



United States Department of the Interior

BUREAU OF RECLAMATION
Upper Colorado Regional Office
125 South State Street, Room 8100
Salt Lake City, UT 84138-1102

IN REPLY REFER TO:

UC-700
ENV-3.00

MAY 11 2017

Identical Letters Sent (List Enclosed)

Subject: LTEMP Programmatic Agreement (PA)

The Bureau of Reclamation's Upper Colorado Region, is pleased to provide the enclosed Programmatic Agreement (PA) for your consideration and signature. Reclamation has worked closely with our federal, state, tribal, and non-government partners over the last several years to develop this PA for actions associated with the Glen Canyon Dam Long Term Experimental and Management Plan (LTEMP) Environmental Impact Statement and Record of Decision (ROD). The PA is intended to incorporate remaining commitments from the 1994 PA for operations of Glen Canyon Dam and to add new commitments as a result of LTEMP implementation over the next 20 years.

If found acceptable, Reclamation is requesting your signature on the appropriate signature page of the PA. Once signed, please return the page(s) with the original signature(s) to Reclamation using the following address:

Bureau of Reclamation - Upper Colorado Regional Office
Attn: Kathleen Callister (UC-700)
125 South State Street, Room 8100
Salt Lake City, Utah 84138-1102

It is Reclamation's intent to implement this PA only after all Parties to this Agreement have signed. Once we have compiled the signature pages, the Upper Colorado Regional Director will sign. We will then forward the PA with all the signature pages to the Advisory Council on Historic Preservation for their signature. A final copy of the PA with all signature pages will be provided to all the Parties to the Agreement and the Concurring Parties.

As we move forward with developing and implementing the Historic Preservation Plan (HPP) identified in Section IV of the PA, Reclamation is committed to continued consultation and collaboration with all our tribal, federal, state, and non-governmental partners. We are also committed to working with our tribal partners in accordance with Department of Interior Secretarial Order No 3342 – *Identifying Opportunities for Cooperative and Collaborative Partnerships with Federally Recognized Indian Tribes in the Management of Federal Lands and Resources*.

I greatly appreciate the time and effort that each of our partners has provided in helping us develop this PA and Reclamation looks forward to working with our partners on the development and implementation of the HPP. If you have any questions, please contact Kathleen Callister at 801-524-3781 or Bill Chada at 801-524-3646.

Sincerely,

Brent Rhees
Regional Director

Identical Letters

Enclosure

IDENTICAL LETTER SENT TO:

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PROGRAMMATIC AGREEMENT
AMONG
U.S. DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION AND NATIONAL PARK
SERVICE; WESTERN AREA POWER ADMINISTRATION; THE ADVISORY COUNCIL ON
HISTORIC PRESERVATION; THE HUALAPAI TRIBAL HISTORIC PRESERVATION OFFICER;
THE NAVAJO NATION TRIBAL HISTORIC PRESERVATION OFFICER; THE HOPI TRIBE; THE
KAIBAB BAND OF PAIUTE INDIANS; THE PAIUTE INDIAN TRIBE OF UTAH; AND THE
PUEBLO OF ZUNI;
AND
THE ARIZONA STATE HISTORIC PRESERVATION OFFICER
REGARDING THE
GLEN CANYON DAM OPERATIONS AND NON-FLOW ACTIONS
IDENTIFIED IN THE LONG TERM EXPERIMENTAL AND
MANAGEMENT PLAN ENVIRONMENTAL IMPACT STATEMENT AND
RECORD OF DECISION

PREAMBLE

Since time immemorial, the Canyons (including Glen, Marble, and Grand) have been an important, sacred place to the Hualapai Indian Tribe, Navajo Nation, Hopi Tribe, Kaibab Band of Paiute Indians, Paiute Indian Tribe of Utah, and the Zuni Tribe of the Zuni Indian Reservation. The establishment of the Grand Canyon National Park and Glen Canyon National Recreation Area resulted in the displacement of Native people and restricted free/traditional access to this sacred place. In spite of the displacement and disassociation from this important place, Native people, through their traditions, continue to maintain a cultural and spiritual connection to this sacred place, and the Canyons continue to be an integral part of their respective individual and collective cultural identity and way of life.

The Canyons do not exist in isolation, but rather, exist and function as an integral part of a larger cultural area (to which Native peoples refer to as homelands). This homeland includes the Colorado River, the Little Colorado River, the Canyons and a geographical area that extends beyond the limits of the Undertaking. This area should not be conceptualized merely as multiple discrete or detached archeological sites, traditional cultural properties, and/or sacred places; but rather viewed as interconnected, culturally symbiotic areas of traditional religious and cultural value.

As a result of the past twenty years of consultation, the Bureau of Reclamation (Reclamation) and National Park Service (NPS) mutually understand that the Native people consider all natural resources to be of cultural significance. This Undertaking will affect multiple layers of cultural, social, psychological, physical, and spiritual values. Impacts to the natural environment will in turn affect social environments, specifically the unique, collective cultural expressions of past, present, and future generations of Native peoples.

Native people's cultural-natural symbiotic relationships traditionally are embedded in the landscape (both above and below the surface of land and water) and are germane to the continued survival of their inherent cultural identities. In accordance with DOI Secretarial Order 3342, Reclamation and the NPS, acknowledge and respect Native people's views and beliefs of the Canyons, and with this mutually understood perspective, the Tribes, Reclamation and NPS shall, in a spirit of positive government to government collaboration, consult to develop a management strategy that considers the preservation of the Tribes' heritage (tangible and intangible) and traditional cultural values.

It is in the spirit of this preamble that the following recitals and stipulations are developed, organized, and implemented by the parties to this Programmatic Agreement.

RECITALS

WHEREAS, Reclamation, Upper Colorado Region, manages the release of water from Glen Canyon Dam down the Colorado River through the Canyons, in accordance with Federal laws including, but not necessarily limited to, the Colorado River Storage Project Act of 1956 (CRSP), the Grand Canyon Protection Act (GCPA) of 1992 and other authorities; and

WHEREAS, Reclamation proposes to operate Glen Canyon Dam for the next twenty (20) years in accordance with the Record of Decision (ROD) for the Long Term Experimental and Management Plan (LTEMP) Environmental Impact Statement (EIS) (the Undertaking). The scope of the Undertaking is described in the LTEMP ROD as the implementation of a structured, long-term experimental and management plan for operations of Glen Canyon Dam, located in Coconino and Mohave Counties, Arizona (see map of the general area in Appendix A). “The LTEMP will provide a framework for adaptively managing Glen Canyon Dam operations and other management and experimental actions over the next 20 years, consistent with the Grand Canyon Protection Act (GCPA) and other provisions of applicable Federal law. The LTEMP identified specific options for dam operations (including hourly, daily, and monthly release patterns), non-flow actions, and appropriate experimental and management actions that meet the GCPA's requirements, and maintain or improve hydropower production to the greatest extent practicable, consistent with improvement of downstream resources, including those of importance to American Indian tribes” (LTEMP ROD:1). This includes monitoring and research implemented through the Glen Canyon Dam Adaptive Management Program (AMP) (see Appendix B for definition); and

WHEREAS, Reclamation has determined that operation of the Glen Canyon Dam and experimental and management actions according to the LTEMP ROD is an Undertaking subject to compliance with Section 106 of the NHPA and has determined that the Undertaking has the potential to cause adverse effects to historic properties, and has developed this Agreement pursuant to the requirements of Section 106 in order to take into account the effects of the Undertaking on historic properties; and

WHEREAS, Reclamation defines the Undertaking's area of potential effects (APE) as the area of direct and indirect effects to the character or use of historic properties on the Colorado River Corridor in the Canyons from Glen Canyon Dam to the western boundary of Grand Canyon National Park, including direct or indirect effects that may be caused to historic properties by the Undertaking from rim-to-rim of the Canyons (Appendix A); and

WHEREAS, Reclamation, acknowledges that Tribes have identified to Reclamation adverse effects to the associative values that Tribes ascribe to historic properties in the Canyons, including impacts from lethal fish management and other experimental, research, monitoring, and management actions; and

WHEREAS, Reclamation, for purposes of the Undertaking and this agreement, is the lead federal agency for compliance with Section 106 of the National Historic Preservation Act (NHPA) (54 U.S.C. § 306108) and is representing DOI; and

WHEREAS, Reclamation intends this Agreement to supersede, upon its execution, the 1994 Programmatic Agreement titled “Programmatic Agreement Among The Bureau of Reclamation, the Advisory Council on Historic Preservation, the National Park Service, the Arizona State Historic Preservation Officer, Havasupai Tribe, Hopi Tribe, Hualapai Tribe, Kaibab Paiute Tribe, Navajo Nation, San Juan Southern Paiute Tribe, Shivwits Paiute Indian Tribe and Zuni Pueblo Regarding Operations of the Glen Canyon Dam” (1994 PA) and the 2012 “Memorandum of Agreement: Glen Canyon Dam High Flow Experimental Protocol.” (2012 MOA), and a summary of outstanding tasks

from the 1994 PA and 2012 MOA is included in Appendices C and D, respectively; and previous NHPA compliance for Glen Canyon Dam operations, with Section 106 of NHPA (54 U.S.C. § 300101 et seq.) and its implementing regulations, “Protection of Historic Properties” (36 CFR § 800) are identified in Appendix E; and

WHEREAS, within this document, the signatories and invited signatories are referred to collectively as “Parties to this Agreement” or individually as “Party to this Agreement”; and

WHEREAS, NPS (as principal land manager), on behalf of Reclamation, in consultation with the Parties to this Agreement, completed an archeological inventory (Fairley et al. 1994 – see full citation in Appendix F) of lands up to the estimated 300,000 cubic feet per second (cfs) level (upper limit of the historic flood zone) and all sand-covered areas above that level, and the results of this inventory were utilized in the development of the 1994 PA; and

WHEREAS, NPS, as the principal land manager, is responsible for identification, management and preservation of historic properties under its jurisdiction, and is a Party to this Agreement; and

WHEREAS, Reclamation, through archeological survey, monitoring, and consultation, has identified historic properties, including properties of traditional religious and cultural importance, located within or partially within the APE (*see* Appendix F for a list of references for all cultural resources studies completed since 1994); and

WHEREAS, Reclamation consulted the State Historic Preservation Officer (SHPO), and SHPO is authorized to enter into this Agreement in order to fulfill its role of advising and assisting Federal agencies in carrying out Section 106 responsibilities pursuant to 36 CFR § 800.2(c)(1)(i), and 36 CFR § 800.6(b), and SHPO is a Party to this Agreement; and

WHEREAS, SHPO is authorized to advise and assist the federal and state agencies in carrying out their historic preservation responsibilities and cooperate with these agencies under A.R.S. § 41 § 511.04(D)(4); and

WHEREAS, Reclamation recognizes that the SHPO, appointed by the Governor of the State of Arizona, also represents all citizens of the State of Arizona, including Native peoples, in matters of historic preservation, and on behalf of all citizens, the SHPO declares that the Canyons are important natural and cultural resources to all who inhabit Arizona; and

WHEREAS, Reclamation, in accordance with 36 CFR § 800.6(a)(1), notified the Advisory Council on Historic Preservation (ACHP) of its determination of potential adverse effects and the ACHP is a Party to this Agreement; and

WHEREAS, Reclamation consulted six tribes (collectively Tribes) in the development of this Programmatic Agreement (Agreement) and these Tribes are the Hopi Tribe of Arizona, the Hualapai Indian Tribe of the Hualapai Indian Reservation, Arizona, the Kaibab Band of Paiute Indians of the Kaibab Indian Reservation, Arizona, the Navajo Nation, Arizona, New Mexico & Utah, the Paiute Indian Tribe of Utah, and the Zuni Tribe of the Zuni Reservation, New Mexico; and

WHEREAS, Reclamation acknowledges that no provision of this Agreement will be construed by any of the Parties to this Agreement as abridging or debilitating any sovereign powers or rights of the Tribes; or interfering with the government-to-government relationship between the United States and the Tribes; and

