

Final Natural Resource Restoration Plan #2 for the 2015 Gold King Mine Release



May 30, 2023

Prepared by:
New Mexico Office of Natural Resources Trustee

With support from:
Abt Associates
Tabor Center
1200 17th Street
10th Floor
Denver, CO 80202



This page intentionally left blank

CONTENTS

List of Acronyms and Abbreviations	iii
Executive Summary	iv
1. Introduction to the Restoration Plan	1
1.1. Background	1
1.2. Summary of Settlements	2
1.3. Purpose and Need for Restoration	3
1.4. Restoration Goals	4
1.5. Trustee Responsibility and Authority	4
1.6. Public Participation	4
1.6.1 Summary of Public Involvement	4
1.6.2 Public Notification	6
1.6.3 Additional Information	6
2. Restoration Screening and Evaluation Criteria	7
2.1. Regulatory Criteria Set Forth in DOI NRDA Regulations	7
2.2. Screening Criteria	7
2.3. Evaluation Criteria Utilized by the Trustee to Select the Preferred Alternatives	8
3. Restoration Alternatives	10
3.1. Summary of Alternatives	10
3.2. Preferred Alternatives (Tier 1)	12
3.2.1 Alternative A: Water Reservoir Rehabilitation Project	12
3.2.2 Alternative B: Totah Subdivision Water and Wastewater System Improvements Project	16
3.2.3 Alternative C: Construction of Aquatic Invasive Species Station Project	19
3.2.4 Alternative D: Irrigation Ditch Diversion Project	22
3.2.5 Alternative E: Construction of Whitewater Wave and Irrigation Diversion Dam at Gateway Park Project	27
3.2.6 Alternative F: San Juan Water Lease Agreement Partnership to Improve River Health Project	31
3.2.7 Alternative G: Nenahnezad Chapter Boat Ramp Along the San Juan River Project	34
3.2.8 Alternative H: City of Aztec North Main Wastewater Management Project	37
3.2.9 Alternative I: San Juan River Public Boat Ramps and Park Improvements Project	40
3.2.10 Alternative J: San Juan County Extension Office Building Project	44
3.3. Preferred Alternatives (Tier 2)	47
3.3.1 Alternative K: Cottonwood/Simon Canyon Road Access Improvements Project	47
3.3.2 Alternative L: San Juan Trail Development Project	49
3.3.3 Alternative M: Rex Smith Wash Project	51
3.3.4 Alternative N: Irrigation Canal Cleaning Project	55
3.3.5 Alternative O: National Consumer Recovery – Tourism and Commerce Project	57

3.4. Non-Preferred Alternatives 59

3.4.1 Alternative P: Preliminary Engineering Report East Blanco Reservoir
Project 59

3.4.2 Alternative Q: Rehabilitation of the Farmland and Riparian Corridor
Guided by Geographic Information Systems and Soil, Vegetation, and
Water Assessments Project 62

3.5. No Action-Natural Recovery Alternative 65

4. Summary 66

5. Public Comments and Trustee Responses 68

6. Conclusion 69

References 70

Appendix A: Agencies, Organizations, and Entities Consulted A-1

Appendix B: Project Solicitation Letter B-1

Appendix C: Response to Questions C-1

Appendix D: Public Comments on the Draft RP E-1

LIST OF ACRONYMS AND ABBREVIATIONS

List of Acronyms and Abbreviations

AMD	acid mine drainage
BOR	U.S. Bureau of Reclamation
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR	Code of Federal Regulations
CR	County Road
DOI	U.S. Department of the Interior
Draft RP	Draft Restoration Plan
EMNRD	New Mexico Energy, Minerals and Natural Resources Department
EPA	U.S. Environmental Protection Agency
Final RP	Final Restoration Plan
GIS	geographic information systems
GKM	Gold King Mine
GKM Release	2015 Gold King Mine Release of hazardous substances
GKM RP #1	<i>Final Restoration Plan for the Gold King Mine Release into the Animas and San Juan Rivers, San Juan County, NM</i>
GPS	Global Positioning System
GRT	Gross Receipts Tax
ICIP	Infrastructure Capital Improvement Plan
NM	New Mexico
NM WRRI	New Mexico Water Resources Research Institute
NMAG	New Mexico Office of the Attorney General
NMDGF	New Mexico Department of Game and Fish
NMED	New Mexico Environment Department
NMISC	New Mexico Interstate Stream Commission
NMOSE	New Mexico Office of the State Engineer
NMSA	New Mexico Statutes Annotated
NMTD	New Mexico Tourism Department
NNDFW	Navajo Nation Department of Fish and Wildlife
NRDA	natural resource damage assessment
ONRT	New Mexico Office of Natural Resources Trustee
PER	Preliminary Engineering Report
Quality Waters	San Juan River Quality Waters
SJRIP	San Juan River Basin Recovery Implementation Program
SWR	Strategic Water Reserve
TNC	The Nature Conservancy
Trustee	Trustee of New Mexico Office Natural Resources Trustee
USC	United States Code

Executive Summary

This Final Restoration Plan (Final RP), prepared by the New Mexico Office of Natural Resources Trustee (ONRT, or “Trustee”), presents restoration alternatives intended to compensate the New Mexico public for losses associated with the August 2015 Gold King Mine Release of hazardous substances (GKM Release). Specifically, this Final RP describes how recovered monetary damages of \$12 million for the August 2015 GKM Release will be spent in New Mexico to restore injured natural resources and the services they provide. This Final RP has been prepared pursuant to Section 107(f) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the U.S. Department of the Interior (DOI) natural resource damage assessment (NRDA) regulations at 43 CFR Part 11.

On August 5, 2015, during the investigation of an adit at the Gold King Mine (GKM), the U.S. Environmental Protection Agency (EPA) and contractors working on EPA’s behalf caused a release of approximately three million gallons of metals-laden acid mine drainage (AMD) from the GKM (TechLaw, Inc., 2019). Over the course of eight days, the released AMD flowed from Cement Creek into the Animas and San Juan Rivers, causing those waters to turn bright yellow. Ultimately, the AMD crossed through three states (Colorado, New Mexico, and Utah) and three reservations (Southern Ute Indian Tribe, Ute Mountain Ute Tribe, and Navajo Nation; Tech Law, Inc., 2019; Figures 1.1 and 1.2). The GKM Release led to temporary river water use restrictions and also forced communities to close intakes for drinking water systems, caused many farmers to stop irrigating their crops, and drastically decreased recreational use of the rivers. Although the rivers are now safe for farming and other uses, the stigma associated with the event has had lasting effects on the region’s economy.

In 2016, the New Mexico Office of the Attorney General (NMAG) and the New Mexico Environment Department (NMED) (collectively, “the State”) filed a lawsuit seeking compensation from EPA, its contractors, and certain mining companies for injuries caused by the GKM Release. In January 2021, the State reached an \$11 million settlement with Sunnyside Gold Corporation, Kinross Gold Corporation, and Kinross Gold U.S.A., Inc. (Mining Defendants) for costs and damages New Mexico incurred as a result of the GKM Release. ONRT received \$1 million of that settlement to implement restoration projects to compensate the public for natural resource injuries and lost services resulting from the GKM Release. In July 2021, ONRT commenced the restoration planning process for those settlement funds and in March 2022, published the final Restoration Plan titled *Final Restoration Plan for the Gold King Mine Release into the Animas and San Juan Rivers, San Juan County, NM* (GKM RP #1), which is available on ONRT’s website <https://onrt.env.nm.gov/wp-content/uploads/2022/04/FINAL-GKM-Restoration-Plan-w-Appendices-2022.04.06.pdf>. GKM RP #1 provides funding for the following projects:

- Construction of the Cedar Hill Boat Ramp on the Animas River
- Construction of the Gateway Park Festival and Farmer’s Market Pavilion
- Implementation of the San Juan Valley Soil Health Restoration Project
- Proposed implementation of Tse Daa Kaan (Hogback) Agricultural Irrigation System Upgrade Project

The GKM RP #1 projects are ongoing and their benefits to the communities most impacted by the GKM Release have been recognized for generating “a sense of optimism when it comes to economic development and the future of the job market in San Juan County.”¹

On June 14, 2022, the State reached an approximately \$32 million settlement with EPA, \$10 million of which was designated for natural resource restoration. On December 19, 2022, the State reached a

¹ Farmington Daily Times, September 4, 2022: <https://www.daily-times.com/story/news/politics/2022/09/04/san-juan-county-to-see-50-million-for-various-projects/65464662007/>

\$5 million settlement with EPA’s contractors—Environmental Restoration, LLC and Weston Solutions, Inc.—\$2 million of which was designated for natural resource restoration. The State sought those settlements to address injuries and service losses that resulted from the GKM Release.

The State is a natural resource trustee,² authorized under CERCLA to act on behalf of the public to plan and implement restoration to address those injuries. Under Federal and State laws, natural resource trustees must use settlement money to plan and implement restoration actions that are designed to compensate the public for natural resource injuries and the loss of services provided by those resources. Consistent with CERCLA, this Final RP presents the restoration alternatives selected by the Trustee to compensate the public for injuries that occurred to natural resources and the services provided by those resources as a result of the GKM Release.

As part of the restoration planning process, the Trustee developed a Draft Restoration Plan (Draft RP), in which ONRT provided information to the public regarding the restoration alternatives ONRT identified and evaluated, including the preferred alternatives proposed by the Trustee to restore natural resources and natural resource services that were affected by the GKM Release. The Trustee identified and evaluated several restoration alternatives, including a no-action alternative. The Draft RP was released for public review and comment on April 1, 2023, for a period of 30 days ending on May 1, 2023.

This Final RP presents the restoration alternatives the Trustee selected for implementation after considering the comments submitted by the public in response to the Draft RP during the public notice and comment period.

The Trustee has selected several preferred restoration alternatives that together:

- Improve and protect water quality and quantity within the Animas and San Juan watersheds, for the benefit of aquatic resources (e.g., fish and other biota) and humans (e.g., improve/protect drinking water sources).
- Restore and conserve aquatic and terrestrial habitats within the Animas and San Juan watersheds.
- Compensate for lost human uses of natural resources within the Animas and San Juan watersheds, including, for example, tribal uses of resources, farming, recreation, and use of surface water as a drinking water supply.

All projects submitted for consideration are listed in Table ES.1. The Trustee has grouped preferred alternatives into two tiers. Projects in the first tier are selected for funding. The Trustee may fund projects in the second tier if funding remains after the first-tier projects have been implemented, or if unanticipated events prevent the implementation of those projects in part or in full. The projects and the allocation of funding are provided in Table ES.1. In addition, the Trustee identified three non-preferred alternatives that are not selected for funding: the no-action alternative, and two other projects listed in Table ES.1. These alternatives are non-preferred because they do not sufficiently meet the Trustee’s goals and restoration criteria.

² State agencies are designated as natural resource trustees by the governors of each state (42 USC § 9607(f)(2)(B)). Pursuant to the New Mexico Natural Resources Trustee Act (New Mexico Statutes Annotated [NMSA] 1978, §§ 75-7-1 et seq.), the Natural Resources Trustee acts as a trustee of the State’s natural resources and heads ONRT. As such, ONRT has the ability and authority to pursue restoration claims under the Trustee Act as well as under CERCLA (42 USC § 9601 et seq.) and the Clean Water Act (33 USC § 1251 et seq.).

Table ES.1. Summary of Preferred and Non-Preferred Alternatives

Alternative	Alternative Name	Funding Allocation	Proponent
Preferred Alternatives: Tier 1			
A	Water reservoir rehabilitation project	\$950,000	City of Aztec
B	Total subdivision water and wastewater system improvements project	\$1,000,000	San Juan County
C	Construction of aquatic invasive species station project	\$205,226	New Mexico Energy, Minerals and Natural Resources Department (EMNRD), State Parks Division
D	Irrigation ditch diversion project	\$1,616,600	San Juan Soil and Water Conservation District
E	Construction of whitewater wave and irrigation diversion dam at Gateway Park project	\$2,000,000	City of Farmington
F	San Juan water lease agreement partnership to improve river health project	\$1,803,000	New Mexico Interstate Stream Commission (NMISC)
G	Nenahnezad Chapter boat ramp along the San Juan River project	\$65,575	Navajo Nation Department of Fish and Wildlife (NNDFW)
H	City of Aztec North Main wastewater management project	\$480,000	City of Aztec
I	San Juan River public boat ramps and park improvements project	\$681,440	San Juan County
J	San Juan County Extension office building project	\$2,300,000	San Juan County
Total allocation across Tier 1		\$11,101,841	
Preferred Alternatives: Tier 2			
K	Cottonwood/Simon Canyon road access improvements project	Up to \$3,727,128	EMNRD, State Parks Division
L	San Juan Trail development project	Up to \$4,808,726	EMNRD, State Parks Division
M	Rex Smith Wash project	Up to \$1,242,376	EMNRD, State Parks Division
N	Irrigation canal cleaning project	Up to \$91,893	Navajo Nation Upper Fruitland Chapter
O	National consumer recovery – tourism and commerce project	Up to \$2,700,000	New Mexico Tourism Department (NMTD)
Total allocation across Tier 2		To be determined – based on funding remaining after Tier 1	
Non-Preferred Alternatives			
P	Preliminary Engineering Report East Blanco Reservoir project	N/A	City of Bloomfield
Q	Rehabilitation of the farmland and riparian corridor guided by geographic information systems and soil, vegetation, and water assessments project	N/A	New Mexico Water Resources Research Institute (NM WRRI)
No Action-Natural Recovery	No Action-natural recovery alternative	N/A	N/A

ONRT has reserved approximately \$1 million from the settlements to pay the costs of soliciting and evaluating restoration projects and the costs of overseeing project implementation. Any funds remaining after the first-tier projects are implemented will be used for additional restoration.

The natural resource restoration projects described in this plan are separate from and additional to the remediation efforts designed to improve water quality and minimize any future unplanned releases from mine sites in Colorado. On September 9, 2016, the EPA designated the Gold King Mine and 47 other nearby mines or mining related sites as the Bonita Peak Mining District National Priorities List (i.e., "Superfund") Site. EPA has spent over \$75 million on cleanup work at the site, and remediation is ongoing.³

³ Information on the Bonita Peak Mining District National Priorities List site may be found at <https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0802497>

SECTION 1: INTRODUCTION TO THE RESTORATION PLAN

1. Introduction to the Restoration Plan

This Final Restoration Plan (Final RP), prepared by the New Mexico Office of Natural Resources Trustee (ONRT, or the “Trustee”), presents restoration alternatives intended to compensate the New Mexico public for losses associated with the August 2015 Gold King Mine Release of hazardous substances (GKM Release). Specifically, this Final RP describes how recovered monetary damages of \$12 million for the August 2015 GKM Release will be spent in New Mexico to restore injured natural resources and the services they provide. This Final RP has been prepared pursuant to Section 107(f) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the U.S. Department of the Interior (DOI) natural resource damage assessment (NRDA) regulations at 43 CFR Part 11.

1.1. Background

On August 5, 2015, during the investigation of an adit at the Gold King Mine (GKM), the U.S. Environmental Protection Agency (EPA) and contractors working on EPA’s behalf caused a release of approximately three million gallons of metals-laden acid mine drainage (AMD) from the GKM (TechLaw, Inc., 2019). Over the course of eight days, the released AMD flowed from Cement Creek into the Animas and San Juan Rivers, causing those waters to turn bright yellow. Ultimately, the AMD crossed through three states (Colorado, New Mexico, and Utah) and three reservations (Southern Ute Indian Tribe, Ute Mountain Ute Tribe, and Navajo Nation; TechLaw, Inc., 2019; Figures 1.1 and 1.2). The GKM Release led to temporary river water use restrictions and also forced communities to close intakes for drinking water systems, caused many farmers to stop irrigating their crops, and drastically decreased recreational use of the rivers. Although the rivers are now safe for farming and other uses, the stigma associated with the event has had lasting effects on the region’s economy.

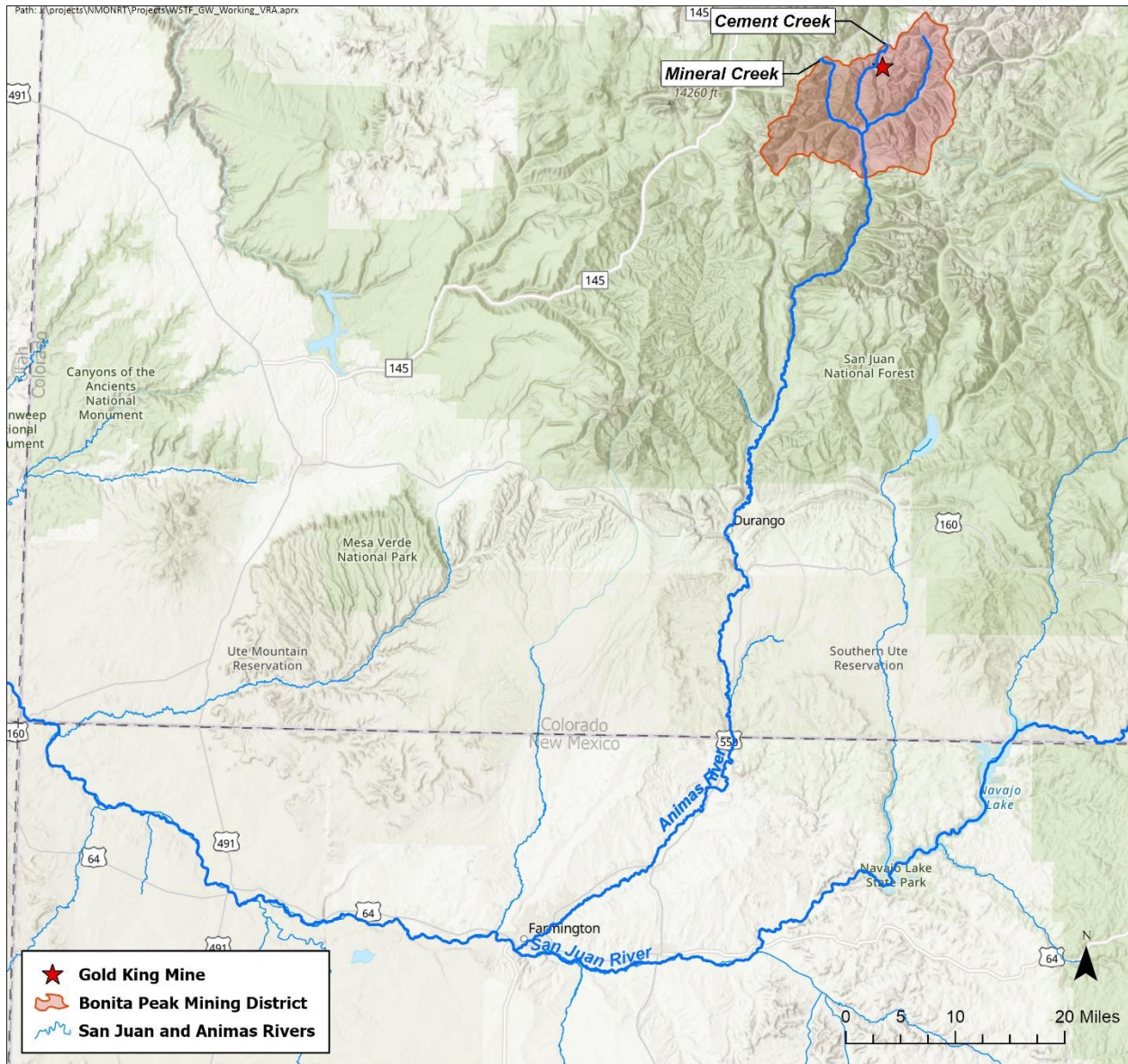
Figure 1.1. Photograph of the Animas River taken behind the Farmington Museum shortly after the GKM Release.



Source: City of Farmington

SECTION 1: INTRODUCTION TO THE RESTORATION PLAN

Figure 1.2. Location of the Gold King Mine



1.2. Summary of Settlements

The restoration projects selected in this Final RP fall under the second and third of three settlements pertaining to the GKM release. Below we provide a summary of the first settlement and status of restoration under that settlement. We then provide a summary of the settlements that are the focus of this Final RP.

In 2016, the New Mexico Office of the Attorney General (NMAG) and the New Mexico Environment Department (NMED) (collectively, “the State”) filed a lawsuit seeking compensation from EPA, its contractors, and certain mining companies for injuries caused by the GKM Release. In January 2021, the State reached an \$11 million settlement with Sunnyside Gold Corporation, Kinross Gold Corporation, and Kinross Gold U.S.A., Inc. (Mining Defendants) for costs and damages New Mexico incurred as a result of the GKM Release. ONRT received \$1 million of that settlement to implement restoration projects to compensate the public for natural resource injuries and lost services resulting from the GKM Release. In July 2021, ONRT commenced the restoration planning process for those settlement funds and in March

SECTION 1: INTRODUCTION TO THE RESTORATION PLAN

2022, published the final Restoration Plan titled *Final Restoration Plan for the Gold King Mine Release into the Animas and San Juan Rivers, San Juan County, NM* (GKM RP #1), which is available on ONRT's website <https://onrt.env.nm.gov/wp-content/uploads/2022/04/FINAL-GKM-Restoration-Plan-w-Appendices-2022.04.06.pdf>. GKM RP #1 provides funding for the following projects:

- Construction of the Cedar Hill Boat Ramp on the Animas River
- Construction of the Gateway Park Festival and Farmer's Market Pavilion
- Implementation of the San Juan Valley Soil Health Restoration Project
- Proposed implementation of Tse Daa Kaan (Hogback) Agricultural Irrigation System Upgrade Project

The GKM RP #1 projects are ongoing and their benefits to the communities most impacted by the GKM release have been recognized for generating “a sense of optimism when it comes to economic development and the future of the job market in San Juan County.”⁴

On June 14, 2022, the State reached an approximately \$32 million settlement with EPA, \$10 million of which was designated for natural resource restoration. On December 19, 2022, the State reached a \$5 million settlement with EPA's contractors—Environmental Restoration, LLC and Weston Solutions, Inc.—\$2 million of which was designated for natural resource restoration. The State sought those settlements to address injuries and service losses that resulted from the GKM release.

The State is a natural resource trustee,⁵ authorized under CERCLA to act on behalf of the public to plan and implement restoration to address those injuries. Under Federal and State laws, natural resource trustees must use settlement money to plan and implement restoration actions that are designed to compensate the public for natural resource injuries and the loss of services provided by those resources. Consistent with CERCLA, this Final RP presents the restoration alternatives selected by the Trustee to compensate the public for injuries to natural resources and the services provided by those resources that occurred as a result of the GKM Release.

The natural resource restoration projects described in this plan are separate from and additional to the remediation efforts designed to improve water quality and minimize any future unplanned releases from mine sites in Colorado. On September 9, 2016, the EPA designated the Gold King Mine and 47 other nearby mines or mining related sites as the Bonita Peak Mining District National Priorities List (i.e., “Superfund”) Site. EPA has spent over \$75 million on cleanup work at the site, and remediation is ongoing.⁶

1.3. Purpose and Need for Restoration

The GKM Release resulted in both injuries to natural resources and human services losses related to those injuries. That included recreational losses due to river closures, lost drinking water services due to water use restrictions, and impacts on farmers who rely on the affected river systems for irrigation. Additionally, hazardous substances from the GKM Release were deposited throughout the Animas and

⁴ Farmington Daily Times, September 4, 2022: <https://www.daily-times.com/story/news/politics/2022/09/04/san-juan-county-to-see-50-million-for-various-projects/65464662007/>

⁵ State agencies are designated as natural resource trustees by the governors of each state (42 USC § 9607(f) (2)(B)). Pursuant to the New Mexico Natural Resources Trustee Act (New Mexico Statutes Annotated [NMSA] 1978, §§ 75-7-1 et seq.), the Natural Resources Trustee acts as a trustee of the State's natural resources and heads ONRT. As such, ONRT has the authority to pursue restoration claims under the Trustee Act as well as under CERCLA (42 USC § 9601 et seq.) and the Clean Water Act (33 USC § 1251 et seq.).

⁶ Information on the Bonita Peak Mining District National Priorities List site may be found at <https://cumulis.epa.gov/supercpad/cursites/csinfo.cfm?id=0802497>

SECTION 1: INTRODUCTION TO THE RESTORATION PLAN

San Juan Rivers and resuspended during subsequent high flow events (EPA, 2022), which resulted in sediment, soil, riparian vegetation, and aquatic biota with elevated concentrations of metals compared to reference areas (Duval et al., 2018; EPA, 2018). Water quality monitoring data indicated that aquatic biota were exposed to metals concentrations exceeding water quality criteria, and tissue data showed elevated metals in fish in the weeks after the GKM Release when compared to pre-release concentrations (EPA, 2018). Under the settlements with EPA and EPA contractors, the Trustee recovered \$12 million to compensate for those injuries and service losses, and CERCLA requires that the funds be used for the costs of restoration.

The Trustee developed screening and evaluation criteria used to identify and evaluate multiple proposed restoration alternatives, including a no-action alternative, as presented in the Draft RP. The Draft RP was presented for public notice and comment and the Trustee has considered all the comments submitted. The Trustee has completed their restoration planning and will be implementing the preferred restoration alternatives in order to compensate the public for injuries to natural resources and the services provided by those services resulting from the GKM Release.

1.4. Restoration Goals

The Trustee has selected restoration activities that have a geographic connection to the Animas and San Juan Rivers in New Mexico so that the benefits will occur in the areas most adversely affected by the GKM Release. Selected restoration activities focus on restoring the specific resources and services that were affected by the GKM Release. Specifically, the Trustee has developed several preferred restoration alternatives that together:

- Improve and protect water quality and quantity within the Animas and San Juan watersheds, for the benefit of aquatic resources (e.g., fish and other biota) and humans (e.g., improve/protect drinking water sources).
- Restore and conserve aquatic and terrestrial habitats within the Animas and San Juan watersheds.
- Restore human uses of natural resources within the Animas and San Juan watersheds, including, for example, Tribal uses of resources, farming, recreation, and use of surface water as a drinking water supply.

1.5. Trustee Responsibility and Authority

The Trustee's authority to pursue NRDA and restoration claims is identified in the New Mexico Natural Resources Trustee Act [NMSA 1978, §§ 75-7-1 et seq.] and in the following federal statutes:

- The Oil Pollution Act of 1990 [33 USC § 2701 et seq.]
- CERCLA, as amended [42 USC § 9601 et seq.]
- The Clean Water Act [33 USC § 1251 et seq.]

Under those authorities, the Trustee is responsible for making the public whole by assessing natural resource damages and identifying restoration projects to compensate for natural resource injuries and service losses. The Trustee prepared this Final RP pursuant to and in fulfillment of the responsibilities imposed by the Trustee Act and CERCLA.

1.6. Public Participation

1.6.1 Summary of Public Involvement

ONRT announced the restoration planning process to the public by distributing a press release to local, regional, and statewide media outlets and an audio announcement in the Navajo language to Navajo chapters and Navajo language radio stations (Appendix A). ONRT released a project solicitation letter (Appendix B) on August 12, 2022. That letter was sent to local and regional stakeholders (Appendix A)

SECTION 1: INTRODUCTION TO THE RESTORATION PLAN

and was also posted on ONRT's website: <https://onrt.env.nm.gov/nm-office-of-natural-resources-trustee-seeking-restoration-project-proposals-for-the-10-million-gold-king-mine-spill-settlement/>. The goals of the letter were to announce the availability of funding, invite stakeholders to submit restoration project proposals, and describe the process and criteria that ONRT would use to evaluate submitted proposals. The letter provided background information on the GKM Release, the settlement between the State and EPA, the affected resources and related service losses, and ONRT's restoration goals. It also outlined the following information that should be included in all project proposals:

- Project description with details such as location, land ownership, timeline, and permitting requirements;
- Information about the proposed project's benefits to natural resources and/or services, as well as consequences of not implementing the project;
- Details on the size of the project, and costs for project design, planning, and implementation;
- Information on the proposed project's longevity and its monitoring and maintenance needs;
- A description of any sources of additional funding; and
- A timeline from funding award to project completion.

The letter also stated several specifications on uses for settlement funds. Specifically:

- The project must have a nexus to natural resources and/or the services natural resources provide to people.
- ONRT funding is one-time, non-recurring so applicants must identify a source of funds for all ongoing operating and maintenance costs. Following award, no additional funding will be available.
- Any funding proposed by non-governmental entities will need to go through an additional, formal competitive solicitation process, consistent with New Mexico procurement law.
- Project funds will be disbursed on a reimbursable basis as costs are incurred throughout the implementation phase and the monitoring phase if funds for monitoring are included in the project.
- Settlement funds cannot be given to individuals to compensate for personal losses.

ONRT hosted a virtual webinar for the public on August 24, 2022. During the meeting, ONRT provided an overview of the restoration project solicitation process, the Screening and Evaluation Criteria for project selection, and the restrictions on funding, and answered questions from interested parties. Following the meeting, the recording and presentation slides were made available on ONRT's website: <https://onrt.env.nm.gov/nm-office-of-natural-resources-trustee-seeking-restoration-project-proposals-for-the-10-million-gold-king-mine-spill-settlement/>.

During the informational meeting and throughout the solicitation process, ONRT received questions from interested parties on the solicitation process and timing, types of restoration projects eligible for funding, types of partnerships allowed, and other topics. ONRT prepared written responses to these questions and made them available to stakeholders in a Frequently Asked Questions document (Appendix C). Those were made available on ONRT's website: <https://onrt.env.nm.gov/wp-content/uploads/2022/09/ONRT-Project-Solicitation-Questions-and-Answers-9-16-22-final.pdf>.

Project proposals were requested to be submitted via email by close of business on September 30, 2022. This deadline was later extended to October 28, 2022.

The Trustee received a total of 17 restoration project proposals in response to the project solicitation.

SECTION 1: INTRODUCTION TO THE RESTORATION PLAN

1.6.2 Public Notification

Under CERCLA, the Trustee must notify the public of the availability of the Draft RP. The Trustee published a notice of the availability of the Draft RP in the Farmington Daily Times and the Santa Fe New Mexican. Press releases were issued to local, regional, and statewide media outlets, and notification was circulated to stakeholders via email. The document was made available for review at the Farmington Public Library, Aztec Public Library, and ONRT office in Albuquerque and online at <https://onrt.env.nm.gov/?p=1441>.

