

Quarter One Report 2021

January 1, 2021 – March 31, 2021



Photo Credit: Sandra Tanner

Candidate Conservation Agreements: Texas Hornshell Mussel (*Popenaias popeii*)



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Contents

I. Introduction	4
II. Enrollment & Funding	4
III. First Quarter Committee Meetings & Agendas	5
Executive Committee	5
Implementation Committee	5
IV. Mitigation of Impacts to Habitat	6
V. Compliance Monitoring	7
VI. Landscape Monitoring	7
Black River Monitoring	7
Delaware River Monitoring	7
VII. Species Monitoring	12
VIII. Outreach & Education	12
IX. First Quarter 2021 Project Updates	13
Black River Wetland Action Plan	13
CEHMM/SLO Instream Flow Program Initiative for the Texas Hornshell Mussel	13
River Flow Regime Requirements Study	14
Black River Erosion Control Project	14
Flume Draw Erosion Control Project	14
X. Future Projects	15
XI. Habitat Conservation Plan	15
Signature	16

I. INTRODUCTION

This report describes the activities conducted in the first quarter of 2021 under the Candidate Conservation Agreements for the Texas hornshell mussel (THM) and other covered species. The Center of Excellence (CEHMM) administers a Candidate Conservation Agreement (CCA) for federal land as well as a Candidate Conservation Agreement with Assurances (CCAA) for non-federal lands. The New Mexico State Land Office (SLO) administers the CCAAs for state trust lands. Additional details about the CCA/As are available in the 2018 annual report and the agreements themselves.



Figure 1. The Black River at the BLM Cottonwood Day Use Area.

The CCA/As and past reports can be found at the following URLs:

- <http://cehmm.org/index.php/documents/tx-hornshell/>
- https://www.fws.gov/southwest/es/documents/R2ES/TxHornshell_CCAA_NMCPL_v3_FR2980.pdf

II. ENROLLMENT & FUNDING

CCA/A enrollment data for 2021 is shown in Table 1. The SLO administered 28 CIs and CEHMM administered 42 CIs and 33 CPs. The SLO had 127,373.93 acres of state trust land enrolled in its CCAA and CEHMM had 274,256.41 acres of non-federal land enrolled through its 42 signed CIs and 312,250.60 acres of federal land enrolled through its 33 CPs. Although CCAA enrollment was closed when the hornshell was listed as endangered, the annual enrolled acreage can change because participants who opted for “all activities enrollment” are required to update their enrolled acreage every year. The same acres can also be enrolled by multiple participants if the acreage is being used by multiple parties for different activities.

Table 1. CCA/A Enrollment.

	No. CIs	No. CPs	CCA Acres Enrolled 2021	CCAA Acres Enrolled 2021
CEHMM	42	33	312,250.60	274,256.41
SLO	28	N/A	-	127,373.93
TOTAL:	70	33	312,250.60	401,630.34

Fifty Participants are enrolled in more than one of the Candidate Conservation Agreements because they have a combination of land ownership types.

During the first quarter of 2021, the Hornshell Program at CEHMM earned \$84,428.94 in Habitat Conservation Fees paid under the CEHMM CCA and CCAA. Also during the first quarter of 2021, the SLO CCAA earned \$31,030.06 in Participant Habitat Conservation Fees.

III. FIRST QUARTER COMMITTEE MEETINGS & AGENDAS

Executive Committee

The Executive Committees held three joint meetings or conference calls in the first quarter of 2021 to determine project funding priorities and amounts. The Executive Committee members in 2021 are as follows:

CEHMM CCAA: Chuck Hayes, Vicky Ryan, U.S. Fish and Wildlife Service (Service) and Emily Wirth (CEHMM)

CEHMM CCA: Chuck Hayes, Vicky Ryan, Emily Wirth, and Ty Allen (BLM)

SLO CCAA: Chuck Hayes, Vicky Ryan, and Lisa Henne (SLO)

The Executive Committee discussed the following items at their meetings:

January 14th 2021

1. 2021 Program Budget Review
2. 2021 Proposed Projects

February 25th 2021

1. Temporary Flow Requirements Working Group
2. Request to Extend Timeline and Increase Budgets for Flow Regime Requirement Studies
3. CCA/A Funding Allocations:
4. Upcoming Project Ideas
5. Stakeholder Committee Recommendation

March 29th 2021

1. Budget Review for Flow Regime Requirement Studies

Implementation Committee

The Implementation Committee members in 2021 included the following:

Service: Sara Yates

BLM: Cassie Brooks

CEHMM: Matthew Ramey

SLO: Elaine Heltman (alternates Camilla Romero and Kyle Rose)

NMDGF: Daniel Trujillo (alternate Joanna Hatt)

The Implementation Committee met once during the first quarter of 2021 and discussed the following topics:
February 17th, 2021

1. Hornshell CCA/A Program Update
2. Habitat Conservation Program Update
3. Black and Delaware River Current Conditions
4. Review of Funded Projects
5. 2021 Project Priorities for Texas Hornshell CCA/A Program
6. Review of Project Proposals

IV. MITIGATION OF IMPACTS TO HABITAT

During the first quarter of 2021, CEHMM received a total of 14 notices of new surface disturbances from industry. CEHMM documented 85.03 acres of new surface disturbances through the 14 notices. All of the notices of new surface disturbances took place in Management Zone D.

During the first quarter of 2021, the SLO received a total of 7 notices of new surface disturbances from industry. The SLO documented 33.31 acres of new surface disturbances through the 7 notices. All of the notices of new surface disturbances took place in Management Zone D.

Table 2. New Surface Disturbances in the first quarter of 2021.

	Well Pads	ROWs	Other Infrastructure	Total
CEHMM				
Notifications of New Surface Disturbances	5 (35.7%)	8 (57.2%)	1 (7.1%)	14
Acres Disturbed	47.37 (55.7%)	29.78 (35.0%)	7.88 (9.3%)	85.03
SLO				
Notifications of New Surface Disturbances	3 (34.1%)	3 (51.2%)	1 (14.6%)	7
Acres Disturbed	18.06 (33.5%)	11.63 (56.9%)	3.62 (9.5%)	33.31
COMBINED				
Notifications of New Surface Disturbances	8 (26.16%)	11 (58.72%)	2 (15.12%)	21
Acres Disturbed	65.43 (21.4%)	41.41 (59.6%)	11.5 (19%)	118.34

V. COMPLIANCE MONITORING

The CCA/As require CEHMM and the SLO to submit an annual compliance verification to the U.S. Fish and Wildlife Service (Service) for each enrolled Participant. CEHMM assists the SLO with compliance verification through a Memorandum of Agreement for joint implementation of the CCAAs. In the first quarter of 2021, CEHMM's CCA/A compliance monitoring included inspection for failure to submit new surface disturbances and inspection for SPCC or RAPPS compliance, if applicable. CEHMM utilized the New Mexico Oil Conservation Division (NMOCD) data, Bureau of Land Management (BLM) right-of-way data, and field surveying to conduct inspections. To date in 2021, CEHMM spent 3 days performing compliance monitoring.

VI. LANDSCAPE MONITORING

Black River Monitoring

CEHMM utilized four U.S. Geological Survey (USGS) discharge gages in the Black River and Blue Springs to monitor the daily average flow of the Black River (Figure 2). Monitoring the flow of the river is vital. The THMs require perennially wetted habitat and flowing water, as emersion (stranding) can cause death and dehydration. The CCA/A has set a minimum flow goal for the Black River at 9.3 cubic feet per second (cfs). CEHMM staff have alarms set on the flow gages, so when the river drops below 5.0 cfs, they are notified and can monitor the river more closely. The monthly average discharge fell below the 9.3 cfs threshold every month of the first quarter in 2021 (Figure 3). Participants in the CCA/A who withdraw water from or near the Black River were notified each month so that they could implement any pumping curtailment conservation measures contained in their CI/CP.