WHEREAS, Reclamation refers to the National Historic Preservation Act of 1966, as amended (NHPA) authorities, which are based on boundaries defined by the Federal Government and do not reflect the Tribes' fundamental connection to the Canyons that extend outside these legally-defined boundaries, and that these connections include lands central to the Tribes' origins, areas of ancestral and ongoing cultural importance to Tribes, places important to the Tribes ongoing stewardship roles in the Canyons, and lands inherently important to Tribes' cultural identities; and

WHEREAS, Reclamation consulted Tribes who ascribe religious and cultural significance to historic properties (see Appendix B for definition) that may be affected by the Undertaking. Additional Tribes consulted under LTEMP EIS include the Fort Mojave Indian Tribe of Arizona, California & Nevada, Gila River Indian Community of the Gila River Indian Reservation, Arizona, Havasupai Tribe of the Havasupai Reservation, Pueblo of Nambe, New Mexico, Pueblo of Santa Clara, New Mexico, San Juan Southern Paiute Tribe of Arizona, White Mountain Apache Tribe of the Fort Apache Reservation, Arizona, and the Yavapai-Apache Nation of the Camp Verde Indian Reservation; and

WHEREAS, Reclamation consulted the Navajo and Hualapai Tribal Historic Preservation Officers (THPO) and the Navajo and Hualapai THPOs are authorized to enter this Agreement in order to fulfill the role of advising and assisting Federal agencies in carrying out Section 106 responsibilities pursuant to 36 CFR § 800.2(c)(1)(ii), and 36 CFR § 800.6(b)(2); and

WHEREAS, the Hualapai Indian Tribe of the Hualapai Indian Reservation is a federally recognized Indian Tribe, which, for the purposes of this Agreement is represented by the Hualapai Tribal Historic Preservation Officer (Hualapai THPO), as provided for under 36 CFR § 800.2(c)(2)(i)(A) and the Hualapai Cultural Resources Ordinance, Resolution No. 13-98; and, because the APE of this Undertaking is located, in part, on Hualapai Indian Reservation, the Hualapai Tribe is a Party to this Agreement; and

WHEREAS, the Hualapai Indian Tribe and the Department of the Interior do not agree on the precise location of the boundary between the Hualapai Indian Reservation and Grand Canyon National Park, and this Agreement is not intended to, and shall not be construed to, resolve this disagreement, nor shall it be construed to alter the position of either party with respect to this issue; and

WHEREAS, the Navajo Nation is a federally recognized Indian Tribe, which, for the purposes of this Agreement is represented by the Navajo Nation Tribal Historic Preservation Officer (Navajo THPO), as provided for under 36 CFR § 800.2(c)(2)(i)(A) and the Navajo Nation Cultural Resources Protection Act (CMY-19-88) and Jischaa Policy; and, because the APE of this Undertaking is located, in part, on Navajo Indian Reservation, the Navajo Nation is a Party to this Agreement; and

WHEREAS, the Navajo Nation views the entire Glen Canyon, Marble Canyon and Grand Canyon as an entire ecosystem complete and inclusive of wildlife, riparian vegetation, humpback chub, rainbow trout fishery, and all other native and nonnative fish found and studied within the Grand Canyon corridor, and the river system itself is considered an integral component of the cultural landscape from rim-to-rim; and

WHEREAS, the Navajo Nation and the Department of the Interior do not agree on the precise location of the boundary between the Navajo Reservation and Grand Canyon National Park, and this Agreement is not intended to, and shall not be construed to, resolve this disagreement, nor shall it be construed to alter the position of either party with respect to this issue; and

WHEREAS, Zuni Tribal Council resolution M70-2010-C086 states that the Zuni Tribe of the Zuni Indian Reservation "... asserts that the Grand Canyon, from rim-to-rim, and all specific places located therein including the confluence of the Colorado and Little Colorado Rivers, topographic and geologic

features, springs, archeological sites, mineral and plant collection areas, and any other places it so identifies as historically, culturally, or spiritually important to the Zuni Tribe within the Grand Canyon must, as a matter of the Federal Government's trust responsibility toward the Zuni Tribe, be assumed by all federal agencies to be eligible for the NRHP”, and the Zuni Tribe is a Party to this Agreement; and

WHEREAS, Hopi Tribe has identified that the Grand Canyon from rim-to-rim is a Traditional Cultural Property (TCP) of the Hopi Tribe and further, that historic properties of cultural or religious significance to the Hopi Tribe have the potential to be impacted by the Undertaking, and the Hopi Tribe is a Party to this Agreement; and

WHEREAS, Reclamation determined that the Canyons from Glen Canyon Dam to River Mile 277, and the lower gorge of the Little Colorado River, are NRHP-eligible as a Traditional Cultural Property as defined in National Register Bulletin 38 (NPS 1990), under National Register Criteria (a), (b), (c), and (d) (36 CFR § 60.4), and the SHPO concurred in a consensus DOE on July 28, 2011 (see Appendix G). Appendix G does not represent the current APE nor a complete list of historic properties contained within; and

WHEREAS, the Kaibab Band of Paiute Indians and the Paiute Indian Tribe of Utah are Parties to this Agreement and have identified the Grand Canyon from rim-to-rim as a TCP of the Southern Paiute people and that places culturally significant and/or sacred to Southern Paiutes have the potential to be impacted by the Undertaking; and

WHEREAS, Western Area Power Administration (WAPA), under the Act of Congress approved August 4, 1977 (91 Stat. 565) is responsible for marketing power and energy and transmitting electric power generated at the facilities of the Colorado River Storage Project (CRSP), including Glen Canyon Dam, to preference customers in various states, and also has responsibility for managing the Upper Colorado River Basin Fund which funds various work related to the LTEMP ROD, and is a Party to this Agreement; and

WHEREAS, Reclamation has consulted with and invited the Colorado River Energy Distributors Association (CREDA) to sign this Agreement as a Concurring Party, as CREDA has a demonstrated economic interest in the defined Undertaking as afforded by 36 CFR § 800.2(c)(5). CREDA represents a majority of the preference customers who purchase electric service generated at CRSP facilities, including Glen Canyon Dam, and marketed by WAPA under long-term firm contracts; and

WHEREAS, the Bureau of Indian Affairs (BIA) has a demonstrated interest in the defined Undertaking, as activities associated with the Undertaking may require an action on the part of BIA; the BIA has further reviewed this Agreement, acknowledges that its views were taken into consideration during the consultation process, agrees with the terms of the Agreement for purposes of historic preservation, and is a Concurring Party to this Agreement pursuant to 36 CFR § 800.2(c)(5); and

WHEREAS, Reclamation has consulted with the National Parks Conservation Association, Grand Canyon River Guides, Inc., and Grand Canyon Wildlands Council, Inc., regarding this Undertaking and has invited them to sign as Concurring Parties to this Agreement pursuant to 36 CFR § 800.2(c)(5), because they have demonstrated an interest in the Undertaking and a concern for its’ effect on historic properties; and

WHEREAS, Reclamation, NPS and Tribes, in the spirit of the Secretarial Order No. 3342, recognize the opportunities for cooperative and collaborative partnerships in the management of federal lands and resources; and

WHEREAS, Reclamation used and coordinated the National Environmental Policy Act (NEPA) public participation requirements to assist in satisfying the public involvement requirements under Section 106 of the NHPA pursuant to 36 CFR § 800.2(d)(1-3); and

NOW, THEREFORE, the Parties agree that this Agreement shall be implemented in accordance with the following stipulations in order to take into account the effects of the Undertaking on historic properties and to satisfy Reclamation's Section 106 responsibilities for the implementation of actions of LTEMP ROD.

STIPULATIONS

RECLAMATION SHALL ENSURE THE FOLLOWING STIPULATIONS ARE CARRIED OUT.

I. COORDINATION AND SECTION 106 CONSULTATION

- A. Coordination with Glen Canyon Dam Adaptive Management Program (AMP)-Proposed activities that are related to the LTEMP ROD.**
 - 1. Reclamation shall work to develop research and monitoring activities under the AMP that advance cultural preservation goals. These proposed activities will be developed through the AMP protocols and budgeting processes. As appropriate, tribal perspectives and concerns will be integrated into the activities. These proposed activities will be reviewed by Reclamation as appropriate for Section 106 compliance.
 - 2. Reclamation shall ensure that AMP-Proposed activities associated with the Undertaking will be reviewed in accordance with 36 CFR 800.3(a) and 36 CFR 800.3(a)(1) to determine if the AMP-Proposed activities are the "type of activity that has the potential to cause effects on historic properties" or whether "the undertaking is a type of activity that does not have the potential to cause effects on historic properties".
 - a) If Reclamation determines that an AMP-Proposed activity associated with the Undertaking will have "No potential to cause effects" to listed, contributing or eligible properties per 36 CFR § 800.3(a)(1), no further review under this Agreement is required. Reclamation shall document the proposed activity in accordance with Stipulation XI (C)(9).
 - b) If Reclamation determines, through consultation with appropriate land manager, that an AMP-Proposed activity associated with the Undertaking will not have an effect on listed, contributing or eligible properties consistent with a finding of "No Historic Properties Affected" per 36 CFR § 800.4(d)(1), such as through avoidance, no further review under this Agreement is required. Reclamation shall document the proposed activity in accordance with Stipulation XI (C)(10).

- c) If Reclamation determines, through consultation with the Parties to this Agreement, that an AMP-Proposed activity associated with the Undertaking will have an effect on listed, contributing or eligible properties but the effect will not be adverse and is consistent with a finding of “No Adverse Effect” under 36 CFR § 800.5(b) and avoidance is not possible, Reclamation shall provide the Parties to this Agreement an opportunity to review and comment on the proposed activity. To the extent possible, consultations shall be conducted electronically. Parties to this Agreement shall have 30 calendar-days from receipt of the review request to review and provide written comments to Reclamation. Reclamation shall seek to resolve any identified concerns and shall not authorize any proposed activities until this process is complete. Reclamation shall document the proposed activity in accordance with Stipulation XI (C)(11).
- d) If Reclamation determines, through consultation with the Parties to this Agreement, that an AMP-Proposed activity associated with the Undertaking may adversely affect listed, contributing or eligible properties, per 36 CFR § 800.6(a) and avoidance is not possible, a mitigation plan tiered off the Historic Properties Treatment Plan (HPTP) to mitigate the effect(s) will be developed in a Memorandum of Agreement (MOA) under the process identified in Stipulation I(B). Reclamation shall document the proposed activity in accordance with Stipulation XI (C)(12).

B. Mitigation of Potential Adverse Effects

- 1. Reclamation shall ensure that mitigation of adverse effects caused by the Undertaking will follow historic property specific mitigation programs tiered off the generic HPTP as found within the Historic Preservation Plan (HPP) as defined in Stipulation IV. Additionally, individual project specific MOAs will be developed to resolve adverse effects.
 - a) Until the HPP is completed, all potential adverse effects will be reviewed, and mitigative actions developed in accordance with 36 CFR § 800.5-800.6.
- 2. Proposed mitigation projects shall be developed by Reclamation through consultation with the Parties to this Agreement. As appropriate, tribal perspectives and concerns will be integrated into the projects.
- 3. Reclamation shall ensure that Hualapai, Navajo and Paiutes TCP documentation is completed, and through consultation with SHPO, a determination of eligibility is made. Reclamation shall also ensure that the Hopi and Zuni TCP documentations are updated, if needed.
- 4. Once TCP documentation has been completed for each tribe, Reclamation shall ensure implementation of associative values studies as a mitigation measure or to identify mitigation strategies for any potential adverse effects to the character of historic properties as a result of the Glen Canyon Dam operations under the LTEMP ROD.

C. Use of Power Revenues for Activities Under this PA

As stated in the LTEMP ROD the AMP-Proposed “activities that are eligible for funding from power revenues are those actions related to dam operations or the mitigation of dam

operations within the CRE [Colorado River Ecosystem]. These will be funded in compliance with Section 204 of Public Law (PL) 106-377. Appropriated funds or other sources of funding may also be used for GCDAMP [AMP] activities as specified in Section 1808 of the GCPA and Section 204 of PL 106-377” (LTEMP ROD: Section 6.1(b)).

