Clearinghouse/SPOC

Enclosure

L-22

### Response to Comment A-2

DELETED — Duplicate letter from the Nevada Department of Human Resources, Health Division via the Nevada Department of Administration (see response to Comment A10)

BOB MILLER  
Governor

CHARLOTTE CRAWFORD  
Director



YVONNE SYLVA  
Administrator

VACANT  
State Health Officer

STATE OF NEVADA  
DEPARTMENT OF HUMAN RESOURCES  
HEALTH DIVISION  
BUREAU OF HEALTH PROTECTION SERVICES

November 2, 1998

Nevada State Clearinghouse  
Department of Administration  
Budget and Planning Division  
209 East Musser Street, Room 200  
Carson City, Nevada 89701-4298

RE: NEVADA SAI# E1999-040 DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE HOOVER DAM BYPASS PROJECT ON US 395

The Nevada State Health Division, Bureau of Health Protection Services, has received the Draft Environmental Impact Statement for the Hoover Dam Bypass Project on United States Highway 95 (US 95). The Nevada State Health Division supports two (2) of the three (3) alternatives. Both the Sugarloaf at Mountain Alternative and the Gold Strike Canyon Alternative are acceptable for the Hoover Dam Bypass without comment. However, the Nevada State Health Division is concerned with the Promontory Point Alternative Bypass.

There are several public water systems that draw their drinking water from Lake Mead. The most critical of these water systems is the Hoover Dam public water system which draws its drinking water at the dam. Since the Promontory Point Alternative proposes to span Lake Mead at or near the dam, the Nevada State Health Division is concerned with the possibility of a traffic accident that may cause a spill into the lake, thereby, subjecting the drinking water to possible pollution and/or contamination.

Thank you for the opportunity to comment on this issue. If you have any questions, please call me at (702) 687-4754, extension 230.

Sincerely,

Rick Reighley, P.E.  
Public Health Engineer  
Bureau of Health Protection Services

cc: Jon Palm, Manager, Public Health Engineering

- Bureau Administration  
1179 Fairview Drive  
Suite 201  
Carson City, NV 89701-5405  
(702) 687-6353  
Fax (702) 687-5197
- Public Health Engineering  
1179 Fairview Drive  
Suite 101  
Carson City, NV 89701-5405  
(702) 687-4754
- Radiological Health  
1179 Fairview Drive  
Suite 102  
Carson City, NV 89701-5405  
(702) 687-5394  
Fax (702) 687-5751
- Environmental Health  
1179 Fairview Drive  
Suite 104  
Carson City, NV 89701-5405  
(702) 687-4750
- Health Protection Services  
628 Berose Street  
Suite A  
Las Vegas, NV 89107  
Engineering and Food  
(702) 486-5068  
Radiological Health  
(702) 486-5280  
Fax (702) 486-5024
- Health Protection Services  
850 E. M Street  
Elko, NV 89801-3349  
(702) 753-1138/1140
- Health Protection Services  
475 W. Haskell Street  
Room 38  
Winnemucca, NV 89445  
(702) 623-6588
- Health Protection Services  
156 N. Taylor Street  
Suite 199  
Fallon, NV 89406-3324  
(702) 423-2281
- Health Protection Services  
P.O. Box 339  
Ely, NV 89301-0939  
(702) 289-3325
- Health Protection Services  
P.O. Box 567  
Tonopah, NV 89049-0667  
(702) 482-3997

A2-1

A2-2



A3  
United States Department of the Interior

OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20240

ER-98/610

NOV 4 1998

Mr. John T. Price  
Division Administrator  
Federal Highway Administration  
705 N. Plaza Street, Suite 220  
Carson City, Nevada 89701-0602

Dear Mr. Price:

This is in response to the request for the Department of the Interior's comments on the Draft Environmental Impact Statement/Section 4(f) Evaluation for the US-93 Hoover Dam Bypass Project - Construction of a New Bridge and Highway Access across the Colorado River, Clark County, Nevada; and Mohave County, Arizona.

A3-1 We concur that there is no prudent and feasible alternative to the proposed project, if project objectives are to be met. We also concur with the proposed measures to minimize harm to Section 4(f) resources which may be affected by the proposed project.

A3-2 The Lake Mead National Recreation Area has served as a cooperating agency on the Project Management Team during the conservation planning and impact analysis effort for the proposed project. Also, proactive tribal consultations have been undertaken as a key part of this process. Although it appears that the Sugarloaf Alternative will have the least environmental impact to Lake Mead National Recreation Area, the National Park Service (NPS) will refrain from identifying a Preferred Alternative until all processes including the Traditional Cultural Properties have been finalized. We also note that according to the Federal Highway Administration's analysis of three public meetings held during October 13-15, more participants supported this alternative than the Gold Strike and Promontory Alternatives combined.

The Lake Mead National Recreation Area will continue to represent the NPS in the collaborative interagency efforts to select an alternative that will meet the purpose and need while protecting park values and prepare the Final Environmental Impact Statement and the Record of Decision for the proposed project. Should you need any clarification of our comments, please contact Mr. Allan O'Neill, Superintendent, Lake Mead National Recreation Area at (702) 293-8920.

### Response to Comment A3-1

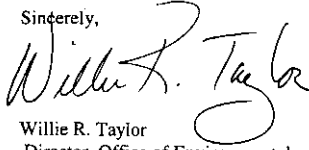
The specific measures to minimize environmental harm to Section 4(f) resources are documented in the final Section 4(f) evaluation and EIS for this project (see Chapter 6, Section 6.6). Those measures will be adopted in the Record of Decision (ROD).

### Response to Comment A3-2

FHWA, the lead agency, has identified the Sugarloaf Mountain Alternative, with the proposed mitigation measures, as the preferred alternative on the basis of minimizing environmental impacts, engineering and operational advantages, and lower construction cost. Section 2.6.2.1 of the FEIS discusses the rationale for this decision.

A3-3 The Department of the Interior has no objection to Section 4(f) approval of this project by the Department of Transportation, providing that the Preferred Alternative and mitigation measures to Section 4(f) resources are coordinated with and approved by the NPS.

We appreciate the opportunity to provide these comments.

Sincerely,  
  
Willie R. Taylor  
Director, Office of Environmental  
Policy and Compliance

cc: Mr. Tom E. Stephens, P.E.  
Director  
Nevada Department of Transportation  
1263 South Stewart Street  
Carson City, Nevada 89712

### Response to Comment A3-3

As a cooperating agency in development of this EIS and Section 4(f) evaluation, the NPS staff was instrumental in defining the project alternatives and the specific mitigation measures for Section 4(f) resources.



REPLY TO  
ATTENTION OF

**A4**  
**DEPARTMENT OF THE ARMY**  
 U.S. ARMY ENGINEER DISTRICT, SACRAMENTO  
 CORPS OF ENGINEERS  
 1325 J STREET  
 SACRAMENTO, CALIFORNIA 95814-2922

November 12, 1998

Regulatory Branch (199725481)(FEC)

Federal Highway Administration  
 ATTN: Terry Haussler  
 565 Zang Street, Room 259  
 Lakewood, Colorado 80228

Dear Mr. Haussler:

I am responding to the Draft Environmental Impact Statement for FHWA HOOVER DAM BYPASS US 93, 199725481.

The Corps of Engineers jurisdiction within the study areas is under the authority of Section 404 of the Clean Water Act for the discharge of dredged or fill material into waters of the United States or excavation that has more than minimal effect on the aquatic environment in these waters. Waters of the United States include, but are not limited to, the following: perennial and intermittent streams, lakes, ponds, as well as wetlands in marshes, wet meadows, and side hill seeps. Project features that would occur from development within the study areas that result in the discharge of fill material into waters of the United States will require Department of the Army authorization prior to initiating work.

A4-1 The range of alternatives considered in the DEIS included alternatives to fill in wetlands or other waters of the United States within the study area. Every effort should be made to avoid project features which require the discharge of fill into waters of the United States. In the event it can be clearly demonstrated there are no practicable alternatives to filling waters of the United States, mitigation plans should be developed to compensate for the losses resulting from project implementation.

A4-2 Although we are not providing a comprehensive review of the DEIS, as a cooperating agency for the preparation of the DEIS, we have reviewed those sections pertaining to Section 404 of the Clean Water Act and Section 10 of the River and Harbor Act. We also reviewed the Purpose and Need to determine if it met with our criteria regarding the Section 404(b)(1) Guidelines. We concur with the Purpose and Need as contained in the DEIS.

### **Response to Comment A4-1**

As documented in Comment A5-1 (ACOE letter dated December 8, 1998), ACOE concurred with the determination that the project does not contain any wetlands.

All build alternatives for the Hoover Dam bypass involve placement of fill in waters of the U.S. to varying degrees (see EIS Figure 3-3). The preferred alternative has the lowest potential acreage of fill (0.11 permanent acres) among the three project alternatives studied in detail in the EIS. Mitigation plans to compensate for this loss will be developed through the permitting process.

### **Response to Comment A4-2**

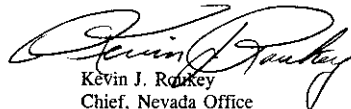
Concurrence by ACOE in the DEIS Purpose and Need/ Alternatives constitutes this agency's affirmation of the project under the *Integrated NEPA/ Section 404 Memorandum of Understanding*, dated March 3, 1994.

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A4-3 The comments provided in our review of the DEIS at the interagency coordination meetings on August 11 and 12, 1998 have been fully addressed, with the inclusion of the maps from the preliminary delineation; the 404 sequencing (Avoidance, Minimization, Mitigation); and the information regarding impacts to waters of the United States. As stated at the coordination meeting the inclusion of this information allows for the EIS to be utilized to satisfy our NEPA documentation and the 404(b)(1) Guidelines.

If you have any questions, please write to Mr. Kevin Roukey at our Nevada Field Office, C. Clifton Young Federal Building, 300 Booth Street, Room 2103, Reno, Nevada 89509, telephone (702) 784-5304, FAX (702) 784-5306. We appreciate the opportunity to be included in your review process.

Sincerely,



Kevin J. Roukey  
Chief, Nevada Office

### **Response to Comment A4-3**

Measures to avoid, minimize, or mitigate impacts on waters of the U.S. identified in the EIS will be incorporated in the ROD for this project (see response to Comments A4-1 and A5-2).



REPLY TO  
ATTENTION OF

**A5**  
**DEPARTMENT OF THE ARMY**  
**U.S. ARMY ENGINEER DISTRICT, SACRAMENTO**  
**CORPS OF ENGINEERS**  
1325 J STREET  
SACRAMENTO, CALIFORNIA 95814-2922

December 8, 1998

Regulatory Branch (199725481)(FJL)

Federal Highway Administration  
ATTN: Terry Haussler  
565 Zang Street  
Denver, Colorado 80225-0246

Dear Mr. Haussler:

This letter concerns the FHWA HOOVER DAM BYPASS, US 93 located within Section 29, Township 22 South and Range 65 East, M.D.B. & M., in Clark County, Nevada.

