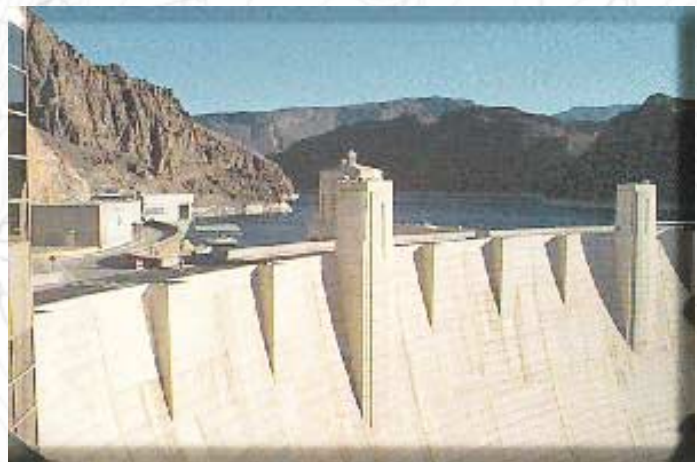


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U.S. 93 Hoover Dam Bypass Project

Final Environmental Impact Statement and Section 4(f) Evaluation

Volume I



Federal Highway Administration

Central Federal Lands Highway Division

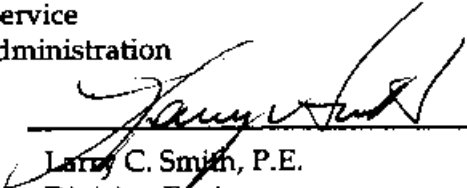
January
2001

U.S. 93 Hoover Dam Bypass Final Environmental Impact Statement and Section 4(f) Evaluation

Submitted Pursuant to 42 U.S.C. 4332 (2) (c), 49 U.S.C. 303, and Section 404(b)(1) of the Clean Water Act, 33 U.S.C. 1344 by the U.S. Department of Transportation Federal Highway Administration and Cooperating Agencies:

- Arizona Department of Transportation
- Nevada Department of Transportation
- U.S. National Park Service
- U.S. Army Corps of Engineers
- U.S. Bureau of Reclamation
- U.S. Coast Guard
- U.S. Fish and Wildlife Service
- Western Area Power Administration

1/5/01
Date of Approval


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Abstract

This final environmental impact statement (FEIS) and Section 4(f) Evaluation documents potential environmental impacts associated with the Hoover Dam Bypass Project on U.S. 93. The proposed project involves construction of a new bridge and highway access across the Colorado River in the vicinity of Hoover Dam. The length of the project is approximately 3.5 miles. The project is in Clark County, Nevada, and Mohave County, Arizona, and lies entirely on Federal Lands—Lake Mead National Recreation Area and the Hoover Dam Reservation. The new bridge and highway would correct alignment and capacity deficiencies on U.S. 93 and would eliminate truck traffic and reduce other through traffic over Hoover Dam. The FEIS addresses the social, environmental, and economic impacts associated with the preferred alternative, two other build alternatives, and a No Build Alternative. All three build alternatives use public recreation land and historic sites protected under Section 4(f) of the U.S. Department of Transportation Act of 1966.

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Preface

This Final Environmental Impact Statement (FEIS) consists of the complete text of the Draft EIS (DEIS) with revisions and additions based on supplemental research and public and agency comments. Substantive revisions to the DEIS are marked in this FEIS by a vertical line in the outside margin next to the revised or added text. The FEIS includes a new Volume II, which describes the DEIS notification and public hearing process, summarizes and reproduces all comments received on the DEIS, and provides responses to comments. This FEIS is also available for review on the U.S. 93 Hoover Dam Bypass Project web site at:

www.hooverdambypass.org

The Federal Highway Administration - Central Federal Lands Highway Division (FHWA) served as the lead agency in the preparation of this document. The following agencies served as cooperating agencies: Arizona Department of Transportation, Nevada Department of Transportation, U.S. National Park Service, U.S. Army Corps of Engineers, U.S. Bureau of Reclamation, U.S. Coast Guard, U.S. Fish and Wildlife Service (USFWS), and the Western Area Power Administration.

On the basis of comments received on the DEIS, FHWA has identified the Sugarloaf Mountain Alternative, with the proposed mitigation measures incorporated herein, as the preferred alternative. The preferred alternative was identified on the basis of minimizing environmental impacts, engineering and operational advantages, and slightly lower construction cost. Sections of the DEIS that have been substantively rewritten or supplemented in response to public and agency comments consist of: Chapter 2 – Alternatives (discussion of preferred alternative identification); Chapter 3 – Biology (incorporation of USFWS Biological Opinion), Cultural Resources, Hazardous Materials, and Construction Impacts; Chapter 5 – Cumulative Impacts; Chapter 6 – Section 4(f) Evaluation; and Appendix B – Laughlin-Bullhead City Alternative.

The U.S. 93 Hoover Dam Bypass FEIS will be used by the FHWA to decide the various discretionary actions required to implement the project. FHWA's decisions will be identified in a Record of Decision. Statements on the FEIS will be accepted by the FHWA and considered in the decision on this proposed action. The FEIS is being distributed for a 30-day notification period that begins on January 19, 2001, and ends on February 20, 2001.

