

ANNUAL REPORT TO  
THE  
BUREAU OF RECLAMATION  
UPPER COLORADO REGIONAL OFFICE



THE PUEBLO OF ZUNI'S FISCAL YEAR 2014 PARTICIPATION IN THE  
GLEN CANYON DAM ADAPTIVE MANAGEMENT PROGRAM

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## **Introduction**

In 1963 the Bureau of Reclamation (Reclamation) completed the construction of Glen Canyon Dam (GCD) on the Colorado River within Grand National Park, creating Lake Powell upstream from the Dam. In 1972, the Glen Canyon National Recreation Area was established by Congress to include Lake Powell and lands adjacent to the lake in the States of Arizona and Utah, including the stretch along the Colorado River from the Dam to Lees Ferry. Reclamation is responsible for administering water releases from the Dam.

In 1989, in response to a decision to increase flow through the generators of GCD, Secretary of Interior Manuel Lujan directed Reclamation to prepare an Environmental Impact Statement for the operation of Glen Canyon Dam. Beginning with Reclamation and then the National Park Service, and finally including five state agencies and five Native American tribes, the Environmental Impact Statement (EIS) became one of the largest in the country. Initially tribes were not included in the development of the EIS until the President's Council on Environmental Quality notified Reclamation that it must include Native American tribes in the process and five tribes became members of the cooperating agencies in the EIS.

In 1995, the Glen Canyon Dam Environmental Impact Statement (GCDEIS) was completed and the transition to an adaptive management strategy instituted through the Record of Decision. The Glen Canyon Dam Adaptive Management Program (GCDAMP) was established for the long term preservation and management of the cultural and natural resources of the Grand Canyon in accord with the Grand Canyon Protection Act of 1992 (GCPA), the Endangered Species Act, and the National Historic Preservation Act of 1966, as amended (NHPA). As a component of the GCDAMP, the Bureau of Reclamation, Upper Colorado Region (Reclamation) is in the process of complying with Section 106 of the NHPA. Reclamation determined that its operation of Glen Canyon Dam under historic fluctuating flow scenario and the subsequent 1996 Record of Decision is considered an undertaking (36 CFR 800.16y) that could result in changes in the character of downstream National Register-eligible historic properties. To facilitate compliance, Reclamation, the Western Region and Rocky Mountain Region of the National Park Service, the Advisory Council on Historic Preservation, the Arizona State Historic Preservation Officer, the Hopi Tribe, the Hualapai Tribe, the Havasupai Tribe, the Navajo Nation, the Pueblo of Zuni, and the Southern Paiute Consortium entered into a Programmatic Agreement (PA) in 1994.

The GCDAMP, GCPA, NHPA, and the 1994 PA all contain language mandating consultation with concerned Native American Tribes for the identification, evaluation, and treatment of historic properties of significance to these Native American Tribes. The Pueblo of Zuni has been involved in the process to identify, evaluate, monitor, and manage all historic properties, sacred areas, and locations of traditional Zuni cultural use that are within the area affected by the operations of Glen Canyon Dam. In 1994 the Pueblo of Zuni became a Consulting Signatory to the PA that specifically delineates the compliance responsibilities of the Bureau of Reclamation. The Pueblo of Zuni's continued participation in the GCDAMP is essential to ensuring that Zuni tribal values are represented at various program functions and to ensure effective government-to-government consultation on related federal undertakings (i.e.,

research, monitoring, and management activities) that may affect resources (both natural and cultural) important to the Pueblo of Zuni.

The Pueblo of Zuni, represented by the Zuni Cultural Resource Enterprise (ZCRE), entered into a grant agreement (R13AP40003) with Reclamation to support federal consultation requirements through the Pueblo of Zuni's participation in the Adaptive Management Work Group (AMWG), the Technical Work Group (TWG), and the PA. This grant is also intended to support, in part, the Pueblo of Zuni's efforts at monitoring cultural and terrestrial resources as specified in the PA.

#### Importance of the Grand Canyon to the Zuni

As stated in the *Operation of Glen Canyon Dam Final Environmental Impact Statement* (Reclamation 1995), the traditional territory of the Pueblo of Zuni is bounded by the San Francisco Peaks on the northwest corner and by portions of the Little Colorado River (LCR) and the Pueblo Colorado Wash on the far northern boundary. Although the Zuni people do not reside in the area adjacent to the Grand Canyon, the Zunis have continuing close cultural, historical, and religious ties to the Colorado River and the Grand Canyon. The area of Zuni traditional use extends considerably beyond their traditional territorial boundaries and includes the Grand Canyon.