We have reviewed and verified the Section 404 Jurisdictional Delineation HOOVER DAM BYPASS PROJECT, CLARK COUNTY, NEVADA AND MOJAVE COUNTY, ARIZONA dated April 1998. The map was field verified on March 16, 1998 by me and yourself and representatives from the USBOR, NPS and your consultant. We concur with the determination that the project does not contain any wetlands but does contain other waters of the United States, as indicated on Figure 2 of the Delineation.

A5-1

Our jurisdiction in this area is under Section 404 of the Clean Water Act. A Department of the Army permit is required prior to discharging dredged or fill materials into waters of the United States. Discharge of dredged material includes but is not limited to any addition, including reposit, of dredged material, including excavated material, into the waters of the United States which is incidental to any activity including mechanized land clearing, ditching, channelization, or other excavation. Accordingly, a permit will be required prior to filling any of the waters present on the FHWA HOOVER DAM BYPASS US 93 property. The type of permit required will depend on the type and amount of waters which would be lost or adversely modified by fill activities.

A5-2

This verification is valid for five years from the date of this letter unless new information warrants revision of the determination before the expiration date. Please refer to identification number 199725481 in any correspondence concerning this project.

A5-3

**Response to Comment A5-1**

See response to Comment A4-1.

**Response to Comment A5-2**

An ACOE permit will be required under Section 404 of the Clean Water Act for placement of fill in waters of the U.S. The specific impacts on waters and the type of permit will be determined and acquired during final design of the roadways and bridges, prior to construction of the U.S. 93 Hoover Dam bypass.

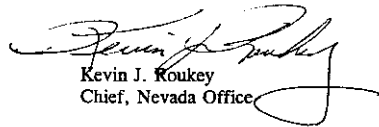
**Response to Comment A5-3**

Assuming that funding becomes available and environmental clearances are obtained, construction could start on the project by 2002. This falls within the 5-year verification period of the Section 404 jurisdictional delineation for this project.

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If you have any questions, please write to our Nevada Field Office, C. Clifton Young Federal Building, 300 Booth Street, Room 2103, Reno, Nevada 89509, telephone (702) 784-5304, FAX (702) 784-5306.

Sincerely,

  
Kevin J. Roukey  
Chief, Nevada Office



**A6**  
 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 REGION IX  
 75 Hawthorne Street  
 San Francisco, CA 94105-3901

Mr. Larry Smith  
 Division Engineer  
 Federal Highway Administration  
 Central Federal Lands Highway Division  
 555 Zang Street  
 Denver, CO 80228

Dear Mr. Smith:

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the proposed **Hoover Dam Bypass Project, in Clark County, Nevada and Mojave County, Arizona**. We provide our comments pursuant to Section 309 of the Clean Air Act, the National Environmental Policy Act (NEPA), and the Council on Environmental Quality's Regulations for Implementing NEPA (40 CFR Parts 1500-1508).

The Federal Highway Administration (FHWA) proposes to construct a new bridge and highway access across the Colorado River in the vicinity of Hoover Dam for approximately four miles. The project takes place on lands held by the Bureau of Reclamation and the National Park Service. A total of fourteen "build" alternatives were proposed, with four including the no-build ultimately being fully examined in this DEIS. One "Build" alternative, the Promontory Point alternative, proposes to cross Lake Mead upstream of the Hoover Dam. The other two "Build" alternatives, Sugarloaf Mountain and Gold Strike Canyon, are downstream of the Hoover Dam. The DEIS did not identify FHWA's preferred alternative.

Based upon our review, we have rated the DEIS as **Category EC-2, Environmental Concerns - Insufficient Information** (please refer to attachment #1, "Summary of Rating Definitions and Follow-Up Action"). Our rating is primarily based on our concerns regarding cumulative effects, indirect impacts (particularly regarding utility relocations), impacts from excavation and erosion and runoff, impacts from encountering hazardous materials, and impacts to recreational opportunities. Over all the document was very well written and clear and concise. In particular, the Purpose and Need statement outlined the issues very well. We believe it should be used as an example of a clear statement of Purpose and Need, containing the appropriate amount of supporting documentation.

*Printed on Recycled Paper*

### Response to Comment A6-1

Substantial additional information has been incorporated in the FEIS, including a detailed assessment of cumulative impacts following direction provided by EPA staff (Chapter 5). Evaluation of indirect impacts relating to relocation of utilities has been added in the FEIS Chapter 3. Additional information on recreational opportunity and hazardous material impacts has also been incorporated in the FEIS Chapter 3, Sections 3.7, 3.8, and 3.10, respectively.

### Response to Comment A6-2

Section 3.11.2.2 in the FEIS has incorporated updated information on the indirect impacts related to relocation of transmission towers and other utilities required for the preferred alternative.

### Response to Comment A6-3

Section 5.4.1 in the FEIS has incorporated detailed information on past impacts to the environment associated with the construction of Hoover Dam and related facilities. The discussion includes information on direct and long-term impacts to riparian vegetation, fish and wildlife, and water quality from construction and operation of the dam and visitors' center complex.

### Response to Comment A6-4

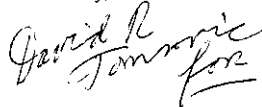
The cumulative impacts chapter has been expanded to include discussion of present actions that may change the resource base affected by the U.S. 93 Hoover Dam Bypass Project (Section 5.4.2). These actions consist of the NPS Lake Mead General Management Plan, Bureau of Reclamation's (Reclamation's) Endangered Species Conservation Program, and the Clark County Desert Conservation Program.

### Response to Comment A6-5

Section 5.4.3 of the cumulative impacts chapter includes a modified discussion of reasonably foreseeable future projects. This section evaluates other planned highway improvement projects in the area for potential cumulative effects on the resource base impacted by the proposed project. Specific impacts evaluated consist of Section 4(f) lands, cultural resources, desert bighorn sheep, desert tortoise, and visual resources.

We appreciate the opportunity to comment on the DEIS. Please send us two copies of the Final Environmental Impact Statement (FEIS) at the same time it is officially filed with the U.S. EPA's Washington, D.C. office. If you have any questions, please feel free to call me or have your staff call David J. Carlson of my staff at 415-744-1577.

Sincerely,



David Farrel, Chief  
Office of Federal Activities

cc: Jeffrey R. Brooks, FHWA, San Francisco  
Katiann Wong-Murillo, FHWA, San Francisco  
Steve Thomas, FHWA-AZ

### **Response to Comment A6-6**

The preferred alternative will result in approximately 0.66 acres of temporary fill and 0.11 acres of permanent fill placed in waters of the U.S. from construction of bridges over the dry washes tributary to the Colorado River. The main bridge will be a clear-span structure, requiring no fill or footings below the ordinary high water mark of the Colorado River. The avoidance and minimization measures stipulated in the EIS to reduce impacts on water resources will be adopted in the ROD, implemented during construction, and monitored for effectiveness.

Relocation of the Reclamation sewer evaporation ponds has been discussed in the EIS as an impact of the preferred alternative. Subsequent to circulation of the DEIS, additional archaeological survey was conducted on the Arizona side of the Sugarloaf Mountain alignment to include the sewer pond and transmission tower relocation area within the area of potential effects of the Hoover Dam Bypass Project. Although the relocation design has not been developed, the FEIS commits to maintaining access to the ponds by wildlife currently using the existing water source.

### **Response to Comment A6-7**

The following detail has been included in the FEIS on the specific BMPs that will be applied and on the applicable water quality design standards and how the adopted mitigation measures for the preferred alternative will protect those standards for receiving waters.

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Hoover Dam Bypass  
Nevada and Arizona  
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GENERAL COMMENTS:

Indirect Impacts:

A6-2 The DEIS was unclear regarding the possibility for relocation of transmission power lines and utilities which appear to be common in the area. We are concerned that it appears that any of the alternatives could impact these facilities causing them to either be removed and then modified or relocated altogether. If the power lines and transmission towers will need to be relocated depending on alternative, we recommend that the FEIS discuss the impacts, related to further construction, erosion, and intrusion into sensitive habitats. There are references that there may be utility relocations and relocation of the transmission lines, but there was no definitive discussion and disclosure of the degree and effect of the impacts.

Cumulative Impacts:

A6-3 We appreciate the discussion of the cumulative effects related to the project and the area, however, we found the discussion to be too vague to clearly have an understanding of past, present and future effects. The discussion mentions impacts related to the existing facilities which have already occurred, without discussing what those effects were. Obviously, the construction of Hoover Dam and the related power generation facilities had a dramatic and profound effect on the environment, yet that action is never treated in the appropriate detail. The DEIS briefly mentions the development of facilities, but does not discuss the specific long-term effects to any aspect of the environment. For example, is there a sense of the condition of water quality over time, and is it getting better or worse due to on-going or past activities? Has there been a change in the quality, and function of the wetlands in the area? The DEIS mentioned that the construction of the Dam had profound effects on the fish species downstream, could there be others and what have other actions done to either further or reduce that impact?

A6-4 Also, the discussion was focused on Highway projects and roadway programs in the area. Certainly this seems to be a logical connection to examine the related activities with this project however, the CEQ regulations, as were correctly pointed to in the DEIS, state that any action regardless of agency or person should be examined. While the discussion mentions that no major actions are proposed for the area, the section did not indicate what programs or proposals have been on-going that may be minor in nature but continue to have an effect on the environment. For example, what are BOR and NPS's current management practices of the area, what has been their effect and is there a proposal to change those.

A6-5 While the DEIS recognizes that these impacts from the other future planned road development projects, when taken in context with this project, will be long-term, it relies too heavily on the fact that the individual projects' mitigations will minimize the cumulative effect. We don't believe this to be true. Cumulative effects may result from repeated or similar actions

Implementation of BMPs along the project corridor will dramatically reduce water quality impacts to the Colorado River below Hoover Dam. As discussed in Chapter 3 of the EIS, both construction and operational impacts are to be mitigated through the use of BMPs. During construction, it will be imperative to manage stormwater runoff above and below the project so that the net impact to receiving water is negligible. This will be achieved by routing upslope runoff around the construction site, minimizing exposure to disturbed slopes, and collecting and treating onsite runoff and discharging it so that the water quality entering the receiving waters is not impaired.

During system operation, channels conveying roadway-derived runoff will be designed to resist erosion. Cut-and-fill slopes will be stabilized using vegetative and/or mechanical means, and roadway-derived runoff will be captured and treated to remove suspended solids prior to discharging from the project area.

For both the construction and operation phase, the main concern will be to isolate runoff-rich suspended sediment in treatment basins. By ignoring this issue, the volume of runoff derived from this project, although small, could potentially impact receiving water quality to varying degrees. Immediately downstream of the project area, sediment-rich roadway runoff could mix with unimpaired runoff and degrade localized water quality. Further downstream, as additional runoff water is added, the impacts from the project area are reduced due to dilution. By the time the roadway runoff enters the Colorado River, effects to water quality from the roadway would most likely be negligible. Based on the anticipated impacts to water quality immediately downstream of the roadway, water quality parameters, such as suspended solids, turbidity, color and total dissolved solids (TDS), will be elevated if not collected and treated. It is possible this runoff could exceed the threshold limits for suspended solids and turbidity. Collecting and treating this runoff prior to discharging to natural drainage channels will prevent impacts to localized water quality.