The public comment period on the Draft RP commenced on April 1, 2023, and ended on May 1, 2023. The Trustee reviewed and considered all comments received on the Draft RP prior to issuing this Final RP. Summaries of all comments received by the Trustee and the Trustee's responses to comments are included in 5.

1.6.3 Additional Information

To facilitate public participation, ONRT has compiled relevant documents and information used during the restoration planning process. The documents can be viewed online at <https://onrt.env.nm.gov/gold-king-mine-documents/> and can also be accessed by digital storage means that do not require internet access upon request to the New Mexico Office of Natural Resources Trustee, 121 Tijeras Avenue NE, Suite 1000, Albuquerque, NM 87102 or nm.onrt@state.nm.us.

SECTION 2: RESTORATION SCREENING AND EVALUATION CRITERIA

2. Restoration Screening and Evaluation Criteria

CERCLA requires that restoration activities restore, rehabilitate, replace, or acquire the equivalent of the resources and services that were injured or lost, and natural resource trustees have discretion in identifying and selecting preferred restoration projects. As described in Section 2.1 below, DOI NRDA regulations set forth factors to be considered in the evaluation and selection of preferred restoration projects. With those factors as a guide, ONRT developed Screening Criteria and Evaluation Criteria to select the preferred restoration alternatives. The Screening Criteria were used to determine if projects met minimum standards for acceptability (Section 2.2). Projects that met these Screening Criteria were then evaluated with the project Evaluation Criteria (Section 2.3).

2.1. *Regulatory Criteria Set Forth in DOI NRDA Regulations*

DOI NRDA regulations identify factors to be considered in the evaluation and selection of preferred alternatives (43 CFR § 11.82):

- Technical feasibility.
- The relationship of the expected costs of the proposed actions to the expected benefits from the restoration, rehabilitation, replacement, and/or acquisition of equivalent resources.
- Cost-effectiveness.
- Results of any actual or planned response actions.
- Potential for additional injury resulting from the proposed actions, including long-term and indirect impacts to the injured resources or other resources.
- Natural recovery period.
- Ability of the resources to recover with or without alternative actions.
- Potential effects of the action on human health and safety.
- Consistency with relevant federal, state, and Tribal policies.
- Compliance with applicable federal, state, and Tribal laws.

ONRT incorporated the ten factors described above into its Screening and Evaluation Criteria.

2.2. *Screening Criteria*

Project proposals must have met all of the Screening Criteria to be further considered and evaluated by ONRT using the Evaluation Criteria.

The seven Screening Criteria with which each project proposal was reviewed are as follows:

1. Consistent with ONRT mission (<https://onrt.env.nm.gov/>).
2. Results in a net overall improvement of natural resources and/or benefit to the public in terms of increased resource services.
3. Technically and administratively feasible as demonstrated through established or previously implemented approaches.
4. Unlikely to be completed without ONRT funding.
5. Complies with applicable and relevant federal, state, local, and Tribal laws and regulations.

SECTION 2: RESTORATION SCREENING AND EVALUATION CRITERIA

6. Has feasible and cost-effective provisions for operations, maintenance, and monitoring and a demonstrated source of funds for those ongoing costs, as relevant.
7. Includes all the information necessary to evaluate the project.

2.3. *Evaluation Criteria Utilized by the Trustee to Select the Preferred Alternatives*

The eleven Evaluation Criteria used to evaluate and rank each project proposal and the Trustee's interpretation of these criteria are listed below in Table 2.1. For each applicable criterion, proposed projects received a rank of low, medium-low, medium-high, or high reflecting the extent to which the proposal satisfied that criterion. The Trustee used these evaluations to identify the preferred restoration alternatives.

Table 2.1. Evaluation Criteria and the Trustee's Interpretation of the Evaluation Criteria

Criteria	Interpretation
Geographically close to the Animas River from the New Mexico-Colorado state line to the confluence with the San Juan River, and/or the San Juan River downstream to the Colorado state line	Projects must be geographically close to the portions of the Animas River or San Juan River that are described in the evaluation criterion. "Geographically close to" refers to within the watershed of the Animas and San Juan Rivers in New Mexico.
Consistent with regional planning and federal and state policies, if applicable	Preference was given to projects that have been specially identified in any existing local, regional, or state plans. Lowest priority was given to projects that are in opposition to such plans, with medium priority given to projects that not directly identified in plans but are consistent with such plans.
Availability of additional funds or in-kind support to leverage ONRT dollars	Preference was given to projects that would provide the greatest leverage to ONRT funds through additional funds or in-kind support compared to other proposed projects, such as funding received from another entity, the value of volunteer or paid labor (including for operations and maintenance), or the value of equipment already purchased, when compared against other submitted projects.
Low ratio of planning and administrative costs to restoration costs	Preference was given to projects that would have a lower ratio of planning and administrative costs to restoration costs compared to other projects, as quantified by the percentage of total cost allocated to planning and administration, when compared against other submitted projects.
Relationship of the expected costs of the proposed actions to the expected benefits	Preference was given to projects that would have a high ratio of expected benefits (e.g., benefits to multiple resources, project longevity, project nexus to GKM Release) to costs, when compared against other submitted projects.
Cost-effectiveness compared to other projects that provide similar benefits	While the Trustee initially envisioned comparing projects that provided similar benefits for cost-effectiveness (criterion #6), this criterion ended up not being applicable, as all of the submitted restoration projects provided benefits that were distinct from each other. Thus projects were ranked based upon the remaining ten criteria.
Lead project proponent or partner is a state agency or local public body	Preference was given to projects for which the proponent is, or is partnering with, a local or state public entity. Examples of local public bodies are counties, municipalities, state agencies, certain educational institutions, and any political subdivision of the state.
Implemented in a timely manner	Preference was given to projects that would be shovel-ready such that selected projects could be initiated within one year of the Final RP's publication, and generally completed within two to three years.
Likely to provide benefits quickly after project implementation	Preference was given to projects that would likely provide benefits to resources or resource services soon after initiation. Projects that would not substantially benefit resources or resources services, and projects with benefits that would be uncertain or difficult to assess, did not receive preference.

SECTION 2: RESTORATION SCREENING AND EVALUATION CRITERIA

Criteria	Interpretation
High potential for long-term success and a low risk of failure	Preference was given to projects that use techniques and approaches that have been demonstrated to be successful elsewhere, that include plans for proper operation and maintenance to ensure benefits into the future, and that would not require substantial maintenance to yield and sustain benefits. Projects with benefits that would be uncertain or difficult to assess did not receive preference.
Low potential for adverse impacts to natural resources or human health and safety resulting from the restoration project itself, including long-term and indirect impacts	Preference was given to projects that have a low likelihood of adverse impacts, whether direct or indirect, on human health and safety or the environment. Some short-term adverse impacts from implementation are expected, but projects with large or long-term adverse impacts did not receive preference.

During the screening and evaluation process, ONRT sought clarifications for each project submitted for evaluation and followed a standard procedure to communicate with each project proponent. A list of questions was drafted and sent to each project proponent via email on December 7, 2022. Responses were requested by December 21, 2022, to ensure each project proponent was given an equal amount of time to respond. After reviewing the responses from each project proponent, ONRT communicated with project proponents on an as-needed basis if specific clarifications were necessary to finalize the screening and evaluation of that project.

SECTION 3: RESTORATION ALTERNATIVES

3. Restoration Alternatives

The Trustee considered all restoration alternatives submitted in response to the solicitation for proposals, and also considered a no-action alternative. The preferred alternatives identified by the Trustee consist of a suite of restoration projects intended to compensate for injuries to natural resources and associated service losses resulting from the GKM Release.

This section presents a summary of alternatives (Section 3.1) and then describes the preferred alternatives (Section 3.2), the non-preferred alternatives (Section 3.3), and the no-action alternative (Section 3.4).

3.1. Summary of Alternatives

Below we provide a high-level summary of the considered alternatives. All the alternatives except the no-action alternative meet all of the Screening Criteria and were further considered and evaluated by the Trustee using the Evaluation Criteria. In the next section, we provide the detailed evaluation of each alternative.

Preferred alternatives: The preferred alternatives selected by the Trustee are those projects submitted in response to the solicitation for project ideas which the Trustee believes will best compensate the public for injuries to natural resources resulting from the GKM Release (Table 3.1). Among the preferred alternatives, Tier 1 projects have priority for funding. If funding remains after completing the Tier 1 projects, the Trustee will consider funding Tier 2 projects up to the stated funding allocation amount. Allocations to individual Tier 1 projects are estimates based on current cost projections and may shift after final project designs are developed. Figure 3.1 shows the geographic location of the Tier 1 and Tier 2 alternatives.

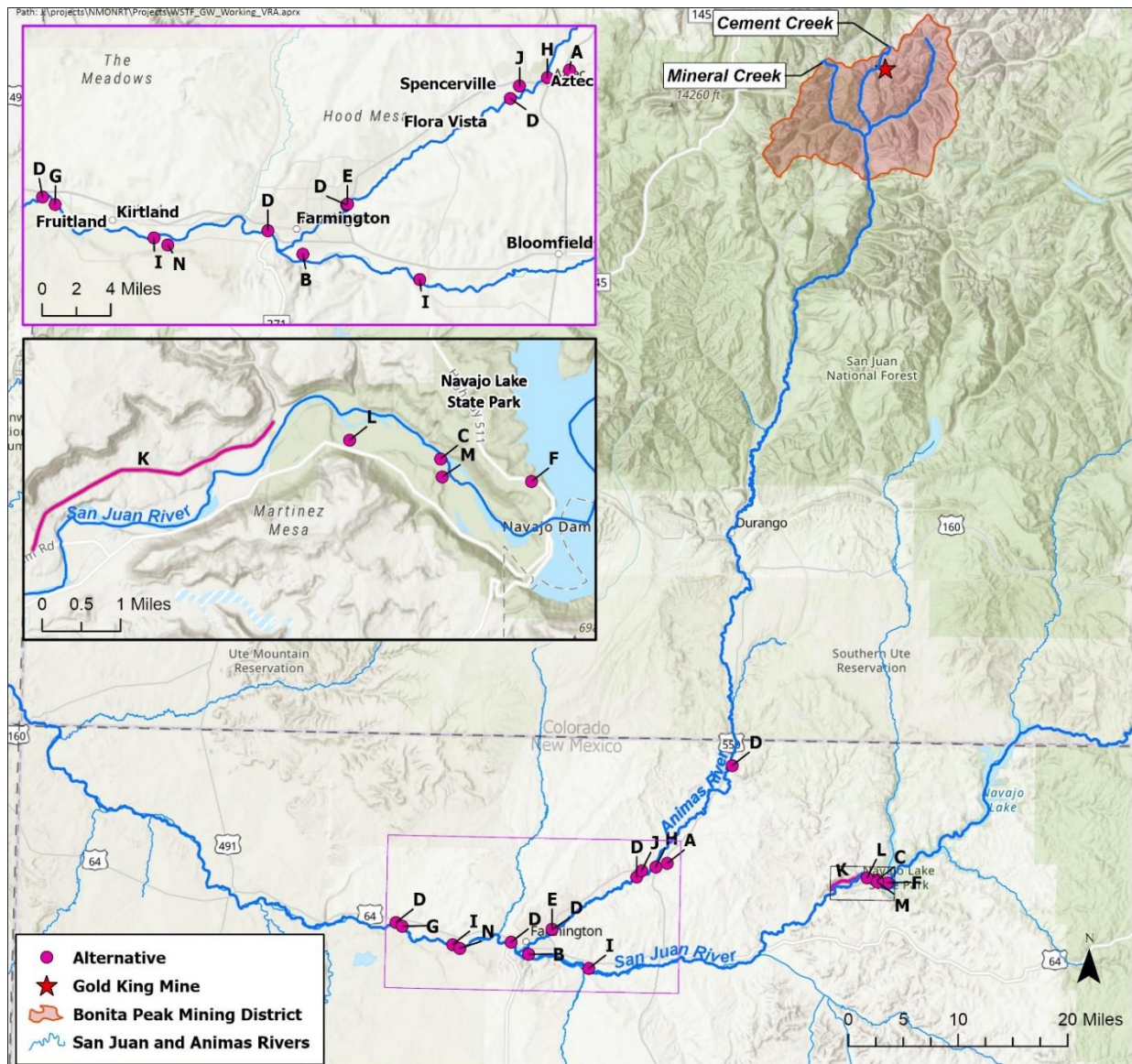
Table 3.1. Summary of Preferred Alternatives

Alternative	Alternative Name	Funding Allocation	Proponent
Tier 1			
A	Water reservoir rehabilitation project	\$950,000	City of Aztec
B	Total subdivision water and wastewater system improvements project	\$1,000,000	San Juan County
C	Construction of aquatic invasive species station project	\$205,226	New Mexico Energy, Minerals and Natural Resources Department (EMNRD), State Parks Division
D	Irrigation ditch diversion project	\$1,616,600	San Juan Soil and Water Conservation District
E	Construction of whitewater wave and irrigation diversion dam at Gateway Park project	\$2,000,000	City of Farmington
F	San Juan water lease agreement partnership to improve river health project	\$1,803,000	New Mexico Interstate Stream Commission (NMISC)
G	Nenahnezad Chapter boat ramp along the San Juan River project	\$65,575	Navajo Nation Department of Fish and Wildlife (NNDFW)
H	City of Aztec North Main wastewater management project	\$480,000	City of Aztec
I	San Juan River public boat ramp and park improvements project	\$681,440	San Juan County
J	San Juan County Extension office building project	\$2,300,000	San Juan County
Total allocation across Tier 1		\$11,101,841	

SECTION 3: RESTORATION ALTERNATIVES

Alternative	Alternative Name	Funding Allocation	Proponent
Tier 2			
K	Cottonwood/Simon Canyon road access improvements project	Up to \$3,727,128	EMNRD, State Parks Division
L	San Juan Trail development project	Up to \$4,808,726	EMNRD, State Parks Division
M	Rex Smith Wash project	Up to \$1,242,376	EMNRD, State Parks Division
N	Irrigation canal cleaning project	Up to \$91,893	Navajo Nation Upper Fruitland Chapter
O	National consumer recovery – tourism and commerce project	Up to \$2,700,000	New Mexico Tourism Department (NMTD)
Total allocation across Tier 2		To be determined – based on funding remaining after Tier 1	

Figure 3.1. Location of Preferred Alternatives. See Table 3.1 for corresponding alternative names, funding allocations, and proponents. Alternative O is not included in this map but encompasses all of Northwestern New Mexico.



SECTION 3: RESTORATION ALTERNATIVES

Non-preferred alternatives: The project proposals submitted in response to the Trustee’s project solicitation that best met the Evaluation Criteria were included as the preferred alternatives. Other eligible project ideas were not selected for funding because, using the Evaluation Criteria, they ranked lower than the preferred alternatives. The non-preferred alternatives are described and evaluated in Section 3.3. The Trustee selected projects for funding that best fit their criteria and that could be accomplished with the available funding. A decision of no funding should not be viewed as a judgment on the overall value of a project idea. Project ideas not selected for funding are listed in Table 3.2.

Table 3.2. Summary of Non-Preferred Alternatives

Alternative	Alternative Name	Proponent
Non-Preferred Alternatives		
P	Preliminary Engineering Report East Blanco Reservoir project	City of Bloomfield
Q	Rehabilitation of the farmland and riparian corridor guided by geographic information systems and soil, vegetation, and water assessments project	New Mexico Water Resources Research Institute (NM WRRI)

No action-natural recovery alternative: A no action-natural recovery alternative is required to be considered under CERCLA NRDA regulations (43 CFR § 11.82(c)(2)). This alternative is described further in Section 3.4 and is also a non-preferred alternative.

3.2. Preferred Alternatives (Tier 1)

In this section we provide descriptions and a summary of the Trustee’s evaluation of each of the Tier 1 preferred alternatives.

3.2.1 Alternative A: Water Reservoir Rehabilitation Project

Alternative A is a project proposed by the City of Aztec to rehabilitate and return to service the City’s water Reservoir 1, located on land owned by the City.

Project Description

The City of Aztec Water Reservoir Rehabilitation project will restore and return to service the City’s water Reservoir 1, located on land owned by the City. The three goals of the project are (1) to compensate for lost access to river water during the GKM Release by restoring river water storage that is critical for irrigation for local farmers; (2) to supply the municipal drinking water system in the event of low water conditions or contamination events on the Animas River; and (3) to improve habitat quality for aquatic species in a connected pond (Reservoir 3) that will be supplied by the stored water and is stocked with trout by the New Mexico Department of Game and Fish (NMDGF).

As stated by the project proponent, Reservoir 1 is a partially in-ground reservoir built in the 1940s to hold water taken from the Animas River via the City’s Aztec Ditch. It is one of three City reservoirs and is located directly above the City’s water treatment plant and above the Animas River floodplain. The reservoir is currently out of service due to significant leakage issues, which means that the City must pump water directly from the Animas River and that approximately two-thirds of the City’s water storage capacity is currently unavailable. Additionally, the reservoir is currently unlined and has been empty since at least 2017, leading to vegetation growth that can be seen in Figure 3.2. This vegetative growth will further degrade the structure.

SECTION 3: RESTORATION ALTERNATIVES

Figure 3.2. City of Aztec Water Reservoir 1. The reservoir is currently not in use, due to leakage issues. The vegetative growth visible in the photo has occurred during the period of disuse, will likely lead to further degradation of the structure.



Source: ONRT (February 9, 2023)

Reservoir 1 is a critical reservoir for the City. The typical water flow in the drinking water treatment process when Reservoir 1 is functional is as follows:

1. Water enters Reservoir 1 by gravity from the Aztec Ditch (or pumped from the river when the ditch flow is shut down), where initial water treatment occurs (i.e., sediment removal by settling).
2. Treated water is pumped from Reservoir 1 to Tiger Pond (Reservoir 3) for storage and aquatic habitat and stocked fishery.
3. Water is released by gravity from Tiger Pond to Reservoir 2 for final sediment removal.
4. Water flows by gravity from Reservoir 2 to the treatment units in the drinking water treatment plant.

When Reservoir 1 is not in service, water must be pumped directly from the Animas River into Tiger Pond (Reservoir 3). The ability to use the gravity flow into Reservoir 1 greatly reduces pumping during the irrigation season, saving both money and energy, and helps to reduce carbon emissions. The ability to use Reservoir 1 prior to pumping water to Tiger Pond reduces the sediment load to Tiger Pond (Reservoir 3), thereby improving the water quality of the pond, benefitting multiple aquatic species that utilize the pond as habitat, including the stocked trout.

Rehabilitating Reservoir 1 will improve the drinking water treatment and delivery systems by providing an additional storage measure for water and reducing the burden on the treatment units experienced when Reservoir 1 is not in service. Additionally, Reservoir 1 provides critical water storage when water intakes must be shut down (as was the case during the GKM Release), which benefits residents of both the City

SECTION 3: RESTORATION ALTERNATIVES

of Aztec and the City of Bloomfield, as the two cities have a mutual agreement to provide water to the other city during emergencies. Once functional, the reservoir will provide water for both drinking and irrigation as the Aztec drinking water is also used by residents and farmers for irrigation in the region.

Rehabilitation will involve complete removal of the existing concrete sides and bench in the reservoir basin, complete lining of the reservoir, as well as additional modifications such as replacement of the reservoir tower, replacement of inlet piping and drainage piping and valve, and installation of a concrete ramp to allow heavy equipment to regularly clean out sediment and vegetation accumulation. Separately from this funding request, the City of Aztec also plans to implement improvements to the delivery ditch (Aztec Ditch). The total storage volume of the completed reservoir project will be approximately 8.2 million gallons. Project benefits are expected to begin accruing upon completion of construction (November 2023). The City of Aztec will assume operation and maintenance responsibility over the anticipated 50-year lifespan of the reservoir.

The amount of funding requested from ONRT is \$950,000, which will cover a portion of project construction options and allowances plus contingency and New Mexico Gross Receipts Tax (GRT). The project proponents are able to leverage an additional \$3,250,000 in matching funds (including a State Capital Outlay Grant from the New Mexico Office of the State Engineer (NMOSE)) to cover design and construction, and an additional \$648,750 in in-kind support from the City for 50 years of operations and maintenance.

Trustee Assessment with the Evaluation Criteria

Overall, the Trustee evaluated Alternative A favorably, based on the established evaluation criteria. Table 3.3 provides a narrative evaluation and ranking of the alternative with the evaluation criteria.

Proximity to Animas and San Juan River watersheds: The project had a high ranking for this criterion. The reservoir is located adjacent to the Animas River and is directly connected to the river through a series of channels and irrigation ditches (Figure 3.1).

Consistency with local/regional plans: The project had a high ranking for this criterion. The project is consistent with local policies and plans and is identified in the City of Aztec Comprehensive Plan and in the City's Capital Improvements Plan list.

Costs: The project had a high ranking across the applicable cost criteria. It will leverage approximately 400% of the requested \$950,000 in settlement funds through matching funds secured from the NMOSE State Capital Outlay Grant, NMED State Drinking Water Revolving Fund, and City Capital funds and additional in-kind support from the City for 50 years of operations and maintenance, and therefore ranked high for the ability to leverage criterion. The project will have a low ratio of planning costs to restoration costs, as no funds for planning and administration were requested, and therefore ranked high for the ratio of planning to restoration costs criterion. The project has a high ratio of expected benefits to costs as the project will benefit multiple resources (i.e., water quality and quantity and habitat for aquatic species) and it will provide multiple human services (e.g., use of water for irrigation, drinking water, emergency drinking water supplies, and recreational fishing) and will have good cost sharing, and therefore ranked high for the relationship of costs to benefits criterion.

Proponent is a state or local public body: The project had a high ranking for this criterion. The City of Aztec is a local public entity.

Expected benefits and timeframe of benefits: The project had a high to medium-high ranking across the expected benefits and timeframe of benefits criteria. The project had a high ranking for the implemented in a timely manner criterion because it will be initiated and completed within a year. The project ranked medium-high for the likely to provide benefits quickly criterion because the expected benefits will be accrued approximately one year after the project is initiated and not immediately. However, the project

SECTION 3: RESTORATION ALTERNATIVES

has the potential to benefit multiple resources including improving water quality and quantity and habitat for aquatic species. It will also provide several human use services, including improving the drinking water treatment and delivery systems which are also used for irrigation by local farmers, providing emergency drinking water supplies for local municipalities, and providing recreational fishing for local anglers. Returning this reservoir to service will also provide additional critical river water storage to the community. The storage is critical in the event of low water/drought or future contamination of the Animas River. Additionally, the ability to use Reservoir 1 prior to pumping water to Tiger Pond (Reservoir 3) will improve the water quality of Tiger Pond, which serves as habitat for multiple aquatic species and is used as for recreational fishing.

Likelihood of success and potential for adverse impacts: The project had a medium-high ranking across these criteria. The project has an engineering design which has been reviewed by multiple levels of government, and therefore has a high potential for long-term success and low risk of failure. The engineering design has been completed and reviewed by the City and reviewed and approved by the Drinking Water Bureau of NMED. However, it ranked only medium-high for the long-term success and low risk of failure criterion because the project will require some maintenance and management to achieve success, and the City of Aztec plans to take responsibility for this. It ranked medium-high for the low potential for adverse impacts to natural resources and human health safety criterion because it will likely have some short-lived adverse impacts during construction.

Table 3.3. Water Reservoir Rehabilitation Project Evaluation

Evaluation Criteria		Narrative Evaluation	Ranking
Geographic location	Proximity to Animas and San Juan River watersheds	The project will be located within the Animas River watershed.	High
Consistency with plans	Consistency with local/regional plans	The project is identified in the City of Aztec Comprehensive plan and in the City's Capital Improvements Plan list.	High
Cost criteria	Ability to leverage	The project will leverage more than 400% of the requested settlement funds through multiple sources and additional City funding for operations and maintenance over the life of the project.	High
	Low ratio of planning costs to restoration costs	None of the requested funds will be used for planning and administration.	High
	Relationship of costs to benefits	The project has a high ratio of expected benefits to costs. The project will benefit multiple resources/services including water quality and quantity, local habitat, and recreation (fishing) and will have good cost sharing.	High
	Cost-effectiveness	The expected benefits are distinct compared to the other projects, and thus this criterion is not applicable.	N/A
Proponent	Lead project proponent is state or local public body	The City of Aztec is a local public entity.	High
Expected benefits and timeframe of benefits	Implemented in a timely manner	The project will be initiated and completed within a year.	High
	Likely to provide benefits quickly	The project will provide expected benefits at completion which will be approximately one year after the project is initiated.	Medium-High

SECTION 3: RESTORATION ALTERNATIVES

Evaluation Criteria		Narrative Evaluation	Ranking
Likelihood of success and potential for adverse impacts	High potential for long-term success and low risk of failure	Several rehabilitation and replacement options were evaluated, and the design has been reviewed by the City and reviewed and approved by the Drinking Water Branch of NMED. However, the project will require some maintenance and management to achieve success.	Medium-High
	Low potential for adverse impacts to natural resources or human health and safety	The project will likely have some minor adverse impacts during construction, but they will be short-lived, ending once construction is complete. All impact outside of the existing reservoir will be minimized and shall follow all soil erosion and EPA requirements. Proper permits will be obtained.	Medium-High

3.2.2 Alternative B: Totah Subdivision Water and Wastewater System Improvements Project

Alternative B is a project proposed by San Juan County to connect the Totah Vista Subdivision, located to the south of the City of Farmington and adjacent to the San Juan River, to the City's existing wastewater and drinking water systems.

Project Description

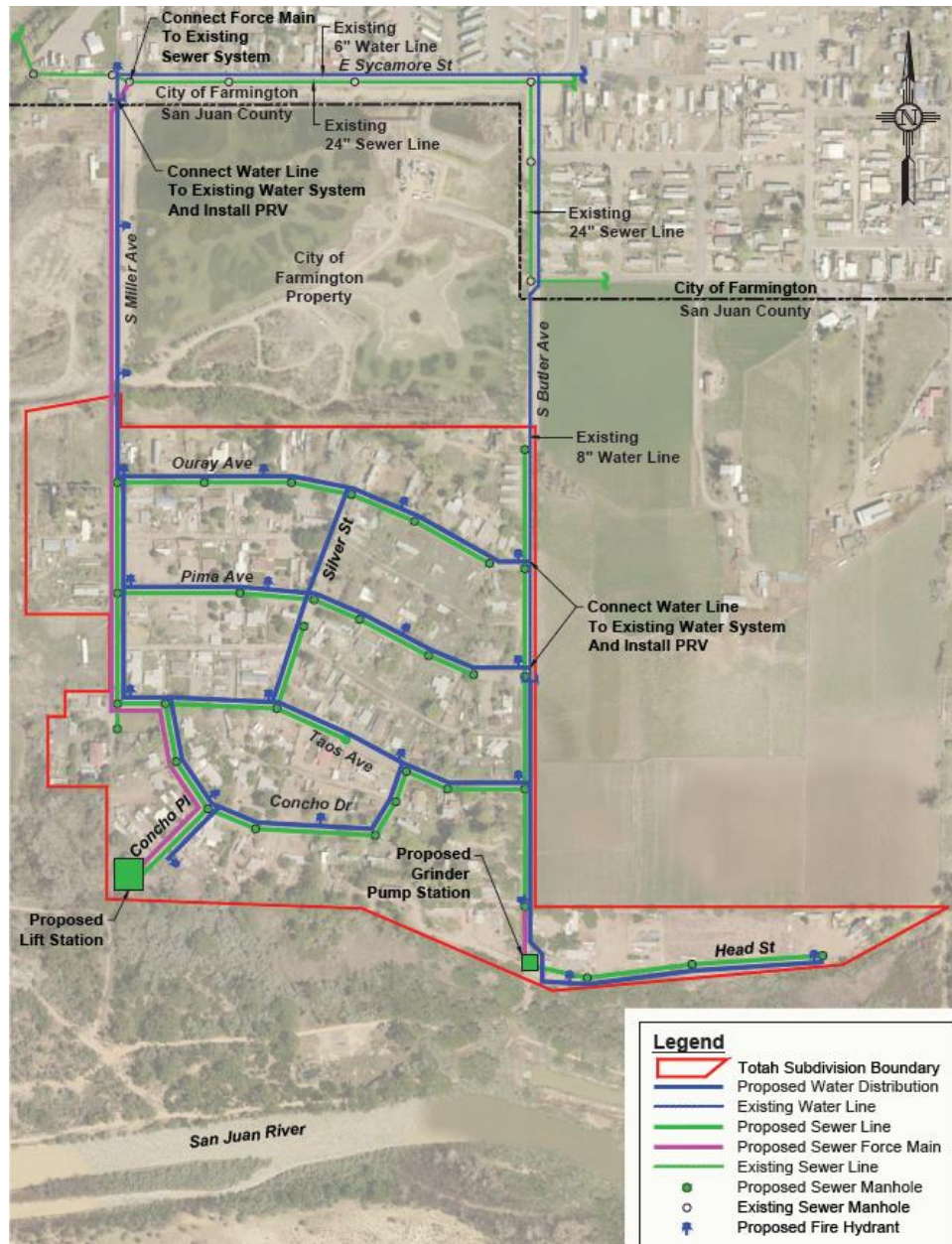
The Totah Subdivision Water and Wastewater System Improvements project will connect the Totah Vista Subdivision to the City's existing wastewater and drinking water systems (Figure 3.3). The goal of the project is to provide safe drinking water for residents and reduce surface and groundwater contamination caused by leaking septic tanks.

