



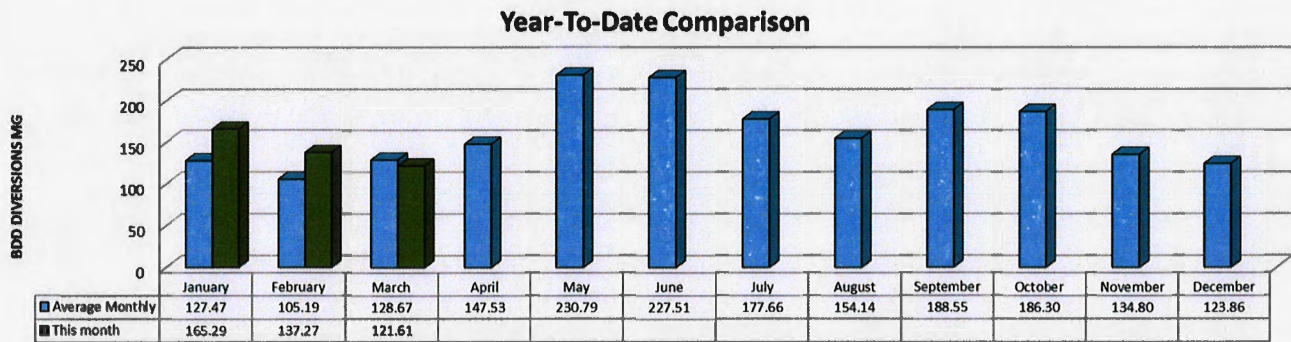
Date: April 7, 2022
To: Buckman Direct Diversion Board
From: Randy Sugrue, BDD Operations Superintendent
Subject: Update on BDD Operations for the Month of March 2022

ITEM:

1. This memorandum is to update the Buckman Direct Diversion Board (BDDDB) on BDD operations during the month of March 2022. The BDD diversions and deliveries have averaged, in Million Gallons Per Day (MGD) as follows:
 - a. Raw water diversions: 3.92 MGD.
 - b. Drinking water deliveries through Booster Station 4A/5A: 3.65 MGD.
 - c. Raw water delivery to Las Campanas at BS2A: 0.00 MG
 - d. Onsite treated and non-treated water storage: 0.27 MGD Average.

2. The BDD is providing approximately 58% percent of the water supply to the City and County for the month.

3. The BDD year-to-date diversions are depicted below:



4. Regional Demand/Drought Summary and Storage-see page 2.



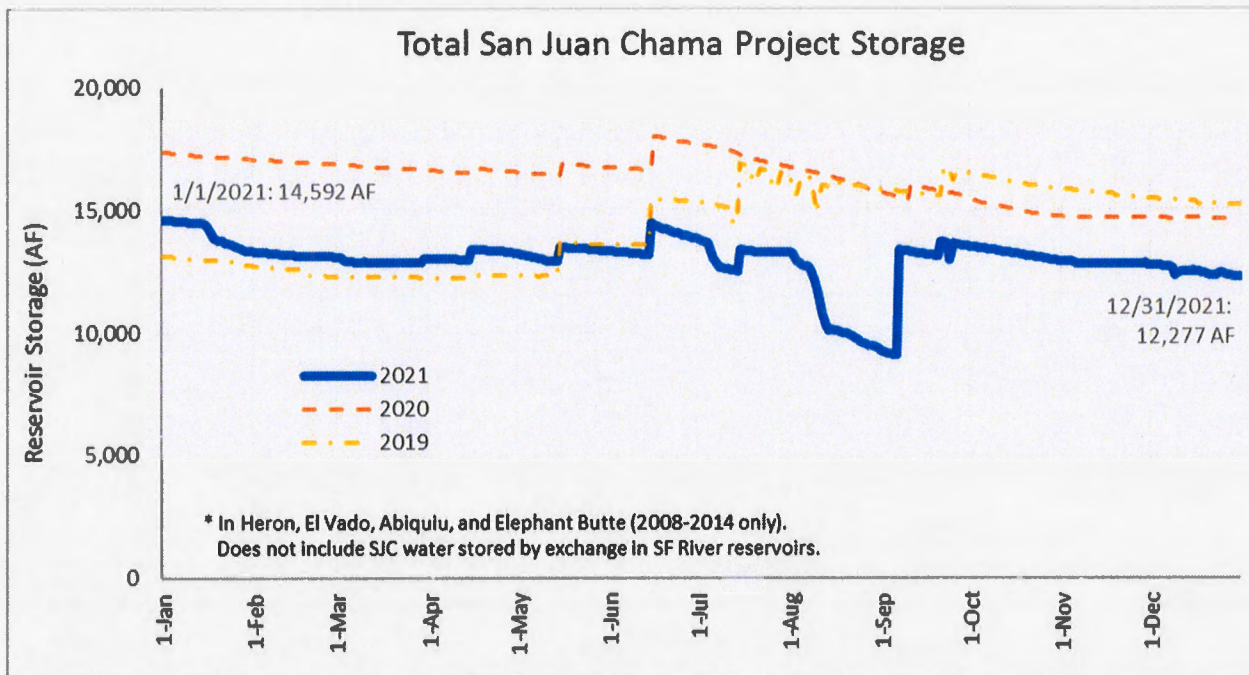
Regional Water Overview

Daily metered regional water demand for the month of March 2022 is approximately 6.3 MGD.

Rio Grande flows for March 2022 averaged approximately 600 CFS (cubic feet per second.)

CRWTP reservoir storage: Nichols: 70.6%/McClure: 9.5% (19.8% combined) Watershed Inflow: 1.2 MGD

City/County/LC Storage- as updated by partners.



ENSO Summary

March 21, 2022

La Niña is present.*

Equatorial sea surface temperatures (SSTs) are below average across the east-central and eastern Pacific Ocean.

The tropical Pacific atmosphere is consistent with La Niña.

La Niña is favored to continue into the Northern Hemisphere summer (53% chance during June-August 2022), with a 40-50% chance of La Niña or ENSO-neutral thereafter.



Buckman Direct Diversion

Buckman Direct Diversion Monthly SJC and Native Diversions

Mar-22							
In Acre-Feet							
Month	Total SJC + Native Rights	SP-4842 RG Native COUNTY	SD-03418 RG Native LAS CAMPANAS	SJC Call Total	SP-2847-E SJC Call CITY	SP-2847-N-A SJC Call LAS CAMPANAS	All Partners Conveyance Losses
JAN	511.288	154.905	0.000	356.382	356.382	0.000	3.203
FEB	421.814	421.814	0.000	0.000	0.000	0.000	0.000
MAR	373.350	304.270	0.000	69.080	69.080	0.000	0.047
APR	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MAY	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUN	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OCT	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NOV	0.000	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	1,306.451	880.989	0.000	425.462	425.462	0.000	3.250

In Million Gallons

Month	Native COUNTY	Native Las Campanas	SJC TOTAL	SJC CITY	SJC Las Campanas	All Partners Diversions
JAN	50.458	0.000	114.878	114.878	0.000	165.336
FEB	137.399	0.000	0.000	0.000	0.000	137.399
MAR	99.111	0.000	22.500	22.500	0.000	121.611
APR	0.000	0.000	0.000	0.000	0.000	0.000
MAY	0.000	0.000	0.000	0.000	0.000	0.000
JUN	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.000	0.000	0.000	0.000	0.000	0.000
OCT	0.000	0.000	0.000	0.000	0.000	0.000
NOV	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	286.967	0.000	137.378	137.378	0.000	424.345



Buckman Direct Diversion

Buckman Direct Diversion Monthly SJC and Native Diversions

Dec-21							
In Acre-Feet							
Month	Total SJC + Native Rights	SP-4842 RG Native COUNTY	SD-03418 RG Native LAS CAMPANAS	SJC Call Total	SP-2847-E SJC Call CITY	SP-2847-N-A SJC Call LAS CAMPANAS	All Partners Conveyance Losses
JAN	378.548	42.119	0.000	336.429	336.429	0.000	3.456
FEB	408.601	191.550	0.000	217.051	217.051	0.000	2.229
MAR	442.832	442.832	0.000	0.000	0.000	0.000	0.000
APR	624.282	506.349	0.000	117.933	117.933	0.000	1.195
MAY	868.184	483.518	0.000	384.666	384.666	0.000	2.477
JUN	879.493	302.801	0.000	576.692	576.692	0.000	3.555
JUL	562.156	-17.518	0.000	579.674	579.674	0.000	2.767
AUG	758.665	-0.154	0.000	758.819	758.819	0.000	3.757
SEP	542.059	-49.305	0.000	591.364	591.364	0.000	2.930
OCT	553.705	-22.895	0.000	576.600	576.600	0.000	5.614
NOV	423.977	368.177	0.000	55.800	55.800	0.000	0.543
DEC	423.345	-0.732	0.000	424.077	424.077	0.000	2.367
TOTAL	6,865.847	2,246.741	0.000	4,619.106	4,619.106	0.000	30.890

In Million Gallons

Month	Native COUNTY	Native Las Campanas	SJC TOTAL	SJC CITY	SJC Las Campanas	All Partners Diversions
JAN	13.720	0.000	108.306	108.306	0.000	122.026
FEB	62.394	0.000	69.875	69.875	0.000	132.269
MAR	144.245	0.000	0.000	0.000	0.000	144.245
APR	164.934	0.000	37.971	37.971	0.000	202.906
MAY	157.498	0.000	123.871	123.871	0.000	281.369
JUN	98.632	0.000	185.788	185.788	0.000	284.420
JUL	-5.706	0.000	186.765	186.765	0.000	181.059
AUG	-0.050	0.000	244.396	244.396	0.000	244.346
SEP	-16.060	0.000	190.470	190.470	0.000	174.409
OCT	-7.458	0.000	185.724	185.724	0.000	178.266
NOV	119.927	0.000	17.973	17.973	0.000	137.901
DEC	-0.238	0.000	138.136	138.136	0.000	137.898
TOTAL	731.837	0.000	1,489.275	1,489.275	0.000	2,221.113



Middle Rio Grande Endangered Species
Collaborative Program

ANNUAL REPORT

2021

ACRONYMS & ABBREVIATIONS

ABCWUA	Albuquerque Bernalillo County Water Utility Authority
Audubon	Audubon Southwest
CEM	Conceptual Ecological Model
CoA	City of Albuquerque
Collaborative Program	Middle Rio Grande Endangered Species Collaborative Program
EC	Executive Committee
ES	USFWS Ecological Services
EWLP	Environmental Water Leasing Program
HR	Habitat Restoration
LTP	Long-Term Plan
MRG	Middle Rio Grande
MRGCD	Middle Rio Grande Conservancy District
NMDGF	New Mexico Department of Game and Fish
NMISC	New Mexico Interstate Stream Commission
PoSA	Pueblo of Santa Ana
RGSM	Rio Grande Silvery Minnow
S&T Ad Hoc	Science & Technical Ad Hoc Group
SAMC	Science and Adaptive Management Committee
SAMIS	Science and Adaptive Management Information System
Science & AM Plan	Science & Adaptive Management Plan
SWFL	Southwestern Willow Flycatcher
SWR	Strategic Water Reserve
UNM	University of New Mexico
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife
WMA	Wildlife Management Area
YBCU	Yellow-billed Cuckoo

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2021 ANNUAL REPORT PREPARED BY:



Western EcoSystems Technology (WEST), Inc.
Environmental and Statistical Consultants
901 Lambertson Place Northeast South Suite
Albuquerque, New Mexico 87107

ON BEHALF OF:

The Middle Rio Grande Endangered Species
Collaborative Program



GUIDING PRINCIPLES

Mission

The Middle Rio Grande Endangered Species Collaborative Program (Collaborative Program) provides a collaborative forum to support scientific analysis and implementation of adaptive management to the benefit and recovery of the listed species pursuant to the Endangered Species Act within the Program Area, and to protect existing and future water uses while complying with applicable state, federal and tribal laws, rules, and regulations.

Species of Interest

The Collaborative Program supports the recovery of five listed species inhabiting the Middle Rio Grande (MRG): the endangered Rio Grande silvery minnow (RGSM; *Hybognathus amarus*), the endangered southwestern willow flycatcher (SWFL; *Empidonax traillii extimus*), the threatened yellow-billed flycatcher (YBCU; *Coccyzus americanus*), the endangered New Mexico meadow jumping mouse (PESU; *Zapus hudsonius luteus*), and the threatened Pecos sunflower (NMMJM; *Helianthus paradoxus*).

Goals

- Establish and maintain a self-sustaining population of endangered RGSM distributed throughout the MRG.
- Maintain and protect the MRG recovery unit goals for endangered SWFL.
- Maintain and protect suitable threatened YBCU habitat in the MRG.
- Establish and maintain a self-sustaining endangered NMMJM population in the MRG.
- Maintain and protect the threatened PESU in the MRG.
- Avoid the future listing or up-listing of species in the Collaborative Program area.
- Manage available water to meet the needs of endangered species and their habitat.



FOREWORD FROM THE CO-CHAIRS

We are pleased to present the Collaborative Program's 2021 Annual Report, which covers our first year formally operating within a science and adaptive management framework. 2021 was a year of immense change for the Collaborative Program, which resulted in many accomplishments and a palpable sense of momentum. The changes in the Collaborative Program highlight the immense potential it has for the future.