From the moment that the Zunis emerged into this the fourth world, the Grand Canyon and the Colorado River have been sacred. Creation narratives describe emergence of the Zuni people from Earth Mother's fourth womb, coming out into sunlight at the bottom of the Grand Canyon. The narratives also describe the Zunis subsequent search for the center of the world, the Middle Place (*Itiwana*). The Zuni people moved up the Colorado River and then followed the LCR, periodically stopping and residing in locations along these rivers. At the confluence of the LCR and the Zuni River, many *Kokko* – or supernatural beings – came into existence. After a long search, the Zuni people located the Middle Place and established the village of Zuni there.

Archaeological sites, traditional cultural properties, and other sacred locations along the Colorado River corridor and the LCR are important to Zuni traditional and cultural values because they provide important spiritual linkages to the place of emergence for the Zuni people. Areas where soil, water, plants, and rocks are collected for ceremonies, as well as portion of the Zuni Grand Canyon Trail, are located within the area considered by the GCDAMP.

Trails used by the Zuni people for religious purposes have special significance and are cared for by means of particular blessings and prayers. Once a trail is blessed, it remains permanently blessed. The Zuni people thus have important concerns about the ancient Zuni trail from their village to the bottom of Grand Canyon.

The Zuni people pray not only for their own lands but also for all people and all lands. To successfully carry out the prayers, offerings and ceremonies necessary to ensure rainfall for crops and a balanced universe, the Zuni people must collect samples of water, plants, soil, rocks, and other materials from various locations. While collecting these materials, the Zuni people also pray and leave offerings at the locations within the GCDAMP area. Samples of water from the bottom of the Grand Canyon are carried

in sacred gourds that have special significance to Zuni ceremonies and a corresponding sacred meaning to the Zuni people.

#### Purpose of the Report

Numerous places and resources within the Grand Canyon and the Colorado River ecosystem embody Zuni traditional cultural values. Management decisions and recommendations generated within the purview of the GCDAMP have the potential to impact (negatively or positively) these important Zuni resources. The Pueblo of Zuni is an active participant in the GCDAMP as a means to monitor and provide management input regarding the condition of these resources, provide analysis and comment on how management actions may impact resources of significance to Zuni, and assist in facilitating the Federal government's requirement to implement consultation with Native American Tribes.

This annual report details the activities and efforts by the Pueblo of Zuni in participating in the GCDAMP during the period from 01 October 2013 to 30 September 2014 (2014 fiscal year). This report is submitted to Reclamation as a material deliverable in partial fulfillment for Grant R13AP40003.

#### **Pueblo of Zuni's FY 2014 Participation in the GCDAMP**

From October 1, 2013 through September 30, 2014 the Zuni Cultural Resource Enterprise, on behalf of the Pueblo of Zuni, participated in 3 Technical Work Group meetings, 2 Adaptive Management Work Group meetings, 2 meetings with Department of Interior agencies prior to an Adaptive Management Work Group meeting, 3 meetings regarding the Long Term Experiment and Management Plan Environmental Impact Statement, 1 government-to-government consultation meeting between Reclamation, National Park Service, Grand Canyon Monitoring and Research Center and the Zuni Tribal Council regarding the 2015-2017 work plan and budget, 2 meetings between new Department of the Interior Tribal Liaison and the Zuni AMWG and TWG representatives, 1 Grand Canyon Monitoring and Research Center annual reporting meeting and 1 Zuni monitoring river trip.

Of primary Zuni concern during this fiscal year was the development of proposed research and monitoring activities for the FY 2015-2017 work plan and budget development. In reviewing the draft work plan for fiscal years 2015-2017, Zuni had concerns about several proposed monitoring and research projects that contained the euthanasia of aquatic life. The following projects were of specific Zuni concerns:

- Projects 4, 4.1 & 4.2 – These projects relate to the development of a long-term archaeological site monitoring program. They focus on trying to understand the role aeolian sand deposition plays in archaeological site preservation. In the past, Zuni has expressed concerns that aeolian deposition may not be a system wide geomorphological process contributing to site preservation, and that a very small subset of archaeological sites may benefit from Aeolian sand deposition. Nonetheless, Aeolian deposition as a site preservation mechanism remains a hypothesis that will need site monitoring over a decadal scale to demonstrate its efficacy. Additionally, none of the proposed monitoring is designed to identify and evaluate when thresholds of site integrity (i.e., those characteristics that make the site eligible for listing on the

National Register of Historic Properties) are compromised. Moreover, and perhaps more importantly from a Zuni perspective, this proposed monitoring program treats archaeological sites solely as physical, material manifestations on the landscape and does not attempt to monitor those characteristics that make these sites eligible to the National Register because of their associative values (whether they be scientific values or Zuni cultural values).

