December 1, 2014

U.S. Army Corps of Engineers
Attention: CECW-CE (Lisa Kiefel)
441 G Street NW.
Washington, DC 20314-1000

Subject: Inclusion of the Western Navajo Pipeline for Feasibility Level Study in the U.S. Army Corps of Engineers (USACE) Annual Report

Ms. Kiefel,

This proposal is in response to the notice in the Federal Register (August 5, 2014) requesting proposals from non-Federal interests for feasibility level studies for inclusion in the U.S. Army Corps of Engineers (USACE) Annual Report to be issued in February 2015 pursuant to the Water Resources Reform and Development Act of 2014. The Navajo Nation Department of Water Resources (NNDWR) is submitting proposals for four critically needed water projects: 1. The Southwest Navajo Rural Water Supply Project, 2. The Western Navajo Pipeline, 3. The Halchita to Kayenta Pipeline, and 4. The Tohajiilee Waterline. This request is for the Western Navajo Pipeline (WNP).

1. Name of non-Federal interests planning to act as sponsor.
   In the U.S. Bureau of Reclamation North Central Arizona Water Supply Study (dated October 2006), Reclamation lists the Navajo Nation Chapters of LeChee, Bitter Springs, Coppermine, Cedar Ridge, Bodway Gap, Tuba City, and Cameron in the North Central Arizona Water Supply Project (NCAWSP) service area. These are the same communities that would be served by the WNP. The City of Page would also be a beneficiary of additional intake capacity at Lake Powell.
   The Navajo Nation Department of Water Resources, the Navajo Tribal Utility Authority, the Indian Health Service, the U.S. Department of Agricultural, the U.S. Environmental Protection Agency, the U.S. Bureau of Reclamation and the Bureau of Indian Affairs have all taken an interest in water development in the WNP study area. The NNDWR, NTUA, IHS and USEPA have made significant investments in water development in this area. The USDA has an application from the Navajo Nation for improving a number of water components in the area.

2. Is the proposal for Feasibility Study?
   This proposal is for Feasibility Level Study and NEPA Compliance.

3. Project Purpose
   Previously, the WNP had been a component of the North Central Arizona Water Supply Project (NCAWSP). However, due to the enormous complexity of authorizing the NCAWSP for construction, the Navajo Nation is investigating the WNP independent of the NCAWSP. In the 2006 appraisal level report, Reclamation estimated that the Navajo Nation population in the study area was about 15,600. About one third of the residents in this isolated, rural area haul water for miles from distance supply points. Navajo Nation residents, livestock producers, farmers, business owners, Federal water development agencies, and other economic development entities do not have adequate infrastructure to supply the water to meet current and projected demands. This arid land is subject to frequent droughts, and water is always scarce. The present drought that has continued since the 1990s has exacerbated chronic water shortages for domestic, municipal, industrial, agricultural, and livestock water users. While the Navajo Aquifer underlies part of this study area, it does not have sufficient water to meet these long
term water needs. The WNP will provide a sustainable water supply diverted from Lake Powell for these Navajo Nation residents. This feasibility study will build on previous numerous investigations in the area. Pursuant to the Rural Water Supply Act of 2006, Reclamation initiated Feasibility Level studies of the NCAWSP that included the WNP service area. The key short-term components of the WNP are a new intake at Lake Powell (In December 2009 the National Park Service issued a FONS I on the proposed Page LeChee Intake - the FONS I will need to be updated due to the length of time that has passed), increased water treatment capacity at the City of Page, and a waterline between Page and LeChee. The Navajo Nation has funded preliminary engineering studies of these three components. Longer term components would be the interties between the NTUA public water systems in Cameron, Bodway and Lechee, and the interties between Tuba City system and the main trunkline. These alternatives will be integrated with other projects in the region.

4. Provide an Estimate of the Proposed Study.
Reclamation estimated that the Feasibility Level scope of work for the WNP including environmental NEPA compliance would be $4.9 million.