"Science is a way of thinking much more than it is a body of knowledge."
— Carl Sagan

In 2021, the Collaborative Program embraced science in a more formal way, focusing on evidence-based recommendations. This included developing and standardizing review processes and tools used to assess our understanding of the MRG's listed species, as well as committing to continually refining that understanding. The newly formed Science and Adaptive Management Committee (SAMC) helped guide the Collaborative Program's science activities, ensuring that processes were followed and results of activities were evaluated collectively. By analyzing and applying scientific findings within the broader management context, we are building a cumulative knowledge base with which to formulate better recommendations.

One thing we learned in 2021 is that a science and adaptive management program requires navigation of both change and uncertainty. To manage a dynamic system effectively, we must regularly acknowledge and test our assumptions, and critically evaluate what we learn from scientific research. Keeping an open mind to novel ideas that might break with conventional thinking is vital to finding solutions to complex problems. Diverse perspectives are key and, together, we are much more likely to identify and ask the essential questions needed to focus our conservation efforts.

This annual report is a celebration of the Collaborative Program's accomplishments in 2021. The sixteen signatories brought their unique strengths and resources to the table, leveraged partnerships to create stronger projects, and collectively worked towards shared goals. We truly are an example of the whole being greater than the sum of its parts, as every signatory's work collectively improves our scientific understanding and informs future activities. We hope readers of this annual report will get a sense of the



Katrina Grantz
FEDERAL CO-CHAIR OF THE
EXECUTIVE COMMITTEE
U.S. Bureau of Reclamation



Mark Kelly
NON-FEDERAL CO-CHAIR OF THE
EXECUTIVE COMMITTEE
*Albuquerque-Bernalillo County Water
Utility Authority*

COMMITTEE REPRESENTATIVES

Executive Committee (EC)

CO-CHAIRS

Mark Kelly

Wayne Pullan [Jan-Apr 2021]

Katrina Grantz [Apr-Dec 2021]

Non-Federal Co-Chair

Federal Co-Chair

Federal Co-Chair

REPRESENTATIVES

Paul Tashjian

Kim Eichhorst

Rick Carpenter

Colleen Langan-McRoberts

Dave Gensler [Jan-Jun 2021]

Anne Marken [Jun-Dec 2021]

William Grantham

Matthew Wunder

Page Pegram

Blane Sanchez

Michael Scialdone

Alan Hatch

Thomas Turner

LTC Patrick Stevens

Jennifer Faler

Shawn Sartorius

Audubon Southwest (Audubon)

Bosque Ecosystem Monitoring Program

Buckman Direct Diversion

City of Albuquerque (CoA)

Middle Rio Grande Conservancy District (MRGCD)

MRGCD

New Mexico Office of the Attorney General

New Mexico Department of Game and Fish (NMDGF)

New Mexico Interstate Stream Commission (NMISC)

Pueblo of Isleta

Pueblo of Sandia

Pueblo of Santa Ana (PoSA)

University of New Mexico (UNM)

U.S. Army Corps of Engineers (USACE)

U.S. Bureau of Reclamation (Reclamation)

U.S. Fish and Wildlife Service (USFWS)

Science and Adaptive Management Committee (SAMC)

Thomas Archdeacon Aquatic Ecology Expert

Meaghan Conway Ecosystem Function Expert

Megan Friggens Climate Science Expert

Ryan Gronewold Hydrology Expert

Mo Hobbs Aquatic Ecology Expert

S. Dave Moore Terrestrial Ecology Expert

Ari Posner Geomorphology Expert

Ara Winter Statistics/Modeling Expert

Alan Hatch Executive Committee *Ex Officio* Member

Fiscal Planning Committee (FPC)

CO-CHAIRS

Grace Haggerty

Debra Hill

Non-Federal Co-Chair

Federal Co-Chair

REPRESENTATIVES

Representatives are selected by the EC to address meeting topics.

THE RICK BILLINGS MEMORIAL AWARD

Rick Billings was the former EC Non-Federal Co-Chair, an EC member, and a long-time supporter of the Collaborative Program. In his memory, Reclamation's Albuquerque Area Office sponsors an annual award recognizing an individual's contributions to the success of the Collaborative Program.

The first Rick Billings Memorial Award was granted in December 2020 to John Stomp, the former Chief Operating Officer for the Albuquerque Bernalillo County Water Utility Authority (ABCWUA). John served as the EC Non-Federal Co-Chair from June 2019 to December 2020, when he retired. John was instrumental in supporting the Collaborative Program in developing a Science & Adaptive Management Plan (Science & AM Plan). He helped the EC navigate difficult decisions and hurdles, and adopt a forward-looking, solution-focused perspective.

The 2021 Rick Billings Memorial Award recipient is Wayne Pullan. Wayne is the Regional Director of Reclamation's Upper Colorado Basin Region and former Federal Co-Chair from April 2020 to May 2021. He was a decisive leader during a major period of transition for the Collaborative Program, and was often praised for his ability to provide clarity and guidance during EC meetings. Without a doubt, Wayne was instrumental in transforming the Collaborative Program into the program it is today.



John Stomp

FORMER NON-FEDERAL CO-CHAIR (2019-2020),
WINNER OF THE 2020 RICK BILLINGS MEMORIAL
AWARD



Wayne Pullan

FORMER FEDERAL CO-CHAIR (2020-2021),
WINNER OF THE 2021 RICK BILLINGS MEMORIAL
AWARD



Rick Billings

FORMER MEMBER AND SUPPORTER OF
THE COLLABORATIVE PROGRAM,
AWARD NAMESAKE

2021 YEAR IN REVIEW

Collaborative Program

WHAT IS THE COLLABORATIVE PROGRAM?



The Middle Rio Grande Endangered Species Collaborative Program (Collaborative Program) is a partnership of 16 signatory entities (3 Federal agencies, 3 State agencies, 2 local agencies, 2 non-governmental organizations, 3 Pueblos, 2 municipal water utilities, and 1 university) that supports actions in the Middle Rio Grande aimed at protecting and recovering five federally listed species, while preserving existing and future water uses.

PARTICIPANTS

In 2021, over 140 participants (both signatory representatives and members of the public) contributed to Collaborative Program efforts, including meetings, seminars, workshops, and the Science Symposium.



SCIENCE OUTREACH BY THE NUMBERS

- 1** Science Symposium
- 2** Workshops
- 2** Collaborative Seminars
- 6** Newsletters
- 17** Publications Shared
- 38** Signatory Announcements

MAJOR ACCOMPLISHMENTS

Oct 2020 Formed the Science and Adaptive Management Committee.

Dec 2020 Hosted the 2020 Science Symposium.

Dec 2020 Approved the Science & Adaptive Management Plan and Long-Term Plan (LTP).

Feb 2021 Hosted the Objectives Workshop to revise proposed Science Objectives.

Jul 2021 Approved the Science Objectives.

Jul 2021 Approved the revised By-Laws.

Jul 2021 Approved a proposal for compiling Signatory Contributions

Jul 2021 Approved findings and recommendations from the Rio Grande Silvery Minnow Population Monitoring Summary Report.

Aug 2021 Hosted the Habitat Restoration (HR) Workshop to discuss defining HR success.

Sep 2021 Developed the SAMIS and Project Bank, along with two user applications.

Dec 2021 Approved the updated LTP with the Biennial Schedule.

Dec 2021 Approved the Annual Program Evaluation.

SPECIES BY THE NUMBERS

RIO GRADE SILVERY MINNOW

6 Science Objectives & **20** Science Strategies
31 2021 Projects • **3** S&T Ad Hocs* • CEM*

SOUTHWESTERN WILLOW FLYCATCHER

3 Science Objectives & **15** Science Strategies
14 2021 Projects • **1** S&T Ad Hoc • CEM

YELLOW-BILLED CUCKOO

1 Science Objective & **4** Science Strategies
12 2021 Projects • **1** S&T Ad Hoc • CEM

NM* MEADOW JUMPING MOUSE

1 Science Objective & **5** Science Strategies
5 2021 Projects • **0** S&T Ad Hocs • CEM

PECOS SUNFLOWER

1 Science Objective & **3** Science Strategies
5 2021 Projects • **0** S&T Ad Hocs • CEM

*S&T = Science & Technical Ad Hoc Groups, CEM = conceptual ecological model, NM = New Mexico



2021 YEAR IN REVIEW COLLABORATIVE PROGRAM

In 2021, the Collaborative Program fully transitioned to a science-focused program that informs adaptive management of listed species connected to a dynamic and highly utilized river system. 2021 was a productive year filled with activities that enhanced the impact and direction of the Collaborative Program both administratively and scientifically, setting the stage for progress in 2022.

CONTRIBUTING ACCOMPLISHMENTS IN 2020

Three accomplishments in late 2020 set the stage for the progress the Collaborative Program saw in 2021: formation of the **SAMC**, hosting a virtual **2020 Science Symposium**, and EC approval of both the **LTP** and **Science & AM Plan**.

SCIENCE ACCOMPLISHMENTS IN 2021

As a first step toward implementing the LTP and Science & AM Plan, the Collaborative Program convened an **Objectives Workshop** to revise a set of proposed **Science Objectives** that address the Collaborative Program's Goals. The Science Objectives were then reported, along with a summary of their role and application as part of the scientific guiding principles for the Collaborative Program, to the EC for comment, review, and approval. This accomplishment led the way for integration of the Science Objectives into the **Science and Adaptive Management Information System (SAMIS)**. The SAMIS is a relational tool developed in 2021 that draws linkages between ongoing or proposed activities and the scientific uncertainties, management questions, and strategic planning objectives they address. Two user applications were deployed as part of development of the SAMIS: the **SAMIS Data Viewer App**, which allows signatories to view and filter the Project Bank (i.e., the list of Collaborative Program activities linked to science and management initiatives), and the **SAMIS Data Entry App**, which is used to add or update information in the **Project Bank**. Scientists and managers of the MRG Valley can use the SAMIS to document and summarize their activities, link to scientific uncertainties and management questions, and inform planning decisions – all important steps for adaptive management. Use of the SAMIS applications and updates to the Project Bank will commence in 2022.

The formation of several **S&T Ad Hoc Groups** by the SAMC was an important achievement in 2021, as it allowed the Collaborative Program to convene technical experts to address its science priorities. The 2021 S&T Ad Hoc Groups included the RGSM Population Monitoring Summary Report Ad Hoc, which was responsible for reviewing and finalizing the deliverables from the Population Monitoring Work Group, the RGSM Integrated Population Model Ad Hoc, the SWFL and YBCU Conceptual Ecological Model (CEM) Refinement Ad Hoc, and the RGSM CEM/Genetics Ad Hoc.

The SAMC reviewed the **RGSM Population Monitoring Summary Report** and presented a memo to the EC with **findings and recommendations**, including steps to address remaining questions raised in the summary report, and broader next steps for the Collaborative Program to consider. The EC approved the memo, solidifying the Collaborative Program's first recommendations as a science program, and the first application of the S&T Ad Hoc Group process laid out in the Science & AM Plan.

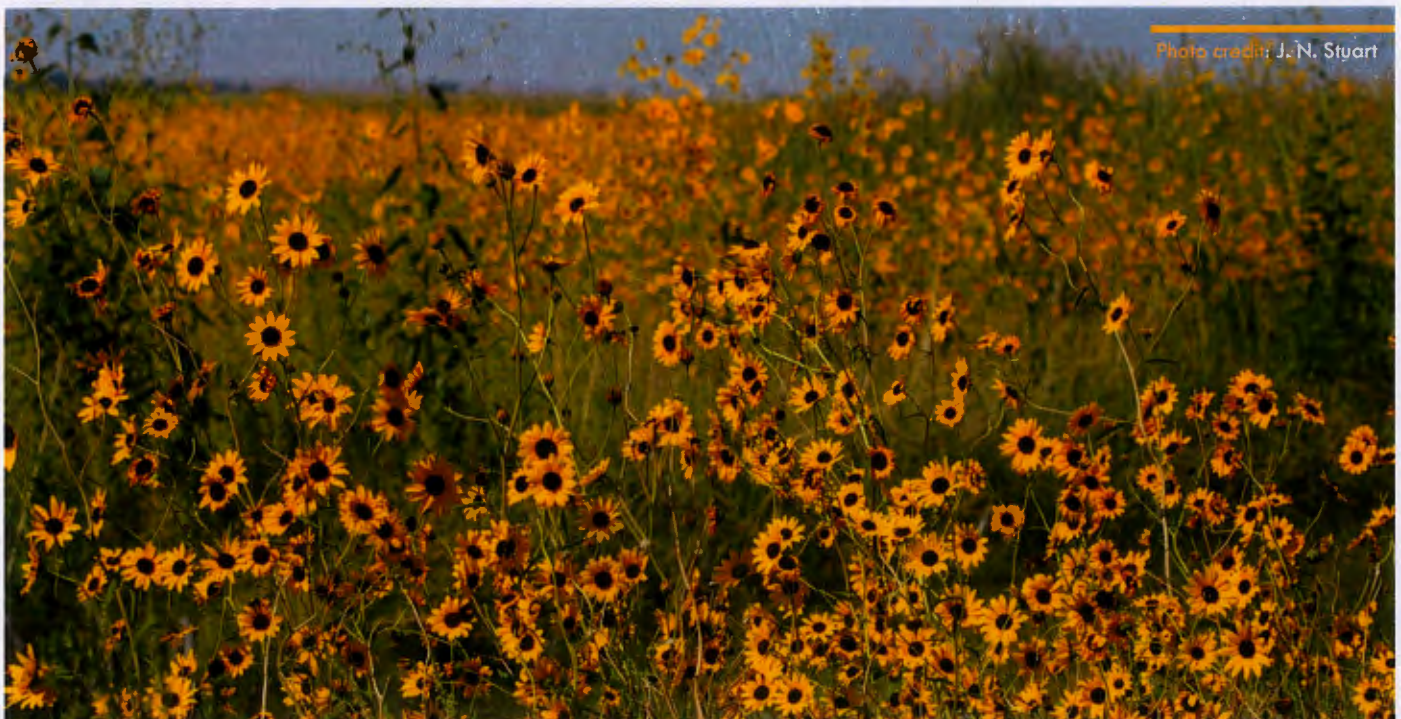
In response to rising signatory needs in 2021, the SAMC hosted a **Habitat Restoration (HR) Workshop** featuring a facilitated discussion on how to define and effectively document HR “success,” and how lessons learned from existing HR projects can inform future efforts. In concert with this workshop, the Collaborative Program also hosted a HR Coordination Meeting for managers implementing HR in the MRG to discuss planned projects, potential areas for coordination, and areas the Collaborative Program could provide guidance for design, implementation, and/or monitoring.