II. PROFESSIONAL QUALIFICATION STANDARDS

- A. All actions prescribed by this Agreement that involve the identification, evaluation, analysis, recording, treatment, monitoring or disposition of historic properties, or that involve the reporting or documentation of such actions in the form of reports, forms, or other records, shall be carried out by, or under the direct supervision of, a person or persons meeting qualifications set forth in the Secretary of the Interior's Professional Qualification Standards (48 FR 44738-44739).
- B. Reclamation acknowledges that Indian tribes “possess special expertise in assessing the eligibility of historic properties that may possess religious and cultural significance to them” (§ 800.4 (c)(1)). Further, Reclamation recognizes that this expertise is the outcome of extensive traditional learning and training that certain Native individuals go through to receive tribal recognition as an initiated individual, a medicine man/woman, or a priest (holy person). Reclamation acknowledges and respects traditional knowledge and traditional education systems on their own terms and recognizes that inclusion of individuals with this knowledge is a vital component for the identification, evaluation, analysis, recording, treatment, monitoring or disposition of historic properties.

III. PERMITS AND ADDITIONAL COMPLIANCE

- A. Reclamation shall ensure any work performed by any federal or state agency or contractor that enters into an agreement/contract with Reclamation under the auspices of this Agreement will obtain the required land manager permits, and carry out work under all tribal ordinances and qualifications standards and guidance.
- B. Reclamation will be responsible for the Section 106 compliance consultation for any work performed by any federal or state agency or contractor that enters into an agreement/contract with Reclamation under the LTEMP ROD and will obtain Section 106 compliance following the processes identified in Stipulation I.
- C. Reclamation shall ensure that non-tribal specialists and/or contractors complete cultural sensitivity training prior to initiation of work under the LTEMP ROD. As part of the HPP, a cultural sensitivity training plan will be developed in coordination with Tribes.

IV. HISTORIC PRESERVATION PLAN (HPP)

- A. Reclamation, in consultation with Parties to this Agreement shall develop and implement an HPP no later than one year from the execution of this Agreement. The HPP will identify administrative roles, responsibilities and program goals; legal authorities; consultation protocols; it will also address a process for evaluating and documenting cumulative effects. The HPP will include, but not be limited to, the following components:
 - 1. Synthesis of previous research including a management summary table listing all identified historic properties within the APE, site type, affiliation, and eligibility status; a summary of impacts to historic properties; a summary of cumulative effects; and long-term management goals,

2. Identification of unresolved tasks associated with the 1994 PA (see Appendix C),
3. Research design and research questions, and generic Historic Preservation Treatment Plan (HPTP) with an integration of tribal perspectives: site specific data recovery programs and historic property specific mitigation programs will be tiered off the generic HPTP,
4. Monitoring and Discovery Plan,
5. Remedial Action Plan (includes preservation treatments such as stabilization, etc.),
6. Native American Graves Protection and Repatriation Act (NAGPRA) Plan of Action,
7. Nomination of TCPs to the NRHP,
8. Associative Values studies,
9. Cultural sensitivity training plan of action,
10. Traditional community sharing and education outreach program,
11. Public outreach program development,
12. Consultation process,
13. Permits,
14. Curation, and
15. Report dissemination process and schedule.

- B. Reclamation shall submit the Draft HPP to Parties to this Agreement for a period of 45 calendar-days for review and comment. Written comments may be submitted to Reclamation via email, and Reclamation shall take into account all timely comments. Reclamation shall make a good faith effort to contact any non-responsive party by email and/or telephone.
- C. Reclamation shall address any comments in a revised draft, and submit the revised HPP to Parties to this Agreement for additional review. Parties to this Agreement shall have 30 calendar-days to review the revised HPP. Reclamation shall make a good faith effort to contact any non-responsive party by email and/or telephone. If there are no further comments, the revised document shall be considered Final. Should Parties to this Agreement have additional comments, consultation shall continue for an additional 90 calendar-days. If consensus cannot be reached within the additional 90 calendar-days, Reclamation shall follow Stipulation XVI of this agreement. Prior to the implementation of an approved or Final HPP, Reclamation shall follow the consultation process.
- D. Reclamation shall provide all consulting parties with a copy of the approved or Final HPP.

V. NON-NATIVE FISH CONTROL MOAs

Reclamation shall, in consultation with Parties to this Agreement, amend or replace the MOAs pertaining to Non-Native Fish Control no later than one year from the execution of this Agreement. Existing MOAs (titled: “Memorandum of Agreement: Non-Native Fish Control in the Colorado River below Glen Canyon Dam” and “Agreement Between the Bureau of Reclamation and the Navajo Nation To Avoid Adverse Impacts – Non-Native Fish Control in the Colorado River Below Glen Canyon Dam”) will remain in effect until new MOA(s) are executed. Once executed, the existing MOA(s) will be superseded.

VI. ARCHEOLOGICAL AND TRIBAL MONITORING

Reclamation shall implement monitoring of historic properties to identify effects from actions caused by the Undertaking. The specific protocols for monitoring and consultation will be outlined in the Monitoring and Discovery Plan within the HPP. Results of monitoring will be used to inform management about historic properties and the potential need for mitigation or potential

or actual treatment. A generic Historic Preservation Treatment Plan (HPTP) will be developed, as part of the HPP, to address ongoing monitoring and mitigation for any identified adverse effects.

A. Archeological Monitoring

Reclamation shall fund, if available, and support NPS to conduct monitoring of archeological and historic sites within the APE for physical effects resulting from the Undertaking. For implementation within GRCA managed lands, this monitoring will be carried out following the methodology outlined and peer reviewed in the 2016 NPS/GRCA Cultural Resources Management Plan Protocols Document (*see* Appendix H for full citation) until other approved protocols are developed under the HPP of this Agreement per Stipulation IV. For implementation within GLCA managed lands, this monitoring will follow standard Archeological Sites Information Management System (ASMIS) protocols until replaced by Colorado River specific protocols.

B. Tribal Monitoring

Reclamation shall fund, if available, and support tribal monitoring programs. All Section 106 monitoring activities carried out by tribal programs pursuant to this Agreement will follow the existing and in-progress tribal monitoring protocols. These monitoring protocols include, but are not limited to, the following (*see* Appendix H for full citations):

| | | |
|----------|------|---|
| Hopi | 2007 | Yeatts, Michael and Kristin Huisinga |
| Hualapai | 2007 | Christensen, Kerry and Jackson-Kelly, Loretta |
| Navajo | | Pending completion |
| Paiute | 2007 | Southern Paiute Consortium |
| Zuni | 2008 | Dongoske, Kurt E. |

C. Modification of Monitoring Protocols

Should modifications to existing monitoring protocols become necessary to maintain significance or relevance in assessing effects of the Undertaking, Reclamation shall submit the draft monitoring protocols to consulting parties for a period of 30 calendar-days for review and comment. Written comments may be submitted to Reclamation via email, and Reclamation shall take into account all timely comments. Reclamation shall make a good faith effort to contact any non-responsive party by email and/or telephone.

Reclamation shall address any comments in a revised draft, and submit the revised monitoring protocols to consulting parties for additional review. Consulting parties shall have 30 calendar-days to review the revised monitoring protocols. Reclamation shall make a good faith effort to contact any non-responsive party by email and/or telephone. If there are no further comments, the revised document shall be considered Final. Should consulting parties have additional comments, consultation shall continue for an additional 90 calendar-days. If consensus cannot be reached within the additional 90 calendar-days, Reclamation shall follow Stipulation XVI of this agreement. The existing monitoring protocols will remain in effect until revised monitoring protocols are finalized.

Reclamation shall provide all consulting parties with a copy of the approved or final monitoring protocols.

D. Experimental Flows

1. Prior to an experimental flow event:
 - a) Reclamation shall consult with the Parties to this Agreement the first time a new type of experimental flow or modification of experimental flow is being considered. This consultation will consider potential effects and approaches to reduce the potential for adverse effect on historic properties. Reclamation shall use the information gained from these consultations to minimize potential adverse effect from future experimental flows.
 - b) For subsequent experiments Reclamation shall notify the Parties to this Agreement as soon as possible, or at a minimum of 30 calendar-days in advance, that an experimental flow is being considered. To the extent possible, notification shall be conducted electronically. If adverse effects are expected, Reclamation will consult with the Parties to this Agreement on the appropriate avoidance, minimization, or mitigation treatments on a site-specific basis. These treatments should follow the general HPTP within the HPP. Reclamation shall, upon request, consult with individual Tribes to resolve any concerns.
2. Reclamation shall, in consultation with the Parties to this Agreement, use best efforts to ensure that the archeological and tribal monitoring programs efficiently and effectively gather the data needed to assess the effects of the experimental flow on historic properties, including but not limited to, cumulative effects on historic properties, tribal perception, traditional uses and access to locations of cultural and religious importance.
3. Following each experimental flow, Reclamation shall, if unanticipated adverse effects to historic properties are discovered, consult with the Parties to this Agreement to determine appropriate mitigation measures and treatment plans as per the general HPTP within the HPP, and to design and implement new protocols to avoid adverse effects from future experimental flows.

VII. NATIONAL REGISTER OF HISTORIC PLACES (NRHP) ELIGIBILITY DETERMINATIONS

- A. If monitoring identifies the need for new determinations of eligibility or if newly discovered sites require determinations of eligibility, Reclamation shall, in consultation with the Parties to this Agreement, make determinations of eligibility, possibly leading toward the formal nomination of historic properties to the National Register of Historic Places. As determinations are made regarding historic properties that are of cultural or religious significance to Tribes, Reclamation will further consult to determine if the Tribes would like to move forward with formal nomination to the NRHP.
- B. The listed reports in Appendix F contain lists of eligible and unevaluated properties within the APE. In conjunction with future LTEMP activities, Reclamation shall determine if additional properties in the APE may be eligible for NRHP listing.
 1. In accordance with 36 CFR § 800.4, qualified Reclamation personnel (as identified in Stipulation II) in consultation with the Parties to this Agreement shall evaluate previously unevaluated properties for eligibility for NRHP listing. The results of any such determinations will be included in the annual report described in Stipulation XI.

2. Reclamation acknowledges that the Tribes possess special expertise in assessing the eligibility of historic properties of religious and cultural significance to them. Reclamation shall consult with Tribes to evaluate this aspect of eligibility and shall consult with SHPO on these determinations of eligibility.

VIII. DISCOVERIES

- A. If previously unidentified historic properties are discovered that are adversely affected or unanticipated effects on historic properties occur during LTEMP/AMP activities, Reclamation shall comply with steps outlined in the Monitoring and Discovery Plan of the HPP. Until the HPP is finalized, the following process will be followed and all consultation shall follow Stipulation I(A)(2)(d):
 1. If the discovery is made by a contractor or non-land manager staff, the on-site project director will immediately contact Reclamation's Regional Archeologist and the appropriate NPS management representative(s) as identified in Appendix I. Reclamation shall immediately notify the appropriate Tribal contacts for discoveries on tribal lands. If the activity is causing adverse impacts to a historic property, the activity shall cease, and Reclamation will initiate consultation in accordance with Stipulation I(A)(2)(d) of this agreement.
 2. If the effects are determined to be caused by the Undertaking, Reclamation shall contact the Parties to this Agreement as soon as possible.
 3. Reclamation shall ensure that the discovery is documented by qualified personnel in accordance with Stipulation II.
 4. Reclamation shall, through consultation with the Parties to this Agreement, make a determination of NRHP eligibility of the discovery, as per Stipulation VII.
 5. Reclamation shall determine, through consultation with Parties to this Agreement, if the discovered property has been adversely affected. If the property has been adversely affected, Reclamation shall consult with the Parties to this Agreement on a proposed mitigation or preservation plan that follows the generic HPTP or the Remedial Action Plan (RAP) in the HPP. Reclamation shall ensure that the HPTP or the RAP is implemented.