- Project 6.2, Aggregation recruitment: This project involves studying otoliths (ear bones) of trout as surrogates for Humpback chub and may result in the killing of some trout. Taking of life for solely scientific purposes is not necessarily condoned by the Pueblo of Zuni.
- Project 6.4, System wide Electro-fishing: This monitoring effort involves electro-fishing to sample fish abundance and does not involve any intentional killing of fish; however, incidental death may occur as a result of the sampling method – electro-fishing. This is an expressed concern of the Pueblo of Zuni.
- Project 8.1, Efficacy and ecological impacts of Brown Trout Removal: This project is to be carried out by the NPS along Bright Angel Creek and extends into the Colorado River main stem. This work involves electro-fishing and killing all brown and rainbow trout (and presumably any other non-desirable non-native fish). The NPS will kill in excess of 10,000 fish. In the past the NPS has exhibited sensitivity to the Pueblo of Zuni’s expressed concerns about killing by smoking and consuming all of the trout that have been removed based on a Zuni request to have trout lives contribute to a beneficial purpose (feeding humans).
- Project 9.3, Exploring the mechanisms behind trout growth, reproduction, and movement in Glen and Marble Canyons using lipid (fat) reserves as an indicator of physiological condition: This project involves killing trout; probably somewhere around 500 trout.
- Project 9.10, Examining the effects of high flow experiments on the Physiological condition of Age-0 and Adult Rainbow Trout in Glen Canyon: This project involves killing trout; probably somewhere around 500 trout.
- Project 12, Dam-Related Effects on the Distribution and Abundance of Selected Culturally Important Plants in the Colorado River Ecosystem: This project involves the examination of historic photographs and comparing them to current conditions in Grand Canyon to determine if plants culturally important to the Tribes are increasing or decreasing and in which locations. The majority of funding earmarked for this project will go to support GCMRC staff time. Zuni expressed concerns that this project was conceived by GCMRC with little to no involvement by Tribal folks in its design or funding level.
- Project 13.2, Tribal Values and Perspectives of Resources Downstream of Glen Canyon Dam (FY 2016 and 2017): This proposed economic study of Tribal values involves interviewing Zuni tribal

representatives about culturally important resources in Grand Canyon and identifying trade off factors assigned to resources. The narrative description does not provide enough information to effectively determine whether Zuni should support this approach or not. Zuni has expressed concerns about reducing Zuni concepts of sacredness to Western concepts of monetary value within the context of this proposed study. At this point, Zuni has requested more information about this research effort and continuing consultation with GCMRC to determine whether Zuni will either support the proposed research or not support it.

On 05 August 2014, at the request of the Zuni Governor Quetawki, the Zuni Tribal Council met with representatives from Reclamation, the Grand Canyon National Park, and the Grand Canyon Monitoring and Research Center in a government-to-government consultation meeting regarding the above proposed projects identified in the draft 2015-2017 work plan and budget. The meeting was held at the Zuni Tribal Council Chambers in Zuni, New Mexico. During that meeting Dr. Vanderkooi presented the triggers for non-native fish removal and added that GCMRC cancelled the otolith study because of expressed Zuni concerns and GCMRC plans to use otoliths from fish killed for other purposes. Dr. Vanderkooi discussed electro-fishing and the low rate of mortality associated with it. Zuni representatives expressed interest in witnessing the electro-fishing methods and results. Councilman Hooee expressed that he has done electro-fishing and thought other Zuni members could benefit from participating on those sampling trips.

Dr. Vanderkooi discussed project 8.1 the removal of Brown Trout in main stem at the confluence with Bright Angel Creek. He also discussed projects 9.3 and 9.10 which are proposed to study the health and condition of RBT. Each project will lethally take about 100 fish.

Councilman Hooee expressed the Zuni long standing concern that no life should be wasted and that all euthanized fish should be used for beneficial purposes in addition to scientific research. The Zuni representatives also wanted to know about research regarding insects and how they were done. Dr. Vanderkooi explained the insect traps that are done by volunteers and/or boatmen during river trips.

Mr. Dongoske raised a concern regarding project 13.2, the socioeconomic study, which appears to be attempting to adapt tribal values to a capitalist value system and requesting tribal participants to make trade-offs within a place that is considered sacred. Dr. Vanderkooi said that study has been delayed until FY17 so that Dr. Lucas Barr (GCMRC) can meet with tribes to discuss those types of issues and perhaps change the project's methodology.