5. Provide an estimate of the non-monetary benefits of the proposal.
In appraisal level studies in the region, Reclamation evaluated the cost of water hauling on the Navajo reservation including purchase, containers, vehicles, and the opportunity cost of time. Families, which haul water for domestic purposes, spend the equivalent of $50,000 per acre-foot of water compared with $700 per acre-foot for typical suburban water users in the region. This Navajo water hauling cost is $153 per thousand gallons. This water is among the most expensive in the United States for a sector of the population that is among the poorest. These water haulers often rely on non-potable water sources such as stock tanks for drinking water. Those that do have running water depend on public water supply systems that are deteriorating and are struggling to generate adequate revenues for maintenance. Many of these water systems have exceeded the maximum sustainable withdrawal capacity of their source aquifers, have poor water quality, and are susceptible to drought. Safe drinking water is a precondition for health promotion and disease prevention. The lack of clean, safe water results in a higher incidence of disease, poor health, and fire protection. In 1996, President Clinton noted that “the number one health problem in the developing world is the absence of clean, safe water.” Without access to safe drinking water, people are forced through a revolving door of expensive medical treatment and unhealthy conditions. In a report to Congress by the Comptroller General, it was noted that families living in homes without satisfactory environmental conditions placed fourth times the demands on IHS primary health care delivery systems than families living in homes with satisfactory conditions. Biological contaminants like e-coli bacteria, giardia, and crypto sporidium can only be controlled by proper water source protection, treatment and distribution systems. Children living in homes without access to safe, affordable, and dependable drinking water are especially vulnerable. In 2006 EcoSystems Inc. presented Indian Health Service data showing direct correlations between the percent of in-home sanitation facilities verses the post neonatal mortality rates per live births, and the gastroenteric mortality rates. These grim statistics threaten the survival of the Navajo Nation. The lack of infrastructure, the lack of economic development, and the sustained poverty are closely connected. Throughout the arid southwest, and especially on the Navajo Nation, a reliable water supply is essential for jump-starting and sustaining economic development. The Navajo Nation has identified economic development growth centers throughout the reservation. These economic development centers represent large population bases, which have the potential to benefit from an economy of scale in infrastructure development. Accordingly the Navajo Nation will focus resources in these locations to stimulate economic growth.

6. Describe if local support exists for the proposal.
There is very strong local support for feasibility study of water alternatives in this study area. Resolutions from the City of Page, NTUA and the LeChee Chapter are attached.

7. State if the non-Federal interest has the financial ability to provide for the required cost share.
Approximately 40 percent of the residents live below the federal poverty levels, and unemployment is
close to fifty percent. Due to the hardship conditions, these water users may not have the ability to pay. These water users in this study area are among the poorest in the United States.

In 2012, the Navajo Nation provided approximately $150,000 for preliminary engineering reports on the components that are in the vicinity of LeChee (including the intake, the water treatment plant and the connection between Page and LeChee). In 2013, the Navajo Nation also provided $500,000 to assist with regional water planning in the WNP service area. The Navajo Nation does not anticipate that Reclamation will have any Rural Water Act appropriations to pursue feasibility level investigation of the NCAWSP or the WNP.

8. Submit statements of support.
Resolutions from the City of Page, NTUA and the LeChee Chapter are attached.

Thank you for the opportunity to submit the Western Navajo Pipeline as a candidate for Feasibility Level Study for inclusion in the USACE Annual Report. The USACE has completed a wide variety of important studies on behalf of the Navajo Nation. These studies have led to some very important achievements. We know that this study will also lead to improved infrastructure for the Navajo people. Please contact me directly if you have any additional questions about this or the other projects at my office number (928) 729 - 4003 or cell number (928) 205 - 7286.

Sincerely,

Ray Benally, P.E., R.L.S.
Director

c: NNDWR Chrono
RESOLUTION OF THE LECHEE CHAPTER

Supporting Upgrades to the Page-LeChee Water Supply Project

WHEREAS:

1. The LeChee Chapter is a duly certified Chapter of the Navajo Nation, charged with the responsibility to promote and protect the interest and general welfare of the community pursuant to Title II, Section 4001 (a) of the Navajo Tribal Code; and

2. The LeChee Chapter has the authority to address local, state, national and federal issues that may affect their livelihoods; and

3. The current LeChee waterline is very deficient, and increasing its capacity will enable more homes, businesses and other much needed facilities to be served; and

4. Improving the operation and increasing the capacity of this facility will help to enable broad community and economic development in the Chapter.