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A6-5 that, though the direct effects have been minimized, the effects interact to produce cumulative effects greater than the sum of the effects from the individual projects. Cumulative effects should be analysed in terms of specific resource, ecosystem, or human community being affected. We believe that you have identified specific resource area where further analysis is warranted, such as; Desert Tortoise and Big horn sheep habitat, dry wash water quality and their associated communities of vegetation and wildlife, and cultural properties. We recommend that you consult with the recent (January 1997) CEQ guidance on evaluating cumulative impacts. We also recommend that you convene a meeting of the other resource agencies, and the BOR and NPS to discuss these issues. We would be pleased to assist your office in beginning the process of examining the cumulative effects.

**WATER QUALITY AND WATERS OF THE U.S.**

A6-6 We strongly believe that based upon the scarceness of water resources and the rarity of wetland ecosystems in the area, avoidance of impacts to those areas is an imperative. The DEIS goes into some detail regarding the areas of the dry washes and riparian areas, giving the impression that many of these areas are of high value and function. We appreciate the DEIS discussion of avoidance and minimization measures to reduce impacts, and highly recommend that all of these measures; bridge designs to avoid waters (pg. 3-35), erosion protections for culverts, bridges and construction activities, and channel designs, to minimize sedimentation into open water are implemented and vigorously monitored.

We are concerned that there was no mention of what would become of the water sources that are either removed or modified by the alternatives. For example, would the sewage treatment ponds, that currently serve as water sources for wildlife, be replaced in another location and if so where, and would it be accessible by the populations of wildlife currently using the existing facilities. This should be further addressed in the FEIS.

A6-7 We appreciate the recognition of NPDES and the importance of implementing Best Management Practices during construction and operation of the project. We recommend that the FEIS contain more detail on these measures once a preferred alternative is selected. The FEIS should discuss what the water quality standards are for the receiving waters, and which measures will be implemented that will enable FHWA and the project to protect those standards.

**HAZARDOUS WASTE**

A6-8 We are concerned that information regarding the extent of contaminated sites was not presented in the DEIS. Information regarding the types of contamination and the level to which areas may be contaminated should be collected and disclosed at the DEIS stage, to enable the decisionmaker and public to voice their preference on alternatives with a complete set of information regarding all environmental effects. This would be pertinent to understanding the

The standards of water quality below Hoover Dam that will be pertinent to this project are as follows:

Parameter	Water Quality Standards for Beneficial Uses
Temperature °C – maximum	Nov.-Apr.: ≤ 13°C May-June: ≤ 17°C July-Oct: ≤ 23°C
ΔT°	ΔT ≤ 2°C
pH Units	S.V.: 7.0 – 8.3 ΔpH: ± 0.5 Max.
Total Phosphates (as P) – mg/L	A-Avg.: ≤ 0.05 ---
Nitrogen Species (N) – mg/L	Nitrate S.V.: ≤ 10 Nitrate S.V.: ≤ 06 Ammonia S.V.: ≤ 02 (un-ionized)
Dissolved Oxygen – mg/L	S.V. Nov.-May: ≥ 6.0 June-Oct.: ≥ 5.0
Suspended Solids – mg/L	S.V.: ≤ 25
Turbidity – NTU	S.V.: ≤ 10
Color – PCU	Increase must not be more that 10 PCU above natural conditions
Total Dissolved Solids – mg/L	S.V.: ≤ 723
Alkalinity (as CaCO <sub>3</sub> ) – mg/L	Less than 25 percent change from natural conditions
Fecal Coliform – No./100 mL	≤ 200/400°

**Response to Comment A6-8**

The FEIS Hazardous Materials section has been augmented to include information on the extent of contaminated sites affecting implementation of the project alternatives, with emphasis on the preferred alternative. Under Affected Environment (Section 3.10.1), additional details are provided about the following sites: the Reclamation Warehouse, including previously listed hazardous materials and leaking USTs at the site and details from a 1996 inspection report, wherein paint waste samples were tested for lead; the visitor center construction staging and disposal area site descriptions include additional details on previous hazardous material storage from the

U.S. EPA Comments- Draft Environmental Impact Statement  
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A6-8 potential risks, costs, and procedures that may be encountered depending on alternative and the type and extent of contamination.

FHWA does not identify in the DEIS that the provisions of the Resource Conservation and Recovery Act (RCRA) and associated state hazardous waste disposal requirements apply to this project, and does not disclose how FHWA proposes to handle and treat hazardous material if it is encountered. Therefore, in the FEIS, FHWA should identify that the provisions of the Resource Conservation and Recovery Act (RCRA) and associated state hazardous waste disposal requirements apply to this project, and disclose how FHWA proposes to handle and treat the hazardous material. We recommend that the FEIS describe in detail the procedures that FHWA will follow in order to meet the requirements. The FEIS should discuss; 1) that FHWA or their contractor may become a hazardous waste generator upon extraction of the soils, 2) that a generator identification number must be obtained in order to transport hazardous materials, and identify the location of, and haul-route to, the anticipated disposal facility 3) the methods that will be used to treat the material on-site, and 4) the procedures that will be used to comply with the land ban requirements for handling and disposing of hazardous waste. The FEIS should also disclose that FHWA or the contractor has met all of the provisions of the OSHA regulations regarding health and safety and handling of hazardous waste. We also recommend that the FEIS discuss how FHWA will determine which soils will be handled as hazardous waste and which soils will be handled as non-hazardous waste and if there will be further soils sampling as the project progresses.

A6-10 The FEIS should also disclose if there could be airborne concentrations of the hazardous materials found in the soils and which control measures will be followed by FHWA to ensure that the airborne toxics concentration levels do not exceed any state or federal standards.

A6-11 We were concerned with the discussion of mitigation measures for hazardous materials impacts found on Page 3-113. It seems that this is a discussion more appropriate for mitigation for energy use rather than hazardous materials clean up and disposal. We recommend that if this is a discrepancy, that the FEIS contain the appropriate discussion for mitigation for hazardous materials treatment, following the suggestions above.

#### RECREATIONAL OPPORTUNITIES

A6-12 We were concerned that we could not find a discussion of the traffic operations on the remaining US 93 and Hoover Dam, and the recreational opportunities, once the Bypass is constructed. Will there be more opportunities for more passive uses of the dam and enhanced bicycle and pedestrian access? We understand that FHWA and NPS may be meeting to discuss this further once a preferred alternative is selected. We recommend that those discussions are disclosed in the FEIS.

Reclamation 1992 Level I Contaminant Surveys for the project alternatives; and updated information for the A&N Switchyard based on interviews with WAPA staff indicating no polychlorinated biphenyl (PCB) use on the site.

Under Environmental Consequences (Section 3.10.2.2), the FEIS concludes that contaminated soil may be encountered at the Reclamation Warehouse and the A&N Switchyard, and that there is a potential for encountering hazardous materials at the visitor center construction staging and disposal areas. Due to a lack of existing information, further studies and soil sampling will be completed prior to advertising for construction at the Reclamation Warehouse to determine handling, treatment, and disposal requirements; this will ensure a more complete bid document and minimize surprises during construction. Procedures for discovery of unknown hazardous materials during construction are also discussed for the potentially contaminated sites.

#### Response to Comment A6-9

As discussed in response to Comment A6-8, the FEIS commits FHWA to conducting further soils sampling during final design of the preferred alternative, if the identified sites with potential environmental contamination cannot be avoided. These sites are the Reclamation Warehouse, the contractor staging/disposal areas for construction of the visitor center, and the A&N Switchyard; however, at this time it does not appear that the switchyard will be directly or indirectly impacted by development of the Sugarloaf Mountain alignment.

The FEIS also states that if hazardous materials are discovered during soil sampling or construction, FHWA or its contractor may become a hazardous waste generator. A generator identification number would need to be obtained in order to transport hazardous materials, identify the hazardous material, and disclose the haul route to a specific treatment and/or disposal facility. The FEIS also stipulates that the contractor would be required to comply with all requirements of the RCRA, associated state hazardous waste disposal requirements, and all of the provisions of the OSHA regulations regarding health and safety of workers, and handling of hazardous waste.

## SUMMARY OF EPA RATING DEFINITIONS

This rating system was developed as a means to summarize EPA's level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the EIS.

### ENVIRONMENTAL IMPACT OF THE ACTION

#### *"LO" (Lack of Objections)*

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

#### *"EC" (Environmental Concerns)*

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

#### *"EO" (Environmental Objections)*

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

#### *"EU" (Environmentally Unsatisfactory)*

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

### ADEQUACY OF THE IMPACT STATEMENT

#### *Category 1" (Adequate)*

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

#### *"Category 2" (Insufficient Information)*

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

#### *"Category 3" (Inadequate)*

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

\*From EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."

## Response to Comment A6-10

The FEIS discloses that contaminants could become airborne during removal at the Reclamation Warehouse. Hence, additional control measures would be taken to ensure that airborne toxics concentration levels do not exceed any state or federal standards. Specific appropriate control measures will be determined by FHWA, depending on the nature and extent of the hazardous materials identified, during the design phase soil sampling.

## Response to Comment A6-11

Section 3.10.3 of the FEIS has been revised to include appropriate mitigation measures for hazardous materials treatment. These measures address: conducting site assessments and soils sampling (depending on individual site conditions) at the Reclamation Warehouse, the contractor disposal areas, the A&N Switchyard, and the Reclamation sewer evaporation ponds; abating airborne toxics (if needed); monitoring soil excavation to segregate out any contaminated soils; handling and treatment or removal of contaminated soils in compliance with applicable state and federal regulations; and disposal of contaminated soils in accordance with applicable environmental regulations.

## Response to Comment A6-12

As stipulated in the EIS, the dam crossing will stay open to automobiles, recreational vehicles, pedestrians, and bicyclists after the bypass route is constructed (see EIS Section 3.9.2.1, Bicyclists and Pedestrians). This commitment to keeping the dam crossing open to tourists will also be adopted in the ROD for this project.

The project traffic analysis indicates the U.S. 93 dam crossing currently operates at LOS F with 11,500 vehicles per day (average), whereas there would be 26,000 vehicles per day crossing the dam in year 2027 without the bypass (see EIS Appendix A). With opening of the new bypass bridge, truck traffic will be prohibited from crossing the dam. The future bypass bridge is projected to carry 19,900 vehicles per day in year 2027. As discussed in the EIS (Section 3.8.2.2), this diversion of through traffic (and all trucks) from atop Hoover Dam to the new bridge will enhance the recreational experience at the dam complex due to increased pedestrian safety, reduced congestion and accidents, and elimination of noise and air pollutants emitted by trucks.



BOB MILLER  
Governor

JOAN G. KERSCHNER  
Department Director

A7

STATE OF NEVADA  
DEPARTMENT OF MUSEUMS, LIBRARY AND ARTS  
STATE HISTORIC PRESERVATION OFFICE

100 N. Stewart Street  
Carson City, Nevada 89701-4285

RONALD M. JAMES  
State Historic Preservation Officer

November 9, 1998

Mr. Terry Haussler  
Federal Highway Administration  
555 Zang Street Room 259  
Lakewood CO 80228

RE: Proposed U.S. Highway Hoover Dam Bypass Draft Environmental Impact Statement, Colorado River Basin, Clark County.