IX. DISCOVERIES OF NATIVE AMERICAN HUMAN REMAINS

- A. If Native American human remains or cultural items subject to Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) (Public Law 101-601; 25 U.S.C. 3001-3013) and its implementing regulations, "Native American Graves Protection and Repatriation Regulations" (43 CFR § 10) are inadvertently discovered on federal lands, Reclamation and the land manager will cease non-flow activities within the area of discovery, take steps to secure and maintain preservation of the discovery, and notify the responsible federal official to determine treatment and disposition measures pursuant to NAGPRA. For discoveries within GRCA, the 2007 agreement entitled "Memorandum of Agreement Regarding Collections, Inadvertent Discovery, and Intentional Excavation of Native American Human Remains, Funerary Objects, Sacred Objects, and Objects of Cultural Patrimony at Grand Canyon National Park" (2007 MOA) will be followed. Reclamation will notify SHPO/THPO of the discovery as soon as possible.

- B. If Native American human remains or cultural items subject to NAGPRA are inadvertently discovered on tribal lands, Reclamation shall require all non-flow activities to immediately cease within the area of discovery, take steps to secure and maintain preservation of the discovery, and consult with responsible tribal official to determine treatment and disposition measures pursuant to NAGPRA and/or tribal policy. Reclamation will notify BIA of the discovery as soon as possible. An appropriate NAGPRA plan of action will be developed and implemented as identified in the HPP.
- C. If Native American human remains or cultural items subject to NAGPRA are intentionally excavated and removed from Federal or tribal lands, Reclamation shall ensure treatment and disposition measures pursuant to NAGPRA, 2007 MOA and/or tribal policy (as appropriate) will be followed. An appropriate NAGPRA plan of action will be developed and implemented as identified in the HPP.

X. CURATION

All material remains, samples, and associated records (as defined in “Curation of Federally-Owned and Administered Archeological Collections” (36 CFR § 79.4) resulting from the surveys, monitoring, or treatments to resolve adverse effects associated with the Undertaking shall be curated as follows:

- A. Material remains, samples, and associated records resulting from the surveys, monitoring, or treatments to resolve adverse effects associated with the Undertaking conducted on federal lands shall be curated in accordance with federal curation policies (36 CFR § 79) in an appropriate curation facility identified by the land managing agency.
- B. Material remains, samples, and associated records resulting from the surveys, monitoring, or treatments to resolve adverse effects associated with the Undertaking conducted on tribal lands shall be retained by the appropriate Tribe and curated in accordance with federal curation policies (36 CFR § 79) and tribal policies.
- C. Material remains subject to NAGPRA shall be maintained in accordance with NAGPRA, 36 CFR § 79, and/or the 2007 MOA until they are repatriated to the appropriate Tribe(s).

XI. ANNUAL REVIEW, REPORT AND MEETING

- A. The Parties to this Agreement shall evaluate the implementation and operation of this Agreement on an annual basis. There shall be an annual April meeting among the Parties to this Agreement following the execution of this Agreement, to review the effectiveness and application of this Agreement. Any suggestions received for possible modifications or amendments to this Agreement, shall follow Stipulation XVII. Reclamation is responsible for setting up this meeting in consultation with the Parties to this Agreement.
- B. Within 45 calendar-days prior to the annual meeting, Reclamation shall provide Parties to this Agreement with an annual letter report (Annual Report) to review progress under this Agreement and under the approved HPP. The Annual Report will include an update on project schedule, status, and any ongoing relevant cultural resources monitoring or mitigation activities, discovery situations, proposed future actions, or outstanding tasks to be completed under this Agreement or data recovery plans. Parties to this Agreement will have 30 calendar-days to review the Annual Report and provide comments to Reclamation, who will then use the comments to develop the agenda, in coordination with the Parties, for the annual meeting.

- C. The Annual Report shall address issues and describe actions and accomplishments over the past year, as well as plans for the coming year, as appropriate, including but not limited to:
1. Budget and Research Development;
 2. Additional inventory surveys and results;
 3. Current status of monitoring and mitigation activities, including data recovery, treatment, etc.
 4. Experimental flow or other activities triggering consultation meetings;
 5. Ongoing and completed public education activities;
 6. Any issues that affect or may affect the ability of Reclamation to continue to meet the terms of this Agreement;
 7. Any disputes and objections received and how they were resolved; and
 8. Proposed plans for next year's activities.
 9. List of activities determined to have no potential to cause effects on historic properties based on Stipulation I(A)(3)(a).
 10. List of activities determined to have no historic properties affected based on Stipulation I(A)(3)(b).
 11. List of activities determined to have no adverse effect on historic properties based on Stipulation I(A)(3)(c)
 12. List of activities determined to potentially have an adverse effect on historic properties based on Stipulation I(A)(3)(d).
- D. Within 30 calendar-days after the annual meeting, Reclamation will provide a written summary of the meeting, including any discussion on proposed actions and how they will be addressed. Parties to this Agreement will have 30 calendar-days to review and comment on the meeting notes.

XII. CONFIDENTIALITY

- A. Consistent with 54 U.S.C. § 307103 (formerly Section 304 of the NHPA) and 36 CFR § 800.11(c), and in consultation with the Hualapai, Navajo, NPS and the ACHP, Reclamation and the SHPO shall withhold from disclosure to the public information about the location, character, or ownership of a historic property if it is determined that disclosure may (1) cause a significant invasion of privacy, (2) risk harm to a historic property, or (3) impede the use of a traditional religious site by practitioners.
- B. Tribal Monitoring Reports and Tribal Ethnographic Studies submitted to Reclamation will be treated with confidentiality as described in Stipulation XII(A).

XIII. ANTI-DEFICIENCY ACT

Reclamation's obligations under this Agreement are subject to the availability of appropriated funds and the stipulations of this Agreement are subject to the provisions of the Anti-Deficiency Act. Reclamation shall make reasonable and good faith efforts to secure the necessary funds to

implement this Agreement in its entirety. If compliance with the Anti-Deficiency Act alters or impairs Reclamation's ability to implement the stipulations of this Agreement, Reclamation shall consult with the SHPO and ACHP in accordance with the amendment and termination procedures in Stipulations XVII and XVIII of this Agreement.

XIV. ADDITION OF ANOTHER FEDERAL AGENCY

In the event that another federal agency not initially a party to or subject to this Agreement receives an application for funding/license/permit for activities associated with the Undertaking as described in this Agreement, that agency may fulfill its Section 106 responsibilities by stating in a written letter to Reclamation that it concurs and will comply with the terms of this Agreement and notifying Reclamation and other Parties to this Agreement that it intends to do so. Such agreement shall be evidenced by filing the letter with the ACHP, and implementation of the terms of this Agreement.

XV. DURATION AND SUNSET CLAUSE

- A. Unless terminated under Stipulation XVIII of this Agreement, the term of this Agreement shall be the same as the term of the LTEMP.
- B. At least one year prior to the end of the LTEMP, the Parties to this Agreement shall consult to determine whether this Agreement remains satisfactory to continue Reclamation's Section 106 responsibilities for operation of the Glen Canyon Dam. If there is agreement, Reclamation will consult with all parties and revise and update this Agreement through the Amendment process described in Section XVII. At the appropriate time, if a new agreement is necessary for LTEMP, it will be executed prior to the termination of this Agreement.
- C. If an extension of this Agreement's duration for this Undertaking is warranted resulting from an extension of LTEMP, Parties to this Agreement will agree to the time period in writing through the amendment process until such time as this Agreement may be revised and updated.

XVI. DISPUTE RESOLUTION

Should any Party to this Agreement object, in writing to Reclamation, at any time to any actions proposed or the manner in which the terms of this Agreement are implemented, Reclamation shall notify the Parties to this Agreement of the objection and consult with the objecting party to resolve the objection. If Reclamation determines that such objection cannot be resolved, Reclamation shall:

- A. Forward all documentation relevant to the dispute, including Reclamation's proposed resolution, to the ACHP. The ACHP shall provide Reclamation with its advice on the resolution of the objection within 30 calendar-days of receiving adequate documentation. Prior to reaching a final decision on the dispute, Reclamation shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP and other Parties to this Agreement, and provide them with a copy of this written response. Reclamation will then proceed according to its final decision.

- B. If the ACHP does not provide its advice regarding the dispute within the 30 calendar-day period, Reclamation may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, Reclamation shall prepare a written response that takes into account any timely comments regarding the dispute from the Parties to this Agreement, and provide them and the ACHP with a copy of such written response.
- C. Reclamation's responsibilities to carry out all other actions subject to the terms of this Agreement that are not the subject of the dispute remain unchanged.

XVII. AMENDMENTS

Any Party to this Agreement may propose an amendment in writing to Reclamation. Reclamation shall consult with all Parties to this Agreement whenever an amendment is proposed by a Party to this Agreement. This Agreement may be amended when such an amendment is agreed to by all Parties to this Agreement. The amendment will be effective on the date a copy signed by all of the Parties to this Agreement is filed with the ACHP. A copy of the amendment will be provided to all Parties to this Agreement.

XVIII. TERMINATION

- A. If any Party to this Agreement determines that the Agreement should be terminated or that its participation in this Agreement should be terminated, the party shall provide other Parties to this Agreement with a written notification for a 30 calendar-day review explaining the reasons for proposing termination. The terminating party should consult with the other parties to seek an amendment to this Agreement.
- B. Should such consultation result in an amendment to this Agreement, Reclamation, in consultation with the Parties to this Agreement, shall amend this Agreement in accordance with Stipulation XVII and the Parties to this Agreement shall carry out the provisions as amended.
- C. If an amendment is not agreed upon, each Party to this Agreement may terminate this Agreement, or its participation in this Agreement per 36 CFR § 800.6(c)(8).
- D. If this Agreement is terminated, Reclamation shall comply with the Section 106 process, in accordance with 36 CFR § 800, subpart B, for the Undertaking that would otherwise be subject to this Agreement.

XIX. EXECUTION

Execution of this Agreement by Reclamation, ACHP, SHPO, Hualapai THPO, and the Navajo Nation THPO and implementation of its terms, is evidence, in accordance with the ACHP regulations, that Reclamation has taken into account the effects of this Undertaking on historic properties and afforded the ACHP an opportunity to comment.