The Totah Vista Subdivision is composed of 138 parcels, 119 of which are developed. According to the project proponent, the subdivision's drinking water is currently supplied by many small, domestic groundwater wells that serve one or a few houses, and wastewater is disposed of via septic systems that serve individual parcels. However, these septic systems have been observed to have aboveground leakage due to poorly drained soils and failure of aging systems, and studies have generally identified that leaking septic tanks in the region have caused contamination in the San Juan River. The project will decommission these septic tanks in conjunction with connecting parcels to the City's wastewater system. More than half of the subdivision's property owners have agreed to make this transition, and the project proponent anticipates that additional property owners will request service connections as the project moves forward. The project will potentially eliminate wastewater discharged from failing septic systems into the ground, thereby benefitting water quality in the San Juan River watershed. The project will also provide residents with a source of safe drinking water by connecting the subdivision to the existing City of Farmington water supply system.

The project proponent has completed the planning phase of the project, and project design and permitting are anticipated to be completed by July 2023. Construction bidding and award will be completed by October 2023, and construction will be completed by October 2024. The project will include a centralized wastewater collection system connecting the subdivision to the City of Farmington's existing wastewater collection and treatment system, and a centralized water distribution system connecting the subdivision to the City's existing water supply system. Project benefits will begin accruing upon completion of construction. The City will assume all operations and maintenance needs in perpetuity under its existing utility maintenance and capital replacement plans, with utility rates providing the necessary funds. The project proponent states that while the typical design life for a new system is 25 years, these systems can last 30 to 40 years or longer with proper maintenance.

SECTION 3: RESTORATION ALTERNATIVES

Figure 3.3. Map of Totah Subdivision Water and Wastewater System Improvements Project. This map was included in a flyer for a public information meeting held on October 12, 2022.



Source: San Juan County and City of Farmington

The amount of funding requested from ONRT is \$1,000,000, which will partially cover permitting and other construction overhead and administration; materials and construction work for the wastewater collection system, lift stations, and water distribution system; contingency; and New Mexico GRT. The project will be able to leverage an additional \$10,000,000 in matching funds from the American Rescue Plan Act. The project proponent also anticipates availability of in-kind support such as operations and maintenance conducted by the City of Farmington.

SECTION 3: RESTORATION ALTERNATIVES

Trustee Assessment with the Evaluation Criteria

Overall, the Trustee evaluated Alternative B favorably, based on the established evaluation criteria. Table 3.4 provides a narrative evaluation and ranking of the alternative with the evaluation criteria.

Proximity to Animas and San Juan River watersheds: The project had a high ranking for this criterion. The Totah Vista Subdivision is located to the south of the City of Farmington and is adjacent to the San Juan River (Figure 3.1).

Consistency with local/regional plans: The project had a high ranking for this criterion. The project is consistent with San Juan County goals and is placed annually in San Juan County's Infrastructure Capital Improvement Plan (ICIP).

Costs: The project had a high ranking across the applicable cost criteria. It will leverage 1,000% of the requested \$1,000,000 in settlement funds through matching funds secured from the San Juan County Commission's allocation of American Rescue Plan Act funding to the project and through additional in-kind support, such as operations and maintenance work conducted by the City of Farmington over the life of the project, and therefore ranked high for the ability to leverage criterion. The project will have a low ratio of planning costs to restoration costs, as less than a quarter of the requested funds will be used for planning and administrative activities such as engineering services, permitting, and other construction overhead, and therefore it ranked high for the ratio of the planning to restoration costs criterion. The project had a high rank for the relationship of costs to benefits criterion because it will benefit both natural resources (i.e., reducing groundwater contamination to the San Juan River from leaky septic tanks) and human use services (i.e., improving the water treatment and delivery systems) and will have very good cost sharing.

Proponent is a state or local public body: The project had a high rank for this criterion. San Juan County is a local public entity.

Expected benefits and timeframe of benefits: The project had a high to medium-high ranking across the expected benefits and timeframe of benefits criteria. The project had a high ranking for the implemented in a timely manner criterion because it will be initiated within a year and completed within two years. The project ranked medium-high for the likely to provide benefits quickly criterion because the expected benefits will be accrued approximately two years after the project is initiated and not immediately. However, the project has the potential to benefit natural resources by reducing groundwater contamination. It will also provide several human use services, including improving the water treatment and delivery systems.

Likelihood of success and potential for adverse impacts: The project had a medium-high ranking across these criteria. The project will install a centralized wastewater collection system that connects to the existing system, which is a well-established method for replacing leaking on-site disposal systems, and therefore has a high potential for long-term success and low risk of failure. However, it ranked only medium-high for the long-term success and low risk of failure criterion, because the project will require some monitoring and maintenance to achieve success, and the City of Farmington plans to take responsibility for this. It ranked medium-high for the low potential for adverse impacts to natural resources and human health safety criterion because it will likely have some short-lived adverse impacts during construction.

SECTION 3: RESTORATION ALTERNATIVES

Table 3.4. Totah Subdivision Water and Wastewater System Improvements Project Evaluation

Evaluation Criteria		Narrative Evaluation	Ranking
Geographic location	Proximity to Animas and San Juan River watersheds	The project will be located near Farmington, NM within the San Juan River watershed.	High
Consistency with plans	Consistency with local/regional plans	This project is identified in the County's ICIP.	High
Cost criteria	Ability to leverage	The project will leverage 1,000% of the requested settlement funds in additional funds from San Juan County (American Rescue Plan Act Funds).	High
	Low ratio of planning costs to restoration costs	Approximately 21% of requested funds will be used for planning and administration.	High
	Relationship of costs to benefits	The project has a high ratio of expected benefits to costs. It will benefit the public with safe drinking water and reduce groundwater contamination to the San Juan River from leaky septic tanks with good cost sharing.	High
	Cost-effectiveness	The expected benefits are distinct compared to the other projects, and thus this criterion is not applicable.	N/A
Proponent	Lead project proponent is state or local public body	San Juan County is a local public entity.	High
Expected benefits and timeframe of benefits	Implemented in a timely manner	The project will be initiated within one year and completed within two years.	High
	Likely to provide benefits quickly	The project will provide expected benefits at completion which will be approximately one and a half years after the project is initiated.	Medium-High
Likelihood of success and potential for adverse impacts	High potential for long-term success and low risk of failure	Installing a centralized wastewater collection system that connects to the existing system is a well-established method to replace leaking on-site disposal systems. However, the project will require some maintenance and management to achieve success.	Medium-High
	Low potential for adverse impacts to natural resources or human health and safety	The project will likely have some minor adverse impacts during construction, but they will be short-lived, ending once construction is complete. Proper permits will be obtained.	Medium-High

3.2.3 Alternative C: Construction of Aquatic Invasive Species Station Project

Alternative C is a project proposed by EMNRD, State Parks Division to install a watercraft decontamination system at the Texas Hole Day-Use Area in Navajo Lake State Park.

Project Description

EMNRD, State Parks Division's Construction of Aquatic Invasive Species Station project on the San Juan River will install a watercraft decontamination system at the Texas Hole Day-Use Area within Navajo Lake State Park. The project will be located within the "San Juan River Quality Waters" (Quality Waters), designated by NMDGF as high-quality trout habitat (NMDGF, 2019). The Quality Waters of the San Juan River are widely regarded as one of the most prolific flyfishing waterways in North America. As such, anglers come from around the globe for year-round fishing. The goal of the project is to identify and prevent contamination of the Quality Waters on the San Juan River from aquatic invasive species. The project aims to protect resources and raise awareness of aquatic invasive species.

Aquatic invasive species, such as zebra and quagga mussels, are detrimental to any ecosystem where they are introduced. Once a body of water is contaminated with an aquatic invasive species, it is nearly impossible to remove the species; therefore, preventing contamination is essential to the health of the

SECTION 3: RESTORATION ALTERNATIVES

ecosystem. Preventing aquatic invasive species contamination will protect the ecosystem of the San Juan River, including more than 80,000 Rainbow Trout and Brown Trout, and approximately three to four miles of Quality Waters. Additionally, infrastructure such as hydropower facilities and water treatment plants are also susceptible to zebra mussel infestation. The project will prevent damage to the infrastructure of the hydroelectric plant and the water treatment plants. Infestation of the nearby hydroelectric plant built into in the Navajo Dam could result in a temporary shutdown of the plant and costly repairs, which would directly affect the communities tied to the Farmington Electric Company. Water treatment plants, such as the Cottonwood Campground water plant or other downstream water systems, pull water out of the San Juan for potable uses and are therefore susceptible to infestation.

The project will involve leveling and paving the area near the boat launch for the decontamination apparatus and extending utilities to the boat launch. Design and engineering will begin July 2023, cultural and environmental compliance and permitting will take place from October 2023 to June 2024, and site work and construction will occur from July to December 2024. The project will be complete by March 2025. Project benefits are expected to begin accruing upon completion of construction (March 2025). NMDGF will assume the costs of the operation and maintenance of the aquatic invasive species station through their federally funded Aquatic Invasive Species program. Navajo Lake State Park's Annual Operating Budget will address any maintenance and repairs that may be necessary to maintain the decontamination apparatus, associated equipment and the infrastructure over anticipated 25-year lifespan of the facility.

The amount of funding requested from ONRT is \$205,226, which will partially cover planning, permitting, construction, contingency, and New Mexico GRT. The project will be able to leverage an additional \$205,226 in matching funds from EMNRD, State Parks Division. The project proponent also anticipates the availability of in-kind support for operations and maintenance.

Trustee Assessment with the Evaluation Criteria

Overall, the Trustee evaluated Alternative C favorably, based on the established evaluation criteria. Table 3.5 provides a narrative evaluation and ranking of the alternative with the evaluation criteria.

Proximity to Animas and San Juan River watersheds: The project had a high rank for this criterion. The aquatic invasive species station will be located within Navajo Lake State Park (Figure 3.1).

Consistency with local/regional plans: The project ranked had a high ranking for this criterion. The project is consistent with state goals to protect and enhance natural resources. The project is also consistent with the Navajo Lake State Park River Management Plan adopted January 2014. The project is identified in the EMNRD, State Parks Division's Capital Improvement Plan; the five-year capital improvements plan for the Bureau of Reclamation (BOR) Title 28 funding; the EMNRD, State Parks Division's River Management Plan that is being updated; and the Master Plan that is in development.

Costs: The project had a high ranking across the applicable cost criteria. It will leverage at least 100% of the requested \$205,226 in settlement funds through matching funds secured from EMNRD, State Parks Division and additional in-kind support from BOR and/or the NMDGF Aquatic Invasive Species Program for operations and maintenance over the life of the project, and therefore ranked high for the ability to leverage criterion. The project will have a low ratio of planning costs to restoration costs, as less than a quarter of the requested funds will be used for planning and administrative activities such as design, engineering, permitting, and compliance, and therefore ranked high for the ratio of planning to restoration costs criterion. The project has a high ratio of expected benefits to costs as it will benefit multiple natural resources and resource services, including aquatic habitat (i.e., protecting the ecosystem from impacts of invasive species) and human uses (i.e., protecting infrastructure), and will have good cost sharing, and therefore ranked high for the relationship of costs to benefits criterion.

SECTION 3: RESTORATION ALTERNATIVES

Proponent is a state or local public body: The project had a high rank for this criterion. EMNRD, State Parks Division is a state agency.

Expected benefits and timeframe of benefits: The project had a high to medium-high ranking across the expected benefits and timeframe of benefits criteria. The project had a high ranking for the implemented in a timely manner criterion because it will be initiated within one year and completed within two years. The project ranked medium-high for the likely to provide benefits quickly criterion because the expected benefits will be accrued approximately two years after the project is initiated and not immediately.

The project has the potential to benefit multiple natural resources and resource services. It may benefit aquatic habitat by protecting the ecosystem from the invasion of aquatic species. It will also provide several human use services, including, preventing aquatic invasive species infestation of the hydroelectric and water system infrastructure.

Likelihood of success and potential for adverse impacts: The project had a medium-high ranking across these criteria. The project will install a watercraft decontamination station, which is a well-established method to prevent contamination from aquatic invasive species, and therefore has a high potential for long-term success and low risk of failure. However, it ranked only medium-high for the long-term success and low risk of failure criterion, because it will require some monitoring and maintenance to prevent mechanical failure, and BOR and/or the NMDGF Aquatic Invasive Species Program will assume responsibility for this. The decontamination unit will include an onboard diagnostic system, which EMNRD, State Parks Division and/or NMDGF staff will monitor and maintain. It ranked medium-high for the low potential for adverse impacts to natural resources and human health safety criterion because it will likely have some short-lived adverse impacts during construction.

Table 3.5. Construction of Aquatic Invasive Species Station Project Evaluation

Evaluation Criteria		Narrative Evaluation	Ranking
Geographic location	Proximity to Animas and San Juan River watersheds	The project will be located in Navajo Lake State Park within the San Juan River watershed.	High
Consistency with plans	Consistency with local/regional plans	The project is identified in the EMNRD, State Parks Division's Capital Improvement Plan; the five-year capital improvements plan for BOR Title 28 funding; and the impending EMNRD, State Parks Division's River Management Plan. The project is also consistent with the Navajo Lake State Park River Management Plan adopted January 2014.	High
Cost criteria	Ability to leverage	The project will leverage at least 100% of the requested settlement funds in additional funds from EMNRD, State Parks Division (potentially more than 100% if maintenance needs arise, as the project proponent will cover these costs but did not quantify them).	High
	Low ratio of planning costs to restoration costs	Approximately 15% of the requested funds will be used for planning and administration (including design, engineering, permitting, and compliance).	High
	Relationship of costs to benefits	The project has a high ratio of expected benefits to costs. The project benefits multiple resources including human uses and aquatic habitat and includes leveraged funds.	High
	Cost-effectiveness	The expected benefits are distinct compared to the other projects, and thus this criterion is not applicable.	N/A
Proponent	Lead project proponent is state or local public body	EMNRD, State Parks Division is a state agency.	High

SECTION 3: RESTORATION ALTERNATIVES

Evaluation Criteria		Narrative Evaluation	Ranking
Expected benefits and timeframe of benefits	Implemented in a timely manner	The project will be initiated within one year and completed within two years.	High
	Likely to provide benefits quickly	The project will provide expected benefits at completion which will be within two years after the project is initiated.	Medium-High
Likelihood of success and potential for adverse impacts	High potential for long-term success and low risk of failure	The project will use well-established methods to prevent invasive mussels. However, the project will require some maintenance and management to achieve success.	Medium-High
	Low potential for adverse impacts to natural resources or human health and safety	The project will likely have some minor adverse impacts during construction, but they will be short-lived, ending once construction is complete. Proper permits will be obtained.	Medium-High

3.2.4 Alternative D: Irrigation Ditch Diversion Project

Alternative D is a project proposed by the San Juan Soil and Water Conservation District to replace ditch headgates and improve diversions of five irrigation ditches on the Animas and San Juan Rivers.

Project Description

The Irrigation Ditch Diversion project will replace ditch headgates and/or improve diversions of five irrigation ditches that are all over 50 years old around the Farmington, NM area (Figure 3.4). When the GKM Release occurred, entities who operate the irrigation ditches were told to shut the headgates to avoid contaminated water reaching farmers' fields. In several cases, contamination was unavoidable as many of the diversions and headgates were in such ill repair they either could not be shut completely or leaked; this led to contamination of the ditch and cropland. Additionally, many of these ditches are large contributors of sedimentation to the river due to aging infrastructure. The goal of this project is to improve ditches on the Animas and San Juan Rivers. In 2017, BOR conducted an infrastructure survey of all the irrigation ditches in the San Juan River Basin and made recommendations on improvements needed. The ditches included in this project are some of those identified by BOR as needing complete replacement of headgates, diversion dams, or both.

Specifically, the project will improve the Cedar Ditch headworks and diversion dam, the Halford-Independent Ditch headworks, the North Farmington Ditch, the Farmer's Mutual Ditch and the Jewett Valley Ditch headworks (Figure 3.4). The project will include the following updates:

- Cedar Ditch Headworks and Diversion Dam:*** The existing headworks structure is in poor working condition, with exposed aggregate and leaking gates. The attached sluiceway is not performing as designed, allowing sediment buildup in front of the headgates and eroding the bank downstream. To slow and prevent the downstream erosion, a school bus was placed along the downstream bank of the river (Figure 3.5). This project will remove the existing school bus and engineer a sandstone rock structure along the bank to keep the bank from eroding, replace the headworks structure, and add a sluiceway on the downstream side of the headgates to alleviate sediment buildup. The Cedar Ditch diversion dam is made up of chunks of concrete piled in the river and held together by an old railroad track cut and placed vertically every 15 feet with the concrete attached to them. This project will replace the diversion dam to improve consistent flow of water out of the river into the diversion headgate.
- Halford-Independent Ditch Headworks:*** The Halford Ditch diverts water from the right descending bank of the Animas River and flows directly into the Independent Ditch. The headworks structure is located at the start of the diversion point and is a shared diversion for both the Halford and

SECTION 3: RESTORATION ALTERNATIVES

Independent Ditches. The existing headworks structure is in poor working condition. This project will replace the existing structure with a single bay radial gate that is recommended for full replacement.

- **North Farmington Ditch:** The ditch is continually catching trash and trees that must be mechanically removed. The project will install a deflector structure to prevent this from occurring. The project will also make the ditch safer for the community by closing the currently open ditch through placement of a pipe. The open ditch is located behind Apache Elementary and is a safety concern as youth tend to jump the open ditch when going to and from school. The project may utilize matching funds that have been secured from State of New Mexico capital outlay.
- **Farmer's Mutual Ditch Headworks:** This ditch water is diverted from both the San Juan and Animas Rivers, in Farmington, NM. The headworks structure on the San Juan River is comprised of three sliding gates. The structure is in poor working condition. This project will replace the existing structure on the San Juan River with a double bay radial gate structure.
- **Jewett Valley Ditch Headworks:** The existing headworks structure is in poor working condition, with exposed aggregate and leaking gates, and the attached sluiceway not performing as designed. The radial gate arms are bent and broken, and sediment builds up in front of the gates, since this structure is set back from the river. The project will replace the headworks structure and alleviate sediment buildup in front of the headgates and add a sluiceway on the downstream side of the headgates.

The project will benefit local farmers and domestic water users; the combined ditch diversions for this alternative have the capability to deliver over 200 cubic feet per second to over 800 farmers and 2,000 domestic water users and have the capacity to irrigate over 8,000 acres of crop land. The project will also improve recreational access to the rivers by removing impediments to make for safer passage down the river for rafts and boats; it will also improve safety conditions for surrounding land use (e.g., North Farmington Ditch). It will also benefit water quality and aquatic habitats by reducing sedimentation to the rivers. The project will create more suitable habitat for state and federally protected fishes by assuring fish passage and reducing the likelihood fish are carried into irrigation ditches. Benefits are expected to accrue as soon as the projects are completed (within two years).

The project proponent estimates that permitting, National Historic Preservation Act consultation, and biological assessments will be completed by July 2023. Engineering and design will be contracted and completed for all ditches between July and September 2023, followed by a bid for materials and construction in October 2023. Construction will occur from November 2023 to March 2024, and a contingency plan will be completed for any projects that are not completed in that time. Re-permitting, if required, will occur in July 2024 and additional construction will follow from October 2023 to March 2024, with the project finalized in May 2025. The upgrades to these ditches are estimated to last approximately 50 years with routine maintenance. Each ditch association will address any maintenance and repairs that may be anticipated over the 50-year lifespan of the ditches.

The amount of funding requested from ONRT is \$1,616,600, which will cover planning, administration, permitting, and construction costs plus New Mexico GRT. The project will be implemented using a phased approach at the five project locations. The first phase will be focused on planning and design and the second phase will be focused on construction. The project will be able to leverage an additional \$70,000 in matching funds from New Mexico Capital Outlay to partially fund the improvements to the North Farmington Ditch, and additional in-kind support from the ditch associations to provide 50 years of operations and maintenance for the five ditches. Additional matching funds may be available after the planning and design phase for each of the five locations is completed.

SECTION 3: RESTORATION ALTERNATIVES

Figure 3.4. Location of the Ditches included in Alternative D



SECTION 3: RESTORATION ALTERNATIVES

Figure 3.5. School Bus Placed at Cedar Ditch to Prevent Downstream Erosion



Source: San Juan Soil and Water Conservation District

Trustee Assessment with the Evaluation Criteria

Overall, the Trustee evaluated Alternative D favorably, based on the established evaluation criteria. Table 3.6 provides a narrative evaluation and ranking of the alternative with the evaluation criteria.

Proximity to Animas and San Juan River watersheds: The project had a high ranking for this criterion. The five ditches are located around the Farmington, NM area; three of the ditches are located along the Animas River, and two are located along the San Juan River (Figure 3.4).

Consistency with local/regional plans: The project had a medium-high ranking for this criterion. The project is not specifically identified in any planning documents, but it is consistent with the San Juan Basin Water Plan, Lower Animas Water Based Plan, DOI's Evaluation of Irrigation Infrastructure in the San Juan River Basin, and the San Juan River Basin Recovery Implementation Program (SJ RIP) Long-Range Plan. These plans address and place importance on Water Planning by diverting water for irrigating agricultural crop land in the San Juan Basin.

Costs: The project had a medium-high ranking across the applicable cost criteria. It will leverage more than 50% of the requested \$1,616,600 in settlement funds through matching funds originally sourced from New Mexico Capital Outlay and through additional in-kind support in the form of operations and maintenance work performed by the five ditch associations over the life of the project, and therefore ranked medium-high for the ability to leverage criterion. The project will have a low ratio of planning costs to restoration costs, as less than a quarter of the requested funds will be used for planning and administrative activities such as engineering, design, permitting, compliance, and other overhead, and

SECTION 3: RESTORATION ALTERNATIVES

therefore ranked high for the ratio of planning to restoration costs criterion. The project has a high ratio of expected benefits to costs as it will benefit multiple resources and resource services (i.e., water quality, aquatic habitat, river recreation, and agricultural water use), will cover five different ditches, and will have very good cost sharing, and therefore ranked high for the relationship of costs to benefits criterion.

Proponent is a state or local public body: The project ranked high for this criterion. San Juan Soil and Water Conservation District is a local public entity.

Expected benefits and timeframe of benefits: The project had a high to medium-high ranking across the expected benefits and timeframe of benefits criteria. The project had a high ranking for the implemented in a timely manner criterion because it will be initiated within one year and completed within two years. The project ranked medium-high for the likely to provide benefits quickly criterion because the expected benefits will be accrued approximately two years after the project is initiated and not immediately. However, the project has the potential to benefit multiple natural resources and resource services. The project will benefit water quality and aquatic habitats by reducing sedimentation to the rivers. It will create more suitable habitat for state and federally protected fishes by improving fish passage and reducing the likelihood fish are entrained in irrigation ditches. The project will also provide several human use services, including benefiting local farmers, domestic water users, and will improve recreational access to the rivers by removing impediments to make for safer passage down the river for rafts and boats.

Likelihood of success and potential for adverse impacts: The project had a medium-high ranking across these criteria. The project will include replacing ditch structures and improving diversions with well-established methods, and therefore has a high potential for long-term success and a low risk of failure. However, it ranked only medium-high for the long-term success and low risk of failure criterion because the project will require some monitoring and maintenance to achieve success, and each ditch association will be responsible for maintenance. It ranked medium-high for the low potential for adverse impacts to natural resources and human health safety criterion because it will likely have some short-lived adverse impacts during construction.

Table 3.6. Irrigation Ditch Diversion Project Evaluation

Evaluation Criteria		Narrative Evaluation	Ranking
Geographic location	Proximity to Animas and San Juan River watersheds	The project will include three ditches along the Animas River and two ditches along the San Juan River.	High
Consistency with plans	Consistency with local/regional plans	The project is consistent with the San Juan Basin Water Plan, Lower Animas Water Based Plan, DOI's Evaluation of Irrigation Infrastructure in the San Juan River Basin, and the SJRIP Long-Range Plan.	Medium-High
Cost criteria	Ability to leverage	The project will leverage more than 50% of the requested settlement funds in additional funds from New Mexico Capital Outlay and the five ditch associations.	Medium-High
	Low ratio of planning costs to restoration costs	Approximately 24% of requested funds will be used for planning and administration.	High
	Relationship of costs to benefits	The project has a high ratio of expected benefits to costs. The project will benefit multiple resources, including surface water, local habitat (fish), and human uses. The cost will cover different ditches.	High
	Cost-effectiveness	The expected benefits are distinct compared to the other projects, and thus this criterion is not applicable.	N/A
Proponent	Lead project proponent is state or local public body	San Juan Soil and Water Conservation District is a local public entity.	High

SECTION 3: RESTORATION ALTERNATIVES

Evaluation Criteria		Narrative Evaluation	Ranking
Expected benefits and timeframe of benefits	Implemented in a timely manner	The project will be initiated within one year and will be finalized within two years.	High
	Likely to provide benefits quickly	The project will provide expected benefits at completion which will be approximately one to two years after the project is initiated.	Medium-High
Likelihood of success and potential for adverse impacts	High potential for long-term success and low risk of failure	Replacing ditch headgates and improving diversions is well-established. However, the project will require some maintenance and management to achieve success.	Medium-High
	Low potential for adverse impacts to natural resources or human health and safety	The project will likely have some minor adverse impacts during construction, but they will be short-lived, ending once construction is complete. Proper permits will be obtained.	Medium-High

3.2.5 Alternative E: Construction of Whitewater Wave and Irrigation Diversion Dam at Gateway Park Project

Alternative E is a project proposed by the City of Farmington to build a combined irrigation ditch intake, fish ladder, and adjustable whitewater wave feature in the Animas River, on property owned by the City.

Project Description

The Construction of Whitewater Wave and Irrigation Diversion Dam at Gateway Park project will build a combined irrigation ditch intake, fish ladder, and adjustable whitewater wave feature in the Animas River, on property owned by the City of Farmington. The goals of the project are to reduce irrigation ditch maintenance costs, improve fish habitat, and create opportunities for recreation.

The City of Farmington is working collaboratively with the North Farmington Ditch Company (Ditch Company) to make improvements in the Animas River at Gateway Park. The Ditch Company operates the North Farmington Ditch, which spans approximately seven miles of the City of Farmington and serves agriculture and urban landscapes. Currently, the Ditch Company maintains a simple rubble dam that forces the water level in the river up to an elevation that can feed the irrigation ditch. This makeshift dam is vulnerable to flood damage and must be re-constructed almost every year for the ditch to function properly. The dam is also a barrier to fish migration for species including Brown and Rainbow trout as well as the federally-listed Threatened and Endangered species Humpback Chub and Razorback Sucker. The project will move the irrigation dam upstream. The new dam feature will include a new intake for the North Farmington Ditch, a fish ladder, and an adjustable whitewater wave feature. This project will greatly reduce maintenance needs for the Ditch Company, provide fish passage, and create recreational opportunities for local residents as well as visitors from around the region. The adjustable whitewater wave feature will be the first of its kind in the Four Corners area and will have the ability to extend the whitewater season when adjusted to lower water flows. The new dam will be located adjacent to the new development work being planned and constructed at Gateway Park by the City (Figure 3.6). By co-locating the land-side development with the in-river improvements, the City believes that the site can function as a multi-purpose venue, that will have the potential to accommodate farmers markets, craft fairs, small music events, whitewater competitions, and an attractive waterfront that is fully integrated into the rest of the Gateway site development.

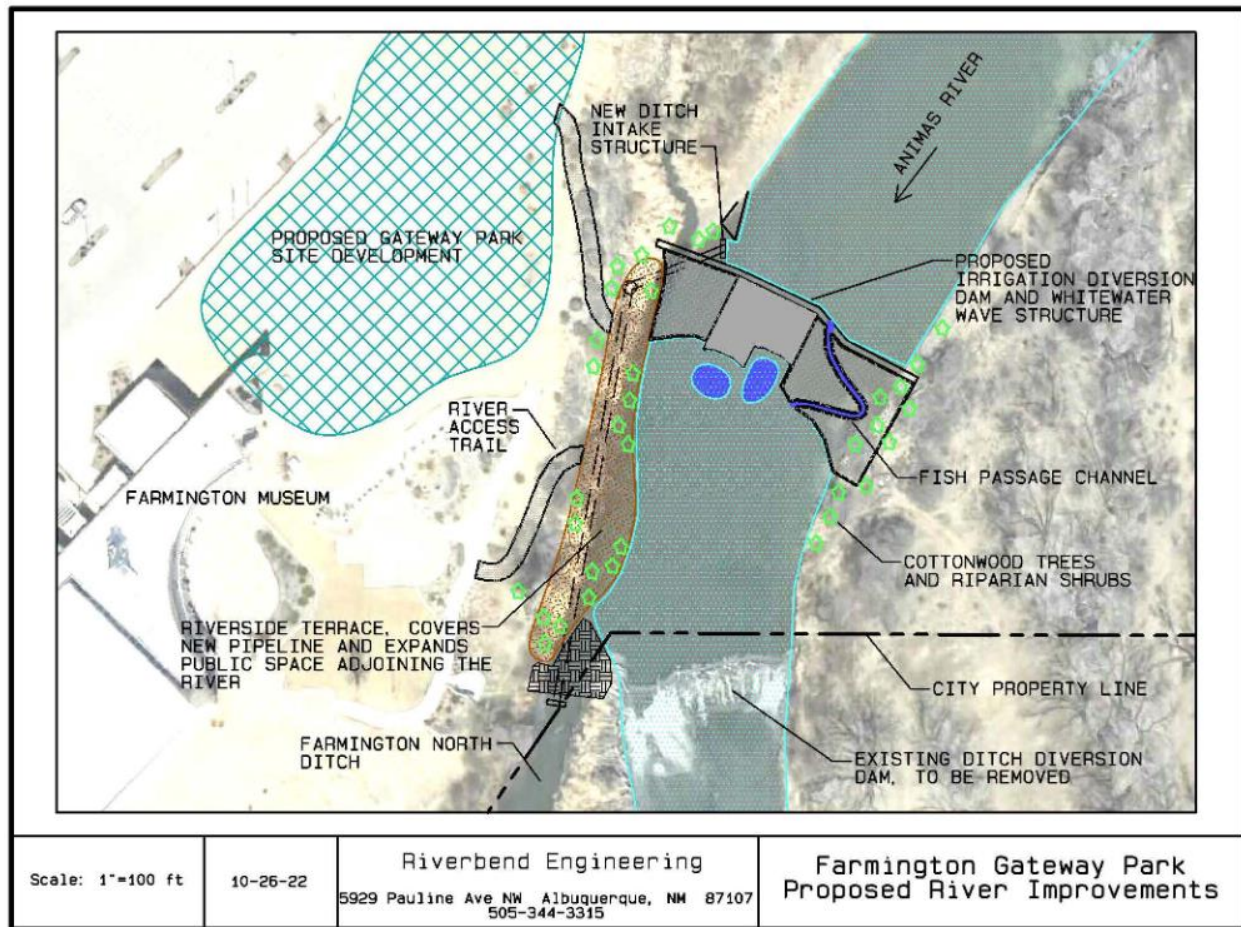
The project will involve the construction of the new irrigation diversion dam, whitewater structure, and fish passage ladder (Figure 3.3). The project proponent anticipates that project planning, design, and permitting will be completed by June 2024, followed by coordination, bidding, and procurement until September 2024. Construction will take place from October 2024 to March 2025, during seasonal low water flow. Project benefits are expected to begin accruing upon completion of construction (March 2025). The City of Farmington will assume the costs of the operation and maintenance of the in-river structures, and the Ditch Commission will assume the costs of maintaining the ditch intake and pipeline.