Dear Mr. Haussler:

The Nevada State Historic Preservation Office (SHPO) reviewed the subject document and has the following comments:

- A7-1 1. The unevaluated Traditional Cultural properties that might exist within the area of potential effect (APE) should be addressed within the general discussion of effects to historic properties. The Table on page ES-5 should include effects to potential Traditional Cultural Properties. The statement under each alternative might read as follows:  
Potential effect to 4 (5) historic features eligible for or listed in the National Register.  
Potential effect to unevaluated Traditional Cultural Properties.
- A7-2 Table ES-3, page ES-10, should include potential adverse effects to the unevaluated Traditional Cultural Properties. If these features are determined eligible, and the undertaking will pose an adverse effect to these properties, this effect would also require a MOA regardless of the alternative chosen. The table should be revised to reflect this possibility.
- A7-3 Table ES-3, page ES-11, should include a discussion of the unevaluated Traditional Cultural Properties in the discussion of "Land Use/Section 4 (f) Effects". Again these properties need to be addressed under all three build alternatives.
- A7-4 2. Consultation with this office, and possibly the Keeper of the Register, concerning the National Register eligibility of the potential Traditional Cultural Properties in the APE in Nevada has not been conducted. The Affected Environment section of the document (3.5.1, page 3-42 paragraph 4) should reflect this fact.

L-4

### Response to Comment A7-1

May-June 1998 site visits and field interviews with tribal elders, conducted for FHWA by the University of Arizona, resulted in completion of an ethnographic study report for the Hoover Dam Bypass Project in December 1998. That report included preliminary findings, summarized in the DEIS, indicating the presence of potentially significant traditional cultural properties in the vicinity of the bypass project.

The SHPOs subsequently requested that FHWA conduct an ethnohistoric study to provide documentary context for assessing the potential traditional cultural properties identified by the tribal elders during the 1998 field interviews, and that FHWA commence formal government-to-government consultation with affected Native American tribes concerning the significance and National Register eligibility of the potential traditional cultural properties in the project area. At the first meeting between the Native American tribal representatives and the federal agencies, held on January 11, 2000, the tribes requested that ethnographic studies be expanded to other locations and include additional tribes and elders. As a result, the University of Arizona conducted additional site visits and interviews during May 2000. The resulting report, coupled with the ethnohistoric assessment report, provided documentation supporting a determination by FHWA and the SHPOs that the Gold Strike Canyon and Sugarloaf Mountain TCP is eligible for the National Register of Historic Places.

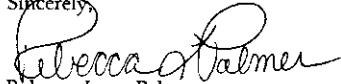
Table ES-1 has been revised to reflect this new TCP information. (See also EIS Section 3.5 for full discussion of the TCP.)

Mr. Terry Haussler  
November 9, 1998  
Page 2 of 2

Thank you for providing this office with an opportunity to comment on this document.

If you have any questions concerning this correspondence, please feel free to contact me by phone at (702) 687-5138 or by e-mail at rlpalmer@clan.lib.nv.us.

Sincerely,



Rebecca Lynn Palmer  
Historic Preservation Specialist

### **Response to Comment A7-2**

In June 2000 FHWA applied the criteria of adverse effect and determined, in consultation with the Nevada and Arizona SHPOs, that the undertaking would have an adverse effect on the Gold Strike Canyon and Sugarloaf Mountain TCP. As a result, a Programmatic Agreement (PA) that commits FHWA to implement specific activities and mitigation measures to resolve the adverse effects on historic and cultural properties from the preferred alternative was developed in consultation among the ACHP, FHWA, Nevada and Arizona SHPOs, NPS, Reclamation, WAPA, NDOT, ADOT, and interested Native American Tribal Governments.

Table ES-1 has been revised to include the adversely affected TCP, and Table ES-3 has been revised to include the Programmatic Agreement.

### **Response to Comment A7-3**

Discussion of the TCP has been added to Table ES-3, under "Land Use/ Section 4(f) Effects."

### **Response to Comment A7-4**

See response to Comment A7-1.

Cover letter for A8 and A9

BOB MILLER  
Governor

STATE OF NEVADA

JOHN P. COMEAUX  
Director



DEPARTMENT OF ADMINISTRATION

209 E. Musser Street, Room 200  
Carson City, Nevada 89701-4298  
Fax (702) 687-3983  
(702) 687-4065

November 3, 1998

Terry Haussler  
Federal Highway Administration  
555 Zang Street Room 259  
Lakewood, CO 80228

Re: SAI NV # E1999-040  
HPD-16

Project: DEIS for the Hoover Dam Bypass Project

Dear Terry Haussler:

Enclosed are the comments from the Nevada Natural Heritage Program, and the Divisions of State Lands, Health and Environmental Protection concerning the above referenced report. In addition, please find the Nevada Guidelines for Revegetation, which outline the State's position. These comments constitute the State Clearinghouse review of this proposal as per Executive Order 12372. Please address these comments or concerns in your final decision. If you have questions, please contact me at 687-6367.

Sincerely,

A handwritten signature in cursive script that reads "Heather K. Elliott".

Heather K. Elliott  
Nevada State Clearinghouse/SPOC

Enclosures

A8

**NEVADA STATE CLEARINGHOUSE**

Department of Administration  
 Budget and Planning Division  
 209 East Musser Street, Room 200  
 Carson City, Nevada 89701-4298  
 (702) 687-4065  
 fax (702) 687-3983

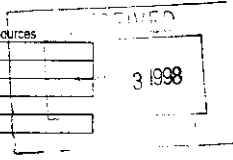
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DATE: September 25, 1998

Governor's Office  
 Agency for Nuclear Projects  
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 Agriculture  
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 Fire Marshal  
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 Washington Office  
 Nevada Assoc. of Counties

Conservation-Natural Resources  
 Director's Office  
 State Lands  
 Environmental Protection  
 Forestry  
 Wildlife  
 Region 1  
 Region 2  
 Region 3  
 Conservation Districts  
 State Parks  
 Water Resources  
 Water Planning  
 Natural Heritage  
 Wild Horse Commission



Nevada SAI # E1999-040

Project: Draft Environmental Impact Statement for the Hoover Dam Bypass project on US 93

Yes  No Send more information on this project as it becomes available.

CLEARINGHOUSE NOTES:

Enclosed, for your review and comment, is a copy of the above mentioned project. Please evaluate it with respect to its effect on your plans and programs, the importance of its contribution to state and/or local areawide goals and objectives; and its accord with any applicable laws, orders or regulations with which you are familiar.

Please submit your comments no later than **November 2, 1998**. Use the space below for short comments. If significant comments are provided, please use agency letterhead and include the Nevada SAI number and comment due date for our reference. Questions? Heather Elliott, 687-6367.

THIS SECTION TO BE COMPLETED BY REVIEW AGENCY:

- No comment on this project
- Proposal supported as written
- Additional information below
- Conference desired (See below)
- Conditional support (See below)
- Disapproval (Explain below)

**AGENCY COMMENTS:**

AB-1 We request that the final EA analyze the potential effects of the various alternatives on the introduction and/or further spread of invasive, noxious, and other undesirable weed species through disturbance and other construction activities, and incorporate all necessary monitoring and control measures to avoid such impacts.

James D. Morefield  
 Signature

Natural Heritage  
 Agency

10/29/98  
 Date

**Response to Comment A8-1**

BMPs, such as hosing of equipment to deter the spread of seeds, will be implemented during construction and monitored for effectiveness.



NOV-2-98 MON 11:36

P.02

A10

BOB MILLER  
Governor

CHARLOTTE CRAWFORD  
Director



YVONNE SYLVA  
Administrator

VACANT  
State Health Officer

STATE OF NEVADA  
DEPARTMENT OF HUMAN RESOURCES  
HEALTH DIVISION  
BUREAU OF HEALTH PROTECTION SERVICES

November 2, 1998

Nevada State Clearinghouse  
Department of Administration  
Budget and Planning Division  
209 East Musser Street, Room 200  
Carson City, Nevada 89701-4298

RE: NEVADA SA# E1999-040 DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE HOOVER DAM BYPASS PROJECT ON US 395

The Nevada State Health Division, Bureau of Health Protection Services, has received the Draft Environmental Impact Statement for the Hoover Dam Bypass Project on United States Highway 95 (US 95). The Nevada State Health Division supports two (2) of the three (3) alternatives. Both the Sugarloaf at Mountain Alternative and the Gold Strike Canyon Alternative are acceptable for the Hoover Dam Bypass without comment. However, the Nevada State Health Division is concerned with the Promontory Point Alternative Bypass.

There are several public water systems that draw their drinking water from Lake Mead. The most critical of these water systems is the Hoover Dam public water system which draws its drinking water at the dam. Since the Promontory Point Alternative proposes to span Lake Mead at or near the dam, the Nevada State Health Division is concerned with the possibility of a traffic accident that may cause a spill into the lake, thereby, subjecting the drinking water to possible pollution and/or contamination.

Thank you for the opportunity to comment on this issue. If you have any questions, please call me at (702) 687-4754, extension 230.

Sincerely,

Rick Reighley, P.E.  
Public Health Engineer  
Bureau of Health Protection Services

cc: Jon Palm, Manager, Public Health Engineering

401-3587

- Bureau Administration  
1179 Fairview Drive  
Suite 201  
Carson City, NV 89701-5405  
(702) 687-6353  
Fax (702) 687-6197
- Public Health Engineering  
1179 Fairview Drive  
Suite 101  
Carson City, NV 89701-5405  
(702) 687-5394  
Fax (702) 687-5751
- Radiological Health  
1179 Fairview Drive  
Suite 102  
Carson City, NV 89701-5406  
(702) 687-5394  
Fax (702) 687-5751
- Environmental Health  
1179 Fairview Drive  
Suite 104  
Carson City, NV 89701-5405  
(702) 687-4750
- Health Protection Services  
820 Bellevue Street  
Suite A  
Las Vegas, NV 89107  
Engineering and Food  
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Radiological Health  
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Fax (702) 486-5024
- Health Protection Services  
860 Elm Street  
Elko, NV 89801-3349  
(702) 753-1138/1140
- Health Protection Services  
475 W. Haskell Street  
Room 38  
Winnemucca, NV 89445  
(702) 625-6588
- Health Protection Services  
155 N. Taylor Street  
Suite 199  
Fallon, NV 89406-3324  
(702) 423-2261
- Health Protection Services  
P.O. Box 535  
Ely, NV 89301-0539  
(702) 289-3325
- Health Protection Services  
P.O. Box 667  
Tonopah, NV 89049-0667  
(702) 482-3937

**Response to Comment A10-1**

FHWA, the lead agency, has identified the Sugarloaf Mountain Alternative, with the proposed mitigation measures, as the preferred alternative on the basis of minimizing environmental impacts, engineering and operational advantages, and lower construction cost. Section 2.6.2.1 of the FEIS discusses the rationale for this decision.

**Response to Comment A10-2**

One of the primary reasons the Promontory Point Alternative was not identified as the preferred alternative was the concern expressed by numerous agencies and citizens about the risk of a hazardous material spill into Lake Mead.