ADMINISTRATIVE ACCOMPLISHMENTS IN 2021

The Collaborative Program formalized its **transition to a science and adaptive management program** by approving **revised By-Laws**, which codified the adoption of a new program structure and operations to support the Science & AM Plan. Approval of the revised By-Laws was the culmination of an effort over several years to transition to a new operational and organizational structure. As part of this transition, the EC approved a **Biennial Schedule** outlining the timeline for Collaborative Program activities over a two-year time period – an important step for improving planning and communication in the Collaborative Program, and one that helps enable adaptive management in the MRG.

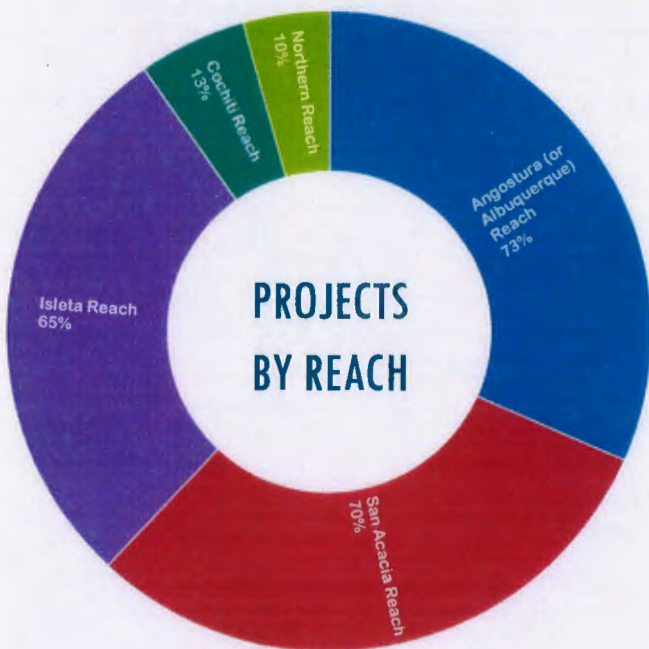
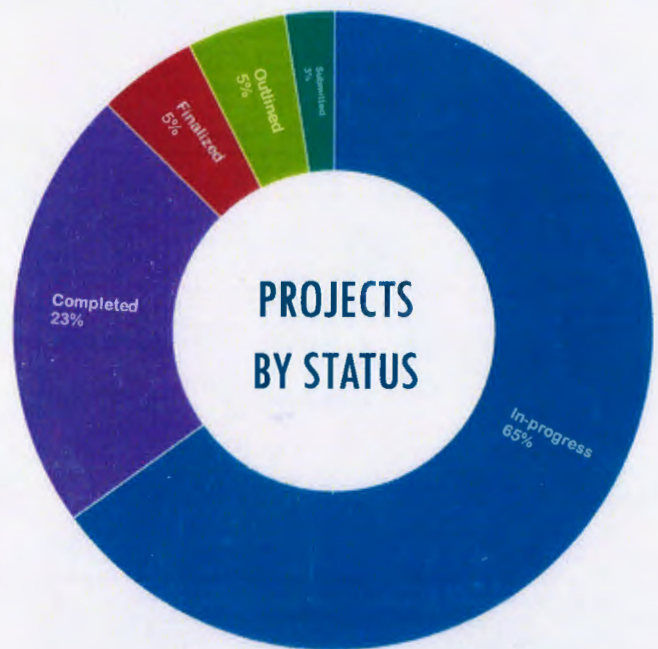
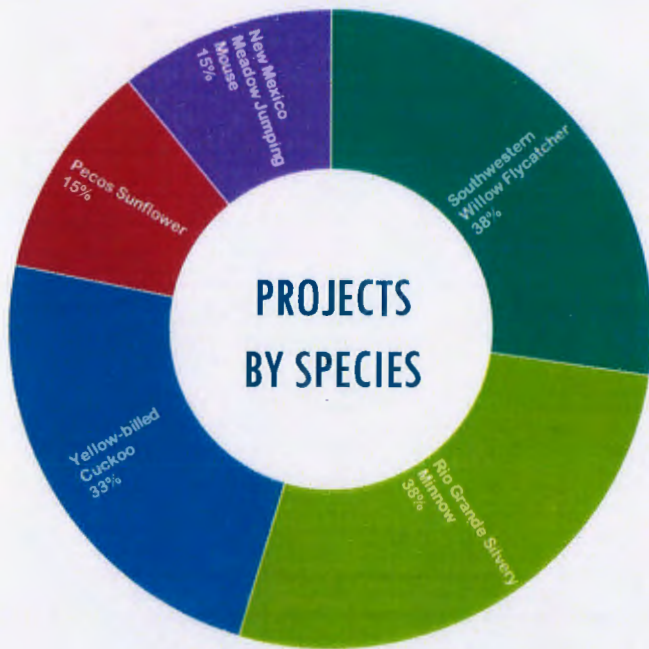
The **updated LTP** was approved by the EC in December 2021. The Collaborative Program also determined the LTP should be combined with the Science & AM Plan in 2022 to produce one comprehensive document. The LTP is informed by tracking **Signatory Contributions**, which the EC approved to account for the administrative and scientific contributions to the Collaborative Program. Signatory Contributions are tracked in the SAMIS and should be regularly updated with findings to inform Collaborative Program efforts. The following five categories are used to define Signatory Contributions: Program Management and Administration, Species Management and Recovery, Population Monitoring and Modeling, Habitat Assessments and Modeling, and Field and Laboratory Experiments.

To inform adaptive management and maintain its relevance to its signatories, the Collaborative Program approved an **Annual Program Evaluation** allowing for the review and modification of Collaborative Program operations and functions, guiding principles, plans, tools, and processes. This annual effort will become a tool for guiding and increasing the impact of the Collaborative Program’s activities.



SIGNATORY CONTRIBUTIONS

Signatories submitted 2021 projects relating to the Collaborative Program. These signatory contributions were entered into the SAMIS for integration into the science and adaptive management processes. Forty signatory contributions were submitted, and are reported by species, status, reach, and category below:



SIGNATORY HIGHLIGHTS

Collaborative Program signatories provided highlights summarizing the activities that best exemplified their work in 2021. The following highlights offer a short insight into the work done by signatories in 2021:

“ ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY

The ABCWUA continued its commitment to endangered species in the MRG in 2021 through several projects including: RGSM egg entrainment monitoring, funding support for the CoA Aquatic Conservation Facility, and maintenance of the Paseo del Norte Restoration sites. The ABCWUA continued to collaborate with NMISC to conduct spring monitoring of spawning and nursery habitat used by RGSM in restored and natural flood plains. A synthesis report on this data that will provide information on conditions most beneficial to RGSM spawning is expected soon. The ABCWUA initiated the design of restoration work near the Southside Water Reclamation Plant outfall that would provide new floodplain habitat, improved riparian vegetation, improved water quality, and new community trails. This project will be a collaboration between the Office of Natural Resources Trustee, CoA Open Space, and MRGCD. The ABCWUA has also been coordinating with the NMISC and USACE on the restoration project.

– Kelsey Bicknell, Senior Water Resource Scientist

“ AUDUBON SOUTHWEST

During 2021, Audubon conducted the following activities within the MRG: 1) Managed the Isleta Reach Stewardship Association (WaterSMART funded), 2) coordinated the Non-Governmental Organizations Sectoral Committee for the Rio Grande Basin Study, 3) leased San Juan Chama water and brought water to Isleta Reach outfalls with MRGCD, 4) assisted the MRGCD with outfall restoration and monitoring, 5) board representation on Rio Grande Agricultural Land Trust, 6) held informational webinars on MRG water and habitat, 8) developed map-based web page for the Isleta Reach, 9) provided technical assistance to private landowners regarding Natural Resources Conservation Service programs, and 10) took part in New Mexico 50 Year Water Plan activities.

– Paul Tashjian, Director of Freshwater Conservation

“ MIDDLE RIO GRANDE CONSERVANCY DISTRICT

In 2021, MRGCD secured and delivered just under 1,616 acre-feet of water through the Conservation Program's Environmental Water Leasing Program (EWLP) to four strategic outfall habitat sites. These sites are located within the Isleta Reach, which can experience extensive drying during parts of the irrigation season. The EWLP is an important tool that supports the RGSM as part of the District's 2016 Biological Opinion obligation. Habitat sites included Alejandro Outfall, Los Chavez Outfall, 240 Wasteway, and Lower Peralta #2 Wasteway. Refugial habitat was sustained at these locations throughout the peak of the irrigation season when main channel drying occurred in the Isleta Reach, providing habitat for RGSM and other aquatic and riparian species until river conditions improved and allowed for re-occupation of main channel habitat. Deliveries typically consisted of 3-5 cubic feet per second and were successful at maintaining water temperatures below 30°C within habitat sites.

– Anne Marken, Water Operations Division Manager

“ NEW MEXICO DEPARTMENT OF GAME AND FISH

Bernardo Wildlife Management Area

The NMDGF masticated an additional 20 acres of invasive tamarisk and applied follow-up herbicide treatments to 530 acres of regrowth tamarisk. Recovery of native Alkali Sacaton and inland salt grass have exceeded expectations in these areas. Department staff and contractors planted 2,000 cottonwood poles, 500 Goodding's willows, and 200 coyote willows. Six hundred cages and two 5-acre exclosures were installed to protect plantings.

La Joya Wildlife Management Area

The NMDGF masticated 130 acres of invasive tamarisk and 100 acres of dead Russian olive and applied follow-up herbicide treatments to 270 acres of regrowth tamarisk. Recovery of native Alkali Sacaton and inland salt grass have begun to occur and is meeting expectations.

Socorro-Escondida Wildlife Management Area

The NMDGF cooperated with New Mexico State Forestry and Save Our Bosque Task Force to remove 89 acres of invasive tamarisk and Russian olive. The entire Wildlife Management Area [WMA] was fenced to exclude trespass livestock grazing, which has hindered recovery and long-term viability of riparian habitats on the WMA. Habitat restoration and fencing improvement are expected to help reduce nonpoint source pollution, benefitting the nearby Rio Grande.

– Matthew Wunder, Chief of Conservation Services

“ NEW MEXICO INTERSTATE STREAM COMMISSION

The NMISC has broad powers to investigate, protect, conserve, and develop New Mexico's waters. The NMISC manages the Strategic Water Reserve [SWR], which allows water rights in the SWR to be used flexibly for Endangered Species Act and Rio Grande Compact delivery purposes. It has been used primarily to offset habitat restoration project depletions in the MRG. The NMISC would like to obtain additional water rights for conservation purposes. Since 2016, NMISC research has focused on RGSM larval fish and its habitat during spring runoff. Understanding when and where fish spawn and detailing the early life stages of the RGSM are critical uncertainties that need to be better understood to manage flows in the MRG. The NMISC's Los Lunas Silvery Minnow Refugium raised over 30,000 fish for augmentation in 2021 and conducted research on captive spawning. We thank Dr. Douglas Tave for his years of service and best regards on a happy retirement, and welcome Pauletta Dodge to the team.

– Grace Haggerty, Hydrologist

“ PUEBLO OF SANTA ANA

The PoSA was able to maintain many operations despite the severe limitations the pandemic caused. The monitoring of the PoSA's fish and bird communities was completed with data collection emphasis on RGSM, SWFL, and YBCU. The PoSA uses these surveys to monitor the health of these communities and as a basis for National Environmental Policy Act compliance for restoration project work within the channel and surrounding bosque. These projects include ongoing partnerships with Reclamation for streambank stabilization and habitat modification and with Bureau of Indian Affairs for invasive species removal and native revegetation work. The PoSA also maintains a strong relationship with USFWS for completing fish surveys as well as RGSM augmentation. This past year, the PoSA received over 20,000 hatchery-reared RGSM through our partnership with USFWS. Currently, we are preparing for the 2022 field season and are excited to continue this work with all of our partners.

– Alan Hatch, Director of Department of Natural Resources

“ UNIVERSITY OF NEW MEXICO

UNM is a comprehensive, research-intensive (R1) institution of higher education that serves the State of New Mexico and the nation. In 2021, UNM led research in water quality, ecosystem dynamics, hydrodynamic modeling, habitat mapping, and population biology of protected species. Research activities engaged students at all levels to create pathways to careers in environmental science and policy. Databases, specimens and archives that support MRG research and management are held at UNM facilities like the Earth Data Analysis Center, New Mexico Natural Heritage and the Museum of Southwestern Biology. UNM personnel are active in the EC, the SAMC, and Rio Grande Silvery Minnow Conceptual Ecological Model/Genetics Ad Hoc. UNM collaborates broadly with other program partners to connect scientific results to adaptive management action to benefit species and the ecosystems that they depend on.