SECTION 3: RESTORATION ALTERNATIVES

The project proponent states that with proper maintenance, the in-river features will last 30 to 40 years or longer.

The amount of funding requested from ONRT is \$2,000,000, which will partially cover planning, administration, permitting, construction, contingency, and New Mexico GRT. The project will be able to leverage an additional \$1,145,395 in matching funds from the City of Farmington, and an additional \$266,000 in in-kind support from the City for a whitewater feasibility study that was completed in 2021 and five years of support for operations and maintenance.

Figure 3.6. Planned Whitewater Wave and Irrigation Diversion Dam at Gateway Park



Source: City of Farmington

Trustee Assessment with the Evaluation Criteria

Overall, the Trustee evaluated Alternative E favorably, based on the established evaluation criteria. Table 3.7 provides a narrative evaluation and ranking of the alternative with the evaluation criteria.

Proximity to Animas and San Juan River watersheds: The project had a high ranking for this criterion. The diversion dam and whitewater wave feature will be located on the Animas River within the Farmington, NM city limits (Figure 3.1).

Consistency with local/regional plans: The project had a high ranking for this criterion. The overall Whitewater Wave Project is listed in the City of Farmington's ICIP (priority #6 out of 21). As a part of the City Council's ongoing Community Transformation and Economic Diversification strategic planning, they have prioritized activating the Animas River as a rafting/kayaking destination and directed staff to

SECTION 3: RESTORATION ALTERNATIVES

complete a feasibility study that identified six prime locations for such features, including the one planned for this project. The project is also consistent with the State Comprehensive Outdoor Recreation Plan, which lists adding additional river recreation access as a high priority.

Costs: The project had a medium-high to high ranking across the applicable cost criteria. It will leverage approximately 71% of the requested \$2,000,000 in settlement funds through matching funds secured from the City of Farmington and additional in-kind support from the City for five years of operations and maintenance as well as a previously completed whitewater feasibility study, and therefore ranked medium-high for the ability to leverage criterion compared to other projects that were evaluated. The project will have a low ratio of planning costs to restoration costs, as less than a quarter of the requested funds will be used for planning and administrative activities such as design, permitting, compliance, and construction overhead, and therefore ranked high for the ratio of planning to restoration costs criterion. The project has a high ratio of expected benefits as it will benefit multiple resources and resource services (i.e., aquatic habitat, farming, and river recreation) and will have some cost sharing, and therefore ranked high for the relationship of costs to benefits criterion.

Proponent is a state or local public body: The project ranked high for this criterion. The City of Farmington is a local public entity.

Expected benefits and timeframe of benefits: The project ranked moderately across the expected benefits and timeframe of benefits criteria. The project had a medium-low ranking for the implemented in a timely manner criterion because it will take over a year to be initiated and it will be completed within two years. The project ranked medium-high for the likely to provide benefits quickly criterion because the expected benefits will be accrued approximately two years after the project is initiated and not immediately. However, the project has the potential to benefit multiple natural resources and resource services. The project will create more suitable habitat for fish by improving fish passage and reducing the likelihood fish are entrained in irrigation ditches. The project will also provide several human use services, including benefiting local farmers and improving recreational access to the rivers by constructing a whitewater wave feature.

Likelihood of success and potential for adverse impacts: The project had a medium-high ranking across these criteria. The project will replace a dam and add a fish ladder and whitewater feature, which are well-established methods for improving irrigation, fish habitat, and recreation, respectively. The project therefore has a high potential for long-term success and low risk of failure. However, it ranked only medium-high for the long-term success and low risk of failure criterion because the project will require some maintenance and management to achieve success, and the City of Farmington and the Ditch Associations will take responsibility for this. It ranked medium-high for the low potential for adverse impacts to natural resources and human health safety criterion because it will likely have some short-lived adverse impacts during construction.

SECTION 3: RESTORATION ALTERNATIVES

Table 3.7. Construction of Whitewater Wave and Irrigation Diversion Dam at Gateway Park Project Evaluation

Evaluation Criteria		Narrative Evaluation	Ranking
Geographic location	Proximity to Animas and San Juan River watersheds	The project will be located within the Animas River watershed within the Farmington, NM city limits.	High
Consistency with plans	Consistency with local/regional plans	The overall Whitewater Wave Project is listed in the City of Farmington's ICIP (priority #6 out of 21). As a part of the City Council's ongoing Community Transformation and Economic Diversification strategic planning, they have prioritized activating the Animas River as a rafting/kayaking destination and directed staff to complete a feasibility study that identified six prime locations for such features, including the one presented here. Adding additional river recreation access is also a high priority in the State Comprehensive Outdoor Recreation Plan.	High
Cost criteria	Ability to leverage	The project will leverage approximately 71% of the requested settlement funds in additional funds from the City of Farmington.	Medium-High
	Low ratio of planning costs to restoration costs	21% of the requested funds will be used for planning and administration (including construction contracting, design, permitting, and compliance).	High
	Relationship of costs to benefits	The project has a high ratio of expected benefits to costs. The project will benefit multiple resources/services, including wildlife habitat, surface water, and human use, and will also have some matching funds to help with costs.	High
	Cost-effectiveness	The expected benefits are distinct compared to the other projects, and thus this criterion is not applicable.	N/A
Proponent	Lead project proponent is state or local public body	The City of Farmington is a local public entity.	High
Expected benefits and timeframe of benefits	Implemented in a timely manner	The project will take longer than a year to initiate and will be completed within two years.	Medium-Low
	Likely to provide benefits quickly	Benefits will begin to accrue at project completion and will require some maintenance or management.	Medium-High
Likelihood of success and potential for adverse impacts	High potential for long-term success and low risk of failure	Replacing a dam and adding the whitewater feature will improve the river and recreation. However, the project will require some maintenance and management to achieve success.	Medium-High
	Low potential for adverse impacts to natural resources or human health and safety	The project will likely have some minor adverse impacts during construction, but they will be short-lived, ending once construction is complete. Proper permits will be obtained.	Medium-High

SECTION 3: RESTORATION ALTERNATIVES

3.2.6 Alternative F: San Juan Water Lease Agreement Partnership to Improve River Health Project

Alternative F is a project proposed by NMISC to lease 20,000 acre-feet of water from the Jicarilla Apache Nation in 2023 for release into the San Juan River in 2024.

Project Description

This project involves leasing water rights to support aquatic habitat and wildlife in the San Juan River instead of diverting the leased water to other uses. More specifically, the San Juan Water Lease Agreement Partnership to Improve River Health project will contribute to the implementation of an agreement between the Jicarilla Apache Nation, NMISC, and The Nature Conservancy (TNC) to lease up to 200,000 acre-feet of water over ten years for the drought-stricken San Juan River. Under the agreement, NMISC can lease up to 20,000 acre-feet/year for ten years from the Jicarilla Apache Nation to place in New Mexico's Strategic Water Reserve (SWR). The SWR statute, enacted by the New Mexico State Legislature in 2005, allows NMISC to acquire surface water or groundwater, water rights, or storage rights by purchase, lease, or donation to be used to assist the state in complying with interstate stream compacts or court decrees, and to assist the state and water users in water management efforts for the benefit of threatened or endangered species. The San Juan River Basin is one of the priority basins identified by NMISC in connection with the SWR.

The project will result in improved instream habitat for approximately 106 miles of the San Juan River in New Mexico between Navajo Reservoir and the New Mexico-Colorado state line. The water lease will benefit native fish species in the San Juan River—including the federally- and state- listed Endangered species Colorado Pikeminnow and the federally-listed Endangered species Razorback Sucker as well as the Roundtail Chub, Bluehead Sucker, Flannelmouth Sucker, and Mottled Sculpin—by improving habitat and flow augmentation. The project will reduce the possible consequences of water stress to communities in San Juan County, including several Tribal communities. The lease will benefit agricultural, municipal, and industrial water users by reducing or avoiding potential legal limitations on their uses. Providing water to increase river flows will also benefit anglers, recreational users, farmers, and other members of the San Juan County community.

Planning for the project has been ongoing for the past two years, and ONRT funding will assist with the lease of water from the Jicarilla Apache Nation in 2023 for release into the San Juan River in 2024. NMISC, TNC, and the Jicarilla Apache Nation will meet to discuss the amount of funding to lease the water for the 2024 calendar year and determine the amount of water to be leased. NMISC will then submit a request to reserve the water which the Jicarilla Apache Nation will respond to with a notice to reserve water. NMISC and TNC will then send payment to the Jicarilla Apache Nation. After final permits and approvals, NMISC will provide a notice to take delivery of leased water to the Nation, and NMISC, TNC, and the Jicarilla Apache Nation will coordinate with BOR on the timing of the release. NMISC and TNC will develop a plan to monitor the benefits of the release to the ecosystem and species affected.

The amount of funding requested from ONRT is \$1,803,000, which will cover the 2023 water order to lease 20,000 acre-feet of water (for 2024 release), monitoring, and some administrative costs. The project will be able to leverage an additional \$2,016,784 in matching funds from NMISC and TNC that covered the 2022 water order and additional administrative costs.

SECTION 3: RESTORATION ALTERNATIVES

Trustee Assessment with the Evaluation Criteria

Overall, the Trustee evaluated Alternative F favorably, based on the established evaluation criteria. Table 3.8 provides a narrative evaluation and ranking of the alternative with the evaluation criteria.

Proximity to Animas and San Juan River watersheds: The project had a high ranking for this criterion. For this lease agreement, water will leave the Navajo Reservoir at Navajo Lake State Park and be released into the San Juan River (Figure 3.1).

Consistency with local/regional plans: The project had a medium-high ranking for this criterion. The project is not identified in local or regional planning documents, but this type of project is consistent with the following state, federal, and regional plans for the San Juan River Basin: NMISC 2022 Annual Priorities for the Strategic Water Reserve, 2018 New Mexico State Water Plan, San Juan Basin Regional Water Plan 2016, SJRIP, New Mexico State Wildlife Action Plan, The Colorado River Fish and Wildlife Council Range-Wide Conservation Agreement and Strategy, and the 2019 Energy Transition Act (Senate Bill 489).

Costs: The project had a high to medium-low ranking across the applicable cost criteria. It will leverage approximately 112% of the requested \$1,803,000 in settlement funds through matching funds secured from NMISC and TNC, and therefore ranked high for the ability to leverage criterion. The project will have a low ratio of planning costs to restoration costs, as less than a quarter of the requested funds will be used for support provided by NMISC for administering the lease, and therefore ranked high for the ratio of planning to restoration costs criterion. However, the project had a medium-low ranking for the expected benefits to costs ratio criteria; it will benefit multiple resources and services (i.e., aquatic habitat, farming, recreational fishing, and other related recreation and tourism), but without secured funding for water releases in future years, it is difficult to assess whether the project cost will provide more than one year of benefits. The project will have good cost sharing.

Proponent is a state or local public body: The project had a high ranking for this criterion. NMISC is a state public entity.

Expected benefits and timeframe of benefits: The project had a high ranking across the expected benefits and timeframe of benefits criteria. The project will take less than a year to be initiated and the release of water will occur in 2024, and therefore ranked high for the implemented in a timely manner criterion. The expected benefits will be accrued immediately after the water is released in 2024, and therefore ranked high for the likely to provide benefits quickly criterion. The project has the potential to benefit multiple natural resources and resource services. The project will create more suitable aquatic habitat for fish and other aquatic taxa by increasing river flow. The project will also provide several human use services, including, benefiting local farmers, anglers, and other recreational users of the San Juan River.

Likelihood of success and potential for adverse impacts: The project had a medium-low to high ranking across these criteria. The project will lease water, which is a well-established method, and has the proper permits in place. However, the funding for future years is not secured, and therefore the project may not have long-term success and ranked medium low for the long-term success and low risk of failure criterion. There are no anticipated adverse impacts or safety issues for this project, and therefore the project ranked high for the low potential for adverse impacts to natural resources and human health safety criterion.

SECTION 3: RESTORATION ALTERNATIVES

Table 3.8. San Juan Water Lease Agreement Partnership to Improve River Health Project Evaluation

Evaluation Criteria		Narrative Evaluation	Ranking
Geographic location	Proximity to Animas and San Juan River watersheds	The project will be located in Navajo Lake State Park within the San Juan River watershed.	High
Consistency with plans	Consistency with local/regional plans	The project is consistent with, but not specifically mentioned in, the following state, federal, and regional plans for the San Juan River Basin: NMISC 2022 Annual Priorities for the Strategic Water Reserve, 2018 New Mexico State Water Plan, San Juan Basin Regional Water Plan 2016, SJRIP, New Mexico State Wildlife Action Plan, The Colorado River Fish and Wildlife Council Range-Wide Conservation Agreement and Strategy, and the 2019 Energy Transition Act (Senate Bill 489).	Medium-High
Cost criteria	Ability to leverage	The project will leverage approximately 112% of the requested settlement funds in additional funds from NMISC and TNC.	High
	Low ratio of planning costs to restoration costs	Less than 5% of requested funds will be used for planning and administration.	High
	Relationship of costs to benefits	The project will have a low ratio of expected benefits to costs (only one year). It will benefit ecosystem and people nearby but benefits beyond the funded release year are difficult to quantify with no secured funding for additional releases.	Medium-Low
	Cost-effectiveness	The expected benefits are distinct compared to the other projects, and thus this criterion is not applicable.	N/A
Proponent	Lead project proponent is state or local public body	NMISC is a state public entity.	High
Expected benefits and timeframe of benefits	Implemented in a timely manner	The project will be initiated and completed for the 2024 release.	High
	Likely to provide benefits quickly	The project will provide expected benefits immediately after water is released.	High
Likelihood of success and potential for adverse impacts	High potential for long-term success and low risk of failure	The project will use well-established methods and has all proper permits and permissions in place, but funding is not secured for future releases past the one year that will be funded.	Medium-Low
	Low potential for adverse impacts to natural resources or human health and safety	There are no anticipated adverse impacts or safety issues. Release of the water will be coordinated through BOR who will then coordinate with other state and local agencies as necessary regarding increased releases, changes in water levels, and any needed public safety measures.	High

3.2.7 Alternative G: Nenahnezad Chapter Boat Ramp Along the San Juan River Project

Alternative G along the San Juan River is a project proposed by Navajo Nation Department of Fish & Wildlife (NNDFW) to improve an existing road and construct a boat ramp on land owned by the Navajo Nation Nenahnezad Chapter.

Project Description

The Nenahnezad Chapter Boat Ramp project will improve an existing road and construct a publicly accessible boat ramp on land owned by the Navajo Nation Nenahnezad Chapter, near the Chapter House (Figure 3.7). NNDFW has been a partner of SJRIP since 1992, and the goal of this project is to provide an additional, stable access point to the San Juan River for San Juan River Basin Recovery Implementation Program (SJRIP) monitoring and management activities, while also allowing access to the boat ramp for recreational use by Chapter members and others in the local community. The project will increase river access for both ecological monitoring (including of endangered fish species) and recreational uses.

According to the project proponent, access to the San Juan River is critical for the SJRIP to conduct monitoring and management activities. In this area, the SJRIP conducts multiple monitoring efforts for two endangered fish species—the federally-, state-, and Navajo Nation-listed Colorado Pikeminnow and the federally- and Navajo Nation-listed Razorback Sucker—including their spawning habitat and river use. The SJRIP currently relies on both public and private river access points to deploy research vessels, but private sites may not be sufficiently maintained and could deny access at any time, and the locations of current access points limit the reaches of the river where monitoring and management activities can occur. Overall, providing river access at critical locations with more permanent infrastructures will increase the ability of the SJRIP to ensure safe, consistent, and efficient access to the river by field crews. The project proponent states that the stretch of river near the Nenahnezad Chapter House has only been sampled twice in the last 14 years due to swift currents that make it difficult to launch and land watercraft at the site. The new boat ramp will remedy this issue and will increase the area accessible to SJRIP crews by over a mile of river that is not currently monitored because there is no access to this area. The improved road and addition of the boat ramp will also ensure year-round and all-weather river access, and the location near the Chapter House will further facilitate site access. Chapter members will use the boat ramp for recreational purposes when kayaking, boating, or fishing.

The boat ramp will be constructed on the San Juan River near the Nenahnezad Chapter House. The planned launch area has already been cleared of invasive species for construction. Project permitting will begin in 2023, and construction will be completed in a two-week timeframe during November and December 2023, when river flow is low. Construction will be performed by a NNDFW contractor, and for the boat ramp this will involve excavation, boulder placement, and installation of a rip rap base layer followed by a solid gravel layer. The contractor will also resurface an existing access road with base course. Project benefits are expected to begin accruing quickly, with spring monitoring trips and winter demographic monitoring efforts occurring as soon as the ramp is completed, and at least five SJRIP projects anticipated to use the ramp within the first year of construction. Yearly gravel maintenance will be conducted by NNDFW or its contractor over the anticipated 25-year lifespan of the boat ramp. The boat ramp's location—on the outside bend of the river, and in an area of slow flow—is expected to limit sediment and debris accumulation, and thus reduce future maintenance. The Nenahnezad Chapter House will continue to maintain the access road, including annual gravel applications.

The amount of funding requested from ONRT is \$69,575, which will cover project construction costs such as equipment rental, boulders and rip rap, and labor; one year of maintenance; and contingency. The project will be able to leverage an additional \$110,700 in matching funds from the Navajo Nation for 24 additional years of operations and maintenance. The project proponent also anticipates providing in-kind support such as equipment and volunteer labor.

SECTION 3: RESTORATION ALTERNATIVES

Figure 3.7. Existing Boat Launch and Site of Planned Boat Ramp



Source: ONRT (February 9, 2023)

Trustee Assessment with the Evaluation Criteria

Overall, the Trustee evaluated Alternative G favorably, based on the established evaluation criteria. Table 3.9 provides a narrative evaluation and ranking of the alternative with the evaluation criteria.

Proximity to Animas and San Juan River watersheds: The project had a high ranking for this criterion. The boat ramp will be located on the San Juan River near the Nenahnezad Chapter House.

Consistency with local/regional plans: The project had a medium-low ranking for this criterion. The project is not inconsistent with existing local, regional, or state plans, but neither the specific project nor this type of project is specifically addressed in local or regional plans. However, this project is consistent with the SJRIP, and it will generally support the goals of the Program, by facilitating fish monitoring and research by providing more access to the river where access is limited.

Costs: The project had a high to medium-high rank across the applicable cost criteria. It will leverage more than 150% of the requested \$69,575 in settlement funds through in-kind support from the Navajo Nation for operations and maintenance as well as equipment and volunteer labor, and therefore ranked high for the ability to leverage criterion. The project will have a low ratio of planning costs to restoration costs, as less than a quarter of the requested funds will be used for administrative costs (i.e., labor overhead), and therefore ranked high for the ratio of planning to restoration costs criterion. The project has a moderately high ratio of expected benefits to costs as it will benefit multiple resources and resource services (i.e., increase river access for both ecological monitoring, including of endangered fish species, and recreational users) and will have good cost sharing. However, the project will have large annual maintenance costs.

SECTION 3: RESTORATION ALTERNATIVES

Proponent is a state or local public body: The project had a high rank for this criterion. NNDFW is a local public entity.

Expected benefits and timeframe of benefits: The project had a high to medium-high ranking across the expected benefits and timeframe of benefits criteria. The project had a high ranking for the implemented in a timely manner criterion because it will be initiated and completed within a year. The project ranked medium-high for the likely to provide benefits quickly criterion because the expected benefits will be accrued approximately one year after the project is initiated and not immediately. However, the project has the potential to benefit multiple natural resources and resource services. The project will support the conservation of aquatic habitat by increasing river access for both ecological monitoring of endangered fish species and improve recreational access to the river for boating and fishing.

Likelihood of success and potential for adverse impacts: The project had a medium-low to medium-high for these criteria. The project will use well-established methods for constructing a boat ramp and improving the access road. However, it ranked only medium-low for the long-term success and low risk of failure criterion because it will require substantial maintenance to sustain expected benefits. It ranked medium-high for the low potential for adverse impacts to natural resources and human health safety criterion because it will likely have some short-lived adverse impacts during construction.

Table 3.9. Nenahnezad Chapter Boat Ramp Along the San Juan River Project Evaluation

Evaluation Criteria		Narrative Evaluation	Ranking
Geographic location	Proximity to Animas and San Juan River watersheds	The project will be located in Fruitland, NM within the San Juan River watershed.	High
Consistency with plans	Consistency with local/regional plans	The project is not inconsistent with existing local, regional, or state plans but is not specifically addressed. This project will support the San Juan River Recovery Implementation Program efforts by facilitating fish monitoring and research by providing more access to the river, where access is limited. However, this type of project is not included in plans.	Medium-Low
Cost criteria	Ability to leverage	The project will leverage more than 150% of the requested settlement funds in additional funds from the Navajo Nation.	High
	Low ratio of planning costs to restoration costs	Less than 5% of the requested funds will be used for planning and administration.	High
	Relationship of costs to benefits	The project has a medium ratio of expected benefits to costs. The project will benefit multiple resources/services including human use and fish, and will have good cost sharing but high maintenance costs.	Medium-High
	Cost-effectiveness	The expected benefits are distinct compared to the other projects, and thus this criterion is not applicable.	N/A
Proponent	Lead project proponent is state or local public body	NNDFW is a local public entity.	High
Expected benefits and timeframe of benefits	Implemented in a timely manner	The project will be initiated and completed within a year.	High
	Likely to provide benefits quickly	The project will provide expected benefits at completion which will be within one year after the project is initiated.	Medium-High
Likelihood of success and potential for adverse impacts	High potential for long-term success and low risk of failure	The project will use well-established methods and will require substantial maintenance to sustain expected benefits.	Medium-Low
	Low potential for adverse impacts to natural resources or human health and safety	The project will likely have some minor adverse impacts during construction, but they will be short-lived, ending once construction is complete. Proper permits will be obtained.	Medium-High

SECTION 3: RESTORATION ALTERNATIVES

3.2.8 Alternative H: City of Aztec North Main Wastewater Management Project

Alternative H is a project proposed by the City of Aztec to install a pump station and restroom and to supplement the extension of North Main Avenue and the construction of a plaza.

Project Description

The City of Aztec North Main Wastewater Management project involves installing a restroom, a pump station, and electric service to the pump station to serve eight undeveloped lots in the City. The City of Aztec has completed an extension of North Main Avenue within the City. This extension includes a 1,100-foot-long two-lane divided roadway complete with water, sewer, electric, gas, and communications utilities. The extended roadway will serve eight undeveloped lots that are zoned commercial and includes the construction of a plaza designed for outdoor public activities with food truck hook-ups, lighting, and outdoor seating. The project will install a public restroom in the plaza area and a pump station to lift sewage from the eight lots into the existing gravity sewage system (Figure 3.8). Without restroom facilities, limited outdoor activities can be approved by the City. The installation of the pump station will eliminate the need for on-lot disposal systems (e.g., septic tanks), which have the potential to leak, on these lots located along the Animas River.

The project will benefit the City of Aztec and surrounding San Juan County by providing more opportunity for the public to utilize the future North Main activities and businesses. The expected users of the plaza include food vendors, the Chamber of Commerce, Aztec Municipal School District, the local farmer's market organization, and the public walking and passing through the plaza area. The project proponent estimates an average usage of 200 visitors per day to the plaza and restrooms. The expected users of the public restrooms include event attendees at the plaza, future business customers at the commercial lots, members of the public walking through North Main, and park users of the nearby Rio de Animas and Aztec Ruins Trail parks. The pump station, which will process an estimated 288,000 gallons of water per day, will provide necessary wastewater disposal for the restroom as well as any future developments while eliminating the need for on-lot sewage systems. The pump station will allow for the storage and management of wastewater and direct wastewater to the City of Aztec's sewer system and treatment plant. This may protect local waterways in the Animas River Watershed from bacterial contamination and degradation that may occur if septic tanks are installed on these lots instead of a pump station.

The project will involve procurement of the pump station and installation of the pump station, restroom, and upgraded electrical service. Construction will occur from August to the end of September 2023, and electrical installation will occur from October to the end of November 2023. The City of Aztec will be responsible for operation and maintenance over the estimated 25-year lifetime of the restroom and sewer pump station. Operation, monitoring, and maintenance will include daily stop-by inspections, flow monitoring, pump replacement every five years, and as-needed maintenance. The pump station will be remotely monitored and operated through its connection to the City of Aztec's existing supervisory control and data acquisition system.

The amount of funding requested from ONRT is \$480,000, which will cover procurement and installation of the pump station and restroom, electrical service upgrades, contingency, and New Mexico GRT. The project will be able to leverage an additional \$186,875 in in-kind support from the City for 25 years of operations and maintenance.

SECTION 3: RESTORATION ALTERNATIVES

Figure 3.8. Planned Location of the pump station



Source: ONRT (February 9, 2023)

Trustee Assessment with the Evaluation Criteria

Overall, the Trustee evaluated Alternative H favorably, based on the established evaluation criteria. Table 3.10 provides a narrative evaluation and ranking of the alternative with the evaluation criteria.

Proximity to Animas and San Juan River watersheds: The project had a high rank for this criterion. The pump station and restroom will be located near the Animas River in the City of Aztec (Figure 3.1).

Consistency with local/regional plans: The project had a high rank for this criterion. The project is consistent with the City of Aztec's planning efforts, and it is identified in the City of Aztec 2040 Comprehensive Plan and in the City's Capital Improvements Plan list.

Costs: The project ranked medium-low to high across the applicable cost criteria. It will leverage approximately 40% of the requested \$480,000 in settlement funds through in-kind support from the City of Aztec for operations and maintenance over the life of the project, and therefore only ranked medium-low for the ability to leverage criterion. The project will have a low ratio of planning costs to restoration costs, as no funds for planning and administration were requested, and therefore ranked high for the ratio of planning to restoration costs criterion. The project has a moderately low ratio of expected benefits to costs; while the restroom is expected to benefit 200 visitors per day and enable expanded outdoor activities at the plaza, the benefits of the pump station to the Animas River water quality are highly uncertain or difficult to assess, and therefore the project ranked medium-low for the relationship of costs to benefits criterion.

SECTION 3: RESTORATION ALTERNATIVES

Proponent is a state or local public body: The project had a high ranking for this criterion. The City of Aztec is a local public entity.

Expected benefits and timeframe of benefits: The project ranked high to low across the expected benefits and timeframe of benefits criteria. The project had a high ranking for the implemented in a timely manner criterion because it will be initiated and completed within a year. The project ranked low for the likely to provide benefits quickly criterion because, although the expected benefits of the restroom will be accrued quickly at completion, the timing of the expected benefits of the pump station are more difficult to quantify. The expected benefits of the pump station are tied to the elimination of on-lot wastewater disposal systems, which may potentially leak in the future. Therefore, benefits will not be accrued until the lots are developed and past the life expectancy of on-site disposal systems. The project has the potential to benefit multiple natural resources and resource services. The project will benefit water quality by preventing leaking sewage into the Animas River. The project will also provide several human use services, including improved recreational access to the City and Animas River.

Likelihood of success and potential for adverse impacts: The project had a medium-high rank across these criteria. The project will install a pump station, which is a well-established alternative for on-lot disposal systems, and therefore has a high potential for long-term success and low risk of failure. However, it ranked only medium-high for the long-term success and low risk of failure criterion, because the project will require some maintenance and management to achieve success, and the City of Aztec will be responsible for this. It ranked medium-high for the low potential for adverse impacts to natural resources and human health safety criterion because it will likely have some short-lived adverse impacts during construction.

Table 3.10. City of Aztec North Main Wastewater Management Project Evaluation

Evaluation Criteria		Narrative Evaluation	Ranking
Geographic location	Proximity to Animas and San Juan River watersheds	The project will be located within the Animas River watershed.	High
Consistency with plans	Consistency with local/regional plans	The project is identified in the City of Aztec Comprehensive Plan and in the City's Capital Improvements Plan list.	High
Cost criteria	Ability to leverage	The project will leverage approximately 40% of the requested settlement funds in additional City funding for operations and maintenance over the life of the project.	Medium-Low
	Low ratio of planning costs to restoration costs	None of the requested funds will be used for planning and administration.	High
	Relationship of costs to benefits	The benefits of the pump station are highly uncertain or difficult to assess. The restroom will benefit 200 visitors per day.	Medium-Low
	Cost-effectiveness	The expected benefits are distinct compared to the other projects, and thus this criterion is not applicable.	N/A
Proponent	Lead project proponent is state or local public body	The City of Aztec is a local public entity.	High
Expected benefits and timeframe of benefits	Implemented in a timely manner	The project will be initiated and completed within a year.	High
	Likely to provide benefits quickly	The benefits from the pump station will not accrue for more than five years after project is initiated. These benefits are uncertain and hard to assess. There are some expected benefits from the restroom, although the restroom is not the bulk of the funding request.	Low

SECTION 3: RESTORATION ALTERNATIVES

Evaluation Criteria		Narrative Evaluation	Ranking
Likelihood of success and potential for adverse impacts	High potential for long-term success and low risk of failure	Installing a pump station is a well-established method to replace leaking on-site disposal systems. The project will require some maintenance and management.	Medium-High
	Low potential for adverse impacts to natural resources or human health and safety	The project will likely have some minor adverse impacts during construction, but they will be short-lived, ending once construction is complete. Construction impacts will be soil erosion issues which will be controlled by an on-site retention pond. Proper permits will be obtained.	Medium-High

3.2.9 Alternative I: San Juan River Public Boat Ramps and Park Improvements Project

Alternative I is a project proposed by San Juan County to improve two existing recreational boat ramps and parks at McGee Park and at Lions Park in San Juan County.