SIGNATURE PAGE

PARTY TO THIS AGREEMENT

PROGRAMMATIC AGREEMENT
AMONG

U.S. DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION AND NATIONAL PARK
SERVICE; WESTERN AREA POWER ADMINISTRATION; THE ADVISORY COUNCIL ON
HISTORIC PRESERVATION; THE HUALAPAI TRIBAL HISTORIC PRESERVATION OFFICER;
THE NAVAJO NATION TRIBAL HISTORIC PRESERVATION OFFICER; THE HOPI TRIBE; THE
KAIBAB BAND OF PAIUTE INDIANS; THE PAIUTE INDIAN TRIBE OF UTAH; AND THE
PUEBLO OF ZUNI;

AND

THE ARIZONA STATE HISTORIC PRESERVATION OFFICER
REGARDING THE
GLEN CANYON DAM OPERATIONS AND NON-FLOW ACTIONS
IDENTIFIED IN THE LONG TERM EXPERIMENTAL AND MANAGEMENT
PLAN ENVIRONMENTAL IMPACT STATEMENT AND
RECORD OF DECISION

BUREAU OF RECLAMATION

By: _____ Date: _____
Brent Rhees, Director, Upper Colorado Region

SIGNATURE PAGE

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AMONG

U.S. DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION AND NATIONAL PARK
SERVICE; WESTERN AREA POWER ADMINISTRATION; THE ADVISORY COUNCIL ON
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NATIONAL PARK SERVICE

By: _____ Date: _____
Sue Masica, Director, Intermountain Region

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ADVISORY COUNCIL ON HISTORIC PRESERVATION

By: _____ Date: _____
John M. Fowler, Executive Director

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ARIZONA STATE HISTORIC PRESERVATION OFFICE

By: _____ Date: _____
Kathryn Leonard, State Historic Preservation Officer

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HUALAPAI INDIAN TRIBE OF THE HUALAPAI INDIAN RESERVATION

By: _____ Date: _____
Damon Clarke, Chairman

SIGNATURE PAGE

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AND

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HUALAPAI INDIAN TRIBE OF THE HUALAPAI INDIAN RESERVATION

By: _____ Date: _____
Dawn Hubbs, Hualapai Tribal Historic Preservation Officer

SIGNATURE PAGE

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NAVAJO NATION

By: _____ Date: _____
Russell Begaye, President

SIGNATURE PAGE

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AND

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NAVAJO NATION

By: _____ Date: _____
Richard M. Begay, Navajo Nation Historic Preservation Officer

SIGNATURE PAGE

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HOPI TRIBE

By: _____ Date: _____
Herman G. Honanie, Chairman

SIGNATURE PAGE

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KAIBAB BAND OF PAIUTE INDIANS

By: _____ Date: _____
Roland Maldonado, Chairman

SIGNATURE PAGE

PARTY TO THIS AGREEMENT

PROGRAMMATIC AGREEMENT

AMONG

U.S. DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION AND NATIONAL PARK SERVICE; WESTERN AREA POWER ADMINISTRATION; THE ADVISORY COUNCIL ON HISTORIC PRESERVATION; THE HUALAPAI TRIBAL HISTORIC PRESERVATION OFFICER; THE NAVAJO NATION TRIBAL HISTORIC PRESERVATION OFFICER; THE HOPI TRIBE; THE KAIBAB BAND OF PAIUTE INDIANS; THE PAIUTE INDIAN TRIBE OF UTAH; AND THE PUEBLO OF ZUNI;

AND

THE ARIZONA STATE HISTORIC PRESERVATION OFFICER
REGARDING THE
GLEN CANYON DAM OPERATIONS AND NON-FLOW ACTIONS
IDENTIFIED IN THE LONG TERM EXPERIMENTAL AND MANAGEMENT
PLAN ENVIRONMENTAL IMPACT STATEMENT AND
RECORD OF DECISION

PAIUTE INDIAN TRIBE OF UTAH

By: _____ Date: _____
Corrina Bow, Chairwoman

SIGNATURE PAGE

PARTY TO THIS AGREEMENT

PROGRAMMATIC AGREEMENT

AMONG

U.S. DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION AND NATIONAL PARK SERVICE; WESTERN AREA POWER ADMINISTRATION; THE ADVISORY COUNCIL ON HISTORIC PRESERVATION; THE HUALAPAI TRIBAL HISTORIC PRESERVATION OFFICER; THE NAVAJO NATION TRIBAL HISTORIC PRESERVATION OFFICER; THE HOPI TRIBE; THE KAIBAB BAND OF PAIUTE INDIANS; THE PAIUTE INDIAN TRIBE OF UTAH; AND THE PUEBLO OF ZUNI;

AND

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GLEN CANYON DAM OPERATIONS AND NON-FLOW ACTIONS
IDENTIFIED IN THE LONG TERM EXPERIMENTAL AND MANAGEMENT
PLAN ENVIRONMENTAL IMPACT STATEMENT AND
RECORD OF DECISION

PUEBLO OF ZUNI

By: _____ Date: _____
Val R. Panteah, Sr., Governor

SIGNATURE PAGE

PARTY TO THIS AGREEMENT

PROGRAMMATIC AGREEMENT
AMONG

U.S. DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION AND NATIONAL PARK
SERVICE; WESTERN AREA POWER ADMINISTRATION; THE ADVISORY COUNCIL ON
HISTORIC PRESERVATION; THE HUALAPAI TRIBAL HISTORIC PRESERVATION OFFICER;
THE NAVAJO NATION TRIBAL HISTORIC PRESERVATION OFFICER; THE HOPI TRIBE; THE
KAIBAB BAND OF PAIUTE INDIANS; THE PAIUTE INDIAN TRIBE OF UTAH; AND THE
PUEBLO OF ZUNI;

AND

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RECORD OF DECISION

WESTERN AREA POWER ADMINISTRATION

By: _____ Date: _____
Lynn C. Jeka, Senior Vice President and CRSP Manager

SIGNATURE PAGE

CONCURRING PARTY

PROGRAMMATIC AGREEMENT

AMONG

U.S. DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION AND NATIONAL PARK
SERVICE; WESTERN AREA POWER ADMINISTRATION; THE ADVISORY COUNCIL ON
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AND

THE ARIZONA STATE HISTORIC PRESERVATION OFFICER
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IDENTIFIED IN THE LONG TERM EXPERIMENTAL AND MANAGEMENT
PLAN ENVIRONMENTAL IMPACT STATEMENT AND
RECORD OF DECISION

COLORADO RIVER ENERGY DISTRIBUTORS ASSOCIATION

By: _____ Date: _____
Leslie James, Executive Director

SIGNATURE PAGE

CONCURRING PARTY

PROGRAMMATIC AGREEMENT

AMONG

U.S. DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION AND NATIONAL PARK SERVICE; WESTERN AREA POWER ADMINISTRATION; THE ADVISORY COUNCIL ON HISTORIC PRESERVATION; THE HUALAPAI TRIBAL HISTORIC PRESERVATION OFFICER; THE NAVAJO NATION TRIBAL HISTORIC PRESERVATION OFFICER; THE HOPI TRIBE; THE KAIBAB BAND OF PAIUTE INDIANS; THE PAIUTE INDIAN TRIBE OF UTAH; AND THE PUEBLO OF ZUNI;

AND

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GLEN CANYON DAM OPERATIONS AND NON-FLOW ACTIONS
IDENTIFIED IN THE LONG TERM EXPERIMENTAL AND MANAGEMENT
PLAN ENVIRONMENTAL IMPACT STATEMENT AND
RECORD OF DECISION

BUREAU OF INDIAN AFFAIRS, WESTERN REGIONAL OFFICE,

By: _____ Date: _____
Bryan Bowker, Regional Director

SIGNATURE PAGE

CONCURRING PARTY

PROGRAMMATIC AGREEMENT

AMONG

U.S. DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION AND NATIONAL PARK
SERVICE; WESTERN AREA POWER ADMINISTRATION; THE ADVISORY COUNCIL ON
HISTORIC PRESERVATION; THE HUALAPAI TRIBAL HISTORIC PRESERVATION OFFICER;
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KAIBAB BAND OF PAIUTE INDIANS; THE PAIUTE INDIAN TRIBE OF UTAH; AND THE
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AND

THE ARIZONA STATE HISTORIC PRESERVATION OFFICER
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GLEN CANYON DAM OPERATIONS AND NON-FLOW ACTIONS
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PLAN ENVIRONMENTAL IMPACT STATEMENT AND
RECORD OF DECISION

NATIONAL PARKS CONSERVATION ASSOCIATION

By: _____ Date: _____
David Nimkin, Southwest Senior Regional Director

SIGNATURE PAGE

CONCURRING PARTY

PROGRAMMATIC AGREEMENT

AMONG

U.S. DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION AND NATIONAL PARK SERVICE; WESTERN AREA POWER ADMINISTRATION; THE ADVISORY COUNCIL ON HISTORIC PRESERVATION; THE HUALAPAI TRIBAL HISTORIC PRESERVATION OFFICER; THE NAVAJO NATION TRIBAL HISTORIC PRESERVATION OFFICER; THE HOPI TRIBE; THE KAIBAB BAND OF PAIUTE INDIANS; THE PAIUTE INDIAN TRIBE OF UTAH; AND THE PUEBLO OF ZUNI;

AND

THE ARIZONA STATE HISTORIC PRESERVATION OFFICER
REGARDING THE
GLEN CANYON DAM OPERATIONS AND NON-FLOW ACTIONS
IDENTIFIED IN THE LONG TERM EXPERIMENTAL AND MANAGEMENT
PLAN ENVIRONMENTAL IMPACT STATEMENT AND
RECORD OF DECISION

GRAND CANYON RIVER GUIDES, INC.

By: _____ Date: _____
Lynn Hamilton, Executive Director

SIGNATURE PAGE

CONCURRING PARTY

PROGRAMMATIC AGREEMENT

AMONG

U.S. DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION AND NATIONAL PARK SERVICE; WESTERN AREA POWER ADMINISTRATION; THE ADVISORY COUNCIL ON HISTORIC PRESERVATION; THE HUALAPAI TRIBAL HISTORIC PRESERVATION OFFICER; THE NAVAJO NATION TRIBAL HISTORIC PRESERVATION OFFICER; THE HOPI TRIBE; THE KAIBAB BAND OF PAIUTE INDIANS; THE PAIUTE INDIAN TRIBE OF UTAH; AND THE PUEBLO OF ZUNI;

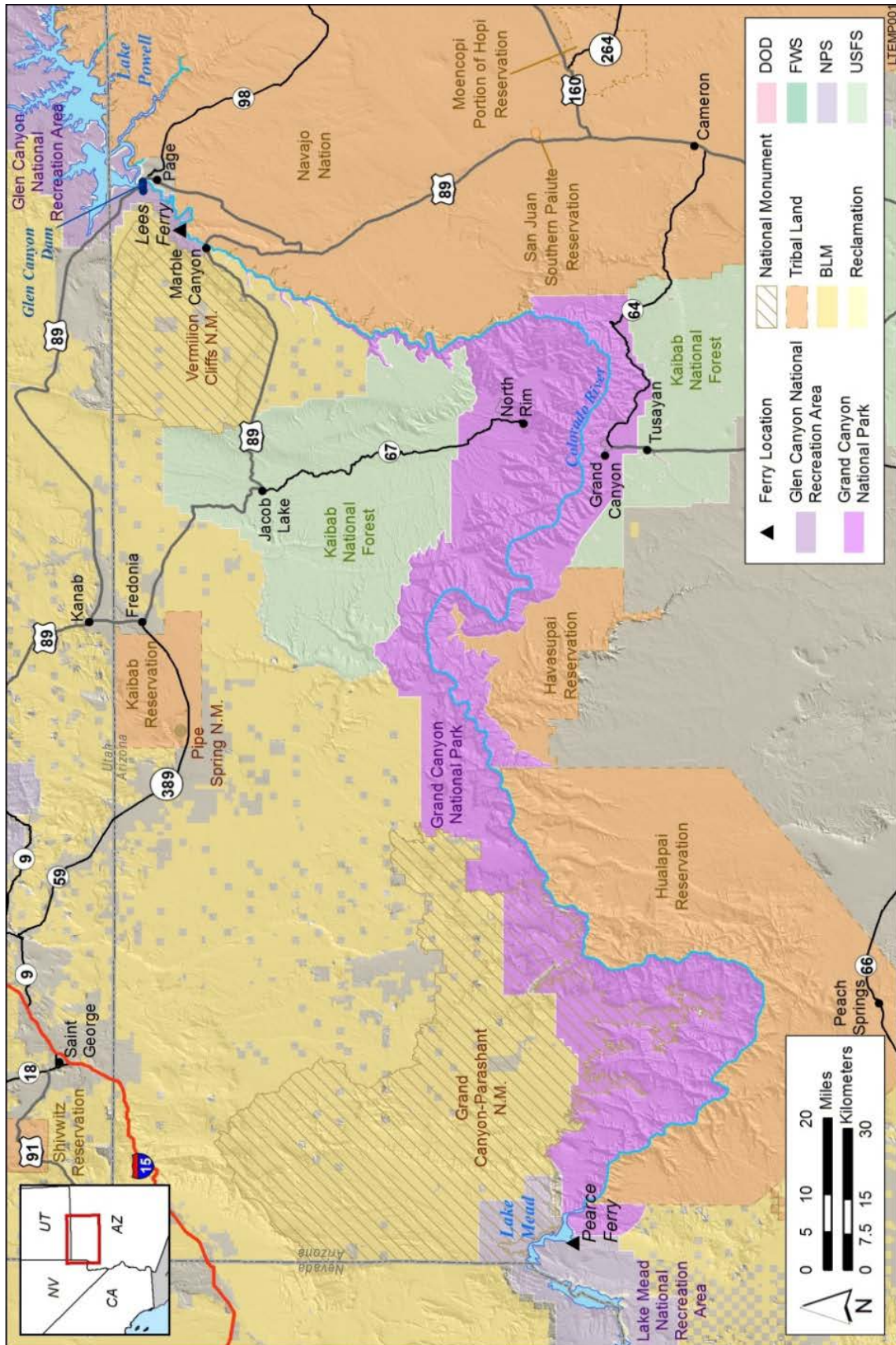
AND

THE ARIZONA STATE HISTORIC PRESERVATION OFFICER
REGARDING THE
GLEN CANYON DAM OPERATIONS AND NON-FLOW ACTIONS
IDENTIFIED IN THE LONG TERM EXPERIMENTAL AND MANAGEMENT
PLAN ENVIRONMENTAL IMPACT STATEMENT AND
RECORD OF DECISION

GRAND CANYON WILDLANDS COUNCIL, INC.