– Thomas Turner, Professor of Biology and Curator of Fishes in the Museum of Southwestern Biology

“ U.S. FISH AND WILDLIFE SERVICE

The USFWS Ecological Services (ES), Fisheries, and Refuge Programs leads Recovery efforts for Threatened and Endangered species in the MRG. In 2021, we surveyed and monitored SWFL, yellow-billed cuckoo, New Mexico meadow jumping mouse, and Pecos sunflower, as well as produced, augmented, and salvaged Rio Grande silvery minnow. Our refuges actively restore and maintain habitat, and ES is working with our partners to conserve the species and move towards Recovery. We also participated in the planning process for the lower reach of the river and provided technical assistance towards the implementation of the 2016 Biological Opinion. Specifically, we have begun planning for future reintroductions of RGSM outside of currently occupied areas. These plans include Tribal and partner coordination that will kick off in 2022.

– Debra Hill, Large River Restoration and Recovery Program Supervisor

“ U.S. BUREAU OF RECLAMATION

Reclamation, through its commitment to the Collaborative Program, continues to work hard to find a balance in meeting the needs of endangered species and other wildlife, as well as the Pueblos, farmers, cities, and compact agreements. Reclamation remains steadfast in its support of the Collaborative Program's mission through a variety of projects, as well as funding the third-party management of the Collaborative Program. One of the projects we would like to highlight in our efforts is the CSU-UNM Geomorphology/Habitat Linkage Research Project, which uses an interdisciplinary approach to improve understanding of the linkages among dynamic hydrologic and geomorphic processes, the physical habitat conditions needed by the RGSM and observed RGSM population dynamics. The study analyzes long-term datasets to identify geomorphic trends and modeling is performed to simulate hydraulics in the river channel and floodplains. Maps identify potentially inundated areas for a range of flows and those areas are filtered by the RGSM life-stage habitat criteria. This allows for development of flow-habitat rating curves that are used to assess the interaction between discharge and habitat availability in multiple subreaches for all years. Some key insights include: 1) Habitat projects should encourage bank erosion, channel migration, or other actions that increase habitat complexity, and 2) analyses that include habitat metrics should investigate methods to improve accuracy or account for uncertainty of bankfull/overbanking discharge estimates.

– Ari Posner, Physical Scientist, Technical Services Division



OUTLOOK FOR 2022

Photo credit (left to right): Pecos sunflower, J. N. Stuart | Rio Grande silvery minnow, Museum of the Big Bend | yellow-billed cuckoo, Andy Reago and Chrissy McClarren | New Mexico meadow jumping mouse, U.S. Fish and Wildlife Service | southwestern willow flycatcher, Shannon Caruso, University of New Mexico

The planned direction for 2022 builds on the many accomplishments of 2021. Moving forward, the Collaborative Program is poised to be more relevant and responsive to management needs and questions. New Mexico faces a worsening water crisis that threatens conservation, research and planning efforts. This situation is an opportunity for the Collaborative Program to increase its relevance by considering the effects of climate change on the ecosystem, as well as on individual signatories and the Collaborative Program’s progress toward its mission. The Science & AM Plan and LTP provide a solid framework within which to sculpt the Collaborative Program’s response to management needs in light of drought and climate change. By building on these plans and utilizing tools such as the SAMIS, the Collaborative Program will better understand and support ecosystem health in the Middle Rio Grande Valley. In 2022, the Collaborative Program will build on existing signatory partnerships, transparently share information, evaluate and apply new findings, and generate management-relevant recommendations. Although there will be challenges, the Collaborative Program is better prepared than ever to embrace what lies ahead.

Many organizations, including our signatories, are implementing programs to tackle issues associated with climate change in New Mexico. The Collaborative Program will serve as a forum to share and synthesize information from these varied efforts, and use that information to develop adaptive management recommendations. In this way, the Collaborative Program will serve as both a clearinghouse and an incubator of adaptive strategies relating to listed species.

By building partnerships with external programs based upon the mutual and open exchange of information, the Collaborative Program will strengthen the caliber of its research and management recommendations. To collect, organize, synthesize, and evaluate scientific findings in the context of management needs, the Collaborative Program will utilize the tools and venues its developed, including the SAMIS, Collaborative Seminars, Science & Technical Ad Hoc Groups, the Science Symposium, and the Collaboratory, which will debut in 2022. Through participation in the Collaborative Program, signatories will have the opportunity to contribute cooperatively to the advancement of science related to listed species and the greater Middle Rio Grande ecosystem, and to respond to the priority questions and issues of today and tomorrow.



Debbie Lee
PROGRAM MANAGER
 Program Support Team
 WEST, Inc.



Catherine Murphy
SCIENCE COORDINATOR
 Program Support Team
 WEST, Inc.



Buckman Direct Diversion



Audubon
SOUTHWEST



Albuquerque Bernalillo County
Water Utility Authority



US Army Corps
of Engineers®



Middle Rio Grande Endangered Species
Collaborative Program



ANNUAL REPORT | 2021

Memorandum



Buckman Direct Diversion

Date: March 22, 2022
To: Buckman Direct Diversion Board
From: Monique Maes, BDD Contract Administrator
Via: Rick Carpenter, BDD Facilities Manager
Antoinette Armijo-Rougemont, Accounting Supervisor
Re: Glorieta Geoscience Amendment No. 4

Item and Issue

Request for approval of Amendment No. 4 to the Professional Service Agreement with Glorieta Geoscience, Inc. to increase compensation of PSA agreement 19-0302 by \$36,624.00 plus applicable tax.

Background

On June 3rd 2021, the BDD Board approved Amendment No. 3 to increase the professional Services Agreement with Glorieta Geoscience, Inc. in the amount of \$55,000.00 for FY2022. This Amendment No. 4 will increase compensation by an additional \$36,624.00 plus tax. This increase will allow the contractor to continue its work on several approved task orders. Compensation under this entire contract shall not exceed \$301,624.00, the contract was awarded RFP '19/04/P to provide technical oversight of hydrologic and contaminate studies.

Funding: 800810.510340, Regulatory
Munis Contract #3200380
Original Contract #19-0302
Project Code BDD7530

Approved By BDDDB April 7th 2022

Carol Romero-With, BDDDB Chair



Buckman Direct Diversion 341 Caja del Rio Santa Fe, NM 87506



**BUCKMAN DIRECT DIVERSION BOARD
AMENDMENT NO. 4 TO
PROFESSIONAL SERVICES AGREEMENT
WITH GLORIETA GEOSCIENCE, INC.
#19-0302**

THIS AMENDMENT NO. 4 ("Amendment") to the PROFESSIONAL SERVICES AGREEMENT, dated March 7, 2019, and as subsequently amended ("Agreement"), is made between the Buckman Direct Diversion Board ("BDDDB") and Glorieta Geoscience, Inc. ("Contractor"). The effective date of this Amendment shall be the date it is executed by the BDDDB.

RECITALS

A. Under the terms of the Agreement, Contractor has agreed to perform professional technical oversight and support services on an as needed basis as assigned and directed by the BDD Facilities Manager.

B. Pursuant to Article 18 of the Agreement, and for good and valuable consideration, the receipt and sufficiency of which are acknowledged by the parties, the BDDDB and Contractor agree as follows:

1. COMPENSATION.

Article 3, paragraph A of the Agreement is amended to increase the amount of compensation by a total of Thirty-Six Thousand Six Hundred Twenty-Four Dollars (\$36,624.00) plus applicable gross receipts tax, so that Article 3, paragraph A reads in its entirety as follows:

A. The BDDDB shall pay to Contractor in full payment for services rendered, a sum not to exceed Three Hundred One Thousand Six Hundred Twenty-Four Dollars (\$301,624.00), plus applicable gross receipts taxes, billed in accordance with the Hourly Rate Schedule attached hereto as Exhibit A.

B. Contractor shall be responsible for payment of gross receipts taxes levied by the State of New Mexico on the sums paid under this Agreement.

C. Payment shall be made upon receipt and approval by the BDDB of detailed statements containing a report of services completed. Compensation shall be paid only for services performed.

2. **AGREEMENT IN FULL FORCE.**

Except as specifically provided in this Amendment, the Agreement remains, and shall remain, in full force and effect, in accordance with its terms.

IN WITNESS WHEREOF, the parties have executed this Amendment No. 4 to the Professional Services Agreement as of the dates set forth below.

***[BALANCE OF PAGE INTENTIONALLY LEFT BLANK;
SIGNATURE PAGE FOLLOWS]***

BUCKMAN DIRECT DIVERSION BOARD

By: _____
BDDDB Chair Carol Romero-Wirth

Date: _____

**CONTRACTOR:
Glorieta Geoscience, Inc.**

Signature: _____

Printed Name: _____

Title: _____

Date: _____

APPROVED AS TO FORM

Nancy R. Long
Nancy R. Long, BDDDB Counsel

New Mexico Tax & Revenue

CRS# _____

City of Santa Fe Business

Registration # _____

APPROVED

Mary McCoy, City Finance Director

ATTEST

Kristine Bustos-Mihelcic, City Clerk

File Date: _____

Memorandum



Buckman Direct Diversion

Date: March 28, 2022
To: Buckman Direct Diversion Board
From: Antoinette Armijo-Rougemont, BDD Accounting Supervisor /s/
Re: Revised 2022 FSAC Meeting Calendar

ITEM AND ISSUE:

2022 Fiscal Services and Audit Committee (FSAC) Meeting Calendar

BACKGROUND AND SUMMARY:

The BDD FSAC meetings are normally conducted within the 1st week of each month, prior to the BDD Board meetings.

The following is the proposed 2022 schedule for the Fiscal Services and Audit Committee meetings:

<u>FSAC</u>	<u>BDDDB</u>	<u>BCC</u>
Tuesday, January 4, 2022 @ 2:30	Thursday, January 6, 2022	January 11 th & 25 th
Tuesday, February 1, 2022	Thursday, February 3, 2022	February 8 th & 22 nd
Tuesday, March 1, 2022	Thursday, February 3, 2022	March 8 th & 29 th
Monday, April 4, 2022	Thursday, April 7, 2022	April 12 & 26 th
Monday, May 2, 2022	Thursday, May 5, 2022	May 10 th & 31 st
Thursday, May 26, 2022	Thursday, June 2, 2022	June 14 th & 28 th
Thursday, June 30 2022	Thursday, July 7, 2022	July 12 th & 26 th
Monday, August 1, 2022	Thursday, August 4, 2022	August 9 th & 30 th
Monday, August 29 th , 2022	Thursday, September 1, 2022	Sept. 13 th & 27 th
Monday, October 3, 2022	Thursday, October 6, 2022	Oct. 11 th & 25 th
Monday, October 31, 2022	Thursday, November 3, 2022	November 8 th & 29 th
Monday, November 28, 2022	Thursday, December 1, 2022	December 13 th

ACTION REQUESTED:

For your approval.



Buckman Direct Diversion 341 Caja del Rio Santa Fe, NM 87506



SANTA FE COUNTY

Memorandum



Buckman Direct Diversion

Date: March 21, 2022
To: Buckman Direct Diversion Board
From: Rick Carpenter, BDD Facilities Manager /s/
Subject: Proposed Fiscal Year 2023 Annual Operating Budget Request

ITEM AND ISSUE:

Request for approval and recommendation of the BDD Annual Operating Budget & Other Fund Contributions for Fiscal Year 2023.

BACKGROUND AND SUMMARY:

BDD is pleased to present the proposed Buckman Direct Diversion (BDD) Annual Operating Budget for Fiscal Year 2023 and proposed contributions to the Major Repair & Replacement Fund. The proposed budget accounts for all projected necessary costs to meet the Board's service level objectives and to continue to provide high quality water to our partners, the City of Santa Fe, Santa Fe County, the Club at Las Campanas and the Las Campanas Water and Sewer Cooperative.

The BDD actively collaborated with its partners on the development of this budget, and with their support, we present this budget request.

Budget Highlights & Considerations:

- Requesting budget approval of \$8,097,000 for FY 2023 Operations (Page 2)
 - \$7,880,999 – Partner Reimbursements
 - \$120,000– PNM Solar Rebate Revenue
 - \$96,000 – Federal Funds
- FY 2023 Budget Request decreased by \$745,711 from the FY 2022 Adopted Budget (Page 5)
- Emergency Reserve Fund is fully funded to our target balance of \$2,000,000 (Page 12)
- Major Repair & Replacement Fund - \$1,000,000 requested contributions. (Page 13)



Buckman Direct Diversion 341 Caja del Rio Santa Fe, NM 87506



SANTA FE COUNTY

Memorandum cont.