Project Description

The San Juan River Public Boat Ramps and Park Improvements project will upgrade the McGee Park ramp located in the broader County Fairground complex and the Lions Park ramp located in the Lions Park recreation area, both within the Unincorporated Area of San Juan County (Figure 3.1). McGee Park currently has 574 full hook-up RV camping sites and supporting infrastructure and staff to support broader recreational use. Lions Park has shaded picnic areas, river access, walking trails, and public restrooms. The McGee Park and Lions Park ramps provide direct access to the San Juan River, but are undeveloped and do not have formal staging, signs, parking, or other facilities. The project aims to improve these existing ramps in order to improve visitor experience and increase the use of the San Juan River between McGee and Lions Parks while restoring habitat. The alternative will include the following updates:

McGee Park: McGee Park is located approximately 15 miles upstream of the confluence of the Animas and San Juan Rivers with the next public river access at the City of Farmington Westland Park facility. The existing boat ramp is an informal bank with nearby parking available. The project will include stone stabilized ramp/staging area, invasive vegetation removal, informational/stewardship signage, and designated parking (Figure 3.9).

Lions Park: Lions Park is the only public access park facility on the San Juan River on the 30-mile river reach between Farmington and Shiprock, NM. Improvements to Lions Park will include picnic and restroom renovations, cottonwood trimming and management, invasive vegetation removal, boat ramp reconstruction, and a new children's playground. The project will remove approximately 11 acres of invasive vegetation and noxious weeds along 15 miles of the San Juan River (Figure 3.10).

This project will restore human use of the river by providing new recreational opportunities and increased recreational access to San Juan County residents and visitors. The project will improve the habitat for native plants and for federally-listed Threatened and Endangered species such as the Southwestern Willow Flycatcher (also state-listed), Yellow-billed Cuckoo, Colorado Pikeminnow (also state-listed), and Razorback Sucker by removing invasive vegetation such as Russian olive and salt cedar that can often outcompete native species.

The project proponent estimates that procuring design and permitting consulting services will take place from July to September 2023, design services will occur from September 2023 to July 2024, permitting will occur from August 2024 to January 2025, and construction will occur from April to December 2025. The facilities are currently maintained, and will continue to be maintained, by San Juan County Parks and Facilities and Public Works staff using annually budgeted operational and capital funds. The physical infrastructure associated with this project is expected to last approximately 20 years before requiring replacement.

The amount of funding requested from ONRT is \$681,440, which will partially cover planning, permitting, construction, contingency, and New Mexico GRT for both parks. The project will be able to leverage an additional \$80,928 in matching funds and in-kind support from San Juan County, and an additional \$122,843 in in-kind support from the County for administration and 20 years of operations and maintenance.

San Juan River

ROAD 3468

ROAD 5478

411B220

Parking Area Improvements

Invasive Vegetation Removal

Boat Ramp Improvements

Invasive Vegetation Removal

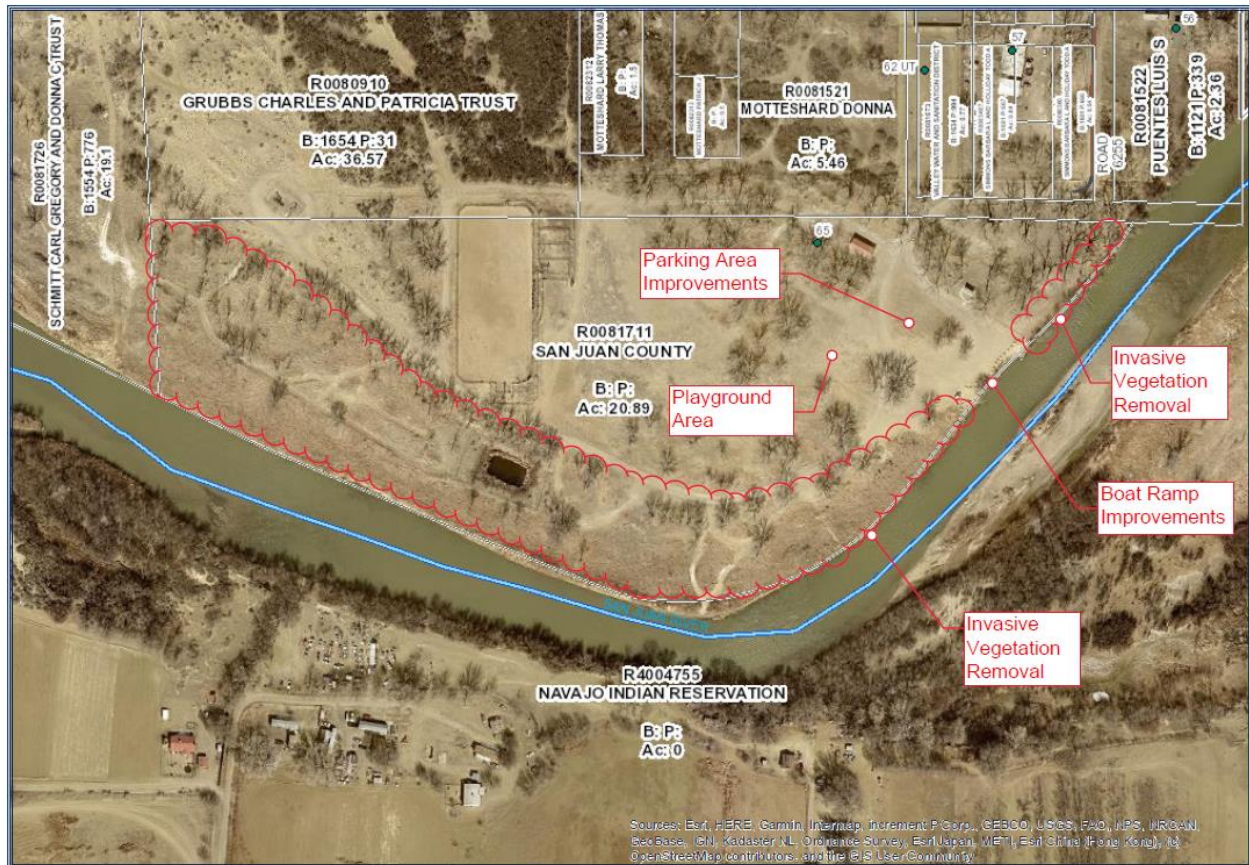
03 S 30, 03 S 31, 03 S 32, 03 S 33, 03 S 34, 03 S 35, 03 S 36, 03 S 37, 03 S 38, 03 S 39, 03 S 40, 03 S 41, 03 S 42, 03 S 43, 03 S 44, 03 S 45, 03 S 46, 03 S 47, 03 S 48, 03 S 49, 03 S 50, 03 S 51, 03 S 52, 03 S 53, 03 S 54, 03 S 55, 03 S 56, 03 S 57, 03 S 58, 03 S 59, 03 S 60, 03 S 61, 03 S 62, 03 S 63, 03 S 64, 03 S 65, 03 S 66, 03 S 67, 03 S 68, 03 S 69, 03 S 70, 03 S 71, 03 S 72, 03 S 73, 03 S 74, 03 S 75, 03 S 76, 03 S 77, 03 S 78, 03 S 79, 03 S 80, 03 S 81, 03 S 82, 03 S 83, 03 S 84, 03 S 85, 03 S 86, 03 S 87, 03 S 88, 03 S 89, 03 S 90, 03 S 91, 03 S 92, 03 S 93, 03 S 94, 03 S 95, 03 S 96, 03 S 97, 03 S 98, 03 S 99, 03 S 100

Sources: Esri, HERE, Garmin, Intermap, Inverment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, Esri Base, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, OpenStreetMap contributors, and the GIS User Community

Gold King Mine Final RP

SECTION 3: RESTORATION ALTERNATIVES

Figure 3.10. Planned Updates to Lions Park



Source: San Juan County

Trustee Assessment with the Evaluation Criteria

Overall, the Trustee evaluated Alternative I favorably, based on the established evaluation criteria. Table 3.11 provides a narrative evaluation and ranking of the alternative with the evaluation criteria.

Proximity to Animas and San Juan River watersheds: The project had a high rank for this criterion. The boat ramps are located in McGee Park and Lions Park, which are both located on the San Juan River and in the Unincorporated Area of San Juan County (Figure 3.1).

Consistency with local/regional plans: The project had a medium-low rank for this criterion. The project is consistent with San Juan County's 2022–2026 Strategic Plan that identifies countywide recreation as a primary objective and consistent with the Outdoor Recreation Industry Initiative's goal to expand recreation. However, this project or type of project is not specifically addressed in these plans.

Costs: The project ranked moderately highly across the applicable cost criteria. It will leverage approximately 30% of the requested \$681,440 in settlement funds through matching funds secured from San Juan County and additional in-kind support from the County for administrative costs, parking area improvements, and operations and maintenance over the life of the project. The project will have a low ratio of planning costs to restoration costs, as less than a quarter of the requested funds will be used for planning and administrative activities such as design and permitting. The project has a high ratio of expected benefits to costs as it will benefit multiple resources and resource services (i.e., terrestrial and aquatic habitats and recreational opportunities).

SECTION 3: RESTORATION ALTERNATIVES

Proponent is a state or local public body: The project ranked highly for this criterion. San Juan County is a local public entity.

Expected benefits and timeframe of benefits: The project had a medium-high to medium low ranking across the expected benefits and timeframe of benefits criteria. The project had a medium-high ranking for the implemented in a timely manner criterion because it will take approximately two years to be initiated and will take two and a half years to complete. The project ranked medium-low for the likely to provide benefits quickly criterion because it will take approximately two and a half years for the expected benefits to be accrued. However, the project has the potential to benefit multiple natural resources and resource services. The project will benefit terrestrial and aquatic habitats. The project will also provide several human use services, including improve recreational access to both parks and the San Juan River.

Likelihood of success and potential for adverse impacts: The project had a medium-high rank across these criteria. The project will reconstruct boat ramps at McGee Park and Lions Park, remove invasive vegetation, and renovate the areas surrounding the boat ramps; these are well-established methods for enhancing parks, and therefore the project has a high potential for long-term success and low risk of failure. However, it ranked only medium-high for the long-term success and low risk of failure criterion because the project will require some maintenance and management to achieve success, and San Juan County Parks and Facilities and Public Works plans to take responsibility for this. It ranked medium-high for the low potential for adverse impacts to natural resources and human health safety criterion because it will likely have some short-lived adverse impacts during construction.

Table 3.11. San Juan River Public Boat Ramp and Park Improvements Project Evaluation

Evaluation Criteria		Narrative Evaluation	Ranking
Geographic location	Proximity to Animas and San Juan River watersheds	The project will be located along the San Juan River.	High
Consistency with plans	Consistency with local/regional plans	The project is consistent with San Juan County's 2022–2026 Strategic Plan identifying countywide recreation as a primary objective. It is also consistent with the Outdoor Recreation Industry Initiative's goal to expand recreation. However, this type of project is not specifically addressed.	Medium-Low
Cost criteria	Ability to leverage	The project will leverage approximately 30% of the requested settlement funds in additional funds from San Juan County.	Medium-Low
	Low ratio of planning costs to restoration costs	Less than 10% of requested funds will be used for planning and administration.	High
	Relationship of costs to benefits	The project has a high ratio of expected benefits to costs. The project will benefit multiple resources/services including human use and aquatic and terrestrial habitats.	High
	Cost-effectiveness	The expected benefits are distinct compared to the other projects, and thus this criterion is not applicable.	N/A
Proponent	Lead project proponent is state or local public body	San Juan County is a local public entity.	High
Expected benefits and timeframe of benefits	Implemented in a timely manner	The project will be initiated within two years following the Final RP's publication and will take two and a half years to complete.	Medium-High
	Likely to provide benefits quickly	The project will provide expected benefits at completion which will be approximately two and a half years after the project is initiated.	Medium-Low

SECTION 3: RESTORATION ALTERNATIVES

Evaluation Criteria		Narrative Evaluation	Ranking
Likelihood of success and potential for adverse impacts	High potential for long-term success and low risk of failure	The project will enhance parks and will require some maintenance or management.	Medium-High
	Low potential for adverse impacts to natural resources or human health and safety	The project will likely have some minor adverse impacts during construction, but they will be short-lived, ending once construction is complete. Proper permits will be obtained.	Medium-High

3.2.10 Alternative J: San Juan County Extension Office Building Project

Alternative J is a project proposed by San Juan County to build a new Extension office and training center on land owned by the County located on the Growing Forward Farm in Aztec, NM.

Project Description

The San Juan County Extension Office Building and Irrigation project will build an Extension office and training center on land owned by the County within the Growing Forward Farm in Aztec, NM. The Growing Forward Farm is a collaborative project between the San Juan County Government and the New Mexico State University Cooperative Extension Service to bring agricultural education to the local community. The goal of this project is to enable the San Juan County Cooperative Extension Service to expand its programming to better address the growing economic and environmental challenges faced by local farmers and other community members.

The San Juan County Cooperative Extension Service provides farmers, youth, and other community members with programming related to farming methods, nutrition and food safety, outdoor recreation, the arts, mental and emotional health, and career exploration, among other topics. These programs address local economic and ecological challenges and improve community members' quality of life. Extension staff serve more than 1,000 clients per month on average and have been a trusted resource in the community, including after the GKM Release. However, the Cooperative Extension Service is limited by a lack of sufficient programming and office space. The new building will include office space for Extension staff as well as classroom and training space, and it will be located within a demonstration farm parcel with a dedicated riparian educational area. According to the project proponent, this will make the facility one of the most unique and comprehensive agricultural training facilities in the state. The facility will allow Extension staff to address growing needs, such as by providing training around water conservation in the face of increasing drought and providing farmers with access to a commercial processing facility to create value added products. The building will also create space for community and 4-H based programs, and the outdoor classroom area will serve as the space for the Aztec Farmers Market, which serves around 30 vendors and more than 3,600 community members each year. In addition to the Extension building, this project will include upgrades to the Growing Forward Farm irrigation system.

The Extension office building will have an area of 11,250 square feet and will occupy an acre of land. The building will include office space, indoor and outdoor classroom space, and a commercial food processing facility. The project proponent stated that the project could begin in the summer of 2023, design work could be completed in three months, construction bidding in two months, and construction in nine to 13 months and be generally complete by 18 months. Project benefits will begin accruing upon completion of construction. The County will provide for operations and maintenance under an existing partnership with New Mexico State University. The building and the irrigation system upgrades are anticipated to last for at least 50 years.

The amount of funding requested from ONRT is \$2,300,000, which will partially cover administration, construction, contingency, and New Mexico GRT. The project will be able to leverage an additional \$1,198,841 in matching funds from San Juan County and from NMAG GKM grant funding, and an

SECTION 3: RESTORATION ALTERNATIVES

additional estimated \$4,800,000 in in-kind support from the County for 50 years of operations and maintenance. The County also donated one acre of developable vacant land.

Trustee Assessment with the Evaluation Criteria

Overall, the Trustee evaluated Alternative J favorably, based on the established evaluation criteria. Table 3.12 provides a narrative evaluation and ranking of the alternative with the evaluation criteria.

Proximity to Animas and San Juan River watersheds: The project had a high ranking for this criterion. The extension office building will be located on land owned by San Juan County within the Growing Forward Farm project in Aztec, NM, near the Animas River.

Consistency with local/regional plans: The project had a medium-low ranking for this criterion. The project is consistent with long-term goals for new farmer training and market expansion in San Juan County's community action plan resulting from EPA's "Local Food, Local Places" designation. However, this project or type of project is not specifically addressed in this plan.

Costs: The project had a high to low ranking across the applicable cost criteria. It will leverage more than 250% of the requested \$2,300,000 in settlement funds through matching funds secured from San Juan County and NMAG and additional in-kind support from the County from the donated land, architectural services, and operations and maintenance over the life of the project, and therefore ranked high for the ability to leverage criterion. The project will have a low ratio of planning costs to restoration costs, as less than a quarter of the requested funds will be used for construction overhead and administration, and therefore ranked high for the ratio of planning to restoration costs criterion. The project has a low ratio of expected benefits to costs; the project will be costly, and some benefits are already available with the current extension building, meaning future benefits depend on further outreach and are highly uncertain or difficult to assess, and therefore the project ranked low for the relationship of costs to benefits criterion.

Proponent is a state or local public body: The project had a high ranking for this criterion. San Juan County is a local public entity.

Expected benefits and timeframe of benefits: The project had a high to medium-low ranking across the expected benefits and timeframe of benefits criteria. The project had a high ranking for the implemented in a timely manner criterion because it will be initiated within one year and will take less than two years to complete. The project ranked medium-low for the likely to provide benefits quickly criterion because, although the expected benefits will be accrued approximately two and a half years after the project is initiated, some of these benefits are already available with the current extension building, meaning future benefits depend on further outreach and are highly uncertain or difficult to assess. The project has the potential to provide additional benefits by providing additional education to local farmers on irrigation, providing space for community-based programs, and providing an outdoor classroom area that will serve as the space for the Aztec Farmers Market.

Likelihood of success and potential for adverse impacts: The project has a medium-low to medium-high ranking across these criteria. The project ranked medium-low for the high potential for long-term success and low risk of failure criterion because this project is dependent on the operation and maintenance of the building and the Extension programming. The project will require substantial maintenance (in terms of both the physical building and Extension programming) to yield and sustain expected benefits. Most educational programs will require continuous investment to maintain public awareness and engagement. The proposal provided little information on how future outreach and programming will be funded, coordinated, and maintained. It ranked medium-high for the low potential for adverse impacts to natural resources and human health safety criterion because it will likely have some short-lived adverse impacts during construction.

SECTION 3: RESTORATION ALTERNATIVES

Table 3.12. San Juan County Extension Office Building Project Evaluation

Evaluation Criteria		Narrative Evaluation	Ranking
Geographic location	Proximity to Animas and San Juan River watersheds	The project will be located in Aztec, NM in the Animas River watershed.	High
Consistency with plans	Consistency with local/regional plans	The project is consistent with a community action plan with a goal for new farmer training and market expansion for local agricultural products but the construction of an extension building is not specifically addressed.	Medium-Low
Cost criteria	Ability to leverage	The project will leverage more than 250% of the requested settlement funds in additional funds from San Juan County and NMAG.	High
	Low ratio of planning costs to restoration costs	Approximately 24% of requested funds will be used for planning and administration.	High
	Relationship of costs to benefits	The building will set the stage for future benefits down the line through further outreach, but this is in addition to what is currently available. Therefore, project benefits are highly uncertain or difficult to assess. This will be a costly project, and some benefits are already available with current building.	Low
	Cost-effectiveness	The expected benefits are distinct compared to the other projects, and thus this criterion is not applicable.	N/A
Proponent	Lead project proponent is state or local public body	San Juan County is a local public entity.	High
Expected benefits and timeframe of benefits	Implemented in a timely manner	The project will be initiated within one year and completed within two years.	High
	Likely to provide benefits quickly	The project will provide expected benefits at completion, which will be approximately 18 months after the project is initiated. The project will not substantially benefit injured resources or services as extension building is already available.	Medium-Low
Likelihood of success and potential for adverse impacts	High potential for long-term success and low risk of failure	The project will require substantial maintenance to yield and sustain expected benefits. The proposal does not include information or funding requests for outreach or much information on how the outreach will be coordinated and maintained.	Medium-Low
	Low potential for adverse impacts to natural resources or human health and safety	The project will likely have some minor adverse impacts during construction, but they will be short-lived, ending once construction is complete. Proper permits will be obtained.	Medium-High

SECTION 3: RESTORATION ALTERNATIVES

3.3. Preferred Alternatives (Tier 2)

In this section we provide descriptions and a summary of the Trustee's evaluation of each of the Tier 2 preferred alternatives.

3.3.1 Alternative K: Cottonwood/Simon Canyon Road Access Improvements Project

Alternative K is a project proposed by EMNRD, State Parks Division to pave and improve a 3.36-mile access road leading to three state and federal recreation areas.

Project Description

The Cottonwood/Simon Canyon Road Access Improvement project would pave and improve a 3.36-mile access road leading to three state and federal recreation areas. The goal of the project would be to improve the accessibility and safety of the access road, thereby enhancing recreational opportunities for the public.

County Road (CR) 4280 is the sole access road leading to New Mexico State Parks' Cottonwood Campground/Day-Use Area and Bolack Day-Use Area, as well as the Bureau of Land Management's Simon Canyon Recreational Area. According to the project proponent, these recreational areas are visited by more than 100,000 visitors per year from both local communities and other states and countries, and Cottonwood Campground is one of the most popular campgrounds in New Mexico State Parks. CR 4280 is a dirt road that is heavily and frequently impacted by vehicle traffic and adverse weather, making road maintenance difficult and often making the road unpassable or unsafe. This limits public access to the recreation areas and also makes it difficult for first responders to reach those recreation areas in the event of an emergency. This project would enhance the accessibility and safety of CR 4280 by paving the road along its entire length and installing drainage structures to provide more efficient water and sediment drainage and minimize damage from monsoon rains.

The project proponent anticipates that project planning and coordination would be completed by June 2023, followed by design and engineering from July 2023 to June 2024 and compliance and permitting from October 2023 to September 2025. Construction contracting would occur between October 2025 and December 2025, and construction of the road would occur from January 2026 to March 2027, followed by project closeout through June 2027. San Juan County would be responsible for construction of the road and drainage, with planning support from EMNRD, State Parks Division and several other agencies. Project benefits would begin accruing upon completion of construction (March 2027). Upon completion of the project, CR 4280 would transition from an unmaintained county road to a maintained county road, meaning that San Juan County Public Works would assume responsibility for maintenance and repairs. The useful life of the road is estimated at 20 years with proper maintenance.

The amount of funding requested from ONRT is \$3,727,128, which would partially cover planning, permitting, construction, contingency, and New Mexico GRT. The project would be able to leverage an additional \$657,728 in matching funds from EMNRD, State Parks Division. The project proponent also anticipates the availability of in-kind support from San Juan County Public Works for operations and maintenance.

Trustee Assessment with the Evaluation Criteria

Overall, the Trustee evaluated Alternative K favorably, based on the established evaluation criteria. Table 3.13 provides a narrative evaluation and ranking of the alternative with the evaluation criteria.

Proximity to Animas and San Juan River watersheds: The project had a high ranking for this criterion. CR 4280 is near, and provides access to, several recreation areas in Navajo Lake State Park within the San Juan River watershed (Figure 3.1).

SECTION 3: RESTORATION ALTERNATIVES

Consistency with local/regional plans: The project had a high ranking for this criterion. The project is consistent with regional goals to provide improved, safe, and reliable road access to recreational resources. It is also consistent with the Navajo Lake State Park River Management Plan adopted in January 2014. The project is identified in the EMNRD, State Parks Division's Capital Improvement Plan; the impending updated EMNRD, State Parks Division River Management Plan; and the EMNRD, State Parks Division's Master Plan that is in development. The project would also enhance the value of a BOR and Federal Highway Administration bridge project.

Costs: The project had a medium-low to high ranking across the applicable cost criteria. The project would only leverage approximately 18% of the requested \$3,727,128 in settlement funds through matching funds secured from EMNRD, State Parks Division and additional in-kind support from San Juan County for maintenance needs that arise, and therefore ranked low for the ability to leverage funds criterion. The project would have a low ratio of planning costs to restoration costs, as less than a quarter of the requested funds would be used for planning and administrative activities such as design, engineering, permitting, and compliance, and therefore ranked high for the ratio of planning to restoration costs criterion. The project would have a moderately low ratio of expected benefits to costs, as it would improve access to recreational opportunities but would be a costly project, therefore it ranked medium-low for the relationships of costs to benefits criterion.

Proponent is a state or local public body: The project had a high rank for this criterion. EMNRD, State Parks Division is a state agency.

Expected benefits and timeframe of benefits: The project had a low to medium-low ranking across the expected benefits and timeframe of benefits criteria. The project had a low ranking for the implemented in a timely manner criterion because construction would not begin until January 2026 and would take approximately four years to complete. The project ranked medium-low for the provides benefits quickly criterion because the expected benefits would not be accrued until approximately four years after the project is initiated. The project would have the potential to benefit the human use of natural resources by providing improved access to recreational opportunities.

Likelihood of success and potential for adverse impacts: The project had a medium-high ranking across these criteria. The project would improve the safety and durability of the access road, which is a well-established method for increasing recreational opportunities, and therefore would have a high potential for long-term success and low risk of failure. However, it ranked only medium-high for the long-term success and low risk of failure criterion because the project would require some maintenance and management to achieve success, and would require San Juan County Public Works to take responsibility for this, not the project proponent. It ranked medium-high for the low potential for adverse impacts to natural resources and human health safety criterion because it would likely have some short-lived adverse impacts during construction.

Table 3.13. Cottonwood/Simon Canyon Road Access Improvements Project Evaluation

Evaluation Criteria		Narrative Evaluation	Ranking
Geographic location	Proximity to Animas and San Juan River watersheds	The project would be located in Navajo Lake State Park within the San Juan River watershed.	High
Consistency with plans	Consistency with local/regional plans	The project is identified in the EMNRD, State Parks Division's Capital Improvement Plan and the impending EMNRD, State Parks Division River Management Plan. The project is consistent with the Navajo Lake State Park River Management Plan adopted in January 2014. The project would also enhance the value of a BOR and Federal Highway Administration bridge project.	High

SECTION 3: RESTORATION ALTERNATIVES

Evaluation Criteria		Narrative Evaluation	Ranking
Cost criteria	Ability to leverage	The project would leverage at least 18% of the requested settlement funds in additional funds from EMNRD, State Parks Division (potentially more than 18% if maintenance needs arise, as San Juan County would cover these costs but the project proponent did not quantify them).	Medium-Low
	Low ratio of planning costs to restoration costs	Approximately 15% of the requested funds would be used for planning and administration (including design, engineering, permitting, and compliance).	High
	Relationship of costs to benefits	The project would have a low ratio of expected benefits to costs. The project would benefit recreation by improving a road, but it would be a costly project.	Medium-Low
	Cost-effectiveness	The expected benefits are distinct compared to the other projects, and thus this criterion is not applicable.	N/A
Proponent	Lead project proponent is state or local public body	EMNRD, State Parks Division is a state agency.	High
Expected benefits and timeframe of benefits	Implemented in a timely manner	The project would be initiated more than one year following the Final RP's publication and would take four years to complete.	Low
	Likely to provide benefits quickly	The project would provide expected benefits at completion which would be approximately four years after the project is initiated.	Medium-Low
Likelihood of success and potential for adverse impacts	High potential for long-term success and low risk of failure	The project would use well-established methods to increase recreation opportunities; it would require some maintenance or management.	Medium-High
	Low potential for adverse impacts to natural resources or human health and safety	The project would likely have some minor adverse impacts during construction, but they would be short-lived, ending once construction is complete. Proper permits would be obtained.	Medium-High

3.3.2 Alternative L: San Juan Trail Development Project

Alternative L is a project proposed by EMNRD, State Parks Division to build an accessible trail system along the San Juan River in Navajo Lake State Park.

Project Description

The San Juan River Trail Development project would build an accessible trail system along the San Juan River in Navajo Lake State Park. The goal of the project would be to provide additional, accessible opportunities for recreation within the park.

According to the project proponent, Navajo Lake State Park receives more than half a million visitors annually, including boaters, campers, and anglers. The proposed four-mile trail system from Crusher Hole Day-Use Area to Texas Hole Day-Use Area would expand recreational opportunities and enable visitors to access unique areas of the park and its scenery, as well as popular fishing and bird-watching areas. The entire trail would meet or exceed Americans with Disabilities Act of 1990 accessibility requirements and would provide shared usage for hikers, joggers, and cyclists. The proposed trail system would also protect terrestrial habitat by providing access to popular locations within the park not currently served by trails, reducing visitors' desire to create their own paths to reach those locations.

The project proponent anticipates that project planning and coordination would be completed by June 2023, followed by design and engineering from July 2023 to December 2024 and compliance and permitting from October 2023 to September 2025. Construction contracting would occur from July to September 2025, and prefabricated pedestrian bridges would be ordered between October 2025 and June

SECTION 3: RESTORATION ALTERNATIVES

2026. Construction of the trail, trailheads, amenities, and signage would occur from January 2026 to June 2028, followed by project closeout through September 2028. Project benefits would begin accruing upon completion of construction. EMNRD, State Parks Division and BOR would assume operation and maintenance responsibility, which would involve general trail upkeep and depend on any damage sustained. The useful life of the trail is estimated at 20 years.

The amount of funding requested from ONRT is \$4,808,726, which would partially cover planning, permitting, construction, contingency, and New Mexico GRT. The project would be able to leverage an additional \$2,060,882 in matching funds from EMNRD, State Parks Division, and an additional \$480,000 in in-kind support from EMNRD, State Parks Division and BOR for 20 years of operations and maintenance.

Trustee Assessment with the Evaluation Criteria

Overall, the Trustee evaluated Alternative L favorably, based on the established evaluation criteria. Table 3.14 provides a narrative evaluation and ranking of the alternative with the evaluation criteria.

Proximity to Animas and San Juan River watersheds: The project ranked highly for this criterion. The trail would be along the San Juan River within Navajo Lake State Park (Figure 3.1).

Consistency with local/regional plans: The project ranked highly for this criterion. The project is consistent with the EMNRD, State Parks Division and BOR goals to provide first-class recreational opportunities. The San Juan River Trail is identified as an important recreation source in the Navajo Lake State Park River Management Plan adopted January 2014. It is also identified in the EMNRD, State Parks Division's Capital Improvement Plan; the five-year capital improvements plan for BOR Title 28 funding; and the updated EMNRD, State Parks Division's River Management Plan and Master Plan, which are both in development.