By: _____ Date: _____
Larry Stevens, Senior Ecologist

APPENDIX A:



Appendix A: Map of the Colorado River between Lake Powell and Lake Mead (This map is for illustrative purposes only and does not denote the Area of Potential Effect)
(Taken from Figure 1-1 from the LTEMP FEIS)

APPENDIX B:

DEFINITIONS

Glen Canyon Dam Adaptive Management Program (AMP)

“The [GC]AMP was established under the authority of the 1992 GCPA [Grand Canyon Protection Act] and initiated with the 1996 ROD [Record of Decision]. The purpose of the [GC]AMP is to provide an organization and process for cooperative integration of dam operations, downstream resource protection and management, and monitoring and research information for the purposes of protecting and improving the values for which the GCNRA [Glen Canyon National Recreation Area] and GCNP [Grand Canyon National Park] were established.” (LTEMP ROD 6.1(a))

Historic Property is defined as: “any prehistoric or historic district, site, building, structure, or object included on, or eligible for inclusion on, the National Register, including artifacts, records, and material remains related to the district, site, building, structure, or object (54 U.S.C. § 300308). The phrase “eligible for inclusion on the National Register” means properties formally determined as such by the Secretary or by Reclamation in consultation with the appropriate State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO). Properties that have been determined eligible for inclusion are accorded the same protections as properties listed on the National Register (Reclamation Manual Directives and Standards LND 02-01. Appendix B). Under Section 106 of the National Historic Preservation Act (NHPA) and Section 106 implementing regulations, properties determined eligible for inclusion are treated the same as those listed on the National Register.

APPENDIX C:

LIST OF STIPULATIONS IDENTIFIED IN THE 1994 PA

1. IDENTIFICATION AND EVALUATION

a. The NPS has identified a total of 313 contributing properties, referred to as the Grand Canyon River Corridor District (District), within the APE. Nine additional properties within the boundaries of the District remain unevaluated. The NPS shall assist Reclamation in obtaining the necessary information to complete the evaluation of these nine sites for determining their eligibility for listing on the National Register as contributing properties to the District or as eligible on their own merits. Reclamation shall submit such evaluations to the SHPO for determinations of eligibility. In the event that Reclamation and SHPO do not agree on the eligibility of any property, or if the Council or Keeper so request, Reclamation shall obtain a formal determination of eligibility from the Keeper in accordance with 36 CFR § 800.4(c). Determinations of eligibility for the remaining nine properties shall be completed by August 1993.

Completed. Fairley et al. 1994, SHPO consultation letter dated November 27, 1991 and Leap 1994, SHPO consultation letter signed October 18, 1994.

b. Reclamation and the NPS, in consultation with SHPO, shall identify and evaluate historic properties in the remaining 37 miles of the APE not previously intensively inventoried (Attachment A). Properties identified within the 37 mile corridor shall be evaluated on their own merits and as contributing elements to the District pursuant to 36 CFR § 800.4(c). An intensive inventory of the entire APE shall be completed by August 1993. Ongoing identification and evaluation efforts shall be a part of the management program identified at Stipulations 2 and 3.

Completed. Jackson 1997.

c. In consultation with the Tribes and SHPO, Reclamation and the NPS shall identify and evaluate properties within the APE which retain traditional cultural values. Such properties shall be evaluated under criteria A, B, C, and D of the National Register Criteria pursuant to 36 CFR Part 60, and taking into consideration "National Register Bulletin 38, Guidelines for Evaluating and Documenting Traditional Cultural Properties".

Partially completed. Reclamation received nomination forms from Hopi and Zuni. No other forms received despite agreements and funding. Reclamation (w/NPS concurrence), completed a Determination of Eligibility for the Colorado River as part of the EA's for Non-Native Fish Control and High Flow Experimental Protocol in 2011. Zuni and Hopi have completed Determinations of Eligibility as part of the 2011 EA process. SHPO concurred on the Traditional Cultural Property determination of eligibility for the Colorado River on July 28, 2011. This Stipulation will continue under this Agreement.

(1) Traditional Cultural Properties shall be identified by Reclamation and the NPS through the conduct of ethnographic studies. Ethnographic studies shall solicit and include the participation of and consultation with the Tribes to collaborate in the identification and evaluation of traditional cultural properties.

Partially completed. Two (2) TCP documents have been produced (Hopi and Zuni). This Stipulation will continue under this Agreement.

(2) Reclamation shall submit such evaluations to the SHPO for determinations of eligibility.

In the event that Reclamation and SHPO do not agree on the eligibility of any property, or if the Council or Keeper so request, Reclamation shall obtain a formal determination of eligibility from the Keeper of the National Register in accordance with 36 CFR S 800.(c). Such study and evaluations shall be completed by October 1994.

Completed for archeological sites. Determination of eligibility of archeological sites; evaluations were submitted to the SHPO as part of the original work in 1992-1994.

Not Completed. Two TCP documents were completed, but not submitted to SHPO. This Stipulation will continue under this Agreement.

2. MONITORING AND REMEDIAL ACTION PLAN

a. Within three months of the execution of this PA Reclamation and the NPS, in consultation with the SHPO and Tribes, shall develop a Plan for monitoring the effects of the Glen Canyon Dam operations on historic properties within the APE and for carrying out remedial actions to address the effects of ongoing damage to historic properties. The purpose of the Monitoring and Remedial Action Plan shall be to generate data regarding the effects of Dam operations on historic properties, identify ongoing impacts to historic properties within the APE, and develop and implement remedial measures for treating historic properties subject to damage. Such data shall be incorporated into Reclamation's Long-term Operating and Monitoring Plans governing dam releases identified in the EIS. The EIS is scheduled for completion in October 1994.

Completed and implemented through 2005. Completed and revised based upon Protocol-Evaluation-Panel review. A new monitoring program will be developed.

b. The Monitoring and Remedial Action Plan (Plan) shall provide for the identification and evaluation of previously unrecorded properties overlooked by previous surveys or exposed subsequent to the surveys, and include measures by which any adverse effects identified during the monitoring effort shall be avoided or minimized. Remedial measures shall be implemented to mitigate ongoing adverse effects and may include, but not be limited to, bank stabilization, check dam construction and data recovery, as appropriate. The Plan shall specify an expedited consultation process among the parties to this PA to accommodate situations requiring remedial actions.

Completed but not implemented; needs to be updated. This Stipulation will continue under this Agreement.

c. Reclamation shall submit a draft of the Plan to the parties in this PA for review and comment. Each party shall have 60 days from receipt of the Plan to comment. Reclamation may assume the concurrence of any party which does not issue comments within 60 days of their receipt of the Plan.

Completed and reviewed; needs to be updated. This Stipulation will continue under this Agreement.

(1) Reclamation shall take into consideration all comments received in their development of a final draft Plan, and submit the final draft Plan to the reviewing parties for a second review opportunity. Each reviewing party shall have 20 days from receipt to review the final draft Plan and issue comments to Reclamation.

(2) If any reviewing party objects to the adequacy of the final draft Plan, Reclamation shall consult with the objecting party, and the other parties to this PA as necessary to resolve the objection pursuant to Stipulation (4).

(3) When all objections are resolved, Reclamation shall implement the Monitoring and Remedial Action Plan.

Completed. Plan completed and Implemented annually through 2005; Implementation was suspended in 2005. This Stipulation will continue under this Agreement.

3. MANAGEMENT

a. Reclamation and the NPS shall incorporate the results of the identification, evaluation, and monitoring and remedial action efforts into an HPP for the long-term management of the District and any other historic properties within the APE. The HPP shall be developed in consultation with the parties to this PA. The HPP shall integrate Reclamation's lead agency role pursuant to Section 106 of the Act and the NPS's stewardship role pursuant to Section 110 of the Act. Specifically, the HPP shall provide management direction responsive to the-NPS's responsibilities under Section 110(a)(1) and 110 (a)(2); and NPS's and Reclamation's responsibilities under Sections 106 and 110(d).

Draft completed but not finalized. Draft HPP dated June 1997; never finalized. This Stipulation will continue under this Agreement.

b. The HPP shall establish consultation and coordination procedures, long term monitoring and mitigation strategies, management mechanisms and goals for long term, management of historic properties within the APE.

Draft Completed but not finalized. This Stipulation will continue under this Agreement.

c. Reclamation and the NPS shall submit a draft of the HPP to the parties to this PA for 60 days review. The parties to this PA shall have 60 days from receipt to issue comments to Reclamation and the NPS regarding the adequacy of the HPP. Reclamation and the NPS may assume the concurrence of any party which does not issue comments within 60 days of receipt of the HPP.

Draft Completed but not finalized. This Stipulation will continue under this Agreement.

(1) Reclamation and the NPS shall take into consideration all comments received in their development of a final draft HPP, and submit the final draft HPP to the reviewing parties for a second review opportunity. Each reviewing party shall have 30 days from receipt to review the final draft HPP and issue comments to Reclamation and the NPS.

Draft Completed, but not finalized. This Stipulation will continue under this Agreement.

(2) If any reviewing party objects to the adequacy of the final draft HPP, Reclamation and the NPS shall consult with the objecting party, and the other parties to this PA as necessary to resolve the objection pursuant to Stipulation 4. When all objections have been resolved, Reclamation and the NPS shall implement the HPP.

d. The development, and review of the HPP shall be completed prior to the issuance of a Record of Decision for the GCD-EIS, or December 1994, whichever comes first. Upon issuance of a Record of Decision, the HPP shall be reviewed by the parties to this PA and revised, if necessary, based on the decision. The review of a revised HPP shall be conducted in accordance with the procedures of

Stipulation 3.C.1. and 2.

Not Completed. Prior to the drafting of the HPP, work was initiated by the Navajo Nation Archeology Department, Zuni Cultural Recourses Enterprise, Utah State University, NPS, and others to address mitigation of some aspects of potential adverse effects at archeological sites. This Stipulation will continue under this Agreement.

APPENDIX D:

LIST OF STIPULATIONS IDENTIFIED IN THE 2012 HIGH FLOW EXPERIMENT (HFE) MOA

Stipulations

In consultation and collaboration with all parties to this MOA, Reclamation shall ensure the following stipulations are carried out:

- I. Immediate Actions: Within 120 days after execution of this MOA, Reclamation will, in consultation with the parties to this MOA, determine whether, prior to the first HFE, any actions are necessary to protect against direct adverse effects of HFE-induced changes on the historic properties determined to lie within the APE, as detailed in Appendix A. These sites were identified by NPS as being potentially affected by Glen Canyon Dam releases of 45,000 cfs, although prior high flow release tests resulted in no effects to most of these sites.

Completed. Balsom and Larralde 1996.

II. Consultation:

- a. Reclamation will consult with the Tribes and other consulting parties each time an HFE is planned, in order to have minimum potential for adverse effects on tribal access to and uses of the Colorado River, including spiritual, subsistence, and traditional economic uses. Reclamation will use the information provided from these consultations to improve monitoring and efforts to minimize adverse effects for the HFE.

To be continued. This Stipulation will continue under this Agreement.