NOW THEREFORE BE IT RESOLVED THAT:

1. The LeChee Chapter hereby requests and recommends that the Navajo Department of Water Resources and the Navajo Tribal Utility Authority work together to address the waterline’s deficiencies and increase its capacity.

2. The LeChee Chapter also requests and recommends that the Navajo Department of Water Resources and the Navajo Tribal Utility Authority attempt to secure funding from the U.S. Department of Agriculture Rural Development.

CERTIFICATION

We hereby certify that the foregoing resolution was duly considered by the LeChee Chapter at its regular Chapter meeting, at which a quorum was present and that same was approved by a vote of 30 in favor, 0 opposed, and 0 abstained this 14 th day of November, 2011 at the LeChee Chapter House, Navajo Nation, Arizona.

Motion: Irene Nez-Whitekiller, Chapter President

Second: Raka Tsinjine

Irene Nez-Whitekiller, Chapter President

Vvonne Bigman, Chapter Vice President

Sara Dale, Secretary

Annie Littleman, Grazing Committee Member

Annie Littleman, Grazing Committee Member

Duane Tsinjine, Council Delegate

Council Delegate

Chapter President

Vice President

Secretary/Treasurer

Grazing Committee Member

Duane Tsinjine

Irene Nez-Whitekiller

Yvonne S. Bigman

Sara Dale

Annie J. Littleman
RESOLUTION NO. 1104-12


WHEREAS, since September, 1975, the City of Page has delivered to the Navajo Nation its allocated water through the City's water distribution system; and

WHEREAS, the Navajo Department of Water Resources (NDWR) and/or the Navajo Tribal Utility Authority (NTUA) are seeking to secure United States Department of Agriculture (USDA) Rural Development grant funds for a project that would involve improvement and additions to the City of Page's water treatment and distribution system used to deliver water to the LeChee Chapter; and

WHEREAS, the NDWR/NTUA's grant application may benefit from evidence that the City of Page is working in collaboration with the two agencies and supports the Page-LeChee Waterline Improvement Project, as its been presented, during various joint meetings.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COMMON COUNCIL OF THE CITY OF PAGE, that it hereby reaffirms the City's commitment toward continued cooperation between the City and NDWR and NTUA concerning the Page-LeChee Waterline Improvement Project.

PASSED AND ADOPTED BY THE MAYOR AND COMMON COUNCIL OF THE CITY OF PAGE, COCONINO COUNTY, ARIZONA this 19th day of December, 2012, by the following vote:

Ayes  7
Nays  0
Abstentions  0
Absent  0

CITY OF PAGE

By William P. Mode
Mayor
Resolution No. 1104-12
Page 2

ATTEST:

[Signature]
Deputy CITY CLERK

APPROVED AS TO FORM:

[Signature]
CITY ATTORNEY
January 7, 2013

Loretta Orona
Community Programs Specialist
USDA Rural Development
1801 W. Deuce of Clubs, Suite 120
Show Low, Arizona 85901

Subject: Commitment Letter to Contribute to the Page LeChee Water Treatment System Expansion

Dear Ms. Orona,

The Navajo Tribal Utility Authority (NTUA) has been working with the City of Page and with DOWL HKM to complete the Preliminary Engineering Report for the Page-LeChee Water Treatment Expansion. Based on that report the expansion has an estimated cost of approximately $1 million.

NTUA is committed to working with your office to secure the critically needed funds to improve the infrastructure on the Navajo Nation. NTUA is willing to contribute 12.5 percent or up to $125,000 towards this Project. NTUA is also working with the City of Page and other partners to seek additional cost share resources. The proposed application to the USDA Rural Development Program is another very critical phase in this long overdue project. If you can provide guidance on which other programs we should be directed to please do not hesitate to let us know. Should you have any questions please contact me at (928) 729-6275.