Costs: The project had a medium ranking across the applicable cost criteria. It would leverage approximately 53% of the requested \$4,808,726 in settlement funds through matching funds secured from New Mexico State Parks and additional in-kind support from EMNRD, State Parks Division and BOR for operations and maintenance over the life of the project, and therefore ranked medium-high for the ability to leverage criterion. The project would have a low ratio of planning costs to restoration costs, as less than a quarter of the requested funds would be used for planning and administrative activities such as design, engineering, permitting, and compliance, and therefore it ranked high for ratio of the planning to restoration costs criterion. However, the project ranked medium-low on the relationship of costs to benefits criterion, because it is a costly project, relative to the anticipated benefits.

Proponent is a state or local public body: The project ranked highly for this criterion. EMNRD, State Parks Division is a state agency.

Expected benefits and timeframe of benefits: The project had a low ranking across the expected benefits and timeframe of benefits criteria. The project ranked low because it would be initiated more than a year after the publication of the Final RP, and would require a long time to complete (five years), with expected benefits only beginning to accrue at completion.

Likelihood of success and potential for adverse impacts: The project ranked medium-high across these criteria. The project would create an accessible trail system within a State Park, which is a well-established method for increasing recreation opportunities, and therefore would have a high potential for long-term success and low risk of failure. However, it ranked only medium-high for the long-term success and low risk of failure criterion, because the project would require some maintenance and management to achieve success, and EMNRD, State Parks Division and BOR plan to take responsibility for this. The project would have a low potential for adverse impacts to natural resources. However, because it would likely have some short-lived adverse impacts during construction, it ranked medium-high for the low potential for the adverse impacts to natural resources or human health and safety criterion.

SECTION 3: RESTORATION ALTERNATIVES

Table 3.14. San Juan Trail Development Project Evaluation

Evaluation Criteria		Narrative Evaluation	Ranking
Geographic location	Proximity to Animas and San Juan River watersheds	The project would be located in Navajo Lake State Park within the San Juan River watershed.	High
Consistency with plans	Consistency with local/regional plans	The project is identified in the EMNRD, State Parks Division's Capital Improvement Plan; the five-year capital improvements plan for BOR Title 28 funding; and the impending EMNRD, State Parks Division's River Management Plan. The project is also consistent with the Navajo Lake State Park River Management Plan adopted January 2014.	High
Cost criteria	Ability to leverage	The project would leverage approximately 53% of the requested settlement funds in additional funds from EMNRD, State Parks Division.	Medium-High
	Low ratio of planning costs to restoration costs	Approximately 15% of the requested funds would be used for planning and administration (including design, engineering, permitting, and compliance).	High
	Relationship of costs to benefits	The project would have a low ratio of expected benefits to costs. The project would benefit recreation by adding a trail system, but it would be a costly project.	Medium-Low
	Cost-effectiveness	The expected benefits are distinct compared to the other projects, and thus this criterion is not applicable.	N/A
Proponent	Lead project proponent is state or local public body	EMNRD, State Parks Division is a state agency.	High
Expected benefits and timeframe of benefits	Implemented in a timely manner	The project would be initiated more than one year following the Final RP's publication and would take more than five years to complete.	Low
	Likely to provide benefits quickly	The project would provide expected benefits at completion which would be approximately five years after the project is initiated.	Low
Likelihood of success and potential for adverse impacts	High potential for long-term success and low risk of failure	The project would use well-established methods to increase recreation opportunities; it would require some maintenance and management.	Medium-High
	Low potential for adverse impacts to natural resources or human health and safety	The project would likely have some minor adverse impacts during construction, but they would be short-lived, ending once construction is complete. Proper permits would be obtained.	Medium-High

3.3.3 Alternative M: Rex Smith Wash Project

Alternative M is a project proposed by EMNRD, State Parks Division to improve the Rex Smith Wash area located in Navajo Lake State Park.

Project Description

The Rex Smith Wash project in Navajo Lake State Park would install erosion control structures along the wash, remove sediment in the catchment basin of the wash, and restore sediment to a sediment-starved floodplain located near the wash.

Currently, if Rex Smith Wash runs, sediment flows directly into the San Juan River at Texas Hole Day-Use Area. The project would involve the installation of erosion control structures along the wash to limit the amount of sediment that reaches the San Juan River when the wash runs. The project would also remove sediment from the catchment basin of the wash, as necessary, to prevent overflow into the San

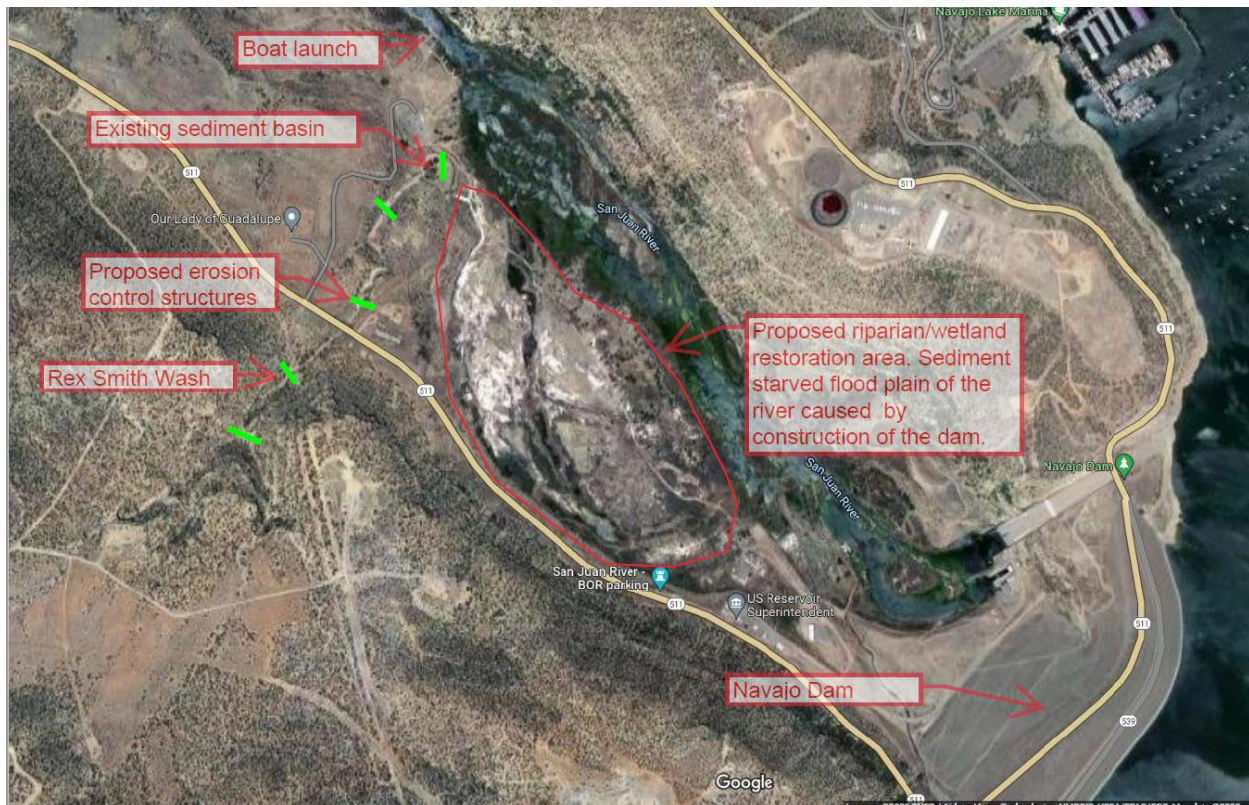
SECTION 3: RESTORATION ALTERNATIVES

Juan River. The sediment would be relocated approximately 0.5 miles northwest of the Texas Hole Day-Use Area and stored in this area until its reintroduction into a sediment-starved floodplain on the river that was caused by the constriction of the Navajo Dam (Figure 3.11). By preventing sediments from being introduced into the San Juan River, the project would aim to improve recreational opportunities, protect surface water, support fish populations and ecosystems, and restore areas where sediment has depleted. By limiting the sediments introduced in the river, the project would make the fishery more desirable and benefit businesses that rely on the fishery as well as thousands of anglers who visit the San Juan River. The potential wetland restoration that could be done using the sediment removed from the wash would support the local flora and fauna, including trout and migratory bird populations.

The project proponent anticipates that project planning and coordination would be completed by June 2023, followed by design and engineering from July 2023 to March 2024 and compliance and permitting from October 2023 to September 2025. Construction contracting would occur between October 2025 and December 2025, and construction would occur from January 2026 to March 2027, followed by project closeout through June 2027.

The amount of funding requested from ONRT is \$1,242,376, which would partially cover planning, permitting, construction, contingency, and New Mexico GRT. The project would be able to leverage an additional \$219,243 in matching funds from EMNRD, State Parks Division, and an additional \$600,000 in in-kind support from EMNRD, State Parks Division for 40 years of operations and maintenance.

Figure 3.11. Conceptual Plan for the Rex Smith Wash Project



Source: EMNRD, State Parks Division

SECTION 3: RESTORATION ALTERNATIVES

Trustee Assessment with the Evaluation Criteria

Overall, the Trustee evaluated Alternative M favorably, based on the established evaluation criteria. Table 3.15 provides a narrative evaluation and ranking of the alternative with the evaluation criteria.

Proximity to Animas and San Juan River watersheds: The project had a high ranking for this criterion. Rex Smith Wash is located at Navajo Lake State Park (Figure 3.11).

Consistency with local/regional plans: The project had a high ranking for this criterion. The project is consistent with Navajo Lake State Park River Management Plan adopted January 2014. It is also identified in the EMNRD, State Parks Division's Capital Improvement Plan; the five-year capital improvements plan for BOR Title 28 funding; and the updated EMNRD, State Parks Division's River Management Plan and Master Plan, which are both in development.

Costs: The project had a medium ranking across the applicable cost criteria. It would leverage approximately 66% of the requested \$1,242,376 in settlement funds through matching funds secured from EMNRD, State Parks Division and additional in-kind support from EMNRD, State Parks Division for operations and maintenance over the life of the project, and therefore ranked medium-high for the ability to leverage funds criterion. The project would have a low ratio of planning costs to restoration costs, as less than a quarter of the requested funds would be used for planning and administrative activities such as design, engineering, permitting, and compliance, and therefore it ranked high for ratio of the planning to restoration costs criterion. However, the project ranked medium-low on the relationship of costs to benefits criterion, because it is a costly project, relative to the anticipated benefits. The benefits of the proposed wetland are difficult to assess as the method for wetland restoration is not yet fully developed, and the project would be costly and would require substantial maintenance to yield benefits.

Proponent is a state or local public body: The project had a high ranking for this criterion. EMNRD, State Parks Division is a state agency.

Expected benefits and timeframe of benefits: The project had a low to medium-high ranking across the expected benefits and timeframe of benefits criteria. The project ranked low on the implemented in a timely manner criterion because construction would not begin until January 2026 and would take a long time to complete (four years). The project ranked medium-high for the likely to provide benefits quickly criterion because the expected benefits would provide expected benefits at the start of construction (when erosion control structures would be built and sediment in the catchment basin would be removed). However, the benefits of the proposed wetland are difficult to assess as the method for wetland restoration is not yet fully developed by the proponent. The project would have the potential to benefit the human use of natural resources by improving the fishery.

Likelihood of success and potential for adverse impacts: The project had a low to medium-low ranking across these criteria. Methods for this project are undeveloped, and after implementation, park staff would still need to remove sediment using heavy equipment. Further, there are no specified plans to reintroduce wetlands aside from adding sediment to a sediment-starved location, and therefore the project would have low potential for long-term success and some risk of failure. To achieve longer-term success, the project would require substantial maintenance. The project would have potential for some long-term adverse impacts due to the repeated use of heavy machinery to relocate sediment, therefore the project ranked medium-low for the low potential for adverse impacts to natural resources and human health safety criterion.

SECTION 3: RESTORATION ALTERNATIVES

Table 3.15. Rex Smith Wash Project Evaluation

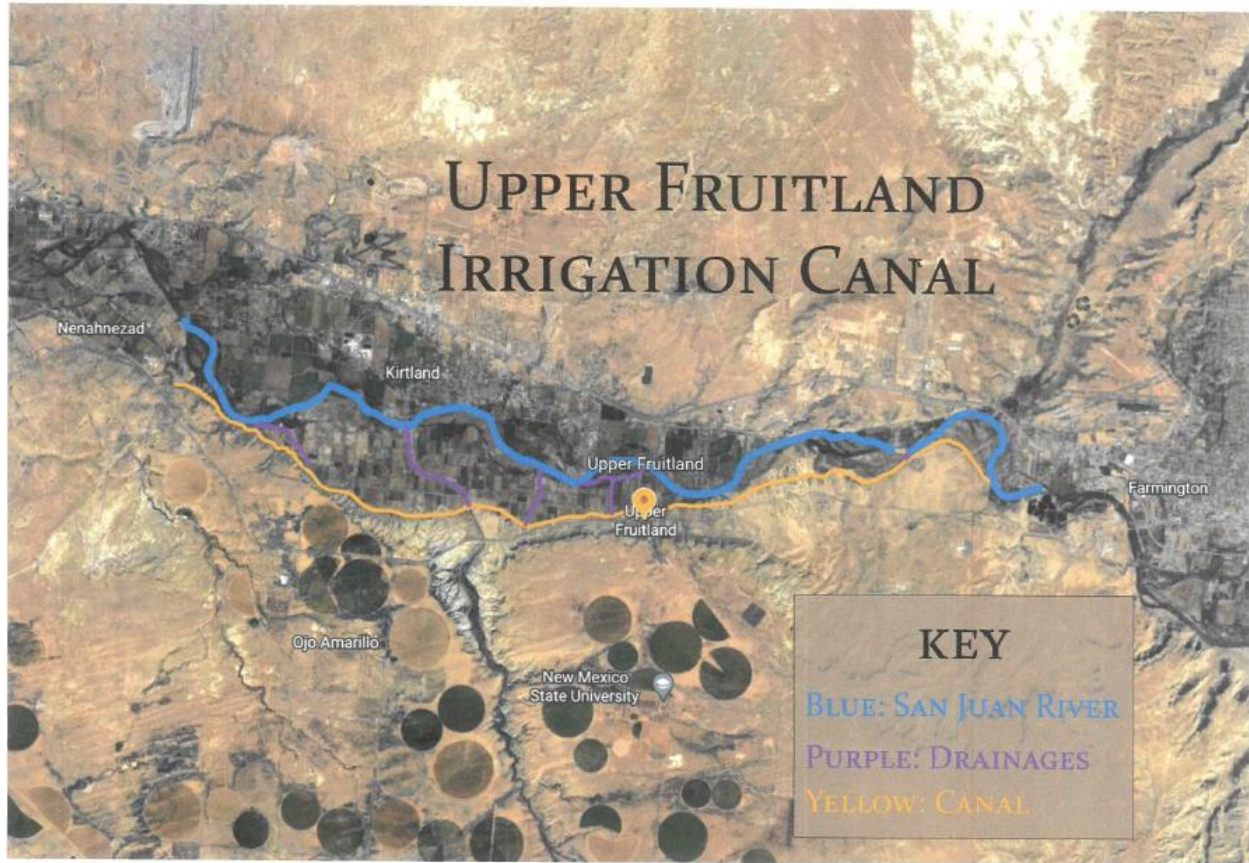
Evaluation Criteria		Narrative Evaluation	Ranking
Geographic location	Proximity to Animas and San Juan River watersheds	The project would be located in Navajo Lake State Park within the San Juan River watershed.	High
Consistency with plans	Consistency with local/regional plans	The project is identified in the EMNRD, State Parks Division's Capital Improvement Plan; the five-year capital improvements plan for BOR Title 28 funding; and the impending EMNRD, State Parks Division's River Management Plan. The project is also consistent with the Navajo Lake State Park River Management Plan adopted January 2014.	High
Cost criteria	Ability to leverage	The project would leverage approximately 66% of the requested settlement funds in additional funds from EMNRD, State Parks Division.	Medium-High
	Low ratio of planning costs to restoration costs	Approximately 15% of the requested funds would be used for planning and administration (including design, engineering, permitting, and compliance).	High
	Relationship of costs to benefits	The project would have a low ratio of expected benefits to costs. The expected benefits are hard to assess because the method is undeveloped in the proposal and the project would be costly; the project would require substantial maintenance to yield and sustain benefits.	Medium-Low
	Cost-effectiveness	The expected benefits are distinct compared to the other projects, and thus this criterion is not applicable.	N/A
Proponent	Lead project proponent is state or local public body	EMNRD, State Parks Division is a state agency.	High
Expected benefits and timeframe of benefits	Implemented in a timely manner	The project would be initiated in more than one year and would take four years to complete.	Low
	Likely to provide benefits quickly	The project would provide expected benefits at the start of construction (over two years after initiation) when erosion control structures would be built and sediment in the catchment basin would be removed.	Medium-High
Likelihood of success and potential for adverse impacts	High potential for long-term success and low risk of failure	Methods for the project are undeveloped. After implementation, park staff would still need to remove sediment using heavy equipment. There are no plans to reintroduce wetlands aside from adding sediment to a sediment-starved location. The project would require substantial maintenance to yield and sustain expected benefits.	Low
	Low potential for adverse impacts to natural resources or human health and safety	The project would have potential for some long-term adverse impacts from repeated relocating sediment using heavy machinery.	Medium-Low

SECTION 3: RESTORATION ALTERNATIVES

3.3.4 Alternative N: Irrigation Canal Cleaning Project

Alternative N is a project proposed by the Upper Fruitland Chapter to remove debris and vegetation that obstruct the flow of irrigation water from the Upper Fruitland Main Irrigation Canal (Figure 3.12) and main drainages to the San Juan River.

Figure 3.12. Proposed Location of the Upper Fruitland Irrigation Canal Project



Source: Navajo Nation Upper Fruitland Chapter

Project Description

The Upper Fruitland Main Irrigation Canal is about 9.5 miles long and extends through Upper Fruitland and into the communities of Nenahnezad and San Juan. All three Navajo Nation Chapters in the area (i.e., Upper Fruitland, Nenahnezad, and San Juan) are responsible for maintaining this canal and the four main drainages, and individuals from the local communities are typically hired to perform the necessary labor to remove vegetation growth from the canal and drainages. However, the rising costs of labor and propane has resulted in less maintenance to the canals than is necessary to prevent the obstruction of the flow of irrigation water during the farming season. The four main drainages have only been cleared of vegetation once in the last eight years.

The project would benefit local farmers by removing the debris and vegetation that obstructs the flow of irrigation water and thus providing water needed during farming seasons. The canal provides water for 145 farm plots in the Upper Fruitland community, and there are 1,338 acres of farming land in the Upper Fruitland area. The project would also contribute to the local economy by employing individuals from the local communities for the task.

SECTION 3: RESTORATION ALTERNATIVES

The project would occur during a shutdown period between October and March when farmers begin that season's planting. For the project, local community members would be hired to clear the Upper Fruitland Main Irrigation Canal and four main drainages of debris and vegetation that obstruct the flow of irrigation water during farming seasons. The project would involve cutting or pulling the vegetation growing inside the canals, notifying the local fire response agencies of locations to burn debris, and transporting trash and other non-vegetation solids to the local trash transfer station. Based on the original proposal, planning and design would occur from April 2023 to June 2023. The contracting procurement process would occur from July to September 2023. Construction would occur between October 2023 and February 2024, followed by project closeout through May 2024. The Upper Fruitland Chapter administration would be responsible for hiring, equipment storage, funding accountability, and maintenance.

The amount of funding requested from ONRT is \$91,893, which would cover labor and supplies.

Trustee Assessment with the Evaluation Criteria

Overall, the Trustee evaluated Alternative N favorably, based on the established evaluation criteria. Table 3.16 provides a narrative evaluation and ranking of the alternative with the evaluation criteria.

Proximity to Animas and San Juan River watersheds: The project had a high rank for this criterion. The canal and drainages are located on the San Juan River and extends through Upper Fruitland into the communities of the Nenahnezad and San Juan Navajo Nations (Figure 3.1).

Consistency with local/regional plans: The project had a low rank for this criterion because the project proponent did not respond to the request for this information.

Costs: The project had a medium ranking across the applicable cost criteria. It would not leverage any of the requested \$91,893 in settlement funds, and therefore ranked low for the ability to leverage criterion. However, the project would have a low ratio of planning costs to restoration costs, as less than a quarter of the requested funds would be used for administrative costs (i.e., labor overhead), and therefore ranked high for the ratio of planning to restoration costs criterion. The project would have a moderately low ratio of expected benefits to costs as its benefits to local farmers would be temporary as vegetation in the canal would regrow without active and ongoing maintenance, and therefore ranked medium-low on the relationship of costs to benefits criterion.

Proponent is a state or local public body: The project had a high ranking for this criterion. The Navajo Nation Upper Fruitland Chapter is a local public entity.

Expected benefits and timeframe of benefits: The project had a high to medium-high ranking across the expected benefits and timeframe of benefits criteria. The project had a high ranking for the implemented in a timely manner criterion because it would take less than a year to be initiated and approximately one and a half years to complete. The project ranked medium-high for the likely to provide benefits quickly criterion because the expected benefits would be accrued approximately one and a half years after the project is initiated and not immediately.

Likelihood of success and potential for adverse impacts: The project had a medium-low ranking across these criteria. The project ranked medium-low because it would remove vegetation and debris, but these would continue to accumulate in ditches until effective lining of the waterway has been implemented or an effective means for controlling growth has been implemented; therefore, the project would not ensure long-term success. To achieve longer-term success, the project would require substantial maintenance. The project would have potential for some long-term adverse impacts due to the equipment that would be used to pull large vegetation and to burn debris.

SECTION 3: RESTORATION ALTERNATIVES

Table 3.16. Irrigation Canal Cleaning Project Evaluation

Evaluation Criteria		Narrative Evaluation	Ranking
Geographic location	Proximity to Animas and San Juan River watersheds	The project would be located in Upper Fruitland within the San Juan River watershed.	High
Consistency with plans	Consistency with local/regional plans	The project proponent did not respond to the request for this information.	Low
Cost criteria	Ability to leverage	The project proponent did not identify any additional funds or in-kind support.	Low
	Low ratio of planning costs to restoration costs	Less than 10% of requested funds would be used for planning and administration.	High
	Relationship of costs to benefits	The project would have a low ratio of expected benefits to costs. Benefits would be temporary for the cost and vegetation would regrow without mitigation.	Medium-Low
	Cost-effectiveness	The expected benefits are distinct compared to the other projects, and thus this criterion is not applicable.	N/A
Proponent	Lead project proponent is state or local public body	The Navajo Nation Upper Fruitland Chapter is a local public entity.	High
Expected benefits and timeframe of benefits	Implemented in a timely manner	Construction would begin within a year and the project would be complete within one and a half years.	High
	Likely to provide benefits quickly	The project would provide expected benefits at completion which is within two years after the project would be initiated.	Medium-High
Likelihood of success and potential for adverse impacts	High potential for long-term success and low risk of failure	The project would not ensure long-term success because vegetation and debris would continue to accumulate in ditches until effective lining of the waterway has been implemented or means for controlling growth is implemented.	Medium-Low
	Low potential for adverse impacts to natural resources or human health and safety	The project would have potential for some long-term adverse impacts. Equipment used to pull large vegetation and burning of debris would be included. These may result in adverse impacts.	Medium-Low

3.3.5 Alternative O: National Consumer Recovery – Tourism and Commerce Project

Alternative O is a project proposed by NMTD to implement several marketing and communications strategies to promote northwestern New Mexico as a safe location to visit and recreate.

Project Description

The National Consumer Recovery – Tourism and Commerce project would implement several marketing and communications strategies to promote northwestern New Mexico as a safe location to visit and recreate. The goal of the project would be to increase tourism and recreation in the area that would in turn provide economic benefits to local communities and businesses.

The GKM Release negatively impacted public perception of the safety of the San Juan and Animas Rivers and of local food, water, and recreation. According to the project proponent, negative perception and lingering concerns about the effects of the incident on the area remain, impacting a local tourism economy that relies heavily on outdoor activities and reducing the extent to which local residents and visitors take advantage of the area's natural resource services. The project would implement four marketing and communications strategies to promote northwestern New Mexico as a safe location to visit and recreate, with the goal of increasing tourism, recreation, and associated economic benefits for local businesses. The first strategy would be to implement a digital and social media cleanup to minimize online prominence of the GKM Release. The second strategy would be to implement a national earned

SECTION 3: RESTORATION ALTERNATIVES

media campaign to secure positive coverage of the area in national media such as agriculture trade, travel and leisure, environmental, and outdoor adventure. The third strategy would be to implement a national tourism and recreation advertising campaign to highlight the region's beauty and safety. The final strategy would be to leverage the New Mexico True Certified program to promote goods produced by local businesses, including onboarding additional partners to the program and publishing guides to local products.

The project's four strategies would take place over approximately two years. The digital and social cleanup would occur from July to September 2023, the national earned media campaign would occur from July 2023 to April 2024, the national paid advertising campaign would occur from April 2024 to August 2025, and the New Mexico True Certified program strategy would occur from February 2024 to November 2025. NMTD would monitor results following implementation, including through its annual economic impact and visitation studies as well as website traffic and other metrics routinely tracked by NMTD. The project proponent anticipates that tax revenues generated from increased tourism as a result of the project would support communities' ability to continue this promotional work after project implementation, and that local businesses would continue to benefit from additional customers and from better connections with programs such as New Mexico True Certified.

The amount of funding requested from ONRT is \$2,700,000, which would partially cover all activities other than the digital and social cleanup (which is already funded). The project would be able to leverage an additional \$300,000 in matching funds from NMAG GKM grant funding, and an additional estimated \$450,000 in in-kind support from NMTD for staffing and other needs.

Trustee Assessment with the Evaluation Criteria

Overall, the Trustee evaluated Alternative O favorably, based on the established evaluation criteria. Table 3.17 provides a narrative evaluation and ranking of the alternative with the evaluation criteria.

Proximity to Animas and San Juan River watersheds: The project had a high ranking for this criterion. The project would target the northwestern New Mexico within the Animas River and San Juan River watersheds.

Consistency with local/regional plans: The project had a medium-low ranking for this criterion. The project is consistent with the goals of targeting outdoor recreation and tourism in several regional plans. However, this type of project is not specifically mentioned.

Costs: The project had a medium ranking across the applicable cost criteria. It would only leverage approximately 28% of the requested \$2,700,000 in settlement funds through matching funds secured from NMAG and additional in-kind support from NMTD for staffing and other work needed for project execution, therefore it ranked medium-low for the ability to leverage criterion. However, the project would have a low ratio of planning costs to restoration costs, as less than a quarter of the requested funds would be used for planning (i.e., developing a national communications plan) and had a high rank for this criterion. The project would have a low ratio of expected benefits to costs as the project's benefits to tourism, recreation, and the local economy would be highly uncertain and difficult to assess, and the project would be costly, and therefore this project had a low rank for the relationship of costs to benefits criterion.

Proponent is a state or local public body: The project had a high rank for this criterion. NMTD is a state agency.

Expected benefits and timeframe of benefits: The project had a medium-high to low ranking across the expected benefits and timeframe of benefits criteria. The project had a medium-high ranking for the implemented in a timely manner criterion because would be initiated within a year but would take approximately two and a half years to complete. The project scored low for the likely to provide benefits

SECTION 3: RESTORATION ALTERNATIVES

quickly criterion because the project's direct benefits to tourism, recreation, and the local economy would be uncertain and difficult to assess, and therefore, it is difficult to evaluate the timeframe of expected benefits.

Likelihood of success and potential for adverse impacts: The project had a low to high ranking for these criteria. The project would use well-established marketing and communications methods but benefits directly related to this project would be difficult to assess, and therefore the project ranked low for the high potential for long-term success and low risk of failure criterion. The project would have no adverse impacts to natural resources or human health and safety, and therefore ranked high for this criterion.

Table 3.17. National Consumer Recovery – Tourism and Commerce Project Evaluation

Evaluation Criteria		Narrative Evaluation	Ranking
Geographic location	Proximity to Animas and San Juan River watersheds	The project would target the Animas River and San Juan River watersheds.	High
Consistency with plans	Consistency with local/regional plans	The project is consistent with several regional plans targeting outdoor recreation and tourism. However, this type of project is not specifically mentioned.	Medium-Low
Cost criteria	Ability to leverage	The project would leverage approximately 28% of the requested settlement funds in in-kind support from NMTD and additional funds from NMAG.	Medium-Low
	Low ratio of planning costs to restoration costs	Approximately 7% of the requested funds would be used for planning and administration.	High
	Relationship of costs to benefits	The project benefits would be highly uncertain and would be difficult to assess, and the project would be costly.	Low
	Cost-effectiveness	The expected benefits are distinct compared to the other projects, and thus this criterion is not applicable.	N/A
Proponent	Lead project proponent is state or local public body	NMTD is a state agency.	High
Expected benefits and timeframe of benefits	Implemented in a timely manner	The project would be initiated within a year and would take two and a half years to complete.	Medium-High
	Likely to provide benefits quickly	The project would provide expected benefits within two and a half years after the project is initiated, and project benefits would be highly uncertain or would be difficult to assess.	Low
Likelihood of success and potential for adverse impacts	High potential for long-term success and low risk of failure	The project would use well-established methods, but benefits directly related to this project would be difficult to measure.	Low
	Low potential for adverse impacts to natural resources or human health and safety	The project would have no adverse impacts.	High

3.4. Non-Preferred Alternatives

In this section we provide a description and a summary of the Trustee's evaluation of each of the non-preferred alternatives.

3.4.1 Alternative P: Preliminary Engineering Report East Blanco Reservoir Project

Alternative P is a project proposed by the City of Bloomfield to develop a Preliminary Engineering Report (PER) and design for the construction of a new reservoir within the City of Bloomfield.