ACTION REQUESTED:

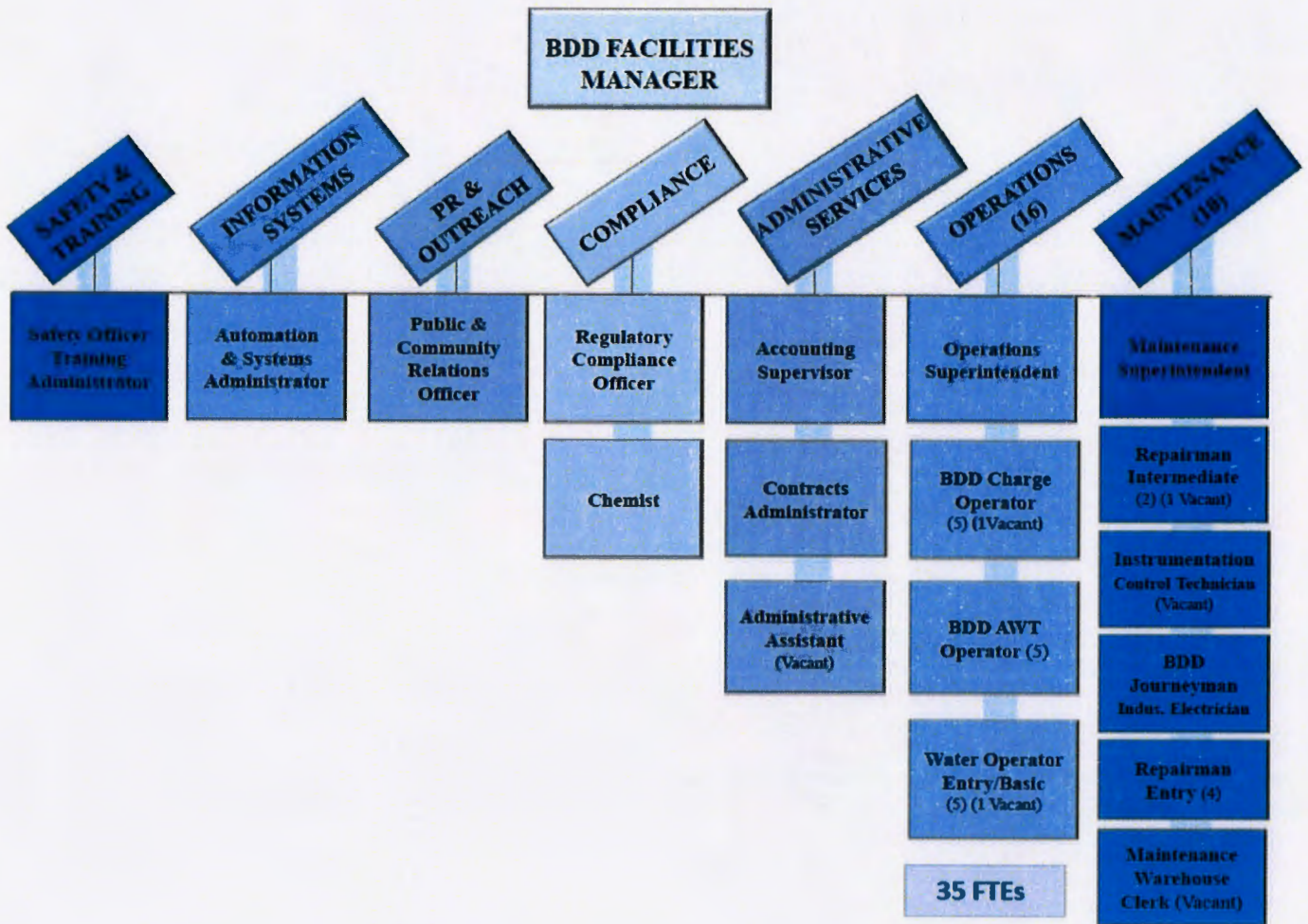
Staff recommends approval and recommendation of the BDD Annual Operating Budget for Fiscal Year 2023 and the requested contributions to our Major Repair and Replacement Fund to City of Santa Fe's City Council and Santa Fe County Board of Commissioners.

We look forward to presenting the proposed budget and addressing your comments and questions.

Thank you



BUCKMAN DIRECT DIVERSION REGIONAL WATER PLANT
ORGANIZATIONAL CHART





Buckman Direct Diversion (BDD) Proposed Annual Operating Budget for FY23

Budget Message

The *Project Management and Fiscal Services Agreement* (PMFSA) requires the Project Manager to submit an Annual Operating Budget. With this submittal, the Project Manager requests the Buckman Direct Diversion Board (BDDDB) approve and recommend the Fiscal Year 2023 Operating Budget of \$8,097,000.

Budget Revenue/Reimbursement Summary

TOTAL PROPOSED FISCAL YEAR 2023 OPERATING BUDGET

TABLE A

	<u>Fixed</u>	<u>Variable</u>	<u>Total</u>	<u>%</u>
Revenues/Reimbursements by Source:				
Federal Funds	\$ 96,000	\$ -	\$ 96,000	1%
PNM Solar Rebates	-	120,000	120,000	1%
City of Santa Fe	4,364,223	1,315,078	5,679,301	70%
Santa Fe County	1,614,396	439,222	2,053,618	25%
Las Campanas (Club)	64,650	-	64,650	1%
Las Campanas (Coop)	83,431	-	83,431	1%
Total Revenues by Source	\$ 6,222,700	\$ 1,874,300	\$ 8,097,000	100%
% of overall budget	77%	23%	100%	

This budget request consists of fixed and variable costs and includes revenue/reimbursements from several sources. The principle operating revenue of BDD’s operating budget is reimbursements from the partners for the cost of operations.

BDD was granted federal funds from the Department of Energy for the BDD Storm Water Sampling Program. This funding will be used for the collection of samples from the Rio Grande at the BDD in order to make determinations on the water quality of the river during LANL events.

The monthly PNM solar rebates received for the water treatment plant solar array are also accounted for as a source of revenue. The resulting reimbursement requests for American Capital Energy (primary owner of this solar array) to the City of Santa Fe and Santa Fe County will be reduced by the revenue received.

The partner reimbursement revenue is estimated based on projected expenditure types and allocated based on the cost sharing allocations established in the governing documents. Partners are billed in accordance with the BDD Working Capital and Billing Policy.



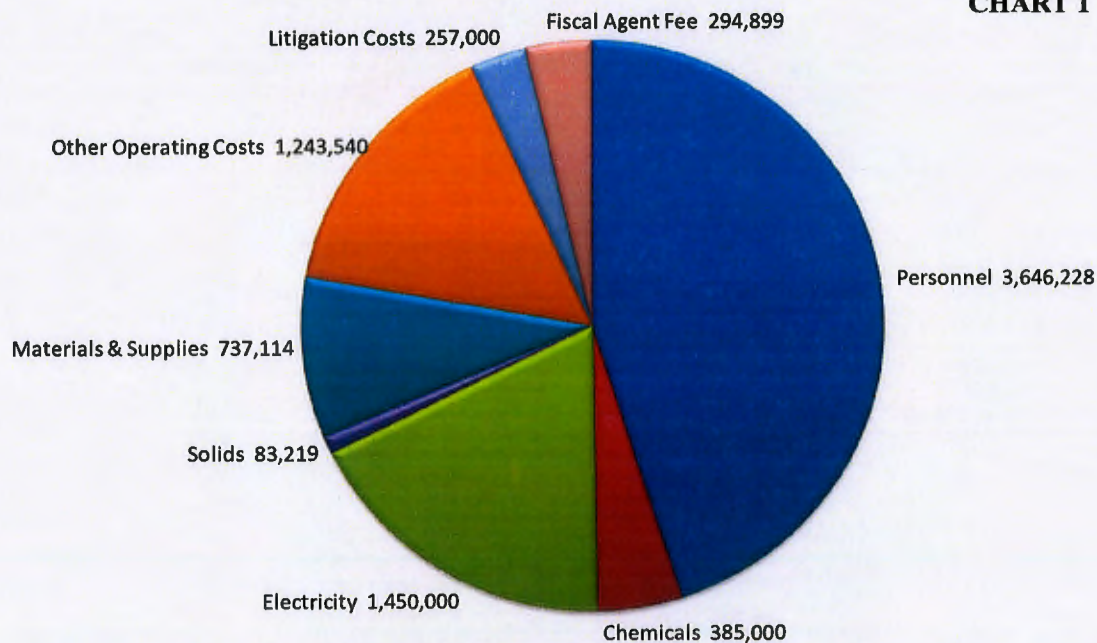
Budget Expenditure Summary

The Buckman Direct Diversion budget consists of seven major categories as presented below. These categories are used to track expenditures for reporting and monitoring our available budget balance. In accordance with our BDD Working Capital and Billing policy, any budget adjustment requests between major categories require board approval. Expenditures are generally recorded when a liability is incurred and are reported in BDD’s main enterprise fund.

PARTNER SHARE OF TOTAL PROPOSED FISCAL YEAR 2023 OPERATING BUDGET **TABLE B**

Expenditure by Category:	City of Santa Fe	Santa Fe County	Las Campanas (Club)	Las Campanas (Coop)	Federal Funds	Total
Personnel	\$ 2,581,648	\$ 949,696	\$ 50,157	\$ 64,727	\$ -	\$ 3,646,228
Electricity	1,088,482	354,445	3,088	3,985	-	1,450,000
Chemicals	291,291	93,709	-	-	-	385,000
Solids	62,953	20,266	-	-	-	83,219
Materials & Supplies	518,367	195,131	10,310	13,306	-	737,114
Other Operating Costs	827,998	317,034	1,095	1,413	96,000	1,243,540
Litigation Costs	185,965	71,035	-	-	-	257,000
Fiscal Agent Fee	213,389	81,510	-	-	-	294,899
Total	5,770,093	2,082,826	\$ 64,650	\$ 83,431	\$96,000	\$ 8,097,000
PNM Solar Rebates	(90,792)	(29,208)				
Total	\$ 5,679,301	\$ 2,053,618				

CHART 1





Budget Summary & Highlights

In Fiscal Year 2023, the BDD will be in its twelfth year of operations. The BDD also uses yearly volumetric flow predictions provided by each partner for our variable and project wide allocation of expenditures.

The BDD has collaborated with its partners on the development of this budget and with their support; we present the Fiscal Year 2023 budget request with the following changes:

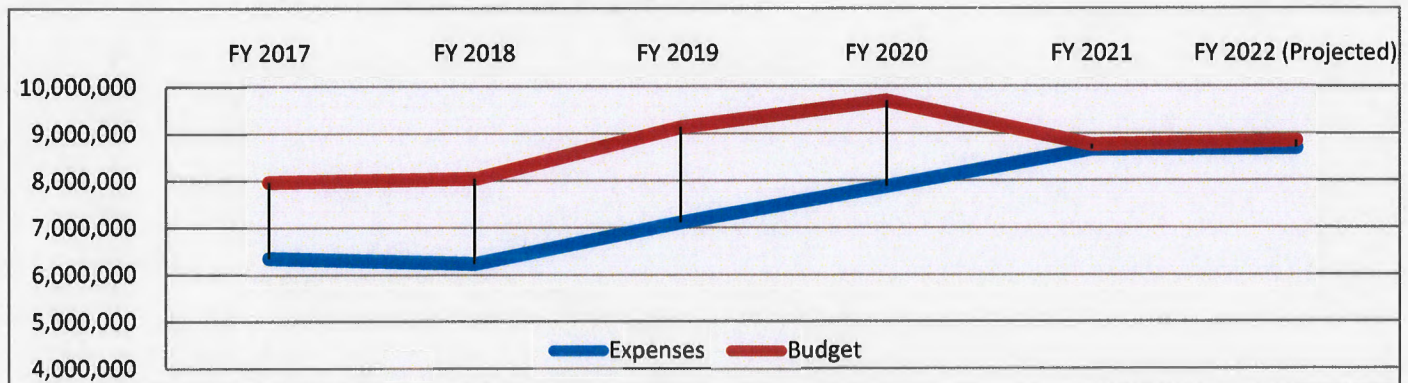
- The proposed annual operating budget for fiscal year 2023 is \$8,097,000 plus the fiscal agent fee of \$294,899, which represents 4.5% of the prior year’s annual operating budget as stated in the amended Facility Operations and Procedures Agreement (FOPA).

Closing the gap between actual expenditures and budget was considered in the development of the annual operating budget request. This will continue to be factor, to ensure funds are properly expended for the purposes as requested.

- Fiscal Year 2017 Actual Expenditures \$6,242,497 (with 6 vacant positions and \$701,988 of unexpended litigation fees) which was \$1,724,657 lower than the adopted budget.
- Fiscal Year 2018 Actual Expenditures \$7,112,089 (with 5 vacant positions and \$641,427 of unexpended litigation fees) of which \$590,000 was carry forwarded to the FY2019 Adopted Budget.
- Fiscal Year 2019 Actual Expenditures \$7,882,811 (with 11 vacant positions and \$255,212 of unexpended litigation fees) which was \$1,251,813 lower than the adopted budget.
- Fiscal Year 2020 Actual Expenditures \$8,665,134 which was \$1,031,275 lower than the adopted budget.
- Fiscal Year 2021 Actual Expenditures \$8,686,832 which was \$76,883 lower than the adopted budget.

CUMULATIVE BDD EXPENSES TO ADOPTED BUDGET

CHART 2





Budget Comparisons

Table C presents actual expenses by major category for fiscal year ended June 30, 2021. The change in the fiscal year 2023 operating budget request in comparison to the current 2022 adopted budget. There was an overall reduction in the budget estimate, in the amount of \$745,711, due to a decrease in projected litigation costs. We are re-allocating some of that savings towards categories that were reduced in FY21, due to Covid budget cuts, as well as re-allocating \$250,000 to the Major Repair and Replacement Fund, which is currently underfunded. We are also projecting increases to electricity and gas.