Best Regards,

[Signature]
Rex P. Kontz, Deputy General Manager
Navajo Tribal Utility Authority
December 1, July 2117–June 3, 2014

Attention: CEW-CE (Lisa Kiefel)
U.S. Army Corps of Engineers
441 G Street NW
Washington, DC 20314-1900
Deputy Project Construction Engineer
403 Evert Street
PO-Box 5497
Durango, Colorado 81301

Subject: Inclusion of the Western Navajo Pipeline for Feasibility Level Study in the U.S. Army Corps of Engineers (USACE) Annual Report

1. Name of non-Federal interests planning to act as sponsor.

In the U.S. Bureau of Reclamation North Central Arizona Water Supply Study (dated October 2006) Reclamation lists the Navajo Chapters of LeChee, Bitter Springs, Coppermine, Cedar Ridge, Bodaway Gap, Tuba City, and Cameron in the North Central Arizona Water Supply Project (NCAWSP) service area. These are the same communities that would be served by the WNP. The City of Page would also be a beneficiary of additional intake capacity at Lake Powell.

The Navajo Nation Department of Water Resources, the Navajo Tribal Utility Authority, the Indian Health Service, and the Bureau of Reclamation have worked together over the years to develop this proposal. The Navajo Tribal Utility Authority has been working on this project for many years, and the Bureau of Reclamation has provided technical assistance and support.

This proposal is in response to the notice in the Federal Register (August 5, 2014) requesting proposals from non-Federal interests for feasibility level studies for inclusion in the U.S. Army Corps of Engineers (USACE) Annual Report to be issued in February 2015 pursuant to the Water Resources Reform and Development Act of 2014. The Navajo Nation Department of Water Resources is submitting proposals for four critically needed water projects: 1. The Southwest Navajo Rural Water Supply Project, 2. The Western Navajo Pipeline, 3. The Halchita to Kayenta Pipeline, and the 4. The Tohajiilee Waterline. At the recent Navajo Gallup Water Supply Project Construction Coordination Committee meeting at the Fire Rock Casino in Church Rock, Reclamation requested a letter regarding the priority implementation of Gallup Regional System Reach 14 projects 14.6a, 14.7a, 14.8a, and 14.9a by the Indian Health Service.

Ms. Kiefel-longwell,

This proposal is for the Western Navajo Pipeline (WNP) of the Gallup Regional System and is shown in the report titled "Operational Plan Gallup Regional System 2010-2025 Navajo Gallup Water Supply Project (Revised)" dated December 15, 2010. The Gallup Regional System will convey groundwater until the sustainable water from the San Juan River is available by 2024.

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Health Service, the U.S. Department of Agricultural, the U.S. Environmental Protection Agency, the U.S. Bureau of Reclamation and the Bureau of Indian Affairs have all taken an interest in water development in the WNP study area. The NDWR, NTUA, IHS and EPA have made significant investments in water development in this area. The USDA has an application from the Navajo Nation for improving a number of water components in the area.

2. **Is the Proposal for Feasibility Study?** Based on the priority scheme developed by the NDWR, the Reach 14 project priorities include 14.6a with a cost of $3,294,000, Reach 14.7a with a cost of $500,000, Reach 14.8a with a cost of $2,515,000, Reach 14.9a with a cost of $12,070,000, Reach 14.5b with a cost of $2,658,000 and Reach 14.4a with a cost of $3,864,000. The total cost of these projects is $18,379,243 million. These projects are essential for conveying groundwater to address short-term water demands south in the Red Rock, Bread Springs, and Chichililtah Chapters, northeast in the Piedale and Mariano Lake Chapters, and west in the Manuelito Chapter. The IHS has completed conceptual plans. This proposal is for Feasibility Level Study and NEPA Compliance.

3. **Project Purpose**

At times, the WNP has been considered a component of the North Central Arizona Water Supply Project. However, due to the enormous complexity of authorizing the NCAWSP for construction, the Navajo Nation has investigated the WNP independent of the NCAWSP. In the 2006 appraisal level report, Reclamation estimated that the Navajo Nation population in the study area was about 15,600. About one third of the residents in this isolated, rural area haul water for miles. Navajo Nation residents, livestock producers, farmers, business owners, Federal water development agencies, and other economic development entities do not have adequate infrastructure to supply the water to meet current and projected demands. This arid land is subject to frequent droughts, and water is always scarce. The present drought that has continued since the 1990s has exacerbated chronic water shortages for domestic, municipal, industrial, agricultural, and livestock water users. While the Navajo Aquifer underlies part of this study area, it does not have sufficient water to meet these long term water needs. The WNP will provide a sustainable water supply diverted from Lake Powell for these Navajo Nation residents.