Furthermore, the issue of bridge traffic accident spills potentially polluting drinking water sources in the Colorado River is a concern with the preferred alternative (several downstream entities rely on Colorado River water as a potable source also). A spill containment system will be incorporated into the bridge design that will trap potential pollutants resulting from spills. The system will also function as an engineered system to collect and contain storm runoff that is generated from the bridge. (See EIS Section 3.4.3.2, Water Quality Operational Mitigation).

**A11**

STATE OF NEVADA  
BOB MILLER  
*Governor*

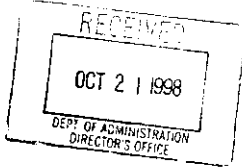
PETER C. MORRIS, Director  
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(702) 687-4670  
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Water Pollution Control  
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Waste Management  
Corrective Actions  
Federal Facilities  
  
Air Quality  
Water Quality Planning  
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DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES  
**DIVISION OF ENVIRONMENTAL PROTECTION**  
333 W. Nye Lane, Room 138  
Carson City, Nevada 89706-0851

October 19, 1998



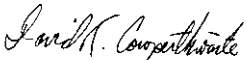
CLEARINGHOUSE COMMENTS

NDEP # 1999-053  
SAI NV # E1999-040

TITLE: USDOT-FHA Draft EIS for Hoover Dam bypass bridge

The Division of Environmental Protection has reviewed the aforementioned State Clearinghouse item and has the following comments:

A11-1 The project proponent will be required to obtain a NPDES water pollution control discharge permit for rolling stock. It is anticipated that extensive erosion control measures will be required. Re-vegetation of the disturbed sites after completion of the project will be required. Required water quality monitoring will depend upon which site option is eventually chosen.



David R. Cowperthwaite  
Clearinghouse Coordinator  
Division of Environmental Protection

**Response to Comment A11-1**

The EIS list of permits and approvals that will be required for the project includes a NPDES water pollution control discharge permit to be issued by the Nevada Division of Environmental Protection (Chapter 7, Table 7-1). Specific erosion control measures will be developed for the project during final design and will be consistent with permit requirements and the *Nevada Guidelines for Revegetation* (July 1, 1998). The guidelines will be implemented under BMPs for construction.

Due to the need for construction in steep terrain, erosion control and revegetation measures will be paramount in protecting water quality both within the project area and downstream. However, much of the project will be constructed through solid rock. Steep rock cuts, as well as rock fills, are not susceptible to erosion and may not be revegetated.

Design features and mitigation measures specific to the localized terrain will dictate the need and location for water quality monitoring.

**NEVADA STATE CLEARINGHOUSE**

Department of Administration  
Budget and Planning Division  
209 East Musser Street., Room 200  
Carson City, Nevada 89701-4298  
(702) 687-4065  
fax (702) 687-3983

**NEVADA GUIDELINES FOR REVEGETATION**

July 1, 1998

Dear Cooperator:

Please find the attached Nevada Guidelines for Revegetation (hereinafter "Guidelines") for your use. Historically, the review of revegetation activities throughout the state has produced a variety of perspectives for the Nevada State Clearinghouse, creating comment conflicts between agencies. Conflict resolution has required both time and energy, resulting in economic impacts and confusion for our clients. The Guidelines represent the combined efforts of numerous State of Nevada agencies and the Nevada Seedbank Coordinating Committee, each of whom are involved in land use, transportation, research, education and/or natural resource management activities. Our goal is to bring a consistent basis and a common starting point for applicable Nevada agencies regarding revegetation activities throughout the state. It is our mutual hope that the Guidelines will assist the public and private sector in understanding the State of Nevada's position on revegetation, thus improving efficiencies and economy in environmental assessments and project design and review processes.

It should be emphasized that these are Guidelines and are not to be construed as regulatory in any form or fashion. The Guidelines can be utilized for any revegetation project in the State of Nevada, consistent with the site specific objectives of the project.

The purpose of revegetation supported by the State of Nevada is to return the land to conditions and productive use(s) as similar as practical to its pre-disturbance conditions and use(s), or to a site specific desired plant community. The Guidelines provide the reader revegetation objectives, planning considerations and general preferences for selecting plant species. Additional information is available from the Nevada State Clearinghouse (702)-687-6367.

## NEVADA

### GUIDELINES FOR REVEGETATION

The botanical makeup of Nevada has unarguably changed over the last two hundred years. The introduction of some exotic European, Asian, noxious and other plant species into Nevada, both accidentally and deliberately, has altered native plant communities. Some of these exotic and noxious plants can become dominant and exclude native plants from an area, and have resulted in substantial economic impacts to some sectors of the state. While usually desirable, reintroducing native plants into these areas is sometimes not practical or even possible, and the impacts on the rest of the ecosystem must be considered. In general, viable habitats and land stabilization must be the final objective of any revegetation or reclamation project. These guidelines are provided to assist in the preliminary planning process for projects involving revegetation. Consultation with appropriate State agencies is advised and encouraged for either site-specific, or general questions and concerns that may arise.

#### Definitions

The following definitions are offered to aid with these revegetation guidelines:

Conversion: replacement of one or more dominant plant species with another plant species.

Desired Plant Community: a plant community which produces the kind, proportion, and amount of vegetation necessary for meeting or exceeding the land use plan/activity plan objectives established for an ecological site(s). The desired plant community must be consistent with the site's capability to produce the desired vegetation through management, land treatment, or a combination of the two.

Exotic: any plant species not falling under the native definition.

Exotics Indigenous to North America: a plant species that is indigenous to North America but not to Nevada.

Invasive: tending to displace, or increase in cover relative to, surrounding vegetation.

Locally Adapted Natives: a native species that has adapted to the climate and soil conditions of a specific area.

Native: plants indigenous to Nevada immediately prior to European contact.

Non-Persistent Exotic: an annual or perennial exotic that dies off in less than 10 years, or is pushed out as native vegetation becomes established.

**Noxious Weeds:** any species of plant which is, or is liable to be detrimental or destructive and difficult to control or eradicate, which the Administrator (Division of Agriculture), by regulation, designates to be a noxious weed.

**Off-site Natives:** a native plant species whose seed source is from an area with different climate and/or soil conditions (e.g., a species that is native to one part of the State being used in another part of the State).

### **Purpose**

The purpose of revegetation supported by the State of Nevada is to return the land to conditions and productive use(s) as similar as practical to its pre-disturbance conditions and use(s), or to a site specific desired plant community.

### **Revegetation Objectives**

The State of Nevada urges that native or non-persistent exotic plant species be used in the revegetation process whenever and wherever possible and practical. The use of these plants can promote the long-term maintenance of Nevada's remaining native vegetation, as well as improve and restore degraded habitat. Consistent with the above Purpose, the following are the State's objectives (hereafter collectively referred to as "the revegetation objectives") for conducting or supporting revegetation projects:

- \* To utilize native or non-persistent exotic plant species in the revegetation process whenever and wherever possible and practical, and consistent with the other revegetation objectives.
- \* To promote the long term maintenance of Nevada's remaining native vegetation, as well as improve and rehabilitate degraded habitat.
- \* To provide viable habitat (forage, cover, soils, etc.) for wildlife, livestock, and other species appropriate to the site.
- \* To re-establish vegetation as quickly as necessary to minimize erosion and invasion of species inconsistent with the desired plant community.
- \* To provide fire resistant qualities to the environment where applicable to meet ecological or public safety objectives.
- \* To maximize the cover and diversity of locally adapted natives in the final re-established vegetation, consistent with the other revegetation objectives.

### **Planning Considerations**

The State of Nevada requests that projects proposing the direct or indirect alteration of existing vegetation, or creating an opportunity for invasion of unwanted exotic species, fully evaluate the likely short- and long-term impacts to,

and management needs of, vegetation in any accompanying environmental documentation. The State further requests:

- \* That impacts to existing native vegetation be minimized or mitigated;
- \* that suitable topsoil and/or growth medium be stockpiled, managed, and replaced; and
- \* that project proponents attempt to adhere to these guidelines as closely as possible, particularly in implementing measures to avoid invasions of unwanted exotic species.

When revegetation selections or practices less preferred by the State of Nevada are proposed for a particular project, the State of Nevada requests that the reasons supporting such choices be detailed in any accompanying environmental documentation.

Plant material cost and/or availability are often impediments to using otherwise-desirable native plants. The State encourages agencies and project proponents to develop pro-active cooperative efforts with suppliers of native plant materials to address these issues.

### **Conversion Activities**

Proposals for conversion should consider the impacts to all land users and uses on and adjacent to the site. All conversion projects should be based on site specific goals and objectives. Sites should be converted to an appropriate desired plant community with a preference for native plant species, when possible.

### **General Preferences for Selecting Plant Species**

Below are listed the State of Nevada's **general** preferences in selecting species for revegetation. This listing identifies plant species selection criteria for revegetation in order of most preferred. The most preferred selection (or combination of selections) practicable under the conditions of each specific site and project, and capable of meeting the revegetation objectives, should be used. Whenever practical and possible, revegetation activities should be conducted at the time(s) of year best suited for establishment of native species, and any off-site seed used should be certified weed-free.

**NOTE: Species listed as noxious weeds under Nevada Administrative Code Chapter 555.010 are prohibited and must be controlled**

**(Nevada Revised Statute Chapter 555.010).**

1. Use unaided natural revegetation, where the size and condition of the site make it unlikely that significant erosion, or invasion of unwanted species, would occur during plant re-establishment.
2. Use locally collected and adapted natives.
3. Purchase and use off-site natives source-identified to Nevada.
4. Use non-persistent exotic annuals or perennials.
5. Use exotics indigenous to North America.
6. Use non-invasive exotics not indigenous to North America.
7. Use invasive exotics not indigenous to North America. Invasive exotics should be used with extreme caution, and only to replace or suppress even less-desirable invasive exotics.

A12

**MOHAVE COUNTY PUBLIC LAND USE COMMITTEE**

P.O. Box 7000 ♦ Kingman, Arizona 86402-7000  
 3675 E. Highway 66 ♦ (520) 757-0903 ♦ FAX 757-3577 ♦ TDD (520)753-0726  
 Michael Kondelis, Chairman James Butcher, Vice Chairman



November 5, 1998

Terry Haussler  
 Federal Highway Administration  
 555 Zang Street, Suite 259  
 Lakewood, CO 80228

Subject: Comments on Hoover Dam Bypass Project DEIS

Dear Sir:

A12-1 The Mohave County Public Land Use Committee expresses its regret at the dismissal of the alternatives which would have diverted the truck and commercial traffic around Boulder City, Nevada. The same risks of accidents involving trucks carrying flammable, hazardous and volatile loads crossing Hoover Dam also exist with passage through the center of Boulder City.