The BDD staff will continue to work with its partners, the City of Santa Fe, Santa Fe County and Las Campanas entities, in determining the costs and funding needed to ensure BDD properly operates and maintains the facilities to meet the demands of its partners.

BUCKMAN DIRECT DIVERSION OPERATING BUDGET

TABLE C

	FY 2021 Adopted Budget	FY 2021 Unaudited Actual 6/30/21	FY 2021 Variance \$ (Under) / Over Budget	%	FY 2022 Adopted Budget	FY 2023 Proposed Budget	\$ Change FY 2023 vs FY 2022	%
Revenues/Reimbursements by Fund:								
Partner Reimbursements	\$ 8,477,715	\$ 8,466,757	(10,958)	100%	\$ 8,626,711	\$ 7,881,000	\$ (745,711)	-9%
PNM Solar Rebates	120,000	150,076	30,076	125%	120,000	120,000	-	0%
Federal Funds	96,000	-	(96,000)	0%	96,000	96,000	-	0%
Unrestricted Funds	70,000	70,000	-		-	-	-	-1%
Total	\$8,763,715	\$ 8,686,832	\$ (76,883)	99%	\$ 8,842,711	\$ 8,097,000	\$ (745,711)	-10%
Expenditures by Category:								
Salaries	\$ 2,100,596	\$ 1,845,988	\$ 254,608	88%	\$ 2,119,281	\$ 2,284,724	\$ 165,443	8%
Overtime	150,000	233,434	(83,434)	156%	152,025	230,000	77,975	51%
Benefits	1,167,463	943,156	224,307	81%	1,078,735	1,131,504	52,769	5%
Electricity	1,000,000	1,378,864	(378,864)	138%	1,157,090	1,450,000	292,910	25%
Chemicals	336,000	411,972	(75,972)	123%	371,906	385,000	13,094	4%
Solids	63,219	65,260	(2,041)	103%	63,219	83,219	20,000	32%
Materials & Supplies*	563,150	372,170	190,980	66%	528,762	737,114	208,352	39%
Other Operating Costs*	1,050,928	1,000,185	50,743	95%	1,082,282	1,243,540	161,258	15%
Litigation Costs	2,000,000	2,103,444	(103,444)	105%	2,000,000	257,000	(1,743,000)	-87%
Total	8,431,356	8,354,473	76,883	99%	8,553,300	7,802,101	(751,199)	-9%
Fiscal Agent Fee	332,359	332,359	-	100%	289,411	294,899	5,488	-1%
Total	\$8,763,715	\$ 8,686,832	\$ 76,883	99%	\$ 8,842,711	\$ 8,097,000	\$ (745,711)	-8%

* See Table C-1 and C-2 for a detailed summary of Major Category Costs



BDD Materials & Supplies Detailed Summary

TABLE C-1

<u>Description</u>	<u>Amount</u>	<u>Total</u>
Repair & Maintenance Building / Structures - sprinkler, fire alarm, plumbing	28,000	
On-Call HVAC Service Agreement	65,000	
Total		\$ 93,000
Repair & Maintenance System Equipment		
General maintenance, repairs and replacement to water system facilities	232,000	
Hach Service Agreement - Yearly calibration of instrumentation	-	
Eaton Service Agreement - VFD Troubleshooting	10,000	
Yukon & Assoc - On-call process instrumentation and control systems	10,000	
Wunderlich-Malec - On-call SCADA & computer networking	20,000	
Great Southwest Meters- Annual meter calibration and inspection	10,000	
Subsurface Contracting - On-call repair and replacement to water systems	10,000	
Alpha Southwest - On-call services mechanical & electrical	60,000	
Automation & Electric - On-call SCADA support, software, programming	20,000	
Positive Energy - Maintenance and service of BS2A Solar Array	7,000	
Total		\$ 379,000
Repair & Maintenance Grounds/Rd - Landscaping agreements		76,000
Repair & Maintenance Machine & Equipment -Copiers, machinery & equipment		31,800
Operating Supplies -Field supplies maintenance/operations		68,000
Auto Parts, Tires, Gasoline & Diesel - Fleet maintenance of vehicles		28,000
Inventory Exempt / IT - Small tools, radios, and phase III replacement of computers		31,889
Uniforms (\$500 clothing, \$200 boots = \$700 per employee)		19,600
Safety Supplies - First aid, protective gear, safety guides, periodicals		9,825
Total		\$ 265,114
Total Materials & Supplies Category		\$ 737,114



BDD Other Operating Costs Detailed Summary

TABLE C-2

<u>Description</u>	<u>Amount</u>	<u>Total</u>
Agreements		
BDDB Insurance Broker/Agent	9,500	
Chavez Security - provides facilities patrol along Buckman road corridor	194,240	
Stenographer Agreement - BDD Board meetings	6,500	
BDDB Independent counsel	220,000	
Consultant for Technical Assistance	60,000	
Compliance Agreements -TREAT Study analysis	50,000	
Compliance Agreements -GAC Sampling and analysis	50,000	
Compliance Agreements -Stormwater sampling (Federal program)	120,000	
Compliance Agreements -Drinking water, solids analysis	15,000	
Compliance Agreements -Annual fire inspection and compliance	14,500	
Audit professional services agreement	7,500	
BDD Board - Public liability and real property insurance premiums	133,000	
Land Leases - BLM right of way agreements	68,200	
Total		\$ 948,440
Benefits Dept. Assessments - City Benefits Assessment Fees		8,026
General Liability Dept Assessments - City Risk Assessment Fees		10,736
General Liability Third Party - Crime Liability Assessment Fees		100,145
General Liability Third Party - Unemployment Claims		6,999
Public Relations - tours, outreach, promotions, website, virtual tour		8,650
Software/Software Subscriptions- Software support and upgrades		34,500
Employee Training - Safety, training, education, travel, dues & registrations		11,500
Advertising - Job postings, RFP bids		1,000
Office Supplies - General office supplies		36,044
Postage & Mailing Services - Delivery of water samples, correspondence		3,000
Utilities - Cell phones, landlines, data, website, satellite phone, natural gas, fees		74,500
Total		\$ 295,100
	BDDB Litigation Costs	\$ 257,000
	Total Other Operating Costs Category	\$ 1,500,540



Budget Fixed & Variable Costs Analysis

The BDD's annual operating budget consists of fixed, variable and project-wide costs. These costs are allocated by percentages contained in the Facility Operations and Procedures Agreement (FOPA). This budget request was prepared with the following cost sharing principles.

Cost Sharing

TABLE D

<u>Fixed</u>	<u>City of Santa Fe</u>	<u>Santa Fe County</u>	<u>Las Campanas (Club)</u>	<u>Las Campanas (Coop)</u>	<u>Total</u>
Shared Facilities (CCL)	62.09%	25.61%	5.37%	6.93%	100.00%
Separate Facilities (CC)	75.33%	24.67%	-	-	100.00%
<u>Project Wide</u>					
Projected Volumetric Flow (PW)	72.36%	27.64%	0%	-	100.00%
<u>Variable</u>					
Projected Volumetric Flow (CCL)	72.36%	27.64%	0%	-	100.00%
Projected Volumetric Flow (CC)	75.66%	24.34%	-	-	100.00%

Annual volumetric flow predictions provided by the partners are also used as the basis for project wide costs and variable costs that are primarily related to chemicals, electricity, and solids management.

Volumetric Flow History and FY 2023 Predictions

TABLE E

<u>Volumetric Flow (acft)</u>	<u>City of Santa Fe</u>	<u>Santa Fe County</u>	<u>LC (Raw Water) via County</u>	<u>Las Campanas (Raw Water)</u>	<u>Total Diverted</u>
FY 2017	3,896.60	1,156.87	273.60	297.73	5,624.80
FY 2018	4,397.40	1,147.92	343.38	260.61	6,149.30
FY 2019	3,300.96	1,207.86	423.08	102.35	5,034.25
FY 2020	3,435.42	1,314.08	156.08	493.44	5,399.02
FY 2021	5,141.85	1,398.75	334.23	159.73	7,034.56
FY 2022	5,255.00	1,700.00	300.31	-	7,255.31
FY 2023	4,973.40	1,600.00	300.00	-	6,873.40
<i>FY 2023 %</i>	72.36%	23.28%	4.36%	0.00%	100%

% Percentage is used in calculation of partner share (CCL) of variable costs & project wide

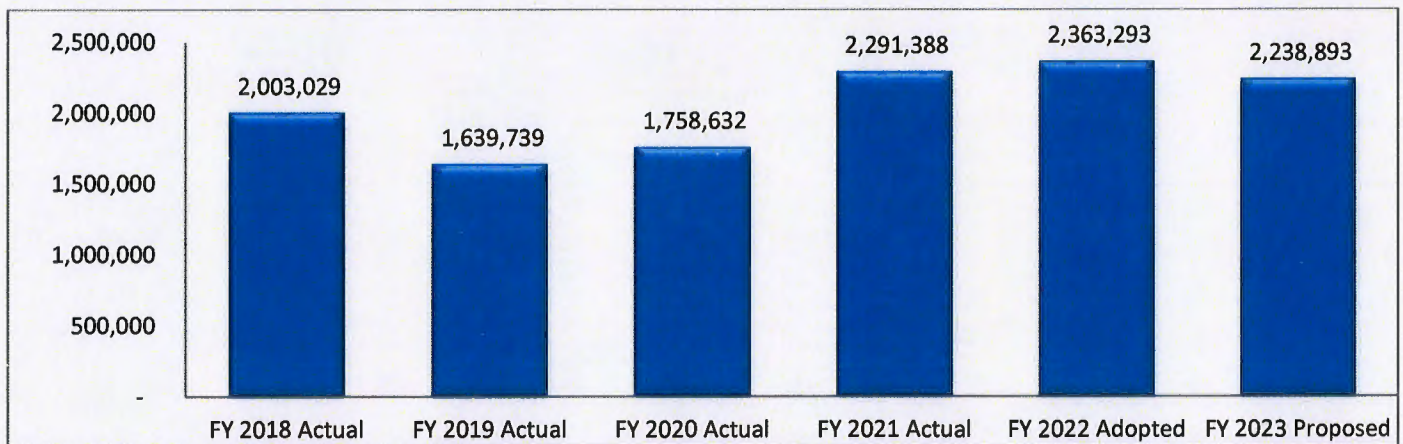


Volumetric Flow History

BDD has completed a budget analysis for fiscal year 2023, which includes volumetric predictions of 2,238,893 gallons. This is an estimated 5.3% decrease in water delivery thru BDD over fiscal year 2022 predicted water call. The BDD will continue to work with the partners to adaptively manage BDD water deliveries to meet changes in partner demands.

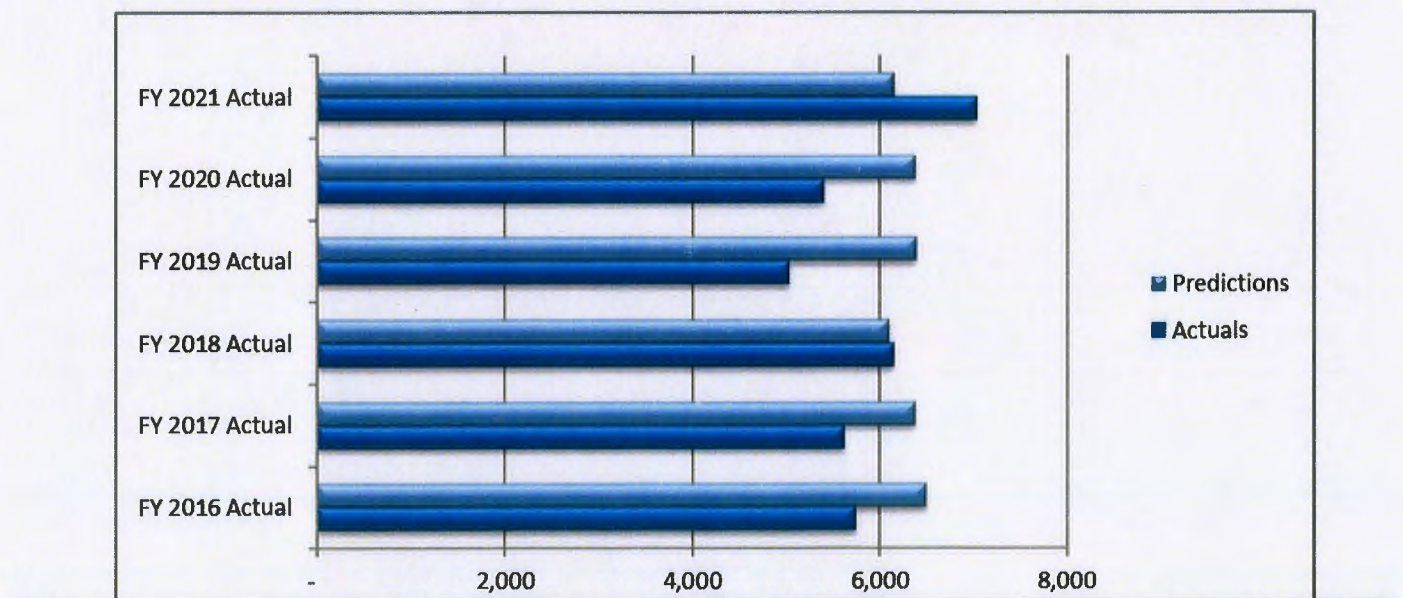
Total gallons delivered in 1,000's
(Includes raw water)

CHART 3



Total gallons delivered vs. volumetric predictions
(Includes raw water)

CHART 4





Programs

As the focal point for key resource decisions, the budget process is a powerful tool. The *National Advisory Council for State and Local Budgeting* (NACSLB) was created in 1997 to provide assistance to governments in improving their budgeting processes. In fulfilling that role, the NACSLB set forth a voluntary framework that provides budgeting guidance for state and local governments. The NACSLB established “Best Budgeting Practices” (BBP) which link budget decisions to desired outcomes consistent with organizational goals. This budget incorporates many BBP’s set forth by NACSLB.