Delaware River Monitoring

In 2019, the Delaware River stopped flowing for 138 days and again for 240 days in 2020. This lack of flow prompted CEHMM to start monitoring the flows of the Delaware River on a weekly basis. The river did resume flow in late 2020. Despite the previous reading of no flow from the USGS discharge gage on the Delaware River (Figure 4), CEHMM has physically observed the river maintaining a constant flow for the entire first quarter of 2021 (Figure 5), suggesting the gage is malfunctioning. CEHMM will continue to monitor the status of the Delaware River by utilizing the USGS gage (USGS 08408500) and a physical staff gage within the river.

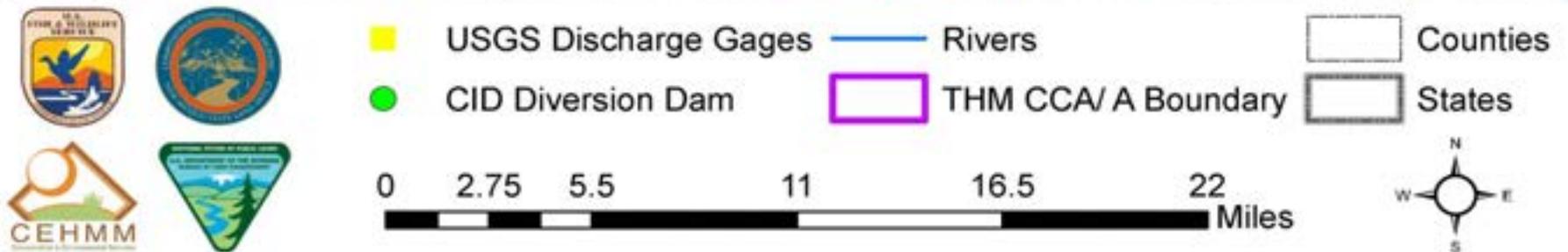
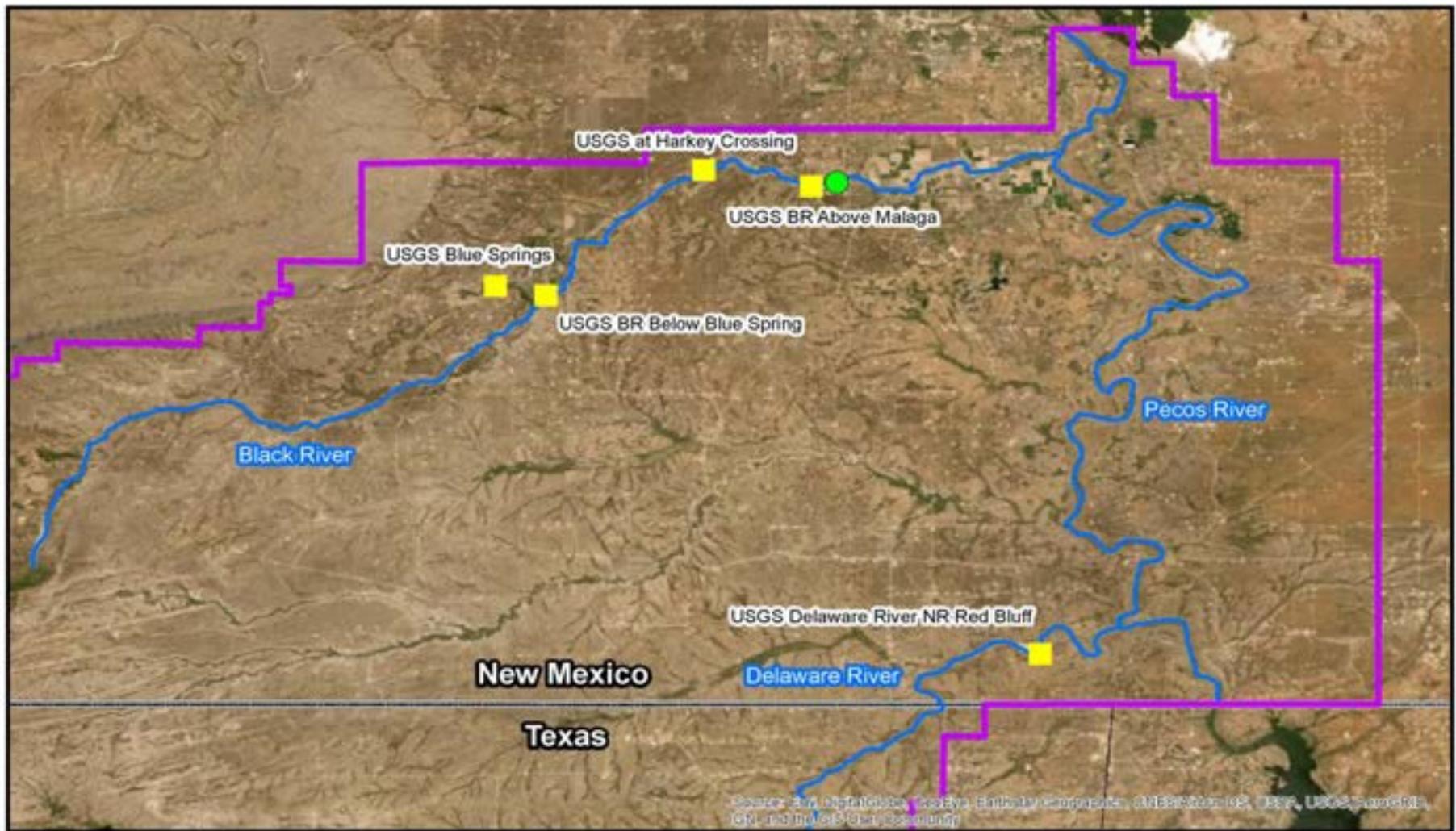