Based upon the three alternatives being evaluated in the current Draft Environmental Impact Statement and Section 4(f) Evaluation for the U.S. 93 Hoover Dam Bypass Project, the Mohave County Public Land Use Committee recommends adoption of the Sugarloaf Alternative with the steel deck arch bridge and offers the following rationale:

- 1. Steel Deck Arch Bridge: This DEIS contains no analysis of earthquake frequency or probability. The Colorado River is an earthquake zone and there are numerous faults running near the surface and through Las Vegas. It is our belief that the steel deck arch bridge is more flexible and will sustain less damage from an earthquake than the more rigid steel cable stayed bridge or the cable suspension bridge designs.
- A12-2 2. Cost: The Sugarloaf Alternative is less expensive than the Promontory Point Alternative by some six million dollars which is only a three percent difference in cost. We feel the nature and position of the Promontory Point Alternative has a higher possibility of construction change orders and cost overruns than the other alternatives.
- 3. Desert Tortoise: The Sugarloaf Alternative has the least impact in terms of acres of Desert Tortoise habitat destruction. The tortoise numbers per 100 acres are so low there is no substantial difference in the alternatives.

**SUBCOMMITTEE CHAIRPERSONS:**

Truman Puchbauer Timber	Anita Waite Grazing	Jim Butcher Business & Industry	Vacant Air Quality & Hazardous Materials	Mike Kondelis Mining	Bryan Corbin Recreation	Phil Strittmatter Transportation	Vacant Water	Don Martin Wilderness Wildlife & Endangered Species
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**Response to Comment A12-1**

One of the primary purposes of the Hoover Dam bypass is to safeguard the waters of Lake Mead, a major public drinking water source, from hazardous spills at the present narrow, accident-prone crossing of the dam (see Chapter 1 – Purpose and Need). Diverting truck and commercial traffic around Boulder City, Nevada, is not part of the purpose and need for the Hoover Dam bypass.

**Response to Comment A12-2**

See response to Comment A1-1 concerning the rationale for identifying the Sugarloaf Mountain Alternative as the preferred alternative.


Either a concrete or steel arch or a cable-stayed bridge type (or other bridge types that may be considered) on the Sugarloaf Mountain alignment can be designed and built to meet current seismic standards.

Terry Haussler  
page 2

- 4. Desert Bighorn Sheep: The Sugarloaf Alternative impacts the least number of acres of lambing habitat. The one man-made water source, the sewage ponds, would have to be moved. It is probable the sheep will adapt to the new source and location if they are moved further south, as they did to the present sewage ponds. If this is true, there may be no loss. Additionally, mitigating measures such as a barrier fence should be provided to prevent the sheep from entering the roadway. The Gold Strike Alternative has serious impact on the bighorn sheep water sources on the Nevada side.
- 5. Visual Resources: As viewed from the dam, the Sugarloaf Alternative is more desirable than the Promontory Point view. The Promontory Point view completely despoils enjoyment of the natural landscape. There is no way to look upstream without the bridge structure dominating the view. Looking downstream toward the Sugarloaf Alternative, one could view the water or photograph the river downstream without the bridge being in the picture. The bridge and the water level would not be seen at the same time.
- 6. Traffic Safety: In addition to the usual and accepted Highway Safety Design Standards, any proposed view overlooks of Boulder Dam from downstream should not be accessible from any portion of the new route, but only from existing Arizona Highway 93.
- 7. Other Criteria: The differences in the other evaluation criteria among the three alternatives are minor and do not present a significant difference in choice.

Thank you for the opportunity to comment on this important project.

Sincerely,



Michael Kondelis, Chairman  
Mohave County Public Land Use Committee

c: Mohave County Board of Supervisors  
Chris Ballard, Planning & Zoning Director

**SUBCOMMITTEE CHAIRPERSONS:**

Truman Puchbauer Timber	Anita Waito Grazing	Jim Butcher Business & Industry	Vacant Air Quality & Hazardous Materials	Mike Kondelis Mining	Bryan Corbin Recreation	Phil Strittmatter Transportation	Vacant Water	Don Martin Wilderness Wildlife & Endangered Species
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Concerning Comment Number 4, barrier fencing will be installed and maintained to protect the desert bighorn sheep from traffic collisions (see Section 3.3.3.1). Reclamation's sewage evaporation ponds will be relocated for construction of the preferred alternative; the new ponds will be accessible to wildlife (see Section 3.3.3.2).

Concerning Comment Number 6, there was feedback from numerous agencies and citizens about potential traffic and pedestrian safety hazards related to providing viewing areas of the lake and dam on the new bridge. The EIS (Sections 3.7 and 3.8) states that there will be no stopping for views of the dam on the new bridge. Parking, pedestrians, and bicycles on the bridge would create a safety hazard. This determination will stand for the preferred alternative in the ROD.

However, in anticipation of great public desire for views of Hoover Dam from the new bridge on the Sugarloaf Mountain alignment, FHWA will study the technical feasibility of a separate viewing facility associated with the bridge. Further details of such a facility cannot be determined until design of the bridge and approaches is advanced beyond the current level. Details of how people would be conveyed to the viewing facility and evaluation of environmental impacts would be addressed in a separate NEPA document if the construction scope exceeds the anticipated impacts addressed in this EIS.



## ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Governor Jane Dee Hull      Russell F. Rhoades, Director

Planning Section, 2nd Floor  
 1-800-234-5677 (Arizona Only)  
 FAX (602) 207-4634  
 (602) 207-4630

November 5, 1998

Mr. James W. Keeley, P.E.  
 Project Development Engineer  
 USDOT Federal Highway Administration  
 555 Zang Street (Room 259)  
 Lakewood, CO 80228

Re: **Hoover Dam by-pass on U.S. 93 draft Environmental Impact Statement (HPD-16)**

Dear Mr. Keeley:

The Arizona Department of Environmental Quality, Division of Water Quality, Planning Section, appreciates the opportunity to comment on the draft Environmental Impact Statement for the Hoover Dam by-pass on U.S. 93 (HPD-16). The Arizona Department of Environmental Quality offers the following comments:

- A13-1 1. The Hoover Dam is in the Lake Mead U.S. Geologic Service Cataloging Unit (HUC 15010005). The watershed indicators scoresheet for the Lake Mead watershed suggests that stressors include turbidity, which could be exacerbated by construction activities.
- A13-2 2. The no-build alternative would require vehicles to continue using a steep approach to the dam with many switchbacks. The three build alternatives will require a new bridge be built to provide a new approach with reduced slopes and switchbacks. The risk of car accidents with their potential for contaminant releases into the environment will be reduced thereby.
- A13-3 3. The build alternatives would disturb up to 143 acres of land and habitat, with resultant temporary and potentially permanent water quality impacts. Two of the alternatives would require characterization and possible mitigation of hazardous waste sites. Habitat near the project area potentially supports several species on various special-status state or federal lists: two plants, three fish, one amphibian, three reptiles, peregrine falcon, bald eagle, willow flycatcher, seven bat species and bighorn sheep. Options for mitigating the habitat and other environmental impacts are provided in the EIS, but cannot be fully evaluated until an alternative is selected and specific plans are developed.

3033 North Central Avenue, Phoenix, Arizona 85012, (602) 207-2300

**Response to Comment A13-1**

FHWA, the lead agency, has identified the Sugarloaf Mountain Alternative, with the proposed mitigation measures, as the preferred alternative on the basis of minimizing environmental impacts, engineering and operational advantages, and lower construction cost. Section 2.6.2.1 of the FEIS discusses the rationale for this decision.

Construction within the Lake Mead watershed would impact water quality. The Promontory Point Alternative would involve disturbing the slopes directly above Lake Mead during construction. Both during and after construction, sediment and other pollutants would enter the lake, increasing the turbidity levels. The amount of increase would depend on factors such as type and amount of sediment and location of sampling stations. The increase would be more noticeable on low-flow years for the Colorado River.

**Response to Comment A13-2**

The existing steep approaches, switchbacks, and the narrow dam crossing over Lake Mead and the Colorado River, with the resulting high potential for accidents, is one of the principal reasons for alternative routes across the Colorado River (see Chapter 1, Purpose and Need). The preferred alternative resolves the negative impacts associated with the No Build Alternative (e.g., the risk of truck accidents on the dam crossing contaminating the waters of Lake Mead and the Colorado River). Section 2.6.2.1 of the FEIS discusses the rationale for selection of the preferred alternative.

**Response to Comment A13-3**

The preferred alternative will result in varying short- and long-term impacts to water quality. The magnitude of these impacts will be a function of factors such as slope and amount of area disturbed. Until the actual design is underway, the potential impact to water quality and recommended mitigation measures cannot fully be quantified. The FEIS and ROD commits to specific mitigation measures identified in the USFWS Biological Opinion (Appendix E) and NPDES permit requirements developed during final design (see Section 3.4.3).

November 5, 1998  
Page 2

The Arizona Department of Environmental Quality recommends that:

1. A13-4 The Management Agency and or Owner/Operator should over-see construction to ensure that discharges to all Waters of the State/Waters of the U.S. shall meet all applicable Water Quality Standards;
2. A13-5 Best Management Practices should be implemented during and after all construction phases, and throughout the life of the by-pass to protect watershed condition and riparian areas, to maintain adequate vegetative cover, and to minimize the discharge of sediment, petroleum, nutrients, bacteria and other pollutants to the watershed or to all Waters of the State/Waters of the U.S.;
3. A13-6 Best Management Practices should be implemented for construction activities for mechanical equipment to minimize ground disturbance;
4. A13-7 A monitoring program should be implemented to evaluate the effectiveness of Best Management Practices in protecting watershed condition and Waters of the State;
5. A13-8 Be aware that portable sources of air pollution i.e. rock, sand, gravel and asphaltic concrete plants are required to be permitted by ADEQ prior to commencing operations. Contractors and subcontractors working on this project may be required to comply with these regulations. Contact **Mr. Prabhat Bhargava at (602) 207-2329** with the Arizona Department of Environmental Quality, Air Quality Permits Section;
6. A13-9 Where applicable the Management Agency and or Owner/Operator should demonstrate a knowledge of waste streams, permits and hazardous materials handling as well as indicate the destination of each hazardous waste being disposed off-site;
7. A13-10 Public or semi-public water supply systems shall be developed to comply with Public and Semi-Public Water Supply Systems Rules. Contact **Mr. Dale Ohnmeiss at (602) 207 4648** with the Arizona Department of Environmental Quality, Program Development & Outreach Unit, regarding assistance;
8. A13-11 All underground storage tanks must be registered with ADEQ. Contact **Mr. Staci Munday at (602) 207-4329** with the Arizona Department of Environmental Quality, Inspection and Compliance Unit, regarding assistance in registration;

#### **Response to Comment A13-4**

Agency inspection during construction will be an important aspect of ensuring waters of the State of Arizona and the U.S. meet appropriate water quality discharge standards. Through terms and conditions in the NPDES permit, both discharge limitations and water quality standards will be implemented and enforced (see Section 3.4.3).

#### **Response to Comment A13-5**

BMPs are to be implemented before, during, and after construction to preserve receiving water quality (Section 3.4.3).

#### **Response to Comment A13-6**

See response to Comment A13-5.

#### **Response to Comment A13-7**

Due to construction-related disturbance, steep terrain, limited vegetation, and potential for high-intensity, short-duration precipitation events, conventional BMPs will be evaluated to optimize their effectiveness at preserving downstream water quality. Depending on the terms and conditions in the NPDES permit, procedures in the evaluation process may include monitoring.