While local governments struggle with declining revenues, *Outcome-based* budgeting has become an increasingly important national budgeting standard. This type of advanced budgeting links resources to key business strategies and performance indicators. This “performance-based” approach connects key financial decisions to interdependent concepts of strategy, planning, business execution and measurement. Hence, this budget document contains more than a tabulation of financial figures. Rather than narrowly focusing on expenditures, we’ve established a structure for measuring the “value” citizens receive for their dollars by quantifying organizational achievement. In other words, the heart of this budget centers on determining how well the BDD executes its core business functions. We’ve shifted the focus from “paying for costs” to “buying results”. In addition, this budget simultaneously unifies our financial planning efforts with the *High Performance Organization* (HPO) principles which have become thriving core values of the BDD’s working culture.

The BDD is divided into seven (7) key programs with explicit business functions. Each Program was developed to support specific goals and objectives. These business activities encompass all functions necessary to operate the water treatment plant, maintain full regulatory compliance, execute Fiscal Agent responsibilities, and optimize infrastructure investments through comprehensive asset management.



Program Budget Comparison

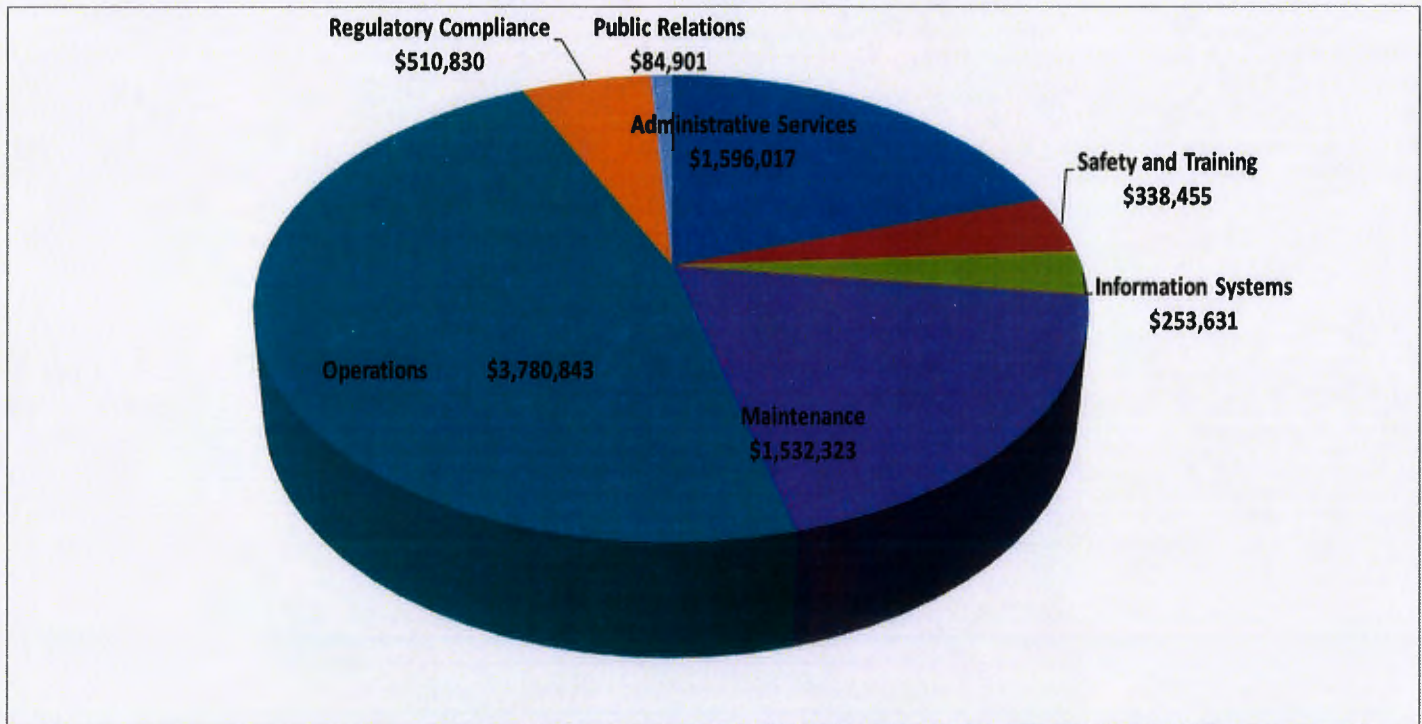
The expenditure budgets for these seven key programs are presented below. Total program funding includes all employee wages and benefits for full time equivalent employees, and associated overhead expenses. These key programs incorporate all business expenses necessary to execute core business functions, and allow the reader to understand how limited resources are allocated within the budget.

Strategic Goals – Supported by program resources

- ✦ **Operations** – To ensure the highest standard of water quality, using the most efficient and up to date water production methods.
- ✦ **Regulatory** – To maintain and improve LANL/DOE monitoring program.
- ✦ **Maintenance** – To equip the staff with the tools and equipment to efficiently and effectively maintain and repair the assets of the BDD.
- ✦ **Safety & Training** – To promote and assure workplace safety and health in preventing workplace injuries.
- ✦ **Administrative Services** – To operate and maintain the BDD within budget and in accordance with the governing documents.
- ✦ **Information Systems** – To maintain and support all automation and security systems.
- ✦ **Public Relations** – To coordinate, create and support key events for the BDD outreach program.

BDD Operating Budget – by Program

CHART 5





Emergency Reserve Fund (ERF)

The Project Management and Fiscal Services Agreement, Article 3. (E.) requires the BDD Board create an Emergency Reserve Fund, and establish procedures for its management. The Emergency Reserve Fund provides immediate reserves for unforeseen or catastrophic infrastructure failures that render facilities unable to deliver water at the needed capacity. The Project Manager, in consultation with the partners, must submit to the BDD Board an analysis of the funds required for an emergency reserve and suggest procedures for creation of and management of the Emergency Reserve Fund.

The BDD Board approved the Emergency Reserve Fund policy and funding contributions as part of the Fiscal Year 2012 budget request. This policy established target balances, replenishment requirements and funding allocations.

Emergency Reserve Fund Balance

TABLE F

Emergency Fund	City of Santa Fe	Santa Fe County	Las Campanas Club	Las Campanas Coop	Balance
Fund Balance at June 30, 2021	1,362,854	486,273	133,363	103,777	2,086,267

As of June 30, 2021 the Emergency Reserve Fund remained fully funded to its targeted balance of \$2,000,000. As per the BDD Working Capital and Billing Policy, these funds are interest bearing and are allocated to the partners based on the percentage of cash held in their respective accounts at the end of each fiscal year.



Major Repair and Replacement Fund (RRF)

The BDD Board also previously approved the Major Repair and Replacement Fund as part of the Fiscal Year 2012 Budget. Per the Major Repair and Replacement Fund policy these funds are to receive yearly contributions held in reserve to support major repair and replacement costs of facility equipment and systems.

The BDD Board has authorized expenditures of \$582,927 for repair and replacement of system equipment in accordance with the policy. These authorizations, upon expenditure will reduce the available balance in this fund. The Major Repair and Replacement fund will continue to receive yearly contributions in accordance with the policy. We are proposing to re-appropriate budget savings in the amount of \$250,000 toward the fund to ensure a sustainable fund for the future as much equipment will be reaching its life expectancy, per the asset replacement schedule.

Major Repair and Replacement Fund Balance

TABLE G

Major Repair & Replacement	City of Santa Fe	Santa Fe County	Las Campanas Club	Las Campanas Coop	Balance
Balance as of June 30, 2021	743,722	256,609	24,809	14,947	1,040,087
2022 Contributions	445,545	156,494	10,769	13,898	626,706
Funds authorized for expenditure	(414,421)	(145,562)	(10,017)	(12,927)	(582,927)
Projected Fund Balance	774,846	267,541	25,561	15,918	1,083,866

Major Repair and Replacement Fund Fiscal Year 2023 Contributions

TABLE H

Major Repair & Replacement	City of Santa Fe	Santa Fe County	Las Campanas Club	Las Campanas Coop	Balance
2023 Proposed Contributions	710,932	249,708	17,184	22,176	1,000,000

With the approval of this contribution and no additional authorizations, the fund balance will be \$2,083,866 for fiscal year 2023.



Budget Summary

With this submittal, the Project Manager requests the Buckman Direct Diversion Board approve and recommend the funding for our Fiscal Year 2023 Operating Budget of \$8,097,000, with the annual contribution of \$626,706 for the Major Repair and Replacement Fund, plus an additional \$250,000 in budget savings towards the fund, for a total request of \$8,973,705. We appreciate the input and support from our partners and our Buckman Direct Diversion Board Members.

Fiscal Year 2023 Funding Allocation

TABLE I

Funds	City of Santa Fe	Santa Fe County	Las Campanas (Club)	Las Campanas (Coop)	Total
Operating Fund	\$ 5,679,301	\$ 2,040,118	\$ 64,650	\$ 83,431	\$ 7,867,500
			PNM Solar Rebate Revenue		120,000
			Federal Funds		96,000
			County Conservation Fee		13,500
					\$ 8,097,000
Major Repair & Replacement Fund	710,932	249,708	17,184	22,176	1,000,000
Total Fiscal Year 2023 Request	\$ 6,390,233	\$ 2,289,826	\$ 81,834	\$ 105,607	\$ 9,097,000

Memorandum



Buckman Direct Diversion

Date: March 28, 2022

To: Buckman Direct Diversion Board

From: Rick Carpenter, BDD Facilities Manager /s/

Re: Re-purpose Funds from the Security Access Control Project and Database Migration Project

ITEM AND ISSUE:

Request approval to re-purpose remaining funds from the security access control project as well as budgeted funds for the database migration project.

BACKGROUND AND SUMMARY:

The Buckman Direct Diversion Board had approved funding in the amount of \$250,000 for the BDD security system access control upgrade in the amount of \$250,000. BDD went out to RFP for the project this year and Intraworks was selected as the vendor. The total amount of the project with tax is approximately \$150,000. BDD would like to request authorization to re-purpose the remaining \$100,000 of these funds for other expenses such as new computers and equipment, maintenance and repair costs, and contracts. We would also like to re-purpose the funds budgeted for the BDD Database migration project in the amount of \$60,000. We've been unable to find a vendor to complete this project. These amounts are in our Service Contracts line item, and whatever amount is remaining at the end of the fiscal year will be credited back to the partners.

ACTION REQUESTED:

Staff recommends approval to re-purpose funds that were budgeted for two projects in the amount of approximately \$160,000. Whatever is not expended within the current fiscal year will be credited back to the partners.

Approved by BDDDB April 7, 2022

APPROVED/DATE

DENIED/DATE



Buckman Direct Diversion 341 Caja del Rio Santa Fe, NM 87506



Memorandum



Buckman Direct Diversion

Date: March 24, 2022

To: Buckman Direct Diversion Board

From: Rick Carpenter, Kyle S. Harwood, Luke Pierpont, James P. Bearzi

Subject: Summary and Update Regarding Rio Grande Water Quality Issues

Item and Issue:

The Buckman Direct Diversion (BDD) Board has monitored and participated in a variety of environmental and water quality issues over the past several years, including submittal of comments to agencies, participating in rulemaking proceedings, and litigation over water quality issues.

For the Board's reference a summary of each of these water quality issues is provided below along with a reference to supporting documents and recommendations.

Background and Summary:

Following is a summary of each of the environmental and water quality issues in which the Board has participated over the prior three years.

1. Memorandum of Understanding (MOU) with the U.S. Department of Energy (DOE): The Board and DOE have entered into a fourth MOU that addresses certain actions and interactions through 2024 concerning stormwater and sediment migration from the Los Alamos National Laboratory (LANL) to the Rio Grande above the BDD diversion. These issues include:
 - Operation and maintenance of the Early Notification System (ENS).
 - Installation of a new flow measurement station (to be known as E110.7) in lowermost Los Alamos Canyon.
 - Decommissioning of a camera-only station near the White Rock "Y" known as E062.
 - Data collection and data sharing.
 - The use of data collected by the New Mexico Environment Department (NMED) to assess stormwater quality in lower Los Alamos Canyon.
 - An annual review of issues to include ENS operation, sediment studies conducted by DOE in the Los Alamos Canyon watershed, sampling and analysis by the parties in the Rio Grande, with funding provided to the Board by DOE.

Documents: March 10, 2022 BDD and DOE MOU
January 10, 2022 NMED Letter Regarding Data Exchange and Collaboration
February 9, 2022 Pueblo de San Ildefonso letter approval to install E110.7

Recommendation: Continue to work with DOE according to the terms of the MOU to monitor discharges of stormwater from the LANL to the Rio Grande.