- b. Reclamation will notify all the consulting parties of planned HFEs as soon as possible or at a minimum of 30 days in advance of each HFE, and consult with Tribes to resolve any conflicts with tribal access to or uses of the Colorado River.

To be continued. This Stipulation will continue under this Agreement.

- c. In coordination with all the consulting parties, after each HFE event, Reclamation will conduct a reporting meeting describing the effects of the HFE, use the results of this meeting to inform monitoring for future HFEs, and to design and implement any measures necessary to prevent or control adverse effects of future HFEs.

To be continued. This Stipulation will continue under this Agreement.

- d. In consultation with all parties to this MOA, Reclamation will analyze the results of monitoring over the ten-year life of the HFEP and produce a report on the cumulative effects of the HFEs on the historic properties of the Colorado River, including the Colorado River, within two years.

To be continued. This Stipulation will continue under this Agreement.

- e. In consultation with the other parties to this MOA, Reclamation will use the report provided for above in designing any future HFEP.

To be continued. This Stipulation will continue under this Agreement.

III. Monitoring to Identify Effects:

- a. Over the life of the HFEP, Reclamation will seek and facilitate coordination among the NPS, GCMRC, Tribal, and any other monitoring programs as necessary in order to determine effects from the HFEP.

To be continued. This Stipulation will continue under this Agreement.

- b. Over the life of the HFEP, Reclamation, in consultation with the other parties to this MOA, will use its best efforts to ensure that the monitoring programs efficiently and effectively gather the data needed by the Tribes to assess the effects of HFEs, on the Colorado River and Canyons as perceived by the Tribes, on traditional Tribal uses of the Colorado River, and on Tribal access to locations of cultural and religious importance to them.

To be continued. This Stipulation will continue under this Agreement.

IV. Site-Specific Impact Avoidance or Mitigation: The proposed Undertaking is designed to avoid adverse effects to any resources. Cultural resource reviews would be conducted by Reclamation, in consultation with NPS, GCMRC, and Tribes, as part of the planning and approval process for each HFE. If there is concern over potential effects, including but not limited to access to sacred sites, Reclamation will consult further with all parties, including face to face meetings with interested Tribes, before conducting the HFE. If, over the life of the HFEP, Reclamation, in consultation with all parties of this MOA, determines that there is newly identified potential for adverse effect as a result of the Undertaking, then Reclamation will carry out the following measures to avoid or mitigate the possible effects of HFE-induced changes on specific identified and not-yet identified historic properties:

To be continued. This Stipulation will continue under this Agreement.

- a. Should any party to this MOA notify Reclamation of a historic property that such party believes may be adversely affected by a forthcoming HFE, Reclamation, in consultation with such party and any land managers responsible for such historic property, will work with such party and other parties to this MOA who express interest to establish and implement measures to protect the historic property against adverse effect, including consideration in the decision to design and implement the HFE, and in development and implementation of a treatment plan. Such treatment measures may include, but are not limited to, soil and stream bank stabilization, vegetation work, and placement of protective coverings, and ethnographic/ethnohistorical/ethnobotanical research and interpretation. Reclamation will fund or conduct archeological excavations of adversely affected historic properties only if other measures are inadequate to protect the properties and with the concurrence of the land manager where the affected historic properties are located. In all cases, Reclamation will consult with the Tribes, NPS, and SHPO before funding, developing treatment measures, or conducting excavations.

To be continued. This Stipulation will continue under this Agreement.

- b. Should monitoring reveal that a specific previously identified or unidentified historic property, including but not limited to the associative values of a Tribe with such property, has been or is in imminent danger of being adversely affected by erosion or other landscape changes resulting from HFEs, Reclamation will consult with the parties to this MOA to determine what remedial measures, if any, should be undertaken. Such measures may include, but are not limited to those listed in Stipulation VI.a above.

To be continued. This Stipulation will continue under this Agreement.

APPENDIX E:

PREVIOUS SECTION 106 COMPLIANCE DOCUMENTS

- 1994 “Programmatic Agreement Among the Bureau of Reclamation, the Advisory Council on Historic Preservation, the National Park Service, the Arizona State Historic Preservation Officer, Havasupai Tribe, Hopi Tribe, Hualapai Tribe, Kaibab Paiute Tribe, Navajo Nation, San Juan Southern Paiute Tribe, Shivwits Paiute Tribe and Zuni Pueblo Regarding Operations of the Glen Canyon Dam”,
- 1998 “Beach Habitat Building Flows, Glen Canyon Dam Operations”,
- 2002 “Proposed Experimental Flows from Glen Canyon Dam and Section 106 Compliance”,
- 2008 “Consultation under Section 106 of the National Historic Preservation Act (NHPA), as amended, regarding a proposed high flow from Glen Canyon Dam”,
- 2008 “Memorandum of Agreement for Fiscal Year 2008 Grand Canyon Data Recovery Project”,
- 2009 “Memorandum of Agreement Among the U.S. Bureau of Reclamation, the National Park Service, the Arizona State Historic Preservation Officer, the Hualapai Tribe, the Hualapai Tribal Historic Preservation Officer and the Advisory Council on Historic Preservation Regarding the Mitigation of Adverse Effects on Five Historic Properties Downstream from Glen Canyon Dam”,
- 2011 “Determination of Eligibility and Effect on Historic Properties Regarding Proposed Adoption of a High Flow Protocol for Glen Canyon Dam, Coconino and Mohave Counties, AZ”,
- 2012 “Memorandum of Agreement: Glen Canyon High Flow Experimental Protocol”,
- 2012 “Memorandum of Agreement Non-Native Fish Control in the Colorado River below Glen Canyon Dam”,
- 2012 “Agreement between the Bureau of Reclamation and the Navajo Nation to Avoid Adverse Impacts – Non-Native Fish Control in the Colorado River below Glen Canyon Dam”

APPENDIX F:

LIST OF REFERENCES FROM CULTURAL RESOURCES RESEARCH COMPLETED SINCE 1994 IN GLEN AND GRAND CANYONS

(Does not include conference presentations)

Anderson, Kirk C.

- 2006 Geoarcheological Investigations of 53 Sites between Glen Canyon Dam and Paria Riffle.

Anderson, Kirk C. and T. Neff

- 2011 The Influence of Paleofloods on Archeological Settlement Patterns During A.D. 1050–1170 along the Colorado River in the Grand Canyon, Arizona: *Catena*, v. 85, p. 168–186.

Andrews, Nancy B., Tim W. Burchett, Duane C. Hubbard, and Lisa M. Leap

- 1996 “Cultural Resources Mitigation in Response to the Experimental Habitat Building Flow of 1996 in Glen and Grand Canyons.” In *Mitigation and Monitoring of Cultural Resources in Response to the Experimental Habitat Building Flow in Glen and Grand Canyons, Spring 1996*, edited by Janet R. Balsom and Signa L. Larralde, pp. 93-122. Grand Canyon National Park, Arizona, and USDI Bureau of Reclamation, Upper Colorado Region, Salt Lake City, UT.

Anyon, Roger and E. Richard Hart

- 1994 Ethnohistorical Evaluation of the Zuni Pueblo's Use of the Grand Canyon, Arizona. Pueblo of Zuni, New Mexico.

Austin, Diane E., and Cynthia Osife.

- 1996 “Southern Paiute Consortium Study of the Impacts of the 1996 Glen Canyon Dam Beach/Habitat Building Test Flow.” In *Mitigation and Monitoring of Cultural Resources in Response to the Experimental Habitat Building Flow in Glen and Grand Canyons, Spring 1996*, edited by Janet R. Balsom and Signa L. Larralde, pp. 159-179. Grand Canyon National Park, Arizona, and USDI Bureau of Reclamation, Upper Colorado Region, Salt Lake City, UT.

Austin, Diane E. and Cynthia Osife

- 1996 Southern Paiute Consortium Post-Flood Downriver Monitoring Research Trip for the 1996 Glen Canyon Dam Controlled Flood Trip Report.

Austin, Diane E., B.K, Fulfroost, C. Osife, T. Drye and G. Rodgers

- 1996 1996 Southern Paiute Consortium Colorado River Corridor Monitoring and Education Program, Summary Report. Southern Paiute Consortium, Pipe Springs, Arizona, and Bureau of Applied Research in Anthropology, University of Arizona. Tucson.

Balsom, Janet R.

- 1997 Cultural Resources and the Experimental Habitat Building Flow in Glen and Grand Canyons, Spring 1996: A Synthesis.

Balsom, Janet R.

- 1997 Cultural Resources and the Glen Canyon Dam-Colorado River Experimental Flow of 1996. Report Series p 183-193.

Balsom, Janet R.

- 1999 Staying Upright: Reflections on the Section 106 Process and the Glen Canyon Dam Cultural Program. CRM: Cultural Resource Management 22(3).

Balsom, Janet R.

- 2000 Cultural Resources and the Experimental Habitat Building Flow in Glen and Grand Canyons, Spring 1996: A Synthesis. Ecological Applications.

Balsom, Janet R., and Signa L. Larralde, eds.

- 1996 *Mitigation and Monitoring of Cultural Resources in Response to the Experimental Habitat Building Flow in Glen and Grand Canyons, Spring 1996*. Grand Canyon National Park, AZ and Upper Colorado Region, Bureau of Reclamation, Salt Lake City.

Balsom, Janet R., and Signa L. Larralde

- 1996 "Introduction and Summary of Cultural Resource Studies." In *Mitigation and Monitoring of Cultural Resources in Response to the Experimental Habitat Building Flow in Glen and Grand Canyons, Spring 1996*, edited by Janet R. Balsom and Signa L. Larralde, pp. 1-25. Grand Canyon National Park, Arizona, and USDI Bureau of Reclamation, Upper Colorado Region, Salt Lake City, UT.

Begay, Richard M. and Alexa Roberts

- 1996 The Early Navajo Occupation of the Grand Canyon Region. In *The Archeology of Navajo Origins*, edited by Ronald H. Towner, pp. 197-210. University of Utah Press, Salt Lake City.

Bender, Darlene

- 1994 Report for September River Trip 94-5 with Grand Canyon National Park Service. Ms. on file, Hualapai Cultural Resources Division, Peach Springs, Arizona.

Bulletts, Charley et al.

- 2010 Colorado River Corridor Resource Evaluation Program: Annual Report of Activities.

Bulletts, Charley, Michael Osife, Shanan Anderson, Arthur M. Phillips III, Carrie Cannon, Kevin Bulletts and Diane Austin

- 2012 2012 Southern Paiute Consortium: Colorado River Corridor Resource Evaluation Program Annual Report of Activities.

Bulletts, Charley, Shanan Anderson, Mike Osife, Kevin Bulletts, Megan Sheehan, Amanda Hilton and Diane Austin

- 2014 2014 Southern Paiute Consortium: Colorado River Corridor Resource Evaluation Program Annual Report of Activities.

Bulletts, Charley, Kevin Bulletts, Megan Sheehan, Diane Austin, Hope Grayman and

- 2015 2015 Southern Paiute Consortium Colorado River Corridor Resource Evaluation Program Annual Report of Activities.

Bungart, Peter, Carrie Cannon, Loretta Jackson-Kelly and Dawn Hubbs

- 2015 Hualapai Tribe Department of Cultural Resources: Evaluating Hualapai Cultural Resources along the Colorado River, May 2014.