#### **Response to Comment A13-8**

The requirement that portable sources of air pollution (i.e., rock, sand, gravel, and asphaltic concrete plants) require an ADEQ permit has been added to the FEIS (Section 3.1.3.1 and Table 7-1).

#### **Response to Comment A13-9**

See response to Comment A6-11.

#### **Response to Comment A13-10**

No public or semipublic water supply systems will be developed for construction or operation of the proposed project.

#### **Response to Comment A13-11**

No USTs will be required in Arizona.

November 5, 1998  
Page 3

9. A13-12 All solid wastes generated by the activity shall be transported to an ADEQ approved facility. Waste stored on site for more than 90 days, or will be treated or disposed of on-site, may require facility approval. Contact **Mr. David Phillips** at (602) 207-4122 with the Arizona Department of Environmental Quality, Solid Waste Plan Review Unit, regarding assistance in applying for this permit;
10. A13-13 Sewage treatment facilities for human waste shall be planned and developed in such a manner to ensure protection of both surface and groundwater resources. An Aquifer Protection Permit (APP) may be required for such facilities. Contact **Mr. Charles Graf** at (602) 207-4661 with the Arizona Department of Environmental Quality, Aquifer Protection Program Section, regarding assistance in applying for this permit;
11. A13-14 Sanitary waste facilities provided during construction phases shall be planned and developed in such a manner to ensure protection of both surface and groundwater resources;
12. A13-15 An Aquifer Protection Permit (APP) may be required. Contact **Mr. Troy Day** at (602) 207-4661 with the Arizona Department of Environmental Quality, Aquifer Protection Program Section, regarding assistance in applying for this permit;
13. A13-16 A Clean Water Act, Section 402, NPDES Permit is required for all ground disturbing activities which exceed 5 acres in impact. Contact **Mr. Robert Wilson** at (602) 207-4574 with the Arizona Department of Environmental Quality regarding assistance in applying for this federal permit;
14. A13-17 A Clean Water Act, Section 404 Permit may be required for the discharge of dredged or fill material into the navigable waters. Contact **Ms. Cindy Lester of the US Army Corp of Engineers** at (602) 640-5385 regarding a 404 Permit application. In addition a Section 401 Certification may be required and can be obtained from ADEQ. Contact **Mr. Jayanta Das** at (602) 207-4502 with the Arizona Department of Environmental Quality, Engineering Review and Permits, for assistance in obtaining certification;
15. A13-18 Prescribed burns require that air quality concerns and issues be addressed. Contact **Mr. Peter Lahm** at (602) 207-2356 with the Arizona Department of Environmental Quality, Evaluation Unit, regarding assistance in applying for this permit; and
16. A13-19 Numeric water quality standards listed in A.A.C. R18-11-109.G. must be complied with. For a copy of the A.A.C. R18-11-107, 108 and 109 water quality standards for navigable waters, please contact the Arizona Department of Environmental Quality, Division of Water Quality at (602) 207-4466.

### Response to Comment A13-12

Construction waste material will be classified, and any solid wastes generated will be transported to an ADEQ-approved facility, selected at the contractor's option. Waste stored onsite for more than 90 days, or that is treated or disposed of onsite, may require facility approval. This stipulation is incorporated in the FEIS, Table 7-1.

### Response to Comment A13-13

No sewage treatment facilities for human waste will be developed for construction or operation of the proposed project.

### Response to Comment A13-14

Temporary sanitary waste facilities will be designed and developed in a manner that protects both surface and subsurface water resources. This stipulation has been added to the FEIS Section 3.4.3.1.

### Response to Comment A13-15

If required, an APP will be obtained for project construction and operation in the State of Arizona.

### Response to Comment A13-16

A NPDES permit will be obtained for this project as the project design nears completion (see response to Comments A13-4 and A13-7, and FEIS Table 7-1).

### Response to Comment A13-17

Section 404 and 401 permits will be obtained during completion of final design of the bypass roadways, bridges, and ancillary facilities, when impacts can be quantified and specific mitigation measures determined (see response to Comments A4-1 and A5-2). See Table 7-1 for a complete listing of these and other anticipated permits and approvals.

### Response to Comment A13-18

No prescribed burns will be required for the proposed project.

### Response to Comment A13-19

For portions of the project impacting the waters of the State of Arizona, water quality standards listed in the Arizona Administrative Code will be complied with under the Section 401 permit (see Table 7-1).

November 5, 1998  
Page 4

The Arizona Department of Environmental Quality would appreciate receiving information on the progress of this project. Thank you for your cooperation, should you have any questions, please contact me at (602) 207-4535.

Sincerely,



Ren Northup, Watershed Coordinator

cc: Russell Rhoades, ADEQ  
Karen L. Smith, ADEQ  
Jack Bale, ADEQ  
Larry Stephenson, ADEQ

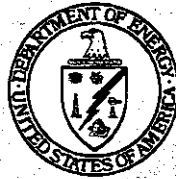
11/10/98 09:07 WAPA CONSTRUCTION OFFICE → R3039695903 A14 NO. 064 021



DESERT SOUTHWEST CUSTOMER SERVICE REGION  
P.O. BOX 6457 (85005)  
615 S. 43rd Ave. (85009)  
Phoenix, Arizona

**Fax Numbers:**

Send: 602-352-2630  
Verify: 602-352-2525



Date: Nov. 10, 1998  
To: Terry Haussler Company Name: Federal Highway Admin  
Mail Code: \_\_\_\_\_ Loc: \_\_\_\_\_  
From: JIM HARTZELL Mail Code: 65570 Phone#: \_\_\_\_\_  
Fax Number: (303) 969-5903 Verify Number: \_\_\_\_\_  
Number of Pages, Including Cover Sheet: 5  
Material to be Transmitted: Comments to Draft EIS on Hoover Dam  
Bypass Project.  
Remarks: \_\_\_\_\_

**Fax Operator Info:**  
Sent By: \_\_\_\_\_  
Date: \_\_\_\_\_  
Time: \_\_\_\_\_  
Verified: \_\_\_\_\_

PAO 1410.01

**COMMENTS ON HOOVER DAM BYPASS PROJECT** November 10, 1998  
**DRAFT - EIS Dated: September 1998**

By: Jim Hartzell, Maintenance Engineering, Code G5530, Desert Southwest Region, Phoenix Arizona, Western Area Power Administration, US Dept. of Energy - Phone (602) 352-2763

A14-1 Due to the very short review time I have attempted to review the entire document in one day and consider the possible impacts that may affect our electrical system or Hoover Dam power operation. It is somewhat appalled that Western Area Power Administration (WAPA) was not contacted sooner than a few days before the final comments are due on the review of the Draft EIS. From the list of report preparers I can see that Western was not invited to participate in the drafting process. With so many electrical facilities in the air throughout these three alternatives one would think that the owners of the facilities may have some input that might be helpful.

A14-2 All Dept. Of Energy(DOE) / WAPA environmental requirements should be addressed in this EIS and not require Western to prepare a new document, other than an adoption, to cover environmental issues resulting in the construction work on transmission lines or substations.

**Alternative: Promontory Point**

A14-3 1) At the beginning of the project, just east of the Gold Strike Casino (assuming they re-build it after the fire), the route crosses two Western Area Power transmission lines (formerly LADWP lines) and shows the construction of a bridge and tunnel very close to existing transmission structures. Construction of bridges and tunnels will likely require blasting and this is of concern to Western due to the close proximity to the transmission structures. Highway construction of any kind near energize 230-kV (230,000 volts) transmission lines is a potential safety concern. Western inspectors will need to be on the job site any time work is being performed near our transmission lines. Potential movement of structures or alignment of the transmission line will require right-of-way issues to be addressed and associated clearances.

A14-4 This location of the road will likely effect two structures. They may need to be replaced with different structures if clearances above the new roadway is inadequate.

A14-5 2) As the highway proceeds, paralleling the existing road, it again crosses these same two lines prior to reaching the warehouse area. Structures many needed to be replaced to allow adequate ground clearance between the line and the road bed. The line may even need relocated since the road looks like it may be right under the lines.

A14-6 3) Northeast of the warehouse, the road crosses under two more 230-kV lines (formerly MWD lines) and a 69-kV transmission line that provides emergency service to Kingman, Arizona. Clearance again is of concern.

A14-7 4) The road alignment next cuts right thru the abandoned 69-kV switchyard. Some of the structures in this vicinity are used with the 69-kV transmission line.

**Response to Comment A14-1**

FHWA contacted WAPA engineers and began discussing the agency's interests and concerns about this project immediately after receipt of WAPA's November 10, 1998, comments on the DEIS. This was followed up with a formal letter dated November 20, 1998, from FHWA requesting WAPA to become a cooperating agency on the EIS, in accordance with Council on Environmental Quality (CEQ) Regulation 1501.6. In a response letter dated November 27, 1998, WAPA agreed to participate in the Hoover Dam Bypass EIS process as a cooperating agency. FHWA has continued to consult with WAPA during preparation of the FEIS. (See Appendix C, Volume I, for copies of this correspondence.)

**Response to Comment A14-2**

To the extent that it is feasible, based on the limited level of engineering design completed at this time, impacts to the WAPA power transmission facilities have been identified in the FEIS (see Section 3.11.2.2). FHWA will work with WAPA during final design of the project to select the most beneficial solution when all project factors are considered. At the present time, it appears that one, and possibly two, of the transmission lines can be eliminated. There are numerous options and configurations to be evaluated. The certain elimination of one, and possibly a second, transmission crossing may result in an environmental enhancement to the area.

**Response to Comments A14-3 through A14-10**

FHWA, the lead agency, has identified the Sugarloaf Mountain Alternative as the preferred alternative on the basis of minimizing environmental impacts, engineering and operational advantages, and lower construction cost. At the very conceptual design stage upon which the EIS build alternatives are based, WAPA correctly states that the Promontory Point Alternative would potentially impact some of the same towers affected by the preferred alternative, as well as the abandoned 69-kV switchyard, but there does not appear to be any adverse effect on transmission facilities on the Arizona side. Much of the discussion in response to Comments A14-11 through A14-20, referring to the preferred alternative, would also apply to the Promontory Point Alternative.

A14-8 | 5) Prior to crossing the lake, north of the dam, the road again crosses the 69-kV line.

6) The remainder of the roadway does not appear to have any adverse effect on transmission facilities.

A14-9 | 7) Pg. 3-109 - Though the switchyard is abandoned, there is a 69-kV transmission line that is still used as an emergency feed to cities in Arizona between Hoover Dam and Kingman, and transmission structures in the close proximity of this yard are part of the transmission line.

A14-10 | 8) Pg. 3-115 paragraph beginning: "An electric transmission ..." - It should be added that outages on transmission lines to facilitate highway construction may be limited to certain times of the year due to critical power deliveries to customers. At other times outages may be limited to certain times of the day and for short periods of time.

#### Alternative: Sugarloaf Mountain

A14-11 | 1) At the beginning of the project, just east of the Gold Strike Casino (assuming they re-build it after the fire), the route crosses two Western Area Power transmission lines (formerly LADWP lines) and shows the construction of a bridge and tunnel very close to existing transmission structures. Construction of bridges and tunnels will likely require blasting and this is of concern to Western due to the close proximity to the transmission structures. Highway construction of any kind near energize 230-kV transmission lines is a potential safety concern. Western inspectors will need to be on the job site any time work is being performed near our transmission lines. Potential movement of structures or alignment of the transmission line will require right-of-way issues to be addressed and associated clearances.