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Acronyms and Abbreviations

AADT	average annual daily traffic
AASHTO	American Association of State Highway and Transportation Officials
ACHP	Advisory Council on Historic Preservation
ACOE	United States Department of the Army, Corps of Engineers
A.D.	anno Domini
ADA	Americans with Disabilities Act
ADEQ	Arizona Department of Environmental Quality
ADOT	Arizona Department of Transportation
ADT	average daily traffic
AGFD	Arizona Game and Fish Department
ANSI	American National Standards Institute
APE	area of potential effects
APP	Aquifer Protection Permit
AQRV	air quality-related value
ARPA	Archaeological Resources Protection Act of 1979
ASC	Arizona Species of Concern
ASTIP	Arizona State Transportation Improvement Plan
ATR	automatic traffic recorder
BA	Biological Assessment
BARA	Bureau of Applied Research in Anthropology
BIA	Bureau of Indian Affairs
BMP	Best Management Practice
B.P.	Before Present (before 1950)
CAA	Clean Air Act
CAP	Central Arizona Project
CCDCP	Clark County Desert Conservation Program
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFLHD	Central Federal Lands Highway Division
CFR	Code of Federal Regulations
CO	carbon monoxide
CPI	Consumer Price Index

CPI-U	Consumer Price Index for All Urban Customers
dB	decibels on the A-scale
DCS	Design Concept Study
DEIS	Draft Environmental Impact Statement
DOE	Department of Energy
DOI	U.S Department of the Interior
DOT	Department of Transportation
EA	Environmental Assessment
EIS	Environmental Impact Statement
e-mail	electronic mail
EO	Executive Order
EPA	U.S. Environmental Protection Agency
°F	degrees Fahrenheit
FE	Federally-Listed Endangered
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIA	Federal Insurance Administration
FONSI	Finding of No Significant Impact
FSC	Federal Species of Concern
FT	Federally-Listed Threatened
GCVTC	Grand Canyon Visibility Transport Commission
GMP	General Management Plan
g/VMT	grams per vehicle mile traveled
HABS	Historic American Building Survey
HAER	Historic American Engineering Record
HCS	Highway Capacity Software
HDNHL	Hoover Dam National Historic Landmark
HDR	Hoover Dam Reservation
HDRA	Hoover Dam Reservation Area
I-10	Interstate 10
I-15	Interstate 15
I-19	Interstate 19
IC	Interchange

ISTEA	Intermodal Surface Transportation Efficiency Act
ITS	Intelligent Transportation Systems
km	kilometer
kV	kilovolt
LBA	Laughlin-Bullhead City Alternative
LCA	Laughlin Crossing Alignment
L_{eq}	equivalent sound pressure levels
LMNRA	Lake Mead National Recreation Area
LOS	level of service
LWCF	Land and Water Conservation Fund Act
M	Monitoring
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MP	mile post
mpg	miles per gallon
mph	miles per hour
MSCP	Multi-Species Conservation Program
NAAQS	National Ambient Air Quality Standards
NAFTA	North American Free Trade Agreement
NAGPRA	Native American Graves Protection and Repatriation Act of 1990
NDOT	Nevada Department of Transportation
NDOW	Nevada Division of Wildlife
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHL	National Historic Landmark
NHPA	National Historic Preservation Act of 1966, as amended
NO_2	nitrogen dioxide
NO_x	nitrogen oxides
NP	Nevada protected
NPDES	National Pollution Discharge Elimination System
NPS	National Park Service
NRA	National Recreation Area
NRHP	National Register of Historic Places
OHWM	ordinary high water mark

OSHA	Occupational Safety and Health Administration
PA	Programmatic Agreement
Pb	lead
PCB	polychlorinated biphenyl
PM ₁₀	particulate matter with diameter less than 10 microns
PM _{2.5}	particulate matter with diameter less than 2.5 microns
PMT	project management team
ppm	parts per million
PSD	prevention of significant determination
R	receptor
RCRA	Resource Conservation and Recovery Act
Reclamation	Bureau of Reclamation
Reservation	Hoover Dam Reservation
ROD	Record of Decision
ROW	right-of-way
RV	recreational vehicle
SFHA	Special Flood Hazard Area
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SO ₂	sulphur dioxide
SO _x	sulphur oxides
SR	State Route
STIP	Statewide Transportation Improvement Program
TCLP	toxicity characteristic leaching procedure
TCP	Traditional Cultural Property
TDS	total dissolved solids
TSCA	Toxic Substances Control Act
TSM	Traffic Systems Management
TVA	Tennessee Valley Authority
U.S.	United States
U.S. 93	United States Highway 93
U.S. 95	United States Highway 95
USDOT	United States Department of Transportation
USFWS	U.S. Fish and Wildlife Service

UST	underground storage tank
V/C	volume to capacity
VMT	vehicle mile traveled
VOC	volatile organic compound
WAPA	Western Area Power Administration
WDM	Wetland Delineation Manual

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