This feasibility study will build on numerous investigations in the area. Pursuant to the Rural Water Supply Act of 2006, Reclamation initiated Feasibility Level studies of the NCAWSP that included the WNP service area. The key short-term components of the WNP are a new intake at Lake Powell (In December 2009 the National Park Service issued a FONSI on the proposed Page LeChee Intake. The FONSI will need to be updated due to the length of time that has passed), increased water treatment capacity at the City of Page, and a waterline between Page and LeChee. The Navajo Nation has funded preliminary engineering studies of these three components. Longer term components would be the interties between the NTUA public water systems in Cameron, Bodaway and LeChee, and the interties between Tuba City system and the main trunkline. These alternatives will be integrated with other projects in the region.
4. **Provide an Estimate of the Proposed Studies** for these Reach 14 projects (See the attached figures). Due to the short term requirements, and to the advance state of the IHS investigations, these reaches are priorities.

Reclamation estimated that the Feasibility Level scope of work for the WNP including environmental NEPA compliance would be $4.9 million.

5. **Provide an estimate of the non-monetary benefits of the proposal.**

In appraisal level studies in the region, Reclamation evaluated the cost of water hauling on the Navajo reservation including purchase, containers, vehicles, and the opportunity cost of time. Families, which haul water for domestic purposes, spend the equivalent of $50,000 per acre-foot of water compared with $700 per acre-foot for typical suburban water users in the region. This Navajo water hauling cost is $153 per thousand gallons. This water is among the most expensive in the United States for a sector of the population that is among the poorest.

These water haulers often rely on non-potable water sources such as stock tanks for drinking water. Those that do have running water depend on public water supply systems that are deteriorating and are struggling to generate adequate revenues for maintenance. Many of these water systems have exceeded the maximum sustainable withdrawal capacity of their source aquifers, have poor water quality, and are susceptible to drought.

Safe drinking water is a precondition for health promotion and disease prevention. The lack of clean, safe water results in a higher incidence of disease, poor health, and fire protection. In 1996, President Clinton noted that “the number one health problem in the developing world is the absence of clean, safe water.” Without access to safe drinking water, people are forced through a revolving door of expensive medical treatment and unhealthy conditions. In a report to Congress by the Comptroller General, it was noted that families living in homes without satisfactory environmental conditions placed four times the demands on IHS primary health care delivery systems than families living in homes with satisfactory conditions. Biological contaminants like e-coli bacteria, giardia, and crypto sporidium can only be controlled by proper water source protection, treatment and distribution systems. Children living in homes without access to safe, affordable, and dependable drinking water are especially vulnerable. In 2006 EcoSystems Inc. presented Indian Health Service data showing direct correlations between the percent of in-home sanitation facilities verses the post neonatal mortality rates per live births, and the gastroenteric mortality rates.

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There is strong local support for this feasibility study of water alternatives. Resolutions from the City of Page, NTUA and the LeChee Chapter are attached.

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Approximately 40 percent of the residents live below the federal poverty levels, and unemployment is close to fifty percent. Due to the hardship conditions, these water users may not have the ability to pay. These water users in this study area are among the poorest in the United States.

However, in 2012 the Navajo Nation provided approximately $150,000 for preliminary engineering reports on the components that are in the vicinity of LeChee (including the intake, the water treatment plant and the connection between Page and LeChee). In 2013 the Navajo Nation provided $500,000 to assist with regional water planning in the WNP service area. The Navajo Nation does not anticipate that Reclamation will have any Rural Water Act appropriations to pursue feasibility level investigation of the NCAWSP or the WNP.

8. Submit statements of support.

Resolutions from the City of Page, NTUA and the LeChee Chapter are attached.

Thank you for the opportunity to submit the WNP as a candidate for Feasibility Level Study for inclusion in the USACE Annual Report. The USACE has completed a wide variety of important studies on behalf of the Navajo Nation. These studies have led to some very important achievements. We know that this study will also lead to improved infrastructure for the Navajo people. Please contact me directly if you have any additional questions about this or the other projects. This design configuration may change slightly due to unforeseen circumstances. However proposed changes will be vetted with the Project Construction Coordination Committee to ensure that all implications of any changes are carefully evaluated. Please contact me directly if you have any additional question regarding the priority of these reaches.

Sincerely

Ray Benally, P.E.
Director
Department of Water Resources