- Burchett, Tim W.
 1995 Glen Canyon National Recreation Area: FY94 Glen Canyon Environmental Studies Monitoring of Archeological Sites from Glen Canyon Dam to the Paria Riffle. Glen Canyon National Recreation Area.
- Burchett, Tim W.
 1995 Glen Canyon National Recreation Area: FY95 Glen Canyon Environmental Studies Monitoring of Archeological Sites from Glen Canyon Dam to the Paria Riffle. Glen Canyon National Recreation Area.
- Burchett, Tim W.
 1997 Glen Canyon National Recreation Area: FY97 Grand Canyon Research and Monitoring Center (GCMRC) Monitoring of Archeological Sites from Glen Canyon Dam to the Paria River Riffle. Prepared for Glen Canyon National Recreation Area, Page, Arizona.
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APPENDIX G:



IN REPLY REFER TO:
ENV-3.00
UC-720

United States Department of the Interior

BUREAU OF RECLAMATION
Upper Colorado Regional Office
125 South State Street, Room 6107
Salt Lake City, UT 84138-1102

JUN 27 2011

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ARIZONA

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

Subject: Determination of Eligibility and Effect on Historic Properties Regarding Proposed
Adoption of a High Flow Protocol for Glen Canyon Dam, Coconino and Mohave
Counties, AZ

Dear Mr. Garrison:

As agency official for purposes of compliance with Section 106 of the National Historic Preservation Act of 1966, I wish to consult your office regarding the Bureau of Reclamation, Upper Colorado Region's proposed undertaking, which is consideration and adoption of a high flow protocol for experimental releases from Glen Canyon Dam (Dam) with the potential to affect the Colorado River in both Glen Canyon National Recreation Area (GCNRA) and Grand Canyon National Park (GCNP). While a programmatic agreement (PA) has been in effect since 1994 for operations of the Dam, concerns of the Pueblo of Zuni and other Indian tribes regarding the proposed undertaking are such that I have elected to follow the 36 CFR 800 process.

The proposed undertaking is to develop and implement a protocol for high flow experimental releases (HFEs) from the Dam to better determine whether and how sand conservation can be improved in the Colorado River corridor within GCNP. This protocol would evaluate short-duration, high volume Dam releases during sediment-enriched conditions for a 10-year period of experimentation, 2011-2020, to determine how multiple HFEs can be used to better build sandbars and conserve sand over a long time period. Under the concept of HFEs, sand stored in the river channel is suspended by these Dam releases and a portion of the sand is redeposited downstream as sandbars and beaches, rebuilding these features that are continually lost from erosion. These sand features and associated backwater habitats can provide key wildlife habitat, potentially reduce erosion of archaeological sites, enhance riparian vegetation, and provide camping opportunities along the Colorado River in GCNP.

For this undertaking, the area of potential effects (APE) within which historic properties might be affected is defined in lineal distance as following the Colorado River from below the Dam downstream as far as Pearce Ferry. The lateral extent is defined by the high water mark of the Colorado River at 45,000 cubic feet per second. The area measures about 10 square miles.

In compliance with 36 CFR 800.2 and 800.4, Reclamation has reviewed existing information on historic properties within this APE and has sought new information from consulting parties, including the National Park Service, the federal agency that administers GCNRA and GCNP, and has consulted with Indian tribes likely to have knowledge of, or concerns with, historic properties in the APE. Based on NPS review of relevant documentation, the APE includes all or portions of approximately 19 sites listed in Table 1.

The APE includes two historic districts; one a National Register listed district at Lees Ferry in GCNRA, the other an historic district in GCNP that has been determined eligible for listing on the National Register through a consensus determination.

Table 1. Sites and districts potentially affected by the action. The sites labeled "GLCA" are located on lands managed by GCNRA. Those labeled NN are on Navajo Nation lands. Those labeled "GRCA" are on lands managed by GCNP. These Grand Canyon properties are considered contributing elements in an historic district previously determined eligible by the AZ SHPO. The tribal names indicate which tribe has identified the site as a contributing element in their traditional cultural property.

| <i>Site#</i> | <i>Stage, Date</i> | <i>Type</i> | <i>Hopi</i> | <i>Hualapai</i> | <i>Paiute</i> | <i>Navajo</i> | <i>Zuni</i> | <i>Eligibility *</i> |
|------------------------|------------------------|---------------------------------|-------------|-----------------|---------------|---------------|-------------|--------------------------|
| AZ B:15:124 (GRCA) | Historic | Inscription USGS | | | | | | E |
| AZ B:16:262 (GRCA) | Historic | Gauging Station | | | | | | E |
| AZ C:2:11 (GLCA/NN) | Historic | District | x | | | | x | L |
| AZ C:2:32 (GLCA) | unknown | Feature | x | | | | x | E |
| AZ C:2:35 (GLCA) | PII | Campsite Cableways & | x | | | | x | E |
| AZ C:2:58 (GLCA/NN) | 1920's- 1930's | associated materials USGS | | | | | | E |
| AZ C:2:59 (GLCA/NN) | 1930's | gauging station | | | | | | E |
| AZ C:2:75 (GLCA) | unknown | lithic scatter | | | | x | x | E |
| AZ C:2:77 (GLCA) | unknown | lithic scatter | | | | x | x | E |
| AZ C:2:98 (GRCA) | Archaic- Historic | Campsite | | | | | x | E |
| AZ C:6:2 (GRCA) | 1889 | Inscription | | | | | | E |
| AZ C:6:4 (GRCA) | 1923 | Inscription | | | | | | E |
| AZ C:6:5 (GRCA) | unknown | Petroglyph | x | | | x | x | E |

| | | | | | | |
|-----------------------|--------|------------------|---|---|---|---|
| AZ C:9:88 (GRCA) | 1950's | Dam site | | | | E |
| AZ C:13:9 (GRCA) | PII | Masonry rooms | x | | x | E |
| AZ C:13:10 (GRCA) | PI-III | Masonry rooms | x | x | x | E |
| AZ C:13:291 (GRCA) | PII | Masonry rooms | x | | x | E |
| AZ C:13:347 (GRCA) | PII | Feature | | x | x | E |
| AZ C:13:371 (GRCA) | PII | Masonry rooms | x | | x | E |

*E=Eligible for purposes of Reclamation's 106 compliance with this undertaking; NE=Not Eligible; L-Listed.

In addition, Reclamation has been consulting with Indian tribes that may attach traditional religious or cultural significance to the Colorado River and adjacent properties below Glen Canyon Dam as traditional cultural properties. While these identification efforts are not yet complete, as documented in the enclosed site forms and reports, I have determined that the National Register Criteria for Evaluation are met as follows:

| Site | Criteria for Evaluation | Eligibility |
|--|-------------------------|-------------|
| Hopi traditional cultural property | a,b,c,d | Eligible |
| Hualapai traditional cultural property | a,b,c,d | Eligible |
| Navajo traditional cultural property | a,b,c,d | Eligible |
| Zuni traditional cultural property | a,b,c,d | Eligible |
| Southern Paiute | a,b,c,d | Eligible |

Historic properties that could be affected by 45,000 cfs flows were considered prior to the 1996, 2004, and 2008 high flow experiments conducted by Reclamation in coordination with Glen Canyon Adaptive Management Program participants. Based on these prior undertakings, I believe one HFE would not be expected to result in loss of integrity for any of the sites or contributing elements to the historic districts and would result in a finding of "no historic properties affected." However, with the probability of multiple HFEs occurring sequentially over the next 10 years, historic properties may be affected and the effect would be adverse per 36 CFR 800.5(2)(iv). Reclamation's finding is therefore adverse effect for the proposed undertaking.

The rationale for this finding of adverse effect stems primarily from the level of uncertainty associated with the experimental nature of the undertaking over a ten year period. The uses of certain properties by the tribes could be altered due to inundation in the area of direct effect and there is some unknown potential for changes in the patterns of visitation and use in the area of indirect effect. For the contributing elements to the historic district that are eligible under criterion d, the potential frequency of inundation over the next 10 years and the altered visitation patterns could result in loss of integrity and information value. The repeated inundation of the contributing elements to the districts could result in a loss of site structure as artifacts or features are entrained in currents. Furthermore, one of the purposes of the proposed action is to determine

how sediment might be moved downstream by high flows. An alteration in the deposition or removal of sediment from sites or contributing elements would constitute changes in the character of the eligible properties or possible changes in essential physical features that contribute to the property's significance.

Conversely, there is the possibility of some benefit to individual sites as a result of the undertaking. There is potential benefit in protecting some sites eligible under criterion d due to stabilization of terrain through sediment deposits and potential improvements to riparian vegetation, for example. Nevertheless, because of the uncertainties discussed above, we believe that an overall determination of adverse effect is appropriate for this undertaking.

As indicated above, Reclamation has coordinated with the NPS in determining eligibility and effects information for this undertaking, and we are continuing to consult with them. I understand that they will correspond with your office directly in the next few days.

I am seeking your concurrence on these determinations of eligibility and effect for Reclamation's section 106 compliance purposes. If I do not hear from you within 30 days, I shall assume your concurrence and proceed to the next step in the section 106 process which is resolution of effects pursuant to 36 CFR 800.6. If you have any questions, please contact Beverley Heffernan at 801-524-3712 or by email, bheffernan@usbr.gov.

Sincerely,

ja **CONCUR**
Ann E. Howard
 ARIZONA STATE HISTORIC PRESERVATION OFFICER
 ARIZONA STATE PARKS BOARD 7-28-11

Larry Walkoviak
 Larry Walkoviak
 Regional Director

Enclosure (CD containing 5 files)

IDENTICAL LETTER TO:

Dr. Alan Downer
 Navajo Tribal Historic Preservation Officer
 P.O. Box 4950
 Window Rock, AZ 86515

Mr. David Uberuaga, Superintendent
 Grand Canyon National Park
 PO Box 129
 Grand Canyon, AZ 86023

Mr. Todd Brindle, Superintendent
 Glen Canyon National Recreation Area
 P.O. Box 1507
 691 Scenic View Dr.
 Page, AZ 86040-1507

cc: Ms. Loretta Jackson-Kelly
Hualapai Tribe
Hualapai Tribal Historic Preservation Officer
P.O. Box 310
Peach Springs, AZ 86434

Mr. Kurt Dongoske
Zuni THPO
P.O. Box 1149
Zuni Pueblo, NM 81327-0339

Mr. Charley Bullets
Cultural Resource Representative
Kaibab Band of Paiute Indians
Fredonia, AZ 86022

Mr. Tom McCoullah
Advisory Council on Historic Preservation
1100 Pennsylvania Avenue NW, Suite 803
Old Post Office Building
Washington, DC 20004
(ea w/encl)

bc: UC-700, UC-720, John Halliday (ea w/o encl)

WBR:BHeffernan:jjacobson:801-524-3712:06/27/11
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APPENDIX H:

LIST OF MONITORING PROTOCOLS

NPS

Dierker, Jen and Ellen Brennan
2016 Cultural Resource Management: Protocols Document Grand Canyon
National Park Report 2016-01-GRCA

Hopi

Yeatts, Michael and Kristin Huisinga
2007 A Hopi Long-Term Monitoring Program for Ongtupqa (the Grand Canyon). Prepared for the Glen Canyon Dam Adaptive Management Program, Bureau of Reclamation under Contract No. 06-SQ-40-0180. Report on file at Upper Colorado Region, Bureau of Reclamation office, Salt Lake City, UT.

Hualapai

Christensen, Kerry and Loretta Jackson-Kelly
2007 Monitoring Protocols: Traditional Hualapai Ecological Knowledge and the Monitoring Program for the Ecosystem in the Colorado River Corridor. Prepared for the Glen Canyon Dam Adaptive Management Program, Bureau of Reclamation. Report on file at Upper Colorado Region, Bureau of Reclamation office, Salt Lake City, UT.

Navajo

Pending completion

Paiute

Southern Paiute Consortium
2007 Southern Paiute Monitoring Protocols and Expansion of Tribal Participation in the Glen Canyon Dam Adaptive Management Program. Prepared for the Glen Canyon Dam Adaptive Management Program, Bureau of Reclamation. Report on file at Upper Colorado Region, Bureau of Reclamation office, Salt Lake City, UT.

Zuni

Dongoske, Kurt E.
2008 Pueblo of Zuni Long-Term Monitoring Protocol for Culturally Significant Resources within the Colorado River Corridor through Glen and Grand Canyons. Prepared for the Glen Canyon Dam Adaptive Management Program, Bureau of Reclamation. Report on file at Upper Colorado Region, Bureau of Reclamation office, Salt Lake City, UT.

APPENDIX I:

CONTACT INFORMATION FOR DISCOVERIES

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Cultural Program Manager
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