Councilman Hooee wanted to know how the GCD AMP is working on and considering the effects of drought on water releases from Glen Canyon Dam, how to influence AZG&F to change fishing regulations to allow an increase in catch limits at Lees Ferry, how to talk to USFWS about consultation for Biological Opinions, and consultation on the Non-Native MOA.

Closing meeting statements by the Zuni representatives included 1) stressing it is better to consult prior to a project being started than after it has been implemented; 2) the Pueblo of Zuni should be involved in the electro-fishing process to witness the mortality rate and to provide Zuni with a better understanding of projects in order for Zuni to provide better informed comments; 3) the Pueblo of Zuni

doesn't like government-to-government consultation when it consists only of a letter and a phone call. The Pueblo of Zuni expects more meaningful consultation from the Federal government. 4) Pueblo of Zuni would like funding to allow ZCRAT/Zuni religious leaders an opportunity to participate in electro-fishing. 5) Federal agencies need tribal opinions, but they also need to adhere to expressed tribal opinions.

The following action items were identified during the meeting and represent issues that Zuni will be following and anticipating further consultation by the Department of the Interior in fiscal year 2015.

- 1) **NPS will meet with AZG&F about how to change fishing regulations**
- 2) **Reclamation will discuss the Non-Native fish MOA with Zuni**
- 3) **GCMRC will provide more information to Zuni on electro-fishing**
- 4) **Reclamation will fund Zuni tribal members for the purpose of participating in electro-fishing trips**
- 5) **GCMRC will check to see if they can save smaller fish killed by electro-fishing to provide to Pueblo of Zuni for beneficial use in Zuni's eagle aviary.**
- 6) **GCMRC needs to have more discussion with Pueblo of Zuni on the proposed socioeconomics study**

Table 1 below details the activities and dates of all meetings and efforts performed by Zuni Cultural Resource Enterprise on behalf of the Pueblo of Zuni during FY 2014 and in support of Grant No. R11AP40005.

	Activity	Date	Comment
1	Teleconference call with Rob Billerbeck, NPS, Marianne Crawford, BOR, Bruce Verhaaren, Argonne, and Sarah Rinkevich, DOI	25 October 2013	Conference call with Kurt Dongoske to discuss the schedule of the GCD LTEMP EIS process and Zuni deliverable documents for inclusion into the EIS.
2	Telephone conversation with Rob Billerbeck, NPS, regarding GCD LTEMP EIS and Zuni schedules	01 November 2013	Telephone conversation with Kurt Dongoske regarding scheduling a meeting with the Zuni religious leaders and Tribal Council concerning the GCD LTEMP EIS
3	GCD LTEMP EIS Tribal Values Workshop, GCMRC, Flagstaff, Arizona	05 November 2013	Dr. Mike Runge facilitated the meeting. The purpose of the meeting was to move the NPS and BOR forward on several steps concerning tribal values. Also, discussed how tribal values will be evaluated in the SDM process.
4	DOI Tribal Liaison meeting with Tribal representatives regarding GCMRC's Annual Reporting meeting and	15 January 2014	Meeting held at GCMRC in Flagstaff. Also heard from Dr. Schmidt, Chief, GCMRC regarding his vision for the annual reporting meeting and the triennial work