Figure 2. Map of USGS Stream Gage Locations Used by the CCA/A Program.



USGS 08405500 BLACK RIVER ABOVE MALAGA, NM

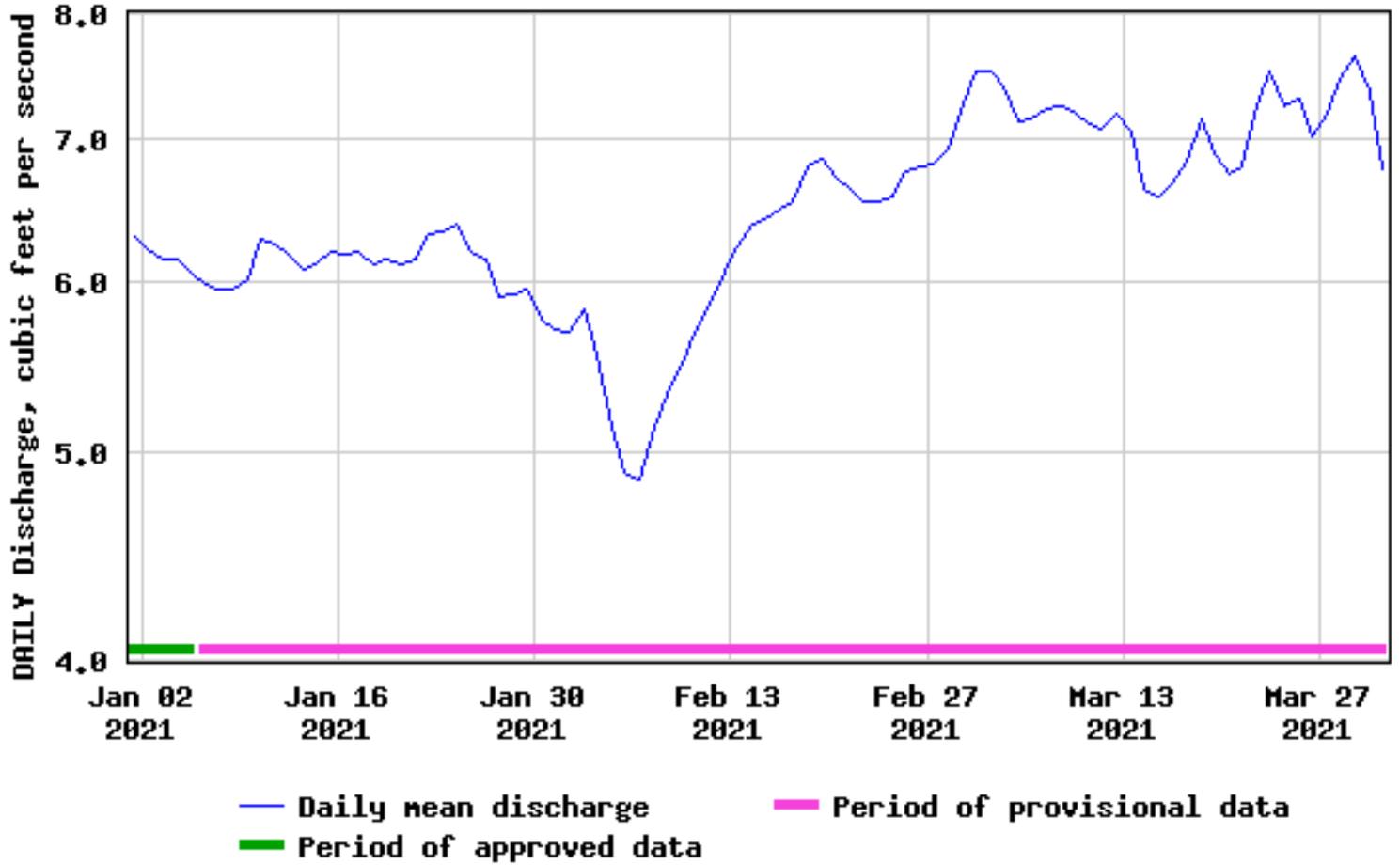


Figure 3. The Daily Average Discharge of the USGS Black River Above Malaga Gage (08405500) for the First Quarter of 2021.