SECTION 3: RESTORATION ALTERNATIVES

Project Description

The East Blanco Reservoir project would involve developing a PER and design for a new reservoir within the City of Bloomfield. The goal of the project would be to develop a PER that could then be used to construct a new reservoir that would increase the City's water storage capacity in the face of increasing drought and other water challenges.

The City of Bloomfield has one existing reservoir with a one-month storage capacity for the City and several surrounding communities. The City plans to increase its water storage through the construction of an additional reservoir. The proposed reservoir would have a capacity of 440 acre-feet, which would be more than five times the storage available in the existing reservoir and would extend the City's storage capacity from one month to a total of eight months. This would benefit residents of both the City of Bloomfield and the City of Aztec as the two cities have a mutual agreement to provide water to the other city during emergencies. The additional water storage capacity would be beneficial given increasing drought challenges in the region. The project proponent anticipates that the proposed reservoir would also provide water for native mammals, reptiles, and birds commonly observed along the nearby San Juan River. The project proponent has completed a site investigation and appraisal as well as an environmental assessment, is in the process of acquiring the land (with funding secured), and has identified that a comprehensive PER and design are needed to further refine the scope of the project.

The first phase of the PER has been funded and is underway. The request for ONRT funding was specifically for the second phase of the PER as well as the design, which would be completed from July 2023 to January 2024 and from January 2024 to August 2024, respectively. Subsequent stages including permitting and construction would be estimated to be completed by April 2027; however, funding for this work has not been secured. If completed, the lifespan of the reservoir is estimated at 40–100 years, and the City of Bloomfield would assume responsibility for operation and maintenance including regular inspections.

The amount of funding requested from ONRT was \$1,500,000, which would partially cover the PER and design. The project would be able to leverage an additional \$139,696 in matching funds for the PER and design from the City of Bloomfield and from NMOSE Capital Appropriations.

Trustee Assessment with the Evaluation Criteria

Overall, the Trustee did not evaluate Alternative P favorably based on the established evaluation criteria and compared to the preferred alternatives. Table 3.18 provides a narrative evaluation and ranking of the alternative with the evaluation criteria.

Proximity to Animas and San Juan River watersheds: The project had a high ranking for this criterion. The reservoir would be located in the City of Bloomfield, NM along the San Juan River (Figure 3.1).

Consistency with local/regional plans: The project had a medium-low ranking for this criterion. The project is not identified in any plans, but it would not be inconsistent with existing plans.

Costs: The project had a medium-low to low ranking across the applicable cost criteria. It would leverage only a small amount of the total project cost, approximately 9% of the requested \$1,500,000 in settlement funds, through matching funds secured from the City of Bloomfield and from NMOSE Capital Appropriations, and therefore ranked medium-low for the ability to leverage funds criterion. The project would have a high ratio of planning costs to restoration costs, as 100% of the requested funds would be used for planning (i.e., development of a PER and design), and thus it ranked low for the ratio of planning to restoration costs criterion. The project would have a low ratio of expected benefits to costs; funding for construction of the reservoir is not secured, so the project benefits (i.e., improved water availability for local residents) would be highly uncertain, and thus it ranked low for the relationship of costs to benefits criterion.

SECTION 3: RESTORATION ALTERNATIVES

Proponent is a state or local public body: The project had a high rank for this criterion. The City of Bloomfield is a local public entity.

Expected benefits and timeframe of benefits: The project had a high to low ranking across the expected benefits and timeframe of benefits criteria. The project (development of the PER and design) had a high ranking for the implemented in a timely manner criterion because would be initiated within a year and completed in less than two years. However, funding for construction of the reservoir is not secured, so the project benefits (i.e., improved water availability for local residents) would be highly uncertain, and thus it ranked low for the likely to provide benefits quickly criterion.

Likelihood of success and potential for adverse impacts: The project had a medium-low to high ranking across these criteria. The project would develop a PER and design, which could eventually lead to the successful construction and operation of a reservoir, but without funding for construction the future success of the project is uncertain, and therefore the project ranked medium-low for the high potential for long-term success and low risk of failure criterion. The project would have no adverse impacts to natural resources or human health and safety, and therefore ranked high for this criterion.

Table 3.18. Preliminary Engineering Report East Blanco Reservoir Project Evaluation

Evaluation Criteria		Narrative Evaluation	Ranking
Geographic location	Proximity to Animas and San Juan River watersheds	The project would be located in the City of Bloomfield, NM along the San Juan River.	High
Consistency with plans	Consistency with local/regional plans	The project would not be inconsistent with existing plans, but this type of project is not addressed in any plans.	Medium-Low
Cost criteria	Ability to leverage	The project would leverage approximately 9% of the requested settlement funds in additional funds from NMOSE. ⁷	Medium-Low
	Low ratio of planning costs to restoration costs	100% of requested settlement funds would be used for planning and administration (i.e., developing a PER and design).	Low
	Relationship of costs to benefits	The project benefits would be highly uncertain because funding for implementation of the restoration is not secured.	Low
	Cost-effectiveness	The expected benefits are distinct compared to the other projects, and thus this criterion is not applicable.	N/A
Proponent	Lead project proponent is state or local public body	The City of Bloomfield is a local public entity.	High
Expected benefits and timeframe of benefits	Implemented in a timely manner	The PER and design would be completed within a year.	High
	Likely to provide benefits quickly	The PER and design would not accrue benefits; timing of benefits would be highly uncertain because funding for implementation of the restoration is not secured.	Low
Likelihood of success and potential for adverse impacts	High potential for long-term success and low risk of failure	The project would develop a PER and design which could lead to a successful project, but without funding for construction the future success of the PER and design is uncertain.	Medium-Low
	Low potential for adverse impacts to natural resources or human health and safety	The project would have no adverse impacts.	High

⁷ The non-preferred project was considered to be just the Preliminary Engineering Report and design, not the entire construction of the reservoir. As such, additional funds secured for uses such as land acquisition are not included here.

SECTION 3: RESTORATION ALTERNATIVES

3.4.2 Alternative Q: Rehabilitation of the Farmland and Riparian Corridor Guided by Geographic Information Systems and Soil, Vegetation, and Water Assessments Project

Alternative Q is a project proposed by NM WRRI to compile geographic information on water, soil, and vegetation, and conduct and analysis of water interactions within the San Juan Irrigation District to guide rehabilitation of resources.

Project Description

The Rehabilitation of the Farmland and Riparian Corridor Guided by Geographic Information Systems and Soil, Vegetation, and Water Assessments project would build geographic information systems (GIS) datasets and assess water flows, groundwater and surface water interactions, impacts of Navajo Agricultural Products Industry irrigation sourced waters, effects of water management on vegetation, and contaminant impacts to water quality. The aim of the project would be to fill information gaps for farmers to manage the irrigation conveyance, the soil health, the riparian vegetation for agricultural production, and ecosystem function. The project would also help district members make more informed planning and management decisions using information gained from GIS data and the analysis of water interactions. The project would consist of the following two activities:

GIS Layer Development: The proponent would develop GIS layers of the conveyance system, diversions, and return ditches into a database to inform and improve the management of the irrigation distribution system. They would process aerial and satellite imagery to produce high-spatial resolution digital elevation models and orthomosaic, as well as analyze the changes in land use and vegetation to identify potential optimal locations for rehabilitation.

Hydrology, Soil, and Vegetation Health Evaluation: The proponent would quantify different water budget components (e.g., irrigation, deep percolation, plant water uptake) and assess water and solute transport through the soil profile and into the shallow aquifer for representative crops in the region. They would characterize stream-aquifer interactions and assess riparian vegetation along the Fruitland Irrigation Canal.

Information gathered during this project would help with managing surface water use and better understanding ecosystem benefits of the shallow aquifer recharge due to irrigation deep percolation contributions. The vegetation assessment would also help establish best management practices to reduce the threat of woody riparian vegetation along the Fruitland Irrigation Canal. The resulting GIS database would be a resource to the community to help manage natural resources, show where irrigation needs improvement, identify locations to remove and plant riparian vegetation, and serve as a record of successful rehabilitation. The assessment of hydrology, soil, and vegetation would improve understanding of the impacts of flood irrigation and an improved irrigation water conveyance system on surface water and groundwater connectivity and water quality. Farmers and irrigated farmlands would benefit from a better functioning agricultural system resulting from improved understanding of surface water and groundwater relationship influencing water quantity and quality.

The projected start date of the project would be July 1, 2023. The designing and planning of the study would occur during the first year of the study. The designing and planning phase of the project would involve field reconnaissance and identifying field sites for hydrology and weather equipment, assessing soils and geology to identify locations for groundwater wells, developing the riparian assessment plan, and installing sensors to begin field data collection. The design and planning phase would also include searching for and assessing the usefulness of available, relevant GIS data, working with stakeholders to refine data needs and plan field work to collect Global Positioning System (GPS) points, and establishing community involvement. The implementation phase of the project would occur during the second to fourth years of the study. This phase would include collecting and analyzing data, and disseminating the results of the study to the public via community workshops and the release of a project geodatabase.

SECTION 3: RESTORATION ALTERNATIVES

The amount of funding requested from ONRT was \$925,520, which would partially cover the design, planning, and implementation phases of the project. The project would be able to leverage an additional \$476,503 in matching funds from New Mexico State Legislature appropriations; an additional \$220,000 in in-kind support from multiple entities, including Navajo farmers and the Navajo Nation San Juan River Farm Board; and an additional \$12,000 in in-kind support from NM WRRI.

Trustee Assessment with the Evaluation Criteria

Overall, the Trustee did not evaluate Alternative Q favorably based on the established evaluation criteria and compared to the preferred alternatives. Table 3.19 provides a narrative evaluation and ranking of the alternative with the evaluation criteria.

Proximity to Animas and San Juan River watersheds: The project had a high ranking for this criterion. The study would take place near the San Juan River and provide information for farmers and irrigation managers within the San Juan Irrigation District.

Consistency with local/regional plans: The project had a medium-low ranking for this criterion. The project is consistent with NMISC's 2016 San Juan Basin Regional Water Plan and is expected to be consistent with the NM 50 Year Water Plan. However, this type of project is not specifically mentioned in the plan.

Costs: The project had a medium-high to low ranking across the applicable cost criteria. It would leverage approximately 77% of the requested \$925,520 in settlement funds through matching funds secured from State appropriations and additional in-kind support from multiple entities including the NM WRRI Community Hydrology Program, the Navajo Nation San Juan River Farm Board, and Navajo farmers, and therefore ranked medium-high for the ability to leverage criterion. The project would have a moderately high ratio of planning costs to restoration costs, as more than half of the requested funds would be used for planning and administrative activities including the design and planning phases of the project as well as overhead and administration during project implementation, and therefore ranked medium-low for the ratio of planning to restoration costs criterion. The project had a low rank for the relationship of costs to benefits criterion because the project's benefits (i.e., improved information for local farmers and irrigation managers) would be highly uncertain and difficult to assess, and the project would be costly.

Proponent is a state or local public body: The project had a high ranking for this criterion. NM WRRI is a state public entity.

Expected benefits and timeframe of benefits: The project had a low ranking across the expected benefits and timeframe of benefits criteria. The project had a low ranking for the implemented in a timely manner criterion because it would take more than a year to implement and would take approximately four years to complete. The project ranked low for the likely to provide benefits quickly criterion because the project benefits would be highly uncertain and difficult to assess. The project would include a lot of good research; however, it is unclear how this research would directly benefit the community when many of the members of the community may not have the resources to put the data to use.

Likelihood of success and potential for adverse impacts: The project had a low to medium-high ranking across these criteria. The project would produce high quality research, but it is unclear how this research would directly impact the farmers and irrigators on the ground and whether the members of the community have the resources to put the results of the research to use. The project benefits are uncertain and difficult to assess, and thus the project would have a low potential for long-term success and a high risk of failure, and therefore had a low score for the long-term success and low risk of failure criterion. It ranked medium-high for the low potential for adverse impacts to natural resources and human health safety criterion because it would likely have some short-lived adverse impacts during construction.

SECTION 3: RESTORATION ALTERNATIVES

Table 3.19. Rehabilitation of the Farmland and Riparian Corridor Guided by Geographic Information Systems and Soil, Vegetation, and Water Assessments Project Evaluation

Evaluation Criteria		Narrative Evaluation	Ranking
Geographic location	Proximity to Animas and San Juan River watersheds	The project would be located in Fruitland within the San Juan River watershed.	High
Consistency with plans	Consistency with local/regional plans	The project is consistent with NMISC's 2016 San Juan Basin Regional Water Plan and is expected to be consistent with the NM 50-Year Water Plan. However, this type of project is not specifically mentioned.	Medium-Low
Cost criteria	Ability to leverage	The project would leverage approximately 77% of the requested settlement funds in in-kind support from various entities and additional funds from State appropriations and NM WRII.	Medium-High
	Low ratio of planning costs to restoration costs	Approximately 60% of the requested funds would be used for planning and administration (including the design and planning phases of the project as well as overhead/administrative costs during the implementation phase).	Medium-Low
	Relationship of costs to benefits	The project benefits would be highly uncertain and would be difficult to assess, and the project would be costly.	Low
	Cost-effectiveness	The expected benefits are distinct compared to the other projects, and thus this criterion is not applicable.	N/A
Proponent	Lead project proponent is state or local public body	NM WRII is a state public entity.	High
Expected benefits and timeframe of benefits	Implemented in a timely manner	The project would be initiated within a year. Design and planning would occur in the first year, and implementation of various activities would occur in years two through four. The project would take four years to complete.	Low
	Likely to provide benefits quickly	The project would provide benefits beginning at year three during the implementation of the hydrology and water quality monitoring network. The project benefits would be highly uncertain and would be difficult to assess.	Low
Likelihood of success and potential for adverse impacts	High potential for long-term success and low risk of failure	The project would include a lot of good research; however, it is unclear how this research would directly impact the irrigators on the ground. Many of the members of the community may not have the resources to put the data to use. The project benefits would be highly uncertain and difficult to assess.	Low
	Low potential for adverse impacts to natural resources or human health and safety	The project would likely have some short-term adverse construction impacts that would be resolved. Proper permits would be obtained.	Medium-High

SECTION 3: RESTORATION ALTERNATIVES

3.5. No Action-Natural Recovery Alternative

The selection of this alternative by the Trustee would mean that no actions would be taken by the Trustee to restore injured natural resources and the services they provide. Existing natural resource losses would continue to occur, and any further restoration of natural resources and services injured by the GKM Release would occur through natural recovery alone. While it is likely that natural resources may improve to baseline conditions over time, the public would not be compensated for losses that occurred in the interim (i.e., the time between the GKM Release and the return to baseline conditions). This alternative also provides no economic benefits to the population in and surrounding the San Juan and Animas watersheds. Additionally, the No Action-Natural Recovery alternative would not use the available \$12 million in NRDA settlement funds for restoration, which is mandated through CERCLA, making this a non-viable alternative.

The Screening Criteria were used to determine if the No Action-Natural Recovery Alternative met the minimum standards for acceptability (Table 3.20). The No Action-Natural Recovery Alternative does not meet the screening criteria and was not further evaluated in this Final RP and has been identified as a non-preferred alternative by the Trustee.

Table 3.20. No Action-Natural Recovery Alternative Project Screening

Screening Criteria	Narrative Evaluation	Ranking
Is consistent with ONRT's mission	The No Action-Natural Recovery Alternative would not compensate for interim losses.	Does not pass
Results in a net overall improvement of natural resources and/or benefit to the public in terms of increased resource services	The No Action-Natural Recovery Alternative would not result in an overall improvement.	Does not pass
Technically and administratively feasible, as demonstrated through the use of established or previously implemented approaches	No actions would be implemented.	Not applicable
Unlikely to proceed without ONRT Funding	No funding would be utilized.	Not applicable
Complies with applicable and relevant federal, state, local, and tribal laws and regulations	The No Action-Natural Recovery Alternative would not utilize settlement funds for restoration, which would not comply with CERCLA NRDA regulations.	Does not pass
Has feasible and cost-effective provisions for operations, maintenance, and monitoring; and a demonstrated source of funds, as relevant	No actions would be implemented.	Not applicable
Includes all the information necessary to evaluate the project	No project materials were submitted.	Not applicable

4. Summary

The Trustee has completed an evaluation of the restoration alternatives presented in this Final RP, consistent with CERCLA and the DOI NRDA regulations, and identified Alternatives A–O as the preferred alternatives because they best met the Trustee’s goals and evaluation criteria. Among the preferred alternatives, Tier 1 projects have been selected for funding. If funding remains after completing the Tier 1 projects, the Trustee will consider funding the Tier 2 projects up to the stated funding allocation amount. Alternatives P, Q, and the No Action-Natural Recovery Alternative were non-preferred. Table 4.1 summarizes the evaluation rankings across restoration alternatives.

Table 4.1. Summary of Restoration Alternatives Evaluation with the Restoration Criteria

Evaluation Criteria	Evaluated Alternatives ^a																
	Preferred (Tier 1)										Preferred (Tier 2)					Non-Preferred	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Proximity to Animas and San Juan River watersheds	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
Consistent with local/regional plans	H	H	H	M-H	H	M-H	M-L	H	M-L	M-L	H	H	H	L	M-L	M-L	M-L
Ability to leverage	H	H	H	M-H	M-H	H	H	M-L	M-L	H	M-L	M-H	M-H	L	M-L	M-L	M-H
Low ratio of planning costs to restoration costs	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	L	M-L
Relationship of costs to benefits	H	H	H	H	H	M-L	M-H	M-L	H	L	M-L	M-L	M-L	M-L	L	L	L
Lead project proponent is state or local public body	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
Implemented in a timely manner	H	H	H	H	M-L	H	H	H	M-H	H	L	L	L	H	M-H	H	L
Likely to provide benefits quickly	M-H	M-H	M-H	M-H	M-H	H	M-H	L	M-L	M-L	M-L	L	M-H	M-H	L	L	L
High potential for long-term success and low risk of failure	M-H	M-H	M-H	M-H	M-H	M-L	M-L	M-H	M-H	M-L	M-H	M-H	L	M-L	L	M-L	L
Low potential for adverse impacts to natural resources or human health and safety	M-H	M-H	M-H	M-H	M-H	H	M-H	M-H	M-H	M-H	M-H	M-H	M-L	M-L	H	H	M-H

^a Alternative A: Water reservoir rehabilitation project; Alternative B: Totah subdivision water and wastewater system improvements project; Alternative C: Construction of aquatic invasive species station project; Alternative D: Irrigation ditch diversion project; Alternative E: Construction of whitewater wave and irrigation diversion dam at Gateway Park project; Alternative F: San Juan water lease agreement partnership to improve river health project; Alternative G: Nenahnezad Chapter boat ramp along the San Juan River project; Alternative H: City of Aztec North Main wastewater management project; Alternative I: San Juan River public boat ramps and park improvements project; Alternative J: San Juan County Extension office building project; Alternative K: Cottonwood/Simon Canyon road access improvements project; Alternative L: San Juan Trail development project; Alternative M: Rex Smith Wash project; Alternative N: Irrigation canal cleaning project; Alternative O: National consumer recovery – tourism and commerce project; Alternative P: Preliminary Engineering Report East Blanco Reservoir project; Alternative Q: Rehabilitation of the farmland and riparian corridor guided by geographic information systems and soil, vegetation, and water assessments project. The No Action-Natural Recovery alternative does not meet the screening criteria, and thus is also a non-preferred alternative.

5. Public Comments and Trustee Responses

This section summarizes the public comments received on the Draft RP and provides the Trustee's response to those comments. The public comment period on the Draft RP commenced on April 1, 2023, and ended on May 1, 2023.

Four written comments were received during the public comment period. Commenters included private citizens and representatives of various organizations. Specifically, comments were submitted by River Reach Foundation, New Mexico Farm & Livestock Bureau (NMF&LB), Melissa Mundy (individual), and North Farmington Ditch.

Below, the Trustee summarizes the comments, where appropriate, rather than listing each comment verbatim. Copies of original comments are provided in Appendix D. No changes were made in the Final RP as a result of these comments.

Comment 1: The River Reach Foundation provided a letter voicing support for Alternative E (Construction of whitewater wave and irrigation diversion dam at Gateway Park project).

Response: The Trustee appreciates participation in the natural resource damage assessment and restoration process and those that took the time to review and provide comments on the Draft RP. No changes were made in the Final RP as a result of this comment.

Comment 2: The NMF&LB provided a letter voicing support for Alternative J (San Juan County Extension office building project).

Response: The Trustee appreciates participation in the natural resource damage assessment and restoration process and those that took the time to review and provide comments on the Draft RP. No changes were made in the Final RP as a result of this comment.

Comment 3: Melissa Mundy (individual) provided the following comment: "Restoring the land to its most pure and basic ancestry is important for it to be of service, for there to be a positive outcome from the situation and to remember the sincerity of the gesture in a settlement. Then, we can more easily rest assured there won't be continued fear of abandonment of projects and environmental controls."

Response: The Trustee appreciates participation in the natural resource damage assessment and restoration process and those that took the time to review and provide comments on the Draft RP. No changes were made in the Final RP as a result of this comment.

Comment Topic 4: The North Farmington Ditch provided a letter voicing support for Alternative E (Construction of whitewater wave and irrigation diversion dam at Gateway Park project).

Response: The Trustee appreciates participation in the natural resource damage assessment and restoration process and those that took the time to review and provide comments on the Draft RP. No changes were made in the Final RP as a result of this comment.

6. Conclusion

The Trustee has developed this Final RP to describe the restoration alternatives selected by the Trustee to compensate the public for injuries to natural resources and the services provided by those resources resulting from the GKM Release.

The Trustee will expend approximately \$12 million to implement the following preferred Tier 1 projects:

- City of Aztec water reservoir rehabilitation project
- Totah subdivision water and wastewater system improvements
- Construction of aquatic invasive species station project at the Texas Hole Day-Use Area in Navajo Lake State Park
- Irrigation ditch diversion for five ditches along the San Juan and Animas Rivers
- Construction of whitewater wave and irrigation diversion dam at Gateway Park project
- San Juan water lease agreement partnership to improve river health project
- Nenahnezad Chapter boat ramp along the San Juan River project
- City of Aztec North Main wastewater management project
- San Juan River public boat ramps and park improvements at McGee Park and Lions Park
- San Juan County Extension office building project

In addition, the Trustee will support implementation of the Tier 2 projects to the extent that funding remains available after the implementation of the Tier 1 projects:

- Cottonwood/Simon Canyon Road access improvements
- San Juan Trail development project at Navajo Lake State Park
- Rex Smith Wash improvements at Navajo Lake State Park
- Upper Fruitland irrigation canal cleaning
- National consumer recovery – tourism and commerce project

The Trustee may distribute any unused administrative funds as well as interest that has accrued on the settlement funds to these preferred projects.

The Trustee evaluated and identified the following non-preferred alternatives:

- Preliminary Engineering Report East Blanco Reservoir
- Rehabilitation of the farmland and riparian corridor guided by geographic information systems and soil, vegetation, and water assessments project
- No Action-Natural Recovery

ONRT has reserved approximately \$1 million from the settlements to pay the costs of soliciting and evaluating restoration projects and the costs of overseeing project implementation. Any funds remaining after the first-tier projects are implemented will be used for additional restoration.

References

Duval, B.D., D. Cadol, J. Martin, and S. Timmons. 2018. Persistent effects of the Gold King Mine spill on biota: Animas and San Juan Rivers, Northern New Mexico. Open File Report 601. New Mexico Bureau of Geology and Mineral Resources. Available:

https://geoinfo.nmt.edu/publications/openfile/downloads/600-699/601/OFR-601_GKM_EffectsOnBiota_Animas-San%20Juan.pdf. Accessed March 9, 2023.

TechLaw, Inc. 2019. Final Aquatic Baseline Ecological Risk Assessment. Bonita Peak Mining District Superfund Site. San Juan County, Colorado. Available: <https://semspub.epa.gov/work/08/1915915.pdf>. Accessed March 9, 2023.

New Mexico Department of Game and Fish (NMDGF). 2019. 2019–2020 New Mexico Fishing Rules and Info. New Mexico Department of Game and Fish. Available:

http://www.wildlife.state.nm.us/download/publications/rib/2019/fishing/2019_20-New-Mexico-Fishing-Rules-and-Info.pdf. Accessed March 1, 2023.

U.S. Environmental Protection Agency (EPA). 2018. Final Report: Analysis of the Biological Data Collected from the Animas and San Juan Rivers Following the Gold King Mine Release. Office of Wetlands, Oceans, and Watersheds. U.S. Environmental Protection Agency. Available:

https://www.epa.gov/sites/default/files/2018-11/documents/gkm_bio_report_181129-508-final.pdf. Accessed March 9, 2023.

U.S. Environmental Protection Agency (EPA). 2022. Fate & Transport Analysis. Available:

<https://www.epa.gov/goldkingmine/fate-transport-analysis>. Accessed March 9, 2023.

APPENDIX A: AGENCIES, ORGANIZATIONS, AND ENTITIES CONSULTED

Appendix A: Agencies, Organizations, and Entities Consulted

ONRT sent the public solicitation notice to, or posted the public solicitation notice to the following locations:

- Newspapers including the Albuquerque Journal; Albuquerque Business Insider; Durango Herald; Farmington Daily Times; Gallup Independent; Navajo Times; NM Political Report; Santa Fe New Mexican
- Radio Stations including American General Media, Basin Broadcasting; KTNN; KNDN; KWKY; KissCountry97.9; Radio Durango; TuneIn Radio
- State Agency Websites including the Office of Natural Resources Trustee and NM Environment Department

ONRT consulted the following stakeholder agencies and organizations during the drafting of this restoration plan:

- Cities of Aztec, Bloomfield, and Farmington; Town of Kirtland
- Chambers of Commerce for the cities of Aztec, Farmington, and Kirtland
- Economic Development for Farmington and Four Corners
- Irrigation Districts, such as the San Juan Agricultural Water Users Association, New Mexico Acequia Association and the Hammond Conservation District
- San Juan Soil & Water Conservation District
- San Juan County
- New Mexico State University Extension Office
- New Mexico Association of Soil and Water Conservation Districts
- Navajo Nation including the following Chapter Houses; Beclabito; Gadii ahi/To’Koi; Nenahnezad; Newcomb/Tiis Nideeshgish; San Juan; Shiprock; T’iis Toh Sikaad; Toadlena/Two Grey Hills; Toohaltsooi; Tse Alnaozti’ii; Tse’Daa Kaan; Upper Fruitland; the agencies including the Navajo Nation Environmental Protection Agency, Department of Justice and Department of Water Resources
- New Mexico State Agencies, including Department of Game & Fish; Department of Homeland Security & Emergency Management; Environment Department; Interstate Stream Commission; Energy, Minerals, and Natural Resources Department; Economic Development Department; Office of the Attorney General; Outdoor Recreation Division; State Land Office and the Tourism Department
- Colorado State Agencies including the Colorado Department of Public Health and Environment
- Federal Agencies, including the U.S. Army Corps of Engineers; U.S. Department of the Interior Bureau of Indian Affairs, Bureau of Land Management, Bureau of Reclamation, and Fish and Wildlife Service; and U.S. Department of Agriculture, Forest Service and Natural Resource Conservation Service
- The Office of Representative Teresa Leger Fernandez
- The Office of Senators Martin Heinrich and Ben Luján
- The Offices of New Mexico state legislators

APPENDIX A: AGENCIES, ORGANIZATIONS, AND ENTITIES CONSULTED

- Community organizations, including businesses and alliances focused on agriculture, youth, outdoor recreation, and conservation, such as the Acoma Coalition for a Safe Environment, Amigos Bravos, Animas River Community Forum, Animas Riverkeeper, Animas River San Juan Citizens Alliance, Bulloch Gallery, Center of Southwest Culture, Dine C.A.R.E, EndeavOR New Mexico, Frack Off Greater Chaco, High Country Anglers; National Indian Youth Leadership Project, Multicultural Alliance for a Safe Environment, Navajo Ethno-Agriculture, Pheasants Forever; Pueblo Action Alliance, Red Water Pond Road Community Association, San Juan Citizens Alliance, San Juan Watershed Group, Tewa Women United, ToohBAA and Zuni Youth Enrichment Project
- Non-governmental organizations and foundations, including DigDeep, the Nature Conservancy, National Forest Foundation, Quivira Coalition, Trout Unlimited; Trust for Public Land; Wildearth Guardians

Appendix B: Project Solicitation Letter



MICHELLE LUJAN GRISHAM
Governor

HOWIE MORALES
Lieutenant Governor

STATE OF NEW MEXICO
OFFICE OF NATURAL RESOURCES TRUSTEE

121 Tijeras Avenue NE, Suite 1000
Albuquerque, NM 87102
www.onrt.state.nm.us



MAGGIE HART STEBBINS
Trustee

August 11, 2022

Dear Stakeholder:

On August 5, 2015, the United States Environmental Protection Agency (U.S. EPA) and contractors working on U.S. EPA's behalf caused a release of millions of gallons of acid mine drainage and tons of toxic metals from the Gold King Mine in Colorado. The plume of contaminated water from the release caused the Animas and San Juan Rivers to turn bright yellow through Colorado, New Mexico and the Navajo Nation to Lake Powell in Utah. The release also forced communities to close intakes for drinking water systems, prompted many farmers to stop irrigating their crops, and drastically decreased recreational use of the rivers. Although the rivers are now safe for farming and other uses, the stigma associated with the event has had lasting effects on the region's economy.

In 2016, the New Mexico Attorney General and the New Mexico Environment Department ("the State") sued the U.S. EPA, its contractors, and certain mining companies, for their alleged respective faults in the incident, seeking compensation for the injuries caused by the Gold King Mine release.

On June 14, 2022, the State reached a settlement with the U.S. EPA with a total value of approximately \$32 million.¹ As part of that settlement, the United States will deposit \$10 Million into an escrow account for use by the New Mexico Office of the Natural Resources Trustee (ONRT) for natural resource restoration. ONRT will administer those funds through a process governed by the provisions of the federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and other applicable laws. The funding will be available for projects that restore or replace injured natural resources or the services they provide. That may include, among other things, river, land, habitat, and watershed restoration and conservation, or projects that compensate for the loss of use natural resources.