2. New Mexico's Triennial Review of State Surface Water Quality Standards: The Board provided comments on NMED's proposed petition to amend the State Surface Water Quality Standards in late 2020. NMED amended its petition for rulemaking in early 2021, and the Board made an Entry of Appearance to provide (rebuttal) testimony in the hearing on NMED's petition, and other parties proposed amendments, in front of the Water Quality Control Commission held in July, 2021. Following the hearing, the Hearing Officer produced a draft report to the Commission and Board counsel provided comments on the Hearing Officer's report in October 2021. The Commission's Statement of Reasons and Decision on the petition was issued on March 9, 2022.

The Board's testimony focused on three areas – emerging contaminants (like per- and polyfluoroalkyl substances, or PFAS), test methods for compounds like polychlorinated biphenyls (PCBs), and the definition of toxic pollutants. The Commission decided on these issues as described below:

- The Commission adopted NMED's definition of “contaminants of emerging concern” but changed the term to "emerging contaminants." The adopted definition also deleted the phrase “...including, but not limited to, per- and polyfluoroalkyl substances, pharmaceuticals and personal care products...” The Board supported adopting a definition of contaminants of emerging concern, but took no position on the "including, but not limited to" language, nor on substituting the term “emerging contaminants” for “contaminants of emerging concern.”
- The Commission voted not to include "emerging contaminants" and the definition of toxic pollutants at 20.6.2 NMAC in the general criteria at 20.6.4.13.F NMAC. This was consistent the Board's position.
- The Commission adopted Amigos Bravos' proposed language to give NMED the authority to require monitoring of "emerging contaminants" as a condition of certification of a National Pollutant Discharge Elimination System (“NPDES”) permit issued by the U.S. Environmental Protection Agency (“EPA”) under the federal Clean Water Act (“CWA”). The Board did not directly take a position on this proposal, but the Commission's decision is consistent with the Board's testimony that "emerging contaminants" (e.g., PFAS) are an important issue and should be monitored.
- The Commission voted not to adopt DOE/Triad's proposal to restrict test methods to those approved by EPA in Part 136. This was the Board's position, as the DOE proposal would have required the use of less sensitive methods which would directly affect monitoring of PCBs in Los Alamos Canyon.

It is noteworthy that the Commission adopted all of the Board's recommendations as put forth in its expert testimony and filings. The Commission's decision may be appealed by any adversely affected party within 30 days of the adoption of the regulations, no appeal of the Commission's Decision has been filed to date.

Documents: The Board's pre-filed rebuttal testimony
The Commission's Statement of Reasons and Decision

Recommendation: Continue to monitor the Triennial Review and other NMED rulemaking proceedings related to water quality issues and engage in rulemaking proceedings to protect the BDD source waters.





3. **Waters of the United States (WOTUS):** The Board filed an amicus brief in *State of California et al., v. Wheeler et al.*, Case No. 3:20-cv-03005 (N.D. Cal.) to support the plaintiff States in their litigation to stop the USEPA from adopting the Navigable Waters Protection Rule (NWPR). The NWPR's practical effect would have been the removal of Clean Water Act (CWA) jurisdiction over most if not all stream reaches on the Pajarito Plateau. This would in turn remove EPA's authority to require NPDES permits for stormwater or point-source discharges into those streams. The Biden Administration has proposed a new two-part rule to repeal the NWPR and develop a new definition of WOTUS, an action for which the Board has expressed its support in previous comments and actions.

On January 24, 2022 the United States Supreme Court agreed to hear the appeal of a Ninth Circuit Court case brought by Michael and Chantell Sackett (the "Sacketts") regarding whether wetlands on or near their property in Idaho met the definition of WOTUS. The District Court and the Ninth Circuit both applied Justice Kennedy's "significant nexus" test from the *Rapanos v. United States* case, finding that the wetlands on the Sacketts property were WOTUS. The Sacketts are asking the Supreme Court to adopt a test that only defines wetlands as WOTUS if there is a surface connection to jurisdictional waters. While the Sackett case addresses wetlands, it will likely have impacts on jurisdiction of other water bodies that are not traditionally navigable waters, such as intermittent and ephemeral waterways.

Documents: August 17, 2021 Amicus Curiae Brief of the BDD Board
September 3, 2021 BDD Board Comments on Revisions to WOTUS Definition

Recommendation: Continue to monitor the EPA rulemaking relating to WOTUS and related litigation to stay current on the legal and regulatory landscape affecting the BDD source water quality.

4. **CWA §303(d)/305(b) Integrated Report and List of Impaired Waters ("Integrated Report"):** NMED prepares an Integrated Report every two years in compliance with Sections 303(d) and 305(b) of the Clean Water Act. The Integrated Report serves as a source of information on water quality and pollution control programs as well as how NMED assesses surface water quality data against water quality standards. The Board has provided comments to NMED on the last two (2020 and 2022) Integrated Reports. The Board's concerns in 2022 centered on NMED's delays in implementing Total Maximum Daily Loads (TMDLs) to address impairment of the Rio Grande and streams on the Pajarito Plateau. NMED has issued the final Integrated Report and responded to the Board's comments. The Board's concerns in 2020 centered on implementing the "hydrology protocol" to accurately designate streams as "ephemeral" or "perennial" pursuant to a Settlement Agreement between DOE, NMED, and Amigos Bravos.

Documents: February 25, 2022 Board comments on Integrated Report with NMED responses
September 10, 2020 Board comments on Integrated Report

Recommendation: Continue to monitor the Integrated Report process and comment as appropriate.





5. **LANL National Pollutant Discharge Elimination System (NPDES) Permits:** The Board provided comments to NMED in 2020 on the State certification of LANL's surface water permits for its industrial outfalls (NPDES Permit No. NM002835) and stormwater discharges (NPDES Permit No. NM0030759). The Board's comments centered on technical aspects of the permits, and how they relate to the cleanup activities for legacy pollution at LANL. The LANL operators petitioned for review of the State certification of the two permits and conditions imposed in the certification process, and hearings were granted although not scheduled. NMED and LANL have entered into Settlement Agreements resolving the disputed issues for each of the certifications, and modified certifications of each of the NPDES permits have been issued. Of particular interest to the Board is the PFAS monitoring requirements in the Agreement governing regulated stormwater discharges for the certification of NPDES Permit No. NM0030759.

Documents: April 16, 2020 Board comments on NPDES Permit No. NM0028355
April 28, 2020 Board comments on NPDES Permit No. NM0030759
Modified Certification of NPDES Permit No. NM0028355 and Settlement Agreement
Modified Certification of NPDES Permit No. NM0030759 and Settlement Agreement

Recommendation: Under the Clean Water Act, NPDES permits are valid for up to five years. We recommend monitoring the LANL Permits, particularly when LANL is required to seek renewals of these permits.

6. **NMED/LANL Consent Order:** The Board has submitted comments to NMED regarding its concerns about cleanup and enforceability of the 2016 Compliance Order on Consent between NMED and DOE ("2016 Consent Order"). While NMED has not responded to these comments in writing, NMED did sue DOE to compel renegotiation of the 2016 Consent Order. The Board's comments have focused on its disapproval of the 2016 Consent Order as compared to the 2005 Consent Order, and the need for public engagement in the LANL clean-up process. NMED is seeking, as part of the relief in its lawsuit, that a new Consent Order be developed under the supervision of the court. The Board has urged NMED to engage the public and seek public comment if a new draft Consent Order is an outgrowth of any agreement to settle the litigation.

Documents: October 13, 2019 Letter from the Board to Governor Lujan Grisham
October 31, 2019 Letter from the Board to Secretary of NMED James Kenney
February 28, 2020 Board Comments to NMED on Suggested Changes to 2016 Consent Order

Recommendation: Monitor the litigation between NMED and DOE and participate in the development of a new Consent Order to ensure that Rio Grande water quality is a priority consideration in the cleanup of legacy waste at LANL.





7. DOE's Sitewide Environmental Impact Statement (SWEIS) for LANL: On April 4, 2021, the Board adopted Resolution 2021-2 requesting that DOE develop a new SWEIS under the National Environmental Policy Act (NEPA) instead of merely updating the existing SWEIS. A SWEIS should be reviewed every five years, and several circumstances have arisen in the past five years that would trigger the need for a new SWEIS, including the proposed expansion of plutonium pit production at LANL; an updated census, and an internal DOE report critical of fire management at LANL. DOE has not yet made public its intentions for an update or development of a new SWEIS.

Documents: Resolution No. 2021-2 Requesting that LANL Conduct a Site Wide Environmental Impact Statement.

Recommendation: Continue to monitor LANL NEPA compliance and advocate for a SWEIS which allows for public participation in the development of alternatives and mitigation strategies.

8. Los Alamos Wastewater Treatment Plant: NMED opened a 30-day public comment period on January 29, 2022 for the CWA §401 certification of the NPDES permit for the Los Alamos County Wastewater Treatment Plant. The comment period was extended for another 30 days on February 28, 2022 and will now close on March 30, 2022. The timing of the notices for the comment period was such that they were after agenda items were due for the monthly Board meetings, and the close of the comment period is before the subsequent Board meeting, giving the Board no real opportunity to study and comment on the certification of the permit. The Los Alamos wastewater treatment plant outfall is within the Los Alamos Canyon watershed.

Documents: February 28, 2022 Extended Public Notice for Permit and Certification

Recommendation: Continue to monitor and review options for participation in this NPDES permit.

9. Los Alamos County Municipal Separate Storm Sewer System ("MS4") Permit: EPA is in the process of drafting a NPDES MS4 permit for Los Alamos County, the New Mexico Department of Transportation, and DOE to regulate stormwater discharges in Los Alamos County outside of LANL. A significant portion of the discharge locations are in the Los Alamos Canyon watershed. Los Alamos County appealed EPA's determination that a MS4 permit is required, and was granted a stay on the briefing of the case to discuss disputed issues with the County. Around the same time, EPA released a "sample" permit for the parties to consider and provide informal comment. At the time EPA was intending to move forward with a draft permit. However, in January 2022 EPA put the draft permit development on hold, to develop the required showing that the canyons are jurisdictional waters under the Clean Water Act.

Documents: 'Sample' permit

Recommendation: The Board should monitor the development of this permit as the MS4 permit would cover numerous uncontrolled discharges that are in addition to those covered by the LANL stormwater NPDES permit.





10. Natural Resources Damage Assessment (“NRDA”): BDD staff and counsel met with the New Mexico Office of the Natural Resource Trustee (“ONRT”) to discuss the NRDA process, and how the Board’s efforts to mitigate potential contamination from LANL (via stormwater and sediment migration in Los Alamos Canyon) might factor into the ONRT’s assessment of damages based on injury to state resources such as the Rio Grande. BDD staff emphasized that it expects the ONRT and other trustees to give appropriate weight to the surface water resources upon which the BDD relies.

Documents: LANL NRDA Homepage at <https://www.lanlnrda.org/>

Recommendation: Continue to monitor progress of ONRT evaluation of NRDA and incorporation of LANL impacts on the Rio Grande

11. NukeWatch New Mexico LANL Consent Order Litigation: Nuclear Watch New Mexico (“NukeWatch”) sued the DOE under the citizen suit provisions of the Resource Conservation and Recovery Act (RCRA) alleging noncompliance with the 2005 Consent Order. The parties have reached agreement to settle NukeWatch’s remaining claims. Notably for the Board, the proposed Settlement Agreement requires DOE to install a flow measurement station in lowermost Los Alamos Canyon to be a component of the BDD’s ENS. This station would be the same as that which is contained in the DOE and Board MOU.

Documents: March 1, 2022 Proposed Settlement Agreement
March 23, 2022 New Mexican Article Regarding NWNM Litigation

Recommendation: The Settlement Agreement has been accepted by the court. We recommend maintaining communication about the implementation of the Settlement Agreement with counsel for NukeWatch New Mexico.

12. The Removal Efficiency and Assessment of Treatments (“TREAT”) Studies: BDD has conducted four sampling events known as the TREAT Studies to investigate the efficiency of the treatments at the BDD Treatment Plant with respect to contaminants that may occur in the Rio Grande upriver from the BDD diversion point. These studies were funded by DOE through the 2017 MOU. Certain limitations in the TREAT sampling and analyses were identified, about which the Board was briefed in 2018. Future TREAT Sampling protocols will continue to be reviewed and amended to provide the best sampling protocols available going forward.

Documents: 2018 PowerPoint presentation

13. Hexavalent Chromium (“Cr-VI” or “Cr6”) Water Right Application Protest: DOE (and Los Alamos County) filed an application with the New Mexico Office of the State Engineer (“OSE”) to move water rights from existing points of diversion to extraction wells used in the remediation Interim Measure for the Cr-VI groundwater plume. The Board (and Santa Fe County) protested the application asserting that, among other deficiencies, DOE failed to provide information about impacts to the Rio Grande. The protest is still pending. NMED and other parties have recommended that DOE may have to convert injection wells to extraction wells. If DOE is required to do this it would change the nature of the water





rights application, and DOE may be required to resubmit an application to reflect the consumptive use of the water.

Documents: August 5, 2020 BDD Protest Letter to the OSE

Recommendation: Continue participation in protest of LANL water rights application to ensure that the proposed diversions will not impact the Rio Grande.

14. Source Water Protection Plan (SWPP):

The BDD Staff has been developing an updated Source Water Protection Plan for BDD's source water. A SWPP is a voluntary program with support of the NMED's Drinking Water Bureau to identify potential sources of contaminants for use in land use planning and source water remediation and clean up priorities. There may be a future public outreach phase prior to producing the Source Water Protection Plan.

Documents: draft

Recommendations: BDD staff to continue developing the SWPP, including future public outreach.