	proposed 2015-2017 work plan and budget.		plan and budget.
5	CRAHG assembles issues and information needs to be considered by GCMRC in developing the 2015-2017 work plan and budget.	16 - 27 January 2014	Kurt Dongoske, Chair, Cultural Resources Ad Hoc Group facilitated the email discourse among the CRAHG members and developed a report/powerpoint for presentation at the TWG meeting on 30 January 2014.
6	GCMRC's Annual Reporting Meeting, ADWR conference room, Phoenix, AZ	28-29 January 2014	Kurt Dongoske attended the annual reporting meeting. Dongoske facilitates tribal panel discussion on 28 & 29 January.
7	Technical Work Group Meeting, ADWR Conference Room, Phoenix	30 January 2014	Kurt Dongoske gives CRAHG report to the TWG.
8	Adaptive Management Work Group meeting, Embassy Suites Hotel, Tempe, AZ.	19-20 February 2014	Councilman Gerald Hooee, Zuni AMWG representative, attended this meeting.
9	DOI Tribal Liaison (Dr. Rinkevich) meets with tribal representatives regarding the proposed 2015-2017 work plan. Meeting held in the Hualapai Tribal offices in Flagstaff.	07 March 2014	Specifically discuss proposed projects that are of interest to the Tribes and/or the Tribe may want to have funded. Kurt Dongoske attended this meeting.
9	GCD LTEMP EIS workshop, Doubletree Hotel, Tempe, AZ.	31 March – 01 April 2014	Kurt Dongoske attended the workshop.
10	Technical Work Group meeting, ADWR conference room, Phoenix, AZ	8-9 April 2014	Councilman Gerald Hooee attended this meeting.
11	GCMRC meeting with Tribal representatives regarding the 2015-2017 work plan and budget development.	22 May 2014	Kurt Dongoske attended the meeting and expressed concerns over some projects that could negatively impact Zuni.
12	Prepare for TWG meeting.	15-20 June 2014	Included reviewing the draft GCD AMP 2015-2017 work plan and budget.
13	Technical Work Group meeting, ADWR conference room, Phoenix.	24-25 June 2014	Kurt Dongoske, Zuni TWG representative, attended the meeting.
14	Cultural Resources Ad Hoc Group meeting, conference room, GCMRC, Flagstaff	09 July 2014	Purpose of the meeting is to review the 2015-2017 work plan and budget and make recommendations for the TWG. Kurt Dongoske chaired the meeting.
15	Prepare CRAHG report for TWG and consult with CRAHG members regarding	11 - 13 July 2014	Kurt Dongoske, CRAHG chair, drafted the report and interacted with CRAHG members t finalize the report for the



	draft report		TWG.
16	Kurt Dongoske, CRAHG chair, submits CRAHG report (via email) to TWG Chair, John Jordan, and copies Vice chair Shane Capron and TWG Chair – elect Vineetha Kartha.	14 July 2014	
17	Meeting between Zuni AMWG representative Gerald Hooee, Sr. and Zuni TWG representative Kurt Dongoske regarding GCD AMP 2015-2017 work plan and budget, ZCRE conference room, Zuni, New Mexico	22 July 2014	Mr. Hooee would like to see a joint Tribal project focused on thinning non-native vegetation; especially around archaeological sites. Also discussed the composition of the Zuni monitoring river trips and Hooee would like to see more technical representation on those Zuni river trips.
18	Meeting between Zuni Tribal Council and representatives from the Grand Canyon National Park. Zuni Tribal Council chambers, Zuni, New Mexico	23 July 2014	Meeting requested by Councilman Gerald Hooee. Topics discussed were bison management plan EIS, conserving native fish in Grand Canyon, electro-fishing and non-native fish removal in Shinamu and Bright Angel creeks, and desert bighorn sheep.
19	Consultation meeting between BOR, NPS, GCMRC and the Pueblo of Zuni regarding the GCD AMP 2015-2017 work plan and budget, Zuni Tribal Council Chambers, Zuni, New Mexico	05 August 2014	<ol style="list-style-type: none"> <li>1) Action Items from this meeting: NPS will meet with AZG&amp;F about how to change fishing regulations</li> <li>2) Reclamation will discuss the Non-Native fish MOA with Zuni</li> <li>3) GCMRC will provide more information to Zuni on electrofishing</li> <li>4) Reclamation will fund Zuni tribal members for the purpose of participating in electrofishing trips</li> <li>5) GCMRC will check to see if they can save smaller fish killed by electrofishing to provide to Pueblo of Zuni for beneficial use in Zuni's eagle aviary.</li> <li>6) GCMRC needs to have more discussion with Pueblo of Zuni on the proposed socioeconomics</li> </ol>

			study.
20	Prepare for AMWG meeting	18-22 August 2014	
21	Pre-AMWG DOI/Tribal meeting, Little America Hotel conference room, Flagstaff, AZ.	26 August 2014	Kurt Dongoske, Zuni TWG representative, attended the meeting
22	AMWG Meeting, Little America Hotel conference room, Flagstaff, AZ	27-28 August 2014	Councilman Gerald Hooee, Sr., Zuni AMWG representative, Councilman Mark Martinez, Zuni AMWG alternate representative, and Kurt Dongoske, Zuni TWG representative attend this meeting
23	Review administrative work draft of a programmatic agreement for Glen Canyon Dam Long Term Monitoring and Experiment Plan.	29 August – 01 September 2014	Kurt Dongoske reviewed the draft programmatic agreement and drafted letter for the Zuni Governor’s signature consideration
24	Zuni Governor Quetawki sends letter to Ms. Mary Barger, Archaeologist, Reclamation.	02 September 2014	Letter from Zuni Governor contains Zuni comments on the administrative draft of a programmatic agreement for Glen Canyon Dam Long Term Monitoring and Experiment Plan.