ONRT is in the preliminary stages of identifying projects that may be eligible for that funding and we invite you to submit proposals that will compensate for natural resource injuries in New Mexico caused by the Gold King Mine spill. Projects eligible for funding should have a connection to the Animas or San Juan Rivers, and must benefit surface water, wildlife, or aquatic and terrestrial

¹ In January 2021 the State reached a separate settlement with the mining companies for \$11 Million, including \$1 Million for natural resource damages, and ONRT is in the process of expending that \$1 Million (see [website](#)). Litigation against the contractor defendants is ongoing.

ecosystems; address existing impairments to the rivers; or benefit the services those natural resources provide such as consumption, farming, or outdoor recreation. Screening and evaluation criteria are contained in the Project Solicitation that follows.

ONRT will prioritize projects providing additional funds or in-kind support to leverage our investments and we encourage non-governmental entities seeking restoration project funding to partner with local or state public entities. Examples of restoration projects funded by ONRT can be found on the ONRT website [here](#).

Ultimately, ONRT will prepare a draft Restoration Plan describing the projects evaluated and prioritized for implementation and will again seek community input through a publicly noticed comment period. Any comments we receive at that time will be evaluated and incorporated, as appropriate, into the final Restoration Plan which will formally select one or more projects for implementation.

Please note that the funds involved are derived from the June 2022 settlement between the State and the U.S. EPA, and therefore are non-recurring. Ongoing operations and maintenance for proposed projects, if any, must be guaranteed by another entity. In accordance with the Anti-Donation Clause of New Mexico's Constitution, settlement funds cannot be given to individuals to compensate for personal losses.

As part of ONRT's project solicitation process, I invite you to participate in an informational meeting with other interested stakeholders regarding the project solicitation process, the screening and evaluation criteria for project selection, and restrictions on project funding. The meeting is scheduled for August 24, 2022, from 3:00–4:30pm. Information about the webinar is available [here](#) and more details are in the attached Project Solicitation. Please feel free to circulate this information to other potentially interested stakeholders.

No amount of money could fully compensate for the anguish New Mexicans suffered due to the Gold King Mine release, but this settlement provides fair compensation for natural resource injuries to the extent provided by law. As a resident and stakeholder who was affected by the contamination, you may have insight into the best use of this settlement fund. I hope you will give ONRT the benefit of your input into this process.

Sincerely,



Maggie Hart Stebbins
New Mexico Natural Resources Trustee
nm.onrt@state.nm.us

Project Solicitation

The State of New Mexico Office of Natural Resources Trustee (ONRT) is in the preliminary stages of identifying projects that may be eligible for funding provided by a settlement reached with the U.S. Environmental Protection Agency (U.S. EPA) compensating for injuries caused by the Gold King Mine release. ONRT invites the public propose restoration projects that will compensate for natural resource injuries in New Mexico caused by the release. Restoration project proposals should focus on the Animas and San Juan River watershed areas, and projects must benefit surface water, wildlife, or aquatic and terrestrial ecosystems; address existing impairments to the rivers; or benefit the services those natural resources provide, such as consumption, farming, or outdoor recreation [*see the frequently asked questions section for more background information on the ONRT and this Project Solicitation*].

The Office of Natural Resources Trustee is seeking restoration project proposals in New Mexico, with the following overarching and specific restoration goals:

Overarching Restoration Goal:

ONRT will implement restoration that has a geographic connection to the Animas and San Juan Rivers in New Mexico so that the benefits are felt in the areas most adversely affected by the Gold King Mine release. Restoration will focus on restoring the specific resources that were injured and services that were lost as a result of the Gold King Mine release.

Specific Restoration Goals:

- Improve and protect water quality and quantity within the Animas and San Juan watersheds, for the benefit of aquatic resources (e.g., fish and other biota) and humans (e.g, improve/protect drinking water sources).
- Restore and conserve aquatic and terrestrial habitats within the Animas and San Juan watersheds.
- Restore human uses of natural resources within the Animas and San Juan watersheds, including, for example, cultural uses of resources, farming, recreation, and use of surface water as a drinking water supply.

Where to Submit Your Restoration Project Proposal

All questions and project proposals can be submitted via email or hard copy to the Office of Natural Resources Trustee ([link](#) to form):



State of New Mexico:

Sara Gerlitz
Office of Natural Resources Trustee
121 Tijeras Avenue NE, Suite 1000
Albuquerque, NM 87102
Email: nm.onrt@state.nm.us

When to Submit Restoration Project Proposals

Project proposals need to be received by the Office of Natural Resources Trustee by close of business **September 30, 2022**.

Questions related to this Project Solicitation will be addressed during a webinar hosted by ONRT, scheduled for **August 24 2022, 3:00–4:30 pm**. You can register for the webinar using the following link: [GKM Restoration Project Solicitation Webinar](#). Translation services will be available.

Background Information

On Aug. 5, 2015, the United States Environmental Protection Agency (U.S. EPA) and contractors working on U.S. EPA's behalf caused a release of millions of gallons of acid mine drainage and tons of toxic metals from the Gold King Mine in Colorado. The plume of contaminated water from the release caused the Animas and San Juan Rivers to turn bright yellow through Colorado, New Mexico and the Navajo Nation to Lake Powell in Utah. The release also forced communities to close intakes for drinking water systems, prompted many farmers to stop irrigating their crops, and drastically decreased recreational use of the rivers. Although the rivers are now safe for farming and other uses, the stigma associated with the event has had lasting effects on the region's economy.

In 2016, the New Mexico Attorney General and the New Mexico Environment Department (the State) sued the U.S. EPA, its contractors, and certain mining companies, for their alleged respective faults in the incident, seeking compensation for the injuries caused by the Gold King Mine release.

On June 14, 2022, the State reached a settlement with the U.S. EPA with a total value of approximately \$32 million.² As part of that settlement, the United States will deposit \$10 Million into an escrow account for use by the New Mexico Office of the Natural Resources Trustee (ONRT) for natural

² In January 2021 the State reached a separate settlement with the mining companies for \$11 Million, including \$1 Million for natural resource damages, and ONRT is in the process of expending that \$1 Million (see [website](#)). Litigation against the contractor defendants is ongoing.

resource restoration. ONRT will administer those funds through a process governed by the provisions of the federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and other applicable law. The funding will be available for projects that restore or replace injured natural resources or the services they provide. That may include, among other things, river, land, habitat, and watershed restoration and conservation, or projects that compensate for the loss of use natural resources.

Summary of the affected resources and related service losses in the Animas and San Juan Rivers resulting from the Gold King Mine release

Affected Resources	Related Service Losses
<ul style="list-style-type: none">• Surface water• Habitat - terrestrial and aquatic• Human use	<ul style="list-style-type: none">• Ecological service losses associated with metals contamination of surface water and sediment resources• Loss of surface water supplied to local communities from the Animas or San Juan Rivers due to increase of lead content during turbulent river flow• Loss of surface water supplied for growth of agricultural crops• Loss of recreational opportunities tied to the Animas and San Juan Rivers resulting from concerns related to water contamination

ONRT is in the preliminary stages of soliciting restoration project ideas and goals, and we are asking you, as a stakeholder, for your input. Projects eligible for funding should have a connection to the Animas and/or San Juan Rivers, and benefit surface water, wildlife, and/or aquatic and terrestrial ecosystems and/or benefit the services these natural resources provide, such as farming or outdoor recreation, and/or address any existing impairments to the rivers.

The following pages include guidance on the information that should be included in project proposals and outline the screening and evaluation criteria that ONRT will use to evaluate each project. In the event clarifications are necessary, ONRT may ask a project proponent to provide additional information during the evaluation phase. This should not be construed as a project award. The evaluation and planning process explicitly includes a public comment process. Restoration project selection will occur after the public reviews the draft Restoration Plan with proposed projects. ONRT will then evaluate all public comments received, and the final Restoration Plan will be published.

Map of the Gold King Mine Release Area:



Eligible Restoration Categories

The Office of Natural Resources Trustees is seeking “shovel-ready” restoration project proposals in the Animas and San Juan watersheds in New Mexico that fall within at least one of following categories of restoration (or restoration types), and can be initiated within a reasonable timeline:

Proposed projects should be shovel-ready so that selected projects can be initiated within 1 year of ONRT’s publishing of the final Restoration Plan, and generally completed within 2–3 years of implementation.

Water Quality and Quantity

Projects that improve or protect water quality and quantity

Examples:

- Implement pollution source control and mitigation measures that address impairments in the Animas and San Juan Rivers, including lead, nutrients, E. coli, temperature, sedimentation impairments
- Install drinking water protection systems
- Increase water quantity, for example, by removing water-intensive non-native plant species

Habitat Restoration and Conservation

Projects that restore or protect terrestrial and aquatic habitats

Examples:

- Restore terrestrial habitats by removing invasive plant species or planting native vegetation
- Protect/enhance riparian and aquatic habitats, for example, by planting native vegetation or installing fencing to keep livestock out

Human Use Benefits

Projects that restore human use of natural resources

Examples:

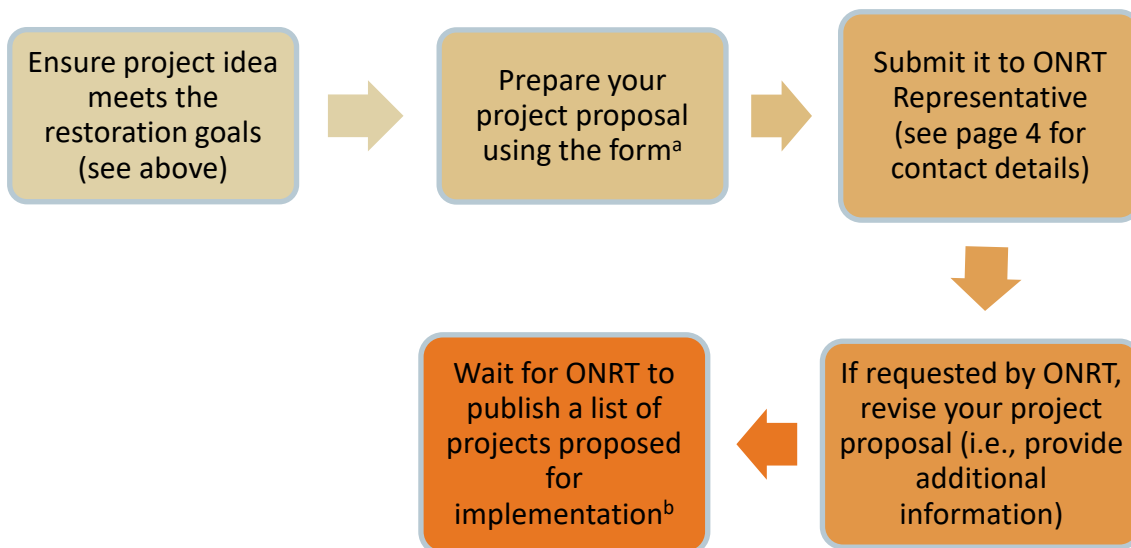
- Enhance or expand recreational opportunities, for example, through construction of access points or installation of other recreational amenities
- Restore cultural uses of natural resources through traditional educational programs or other means
- Improve drinking water treatment and delivery systems
- Provide improvements and/or education to benefit local farming

Restrictions on Uses for Settlement Funds

1. The project must have a nexus to natural resources and/or the services natural resources provide to people.
2. ONRT funding is non-recurring so applicants must identify a source of funds for all ongoing operating and maintenance costs. Following award, no additional funding will be available.
3. Any funding proposed by non-governmental entities will need to go through an additional, formal competitive solicitation process, consistent with New Mexico procurement rules.
4. Project funds will be disbursed on a reimbursable basis as costs are incurred throughout the implementation phase, or the implementation and monitoring phase, if funds for monitoring are included in the project.
5. Settlement funds cannot be given to individuals to compensate for personal losses.

Submittal Process

Please follow these steps to submit a project proposal:



a. The use of the [application form](#) to submit project proposals is preferred. However, project proposals may be submitted using other formats. If using another format, please ensure that all the information described on the form is included in the project proposal.

b. After reviewing the project proposals, ONRT will release a draft Restoration Plan for public review and comment that describes the restoration projects ONRT proposes for implementation.

What to Include in Your Project Proposal

The project proposal should contain the following categories of information, which are described in detail in the attached project proposal form.

General Project Description

Project Benefits

Project Size

Cost of Implementation

Longevity and Maintenance Needs

Matching Funds

Screening and Evaluation Criteria for Project Proposal

After the project solicitation period has closed, project proposals will initially be reviewed for general suitability. This first set of criteria are **screening criteria**, which are used to identify whether a given project meets the project requirements outlined by ONRT. *Projects must pass the screening criteria before they can be considered further in the evaluation process.* The second set of criteria are **evaluation criteria**, which are used to evaluate and rank the potential restoration projects and assist ONRT personnel in project selection from among the projects that meet the screening criteria. These criteria will enable ONRT to meet their evaluation responsibilities under CERCLA. All the criteria used in the screening and evaluation process will be detailed in the draft and final Restoration Plans. Below are the screening and evaluation criteria ONRT will use for project evaluation.

Screening Criteria
Consistent with ONRT mission .
Results in a net overall improvement of natural resources and/or benefit to the public in terms of increased resource services.
Technically and administratively feasible as demonstrated through established or previously implemented approaches.
Unlikely to be completed without ONRT funding.
Complies with applicable and relevant federal, state, local, and Tribal laws and regulations.
Has feasible and cost-effective provisions for operations, maintenance, and monitoring and a demonstrated source of funds for those ongoing costs, as relevant.
Includes all the information necessary to evaluate the project.

Evaluation Criteria
Geographically close to the Animas River from the New Mexico-Colorado state line to the confluence with the San Juan River, and/or the San Juan River downstream to the Colorado state line.
Consistent with regional planning and federal and state policies, if applicable.
Cost related Criteria: <ul style="list-style-type: none">• Availability of additional funds or in-kind support to leverage ONRT dollars.• Low ratio of planning and administrative costs to restoration costs.• Relationship of the expected costs of the proposed actions to the expected benefits.

- Cost-effectiveness compared to other projects that provide similar benefits.

Lead project proponent or partner is a state agency or local public body.

Implemented in a timely manner.

Likely to provide benefits quickly after project implementation.

High potential for long-term success and a low risk of failure.

Low potential for adverse impacts to natural resources or human health and safety resulting from the restoration project itself, including long-term and indirect impacts.

Frequently Asked Questions

What does the New Mexico Office of Natural Resources Trustee do?

The New Mexico Office of Natural Resources Trustee (ONRT) ensures that natural resources and the services they provide that are injured or lost because of contamination are restored for the benefit of the environment and the enjoyment of New Mexico residents and visitors now and in the future. ONRT's mission is to return injured natural resources and the services they provide to the condition that would have existed absent the release of contamination. The Natural Resources Trustee through the ONRT implements the Natural Resource Damage Assessment and Restoration Program.

What types of matching funds are allowed, and is there an expected matching funds contribution?

Though additional funds and in-kind support are not required, project proposals that provide leverage to ONRT investments will be prioritized. For example, additional funds or in-kind support may include funding received from another entity for a portion of the project, the value of volunteer labor, or the value of equipment already purchased and available for use. Funding received from other sources (e.g., federal agencies, Tribes) counts as additional matching funds. Project proposals with a greater percentage of additional/in-kind support to total project costs will be prioritized in the evaluation process.

What types of projects will be considered?

Restoration projects should benefit natural resources and/or resource services in the vicinity of the Animas or San Juan Rivers. For example, projects could improve and/or protect water quality and quantity, restore and/or protect terrestrial and aquatic habitats, or compensate for lost human use of natural resources.

What types of projects are not eligible?

Projects that do not address the injuries to natural resources, resource services, or ongoing impairments are not eligible. In addition, ONRT funds cannot be given to individuals to compensate for personal losses, in accordance with the anti-donation clause of New Mexico's constitution.

Would a project that involves remedial (cleanup) actions be considered?

Projects that require cleanup actions are not excluded from this funding opportunity. For example, ONRT will consider projects that seek to improve water quality by cleaning up hazardous substances other than those that caused injury in the Gold King Mine blowout. Such projects provide a net environmental benefit to injured resources.

However, as remedial actions are governed by federal, state, and local laws, projects that include a remedial component would need to justify the use of ONRT restoration-focused dollars to complete site cleanup (e.g., the absence of a viable responsible party or other funding mechanism).

Can ONRT funds be used for design, permitting, and other pre-construction costs?

Yes, project proponents may include design, permitting, and pre-construction activities as part of a project proposal. However, project proponents should be aware that the evaluation criteria include several cost-related topics, including a "low ratio of planning and administrative costs to restoration costs."

Are project proponents responsible for compliance with permitting requirements?

Yes, project proponents are responsible for compliance with all applicable federal, state, and Tribal laws related to permitting. In addition, project proposals will be evaluated based on the completeness of information needed to evaluate the project's short- and long-term benefits and collateral impacts.

Is there a maximum length of time for project completion?

Proposed projects should be shovel-ready, such that selected projects can be initiated within 1 year of ONRT's publishing of the final Restoration Plan, and generally completed within 2–3 years of implementation. Upon project selection, a deadline will be discussed and agreed upon as part of contract negotiations and should not exceed 4 years from the award date.

Are partnerships encouraged (e.g., between non-governmental entities and public entities)?

Based on New Mexico procurement requirements, partnerships between non-governmental entities and local/state public entities are strongly encouraged. One of the project evaluation criteria addresses this topic (i.e., lead project proponent or partner is a state agency or local public body) to prioritize projects from local and state agencies. Any funding provided directly to non-governmental entities will need to go through an additional, formal competitive solicitation process, consistent with state procurement rules. Examples of local public bodies are counties, municipalities, state agencies, certain educational institutions, and any political subdivision of the state.

Funding for projects proposed by non-governmental entities will need to go through an additional, formal competitive solicitation process, consistent with New Mexico procurement rules.

Appendix C: Response to Questions



Gold King Mine Restoration Project Solicitation: Frequently Asked Questions

In a recent settlement with U.S. EPA, the New Mexico Office of the Natural Resource Trustee (ONRT) received damages in the amount of \$10,000,000 for restoration of natural resources and resource services impacted by the August 2015 Gold King Mine release. On August 11, 2022, ONRT sent a letter to local and regional stakeholders to solicit restoration project ideas. To provide an overview of the restoration project solicitation process and answer stakeholder questions, ONRT held a webinar on August 24, 2022. The presentation from the webinar and a recording of the webinar are available for download on the ONRT website: [presentation](#) and [recording](#).

During the webinar and throughout this process, interested parties have posed questions on the solicitation process and timing, types of restoration projects eligible for funding, types of partnerships allowed, and other questions.

Answers to frequently asked questions are included below and will be updated at the discretion of ONRT throughout the solicitation process. Updates will be posted on the ONRT [website](#).

Questions and Answers

Is there a timeline for the completion of proposed projects?

ONRT will consider the implementation schedule for proposed projects as part of the evaluation criteria with a preference for projects that can be initiated within 1 year of ONRT's publishing of the final Restoration Plan, and generally completed within 2–3 years of implementation. However, projects with longer timelines will also be considered.

Can stakeholders apply for more than one restoration category?

There are no limits on how many restoration categories that stakeholders may apply for, or how many projects stakeholders may submit.

Is there a maximum amount of funding for a single proposal?

No, there is not maximum amount for a single proposal. The total amount of funding for all projects will not exceed \$10,000,000.

Will there be a set aside for smaller projects?

There is no set aside based on project size. Small projects will be evaluated using the same criteria as larger projects. The criteria will not prioritize more expensive projects over smaller projects. In some cases, a lower cost project may demonstrate higher cost-effectiveness, if it provides greater benefits relative to the costs.



Is there a plan for a potential second request for proposals if the full \$10,000,000 is not allocated through this application deadline?

The intent is to release the full \$10,000,000 through this project solicitation. If funds remain after implementation of all selected projects, a second project solicitation may take place.

Can proposals include costs for monitoring the effects of the restoration?

Yes. For example, projects with adaptive management plans would be expected to have a monitoring component. However, this is with the exception that any monitoring that would be duplicative of monitoring already occurring under the ["Gold King Mine Spill Long-Term Monitoring Plan"](#).

If a restoration project requires removal of impacted/contaminated material, should the costs for these actions be included in the project budget?

Yes, if the project idea is to improve natural resources to baseline conditions, then the proposal would need to address all the elements of the project. This would include the costs for managing waste material.

Will the Restoration Plan include all the submitted stakeholder projects?

Yes, the Restoration Plan will describe all the projects that have been submitted for consideration and identify preferred projects that total up to \$10,000,000. Proposed projects will be screened and evaluated using the criteria identified in the [Project Solicitation Letter and Criteria](#).

Are projects with human use benefits in the Animas and San Juan Rivers eligible for funding (e.g., boat launch, river wave features, river walks, etc.)?

Yes, projects that are specifically focused on human use benefits are eligible. Proposed projects do not need to have a habitat or ecological focus but must be connected to the natural resource injured by the Gold King Mine release.

Are projects focused on headwater wetlands that drain into the Animas or San Juan Rivers eligible?

Yes, projects focused on headwater wetlands that drain into the Animas or San Juan Rivers are eligible, provided they are located in New Mexico.

Can you provide more guidance what is considered “geographically close to the Animas River from the New Mexico-Colorado state line to the confluence with the San Juan River, and/or the San Juan River downstream to the Colorado state line” criterion?

Yes, “geographically close to” refers to within the watershed of the Animas and San Juan Rivers in New Mexico. For example, restoration projects in upland areas that are within the watersheds of the rivers (and located within New Mexico), would be considered “geographically close to”.



Are public land acquisition projects or conservation easements on private land that meet one of the goals eligible?

Yes, if a project meets the criteria listed in the Project Solicitation Letter, it would be eligible. Typically, the benefits of such projects are demonstrated by showing that the acquisition or conservation easement will protect, maintain, and/or improve aquatic or terrestrial habitat or have a direct impact on water quality.

Are projects focused on farmer training facilities or emergency operations center updates eligible?

Farmers are a sector of the public that was adversely affected by the GKM event, and projects that provide benefits to farmers are an eligible type of restoration, falling under the “human use benefits” restoration category. That can include projects that provide trainings, education, and/or outreach/communications for farmers.

Where can stakeholders obtain information regarding baseline conditions?

It is up to the applicant to establish baseline conditions of the proposed project area. The potential source(s) of baseline information may vary, depending upon the nature of the project. For example, a project focused on reducing stream bank erosion and sedimentation by controlling cattle access and stabilizing the bank by planting native vegetation, could establish that baseline is degraded by referring to existing river impairment listing(s) for sedimentation. If regular water quality monitoring data are available, the applicant could also refer to those data to establish baseline conditions. Applicants could also point to established literature, or studies from other sites to establish baseline conditions. For example, an applicant could point to sedimentation and temperature impairments in the river(s) to establish that baseline conditions are degraded, then identify through the literature that loss of wetlands is associated with these types of water quality degradations, and that restoring wetlands can improve these water quality conditions. Applicants searching for specific information regarding baseline conditions (e.g., water quality data, etc.) may reach out to ONRT for further assistance.

continued below



Are projects focused on long-term monitoring eligible for funding?

The settlement agreement between the State of New Mexico and the United States contains two references to “long-term monitoring”:

“(3)(d). New Mexico and the United States further agree that, to avoid double recovery under 42

U.S.C. § 9614(b), funds from the Escrow Account shall not be used to pay for costs of Long-Term Monitoring.

(1)(k) Long-Term Monitoring shall mean those response actions within the State of New Mexico set forth in the “Gold King Mine Spill Long-Term Monitoring Plan” as published by New Mexico’s Long-Term Impact Team on May 5, 2017, a true and correct copy of

which is attached to this Settlement Agreement as Attachment B.”

Therefore, any proposals that contain monitoring or other response actions listed [in "Gold King Mine Spill Long-Term Monitoring Plan"](#) are ineligible for funding.

Why can’t ONRT provide funding directly to non-governmental proposers?

The New Mexico State Procurement Code prohibits ONRT from directly contracting with a non-governmental entity without first issuing a formal Request for Proposals (RFP) for the proposed services. The formal RFP process is competitive and gives all interested parties a fair opportunity to bid for the contract.

When ONRT receives a proposal from a non-governmental entity, it must submit that proposal to formal RFP process. Because the RFP process is competitive, ONRT cannot guarantee that the non-governmental proposer will win the contract.

Appendix D: Public Comments on the Draft RP



River Reach
Foundation

PO Box 2056 • Farmington, NM 87499-2056 • www.riverreachfoundation.com

April 25, 2023

New Mexico Office of Natural Resources Trustee
ATTN: Maggie Hart Stebbins
121 Tijeras Avenue NE, Suite 1000
Albuquerque, NM 87102

Ms. Stebbins,

The City of Farmington is fortunate to have numerous waterways that provide for our agricultural activities, recreational fishing, and river sports. The community has been diligent over the years to invest in and maintain these pristine river features for future generations and likewise build on the potential uses and applications.

The River Reach Foundation is dedicated to the protection, promotion, and enhancement of Farmington's riverine corridors and has long supported river activities and water management. As such, we would like to support the efforts being made by the City of Farmington in partnership with the North Farmington Ditch Company to better the riverway of the Animas River. The project impact is threefold, the creation of a diversion dam for the North Farmington Ditch company that will alleviate log jams and expensive maintenance, maintain habitat for fish by way of an integrated fish ladder that will allow their natural upstream migration and spawning, while also creating a destination river recreation feature in the form of an adjustable feature that can manage the flow of the river for numerous different water recreation activities.

The addition of such a multifaceted river asset will be a boon not only for the riverway's long-term management, but also for the community for easier access to all the river has to offer. As such, we respectfully ask that you help fund this exciting project as a part of the Gold King mine settlement.

Thank you for your consideration.

Sincerely,

D'Ann Waters/President
River Reach Foundation, Inc.
www.riverreachfoundation.com



NEW MEXICO FARM & LIVESTOCK BUREAU

2220 NORTH TELSHOR BOULEVARD • LAS CRUCES, NEW MEXICO 88011 • (575) 532-4700

Sara Gerlitz Peck
New Mexico Office of the Natural Resource Trustee
121 Tijeras NE, Suite 1000
Albuquerque, NM 87102

April 6, 2023

Re: Draft Natural Resource Restoration Plan #2 for the 2015 Gold King Mine Release

New Mexico Farm & Livestock Bureau (NMF&LB) is New Mexico's largest agriculture organization, representing members involved in all aspects of agriculture including dairy, livestock, fruits, and vegetables. Our mission is to promote and protect agriculture in the great State of New Mexico. We are charged with the important task of representing our members' interests while advocating on the behalf of agriculture. New Mexico Farm & Livestock Bureau respectfully submits the following comments in support of the actions outlined in the draft natural resource restoration plan #2 for the 2015 Gold King Mine release.

Agriculture has long played a vital role in New Mexico's economy and in supporting our rural communities. Farming and ranching go back decades and are cornerstones of the state's customs and culture. San Juan County is home to 2,965 farms and ranches sprawling over 2.5 million acres, with agricultural production valued at just over \$74 million¹. The 2015 Gold King Mine spill greatly impacted our northwest producers who rely heavily on the San Juan and Animas Rivers to irrigate their crops and water their livestock. The temporary river water restrictions put in place to protect the public burdened these producers who had crops planted and animals in need of water. Producers were terrified to utilize the bright gold water that flowed through the rivers and remain concerned over what the long-term impacts of the release might be. Our producers' land and access to water are their most valuable assets and directly support their livelihoods and the viability of their farms and ranches.

We applaud the efforts the state pursued against EPA and its contractors for the injuries caused by the Gold King Mine release. For far too long, New Mexico has been walked on by the federal government and their continuous abuse of our natural resources. Our state is rich in natural resources which directly support our economy, promote tourism, and make NM a beautiful place to live.

The ten projects outlined in the draft plan will help restore the impacted area through investments in infrastructure, conservation and remediation, water quality and quantity improvements in the watershed, and habitat improvements. We are specifically excited about alternative J, which supports a building for San Juan County Extension. Our producers work

¹ USDA, National Agriculture Statistic Service. New Mexico Annual Bulletin 2021.

closely with and depend on the Cooperative Extension Service for research and education. Recovery for the impacted communities and our natural resources will be a long and slow process. We believe the projects listed in the plan will make major strides in the work that needs to be done.

We thank you for the opportunity to provide comment on the draft natural resource restoration plan #2 for the 2015 Gold King Mine release.

Respectfully,

A handwritten signature in cursive script, appearing to read "Larry Reagan", followed by a horizontal flourish.

Larry Reagan
President

Melissa Mundy

Restoring the land to its most pure and basic ancestry is important for it to be of service, for there to be a positive outcome from the situation and to remember the sincerity of the gesture in a settlement. Then, we can more easily rest assured there won't be continued fear of abandonment of projects and environmental controls.



North Farmington Ditch



2112 W. Apache Street, Farmington, New Mexico 87401

May 1, 2023

City of Farmington
805 Municipal Drive
Farmington, NM 87401
ATTN. Warren Unsicker, Director of Economic Development and ORII

RE: Letter of Support: Gold King Mine Settlement – Construction of Whitewater Wave and Irrigation Diversion Dam at Gateway Park

Dear Mr. Unsicker,

The North Farmington Ditch traverses approximately 7 miles of alluvial terrace through the City of Farmington. The North Farmington Ditch provides water for agriculture and urban landscapes; it also provides agricultural water for the Wright Leggett Ditch that traverses the floodplain of the Animas River.

On behalf of North Farmington Ditch Board of Ditch Commissioners, I am writing to convey, by consensus, the Commission's continued support for the proposed Whitewater Wave and Irrigation Diversion Dam project. The project specifically addresses the need for and installation of a diversion dam to direct Animas River water to the North Farmington Ditch. The proposed dam would be a permanent structure that is like diversions previously recommended for the North Farmington Ditch by the U.S. Corps of Engineers.

Sincerely,

Douglas D. Dykeman, President North Farmington Ditch