A14-12 | This location of the road will likely effect two structures. They may need to be replaced with different structures if clearances above the new roadway is inadequate.

A14-13 | 2) As the highway proceeds, paralleling the existing road, it again crosses these same two lines prior to reaching the warehouse area. Structures many needed to be replaced to allow adequate ground clearance between the line and the road bed. The line may even need relocated since the road looks like it may be right under the lines.

A14-14 | 3) Northeast of the warehouse the road curves from a northeasterly to a southeasterly direction. At the apex of this curve the roadway could impact as many as 5 transmission structures associated with three 230-kV transmission lines (two SCE lines and the Henderson line). New structures and possibly new alignments may be required for clearance.

A14-15 | 4) As the road proceeds in a southeasterly direction it crosses 6 additional lines ( the three former LADWP lines, two MWD lines, and the Hoover-Mead line.) New structures may be required for clearance.

A14-16 | 5) Now it gets really concerning. The road cuts right across the southwest corner of the Hoover

#### Response to Comment A14-11

Discussion concerning the preferred alternative's impact on WAPA towers and lines has been expanded in FEIS Section 3.11.2.2. Any necessary relocations, removals, and decommissioning of transmission lines will be performed with direct oversight by WAPA. Meetings with WAPA engineers indicate that the need for additional right-of-way is not a major concern and will not likely cause indirect impacts outside the project limits covered in this EIS. This was agreed upon during discussions between FHWA and WAPA, and the FEIS (Section 3.11) has been amended to state:

"The ultimate configuration for removal and/or relocation of towers and transmission lines will be determined during final design. The right-of-way needs for the alternative configurations are minor. A right-of-way and easement agreement will be completed with Reclamation, NPS and/or the appropriate State DOT."

#### Response to Comment A14-12

See FEIS Section 3.11.2.2.

#### Response to Comment A14-13

The alternative configurations for removal of transmission lines will eliminate vertical clearance concerns in most cases. It is possible that during erection of the bridge, temporary facilities will have to be placed to ensure adequate clearance during construction. See also the field inspection report of April 7, 1999 (Appendix C), for further discussion on this issue.

#### Response to Comment A14-14

See FEIS Section 3.11.2.2.

#### Response to Comment A14-15

See response to Comment A14-13.

A14-16 Arizona/Nevada 230-kV switchyard. In Section 2.6.2.1 this area of the alignment is referred to as “a gap in the high rock ridge that parallels the river”. This gap is the location of an energized switchyard, and the transmission lines leading back to the generators at Hoover Dam.

The existing switchyard may have to be completely relocated, the transmission lines from the Dam double circuited and moved in alignment to the north, and modify the transmission lines leaving the existing switchyard. This would impact several acres of new ground.

6) The remainder of the roadway does not appear to have any adverse effect on transmission facilities.

A14-17 7) Chapter 3: Affected Environment ...  
Ref. T pg. 3-50 : Related to Construction Impacts Under Biology, states “The Southern most electrical power transmission switchyard would be indirectly affected” - There is no indirect about it. It will be affected. It will probably require moving the switchyard to a new location, leveling that site and building a new switchyard.

8) Pg. 3-115  
Comments:

A14-18 a) I find it very hard to imagine that these 4 structures are the only structures needing relocation.  
b) It seems to be implied that nothing needs to be done about the location of the switchyard.  
c) The two circuits spanning the river cannot be just removed, but need relocated or replaced with new structures in a new location. This may be possible if circuits are double circuited and the switchyard is relocated. A temporary transmission line and temporary structures will be needed during any relocation of the switchyard to minimize power outages.

A14-19 9) Power outages will be required during construction of any facilities and there are potential revenue losses due to the outages or restrictions imposed. Certain times of the year outages may be possible without penalty due to other scheduled maintenance activities.

A14-20 10) A rough cost estimate for just the potential transmission and switchyard construction would be 7-10 million dollars, which does not include any loss of revenue costs, should they apply.

#### Alternative: Gold Strike Canyon

A14-21 1) At the beginning of the project, just east of the Gold Strike Casino (assuming they re-build it after the fire), the route crosses six Western Area Power transmission lines and shows the construction of three bridges very close to existing transmission structures. Construction of bridges may require blasting and this is of concern to Western due to the close proximity to the

#### Response to Comment A14-16

One of the reconfiguration alternatives under development by WAPA includes the bypassing of the Arizona-Nevada Switchyard. This has many uncertainties at this time. It may be evaluated further in conjunction with the other alternatives as final design progresses; however, the Arizona-Nevada Switchyard bypass would be a separate future project by WAPA. In addition, this would require converting the line to the Mead Substation from a single-circuit to a double-circuit line. This conversion would occur within the right-of-way corridor using existing structures and/or footprints.

#### Response to Comment A14-17

The discussion of potential effects to the Arizona-Nevada Switchyard under EIS Section 3.5.2.4 (and elsewhere where this discussion occurs) for the preferred alternative has been changed to state the “switchyard may be directly impacted.” See also response to Comment A14-16.

#### Response to Comment A14-18

As noted in response to Comment A6-1, WAPA developed preliminary layouts for several revised transmission line configurations. In each configuration, an existing single-circuit line will be double circuited in a manner similar to the other existing lines. This double circuiting, when combined with removal of the existing line that is not in use, has the potential to eliminate two existing crossings, thus eliminating the need for any relocations. The conversion from single to double circuiting would be completed at the southern Reclamation powerhouse at the base of the dam.

The need for temporary transmission structures is dependant on which alternative is selected. A temporary transmission line and structures is not anticipated at this time. If one becomes necessary to facilitate construction activities, it will be constructed within the roadway right-of-way.

**Response to Comment A14-19**

All relocations, removals, and decommissioning of transmission lines will be performed with direct oversight by WAPA. It is anticipated that these activities will occur in advance of the road construction work in each area. If necessary, road construction activities will be phased or restricted to minimize disruptions to power delivery. Temporary backup lines may also be installed as a precaution during times when threatening construction activities are adjacent.

**Response to Comment A14-20**

The \$198 million estimated cost for engineering and constructing the preferred alternative includes approximately \$1.65 million for relocation of three to four power transmission towers. At this conceptual stage of design, it is uncertain, but considered unlikely, that the Arizona-Nevada Switchyard will require reconstruction. No loss of revenue cost is anticipated (see response to Comment A14-19).

**Response to Comments A14-21 through A14-24**

FHWA has identified the Sugarloaf Mountain Alternative as the preferred alternative on the basis of minimizing environmental impacts, engineering and operational advantages, and lower construction cost. At the conceptual design stage upon which the EIS build alternatives are based, WAPA correctly observes (as shown in Figure 2-11) that the Gold Strike Canyon Alternative would require construction in close proximity to existing transmission structures and crossing under transmission lines (see DEIS Section 3.11.2.3). Much of the discussion in response to Comments A14-11 through A14-20, referring to the preferred alternative, would also apply to the Gold Strike Canyon Alternative.

A14-21 transmission structures. Highway construction of any kind near energize 230-kV transmission lines is a potential safety concern. Western inspectors will need to be on the job site any time work is being performed near our transmission lines. Potential movement of structures or alignment of the transmission line will require right-of-way issues to be addressed and associated clearances.

A14-22 This location of the road may effect several transmission structures. They may need to be replaced with different structures if clearances above the new roadway is inadequate.

A14-23 2) Pg. 3-116: Clearance above the road grade is a possible concern. 6-12 structures could be effected and may need to be replaced with taller structures.

3) The reminder of the roadway does not appear to have any adverse effect on transmission facilities.

A14-24 4) **This is the best alternative from an electrical power transmission standpoint. There would be very minimal tower relocation outages compared to the other alternatives and minimized potential revenue losses. It would also be less effected by time of year for construction.**

A15

John Bridges, 11:35 AM 11/10/98, Comments on Hoover Bypass Draf

Return-Path: <BRIDGES@wapa.gov>  
 Date: Tue, 10 Nov 1998 11:35:23 -0700  
 From: John Bridges <BRIDGES@wapa.gov>  
 To: haussler@road.cflhd.gov  
 Subject: Comments on Hoover Bypass Draft EIS  
 Encoding: 48 Text

Below are my comments on the subject document. I did not have time to review it thoroughly, (a result of my schedule and yours) but I do believe it is important that you get in touch with our engineers in Phoenix, AZ.

I hope this helps, if I can do more, let me know

J.M. Bridges (303)275-1712

Comments on Hoover Dam Bypass Project Draft EIS

J.M. Bridges, A3400, Western Area Power Administration, Golden, CO

A very brief review of the Environmental Consequences Chapter and Cumulative Impacts Chapter.

Construction Activities on Page 3-115-116 -- I would strongly urge you to contact Western's Assistant Regional Manager for Power System Maintenance in Phoenix, AZ. Mr. Bruce Berg, 602/352-2440, and Western's Regional Environmental Manager, Mr. John Holt 602/352-2592. It is apparent from the discussion on these pages regarding the "relocation" and "removal" of electric transmission facilities that this action is either not well thought out or not well understood. Removal and/or relocation of these facilities will require a NEPA document for Western. As we have not been asked to be a cooperator on this project, there may be some delay in your proposed action until we can come up to speed.

Without a field check, I would guess that relocation of several lattice steel towers will be needed to construct any of the alternatives. This will require outages on lines to customers that at certain times of the year cannot

Printed for Terry Haussler <haussler@road.cflhd.gov>

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### Response to Comment A15-1

WAPA accepted FHWA's invitation to become a cooperating agency for the Hoover Dam Bypass project by their letter dated November 27, 1998 (see Appendix C). Since that time, FHWA has been working closely with WAPA's Phoenix, Arizona, engineering staff to assess potential transmission tower relocations for construction of the preferred bypass alternative.

### Response to Comment A15-2

See responses to Comment Letter A14 from WAPA. Section 3.11.2.2 of the FEIS now includes discussion of impacts to electric transmission facilities due to the relocation and/or removal of such facilities for construction of the preferred alternative. As part of the research of these impacts, WAPA's staff has been contacted to discuss the location of and potential impacts to the electrical transmission facilities. Based on several meetings with WAPA engineering staff, it does not appear there would be indirect impacts from tower relocations not covered in this EIS. A separate NEPA document will not be required since WAPA has joined as a cooperating agency.

### Response to Comment A15-3

Relocation of transmission towers for the preferred alternative is discussed in the FEIS, Section 3.11.2.2. See response to Comment A14-19 regarding potential power outages.

A15-3 take  
outages.

A15-4 Cumulative Impacts Chapter -- There is no discussion here regarding  
the impacts  
of relocating electric transmission lines associated with construction  
of  
highway bridges and tunnels.

**Response to Comment A15-4**

No cumulative or indirect impacts associated with the relocation of electrical transmission facilities are anticipated. This is based on meetings between FHWA and WAPA engineers since circulation of the DEIS.

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