USGS 08408500 DELAWARE RIVER NR RED BLUFF, NM

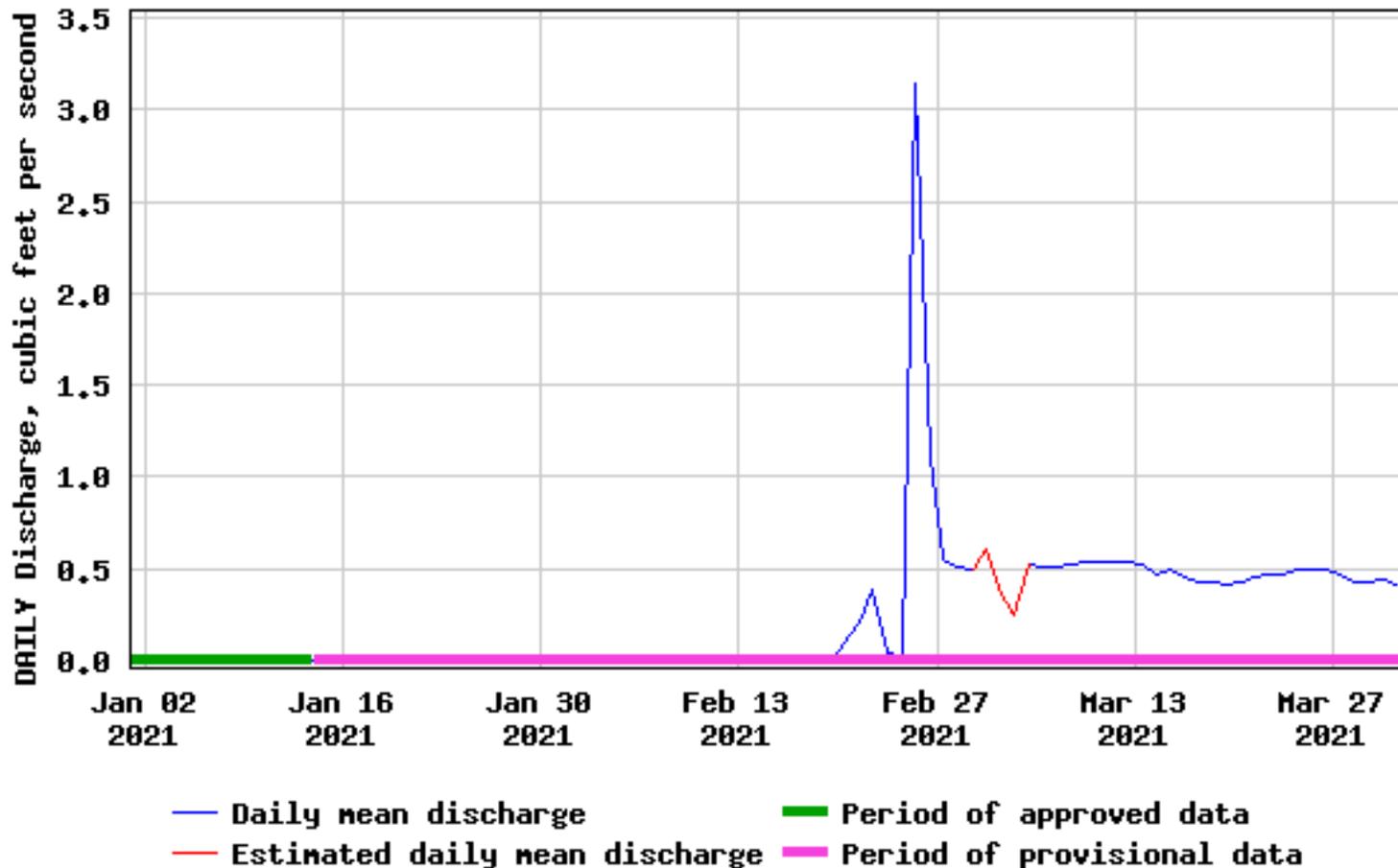


Figure 4. The Daily Average Discharge of the USGS Delaware River NR Red Bluff, NM Gage (08408500) for the First Quarter of 2021.



December 2020



February 2021



January 2021



March 2021

Figure 5. A Photographic Timeline of the Delaware River in the First Quarter of 2021.

VII. SPECIES MONITORING

CEHMM did not conduct monitoring of the Texas hornshell or the Covered Species during the first quarter of 2021. Monitoring for the Covered Species typically take place in the early spring and late fall. Surveys are planned to be conducted in the second quarter of 2021.

VIII. OUTREACH & EDUCATION

During the first quarter of 2021, CEHMM staff participated in a virtual career fair for Alamogordo Public Schools. The team created a 10-minute video discussing, among other items, the conservation efforts of the THM program. CEHMM shared the footage with approximately 1,500 students in the Alamogordo Public School system.

From February 17 to the 25th, CEHMM staff attended a virtual riparian restoration conference held by Riversedge West. The meeting was a national gathering of scientists, land managers, government agencies, non-government organizations, and private landowners to network and discuss current riparian restoration research and methods. CEHMM staff will use the information gathered at this conference to make more informed decisions on research, monitoring, and habitat improvement projects of the riparian lands within the THM CCA/A boundary.

On March 3, CEHMM staff assisted the BLM and Plains Pipeline in planting sapling cottonwood trees along the Black River at the Cottonwood Day Use Area (Figure 6). Over fifty new trees were planted and fenced off for protection from wildlife. The trees will provide shade and stabilize the soils for years to come.

Also during the first quarter of 2021, CEHMM attended several educational talks, hosted by the Service, regarding the conservation of freshwater mussels. CEHMM utilizes the information gathered at these educational talks to make more informed management decisions regarding the Texas hornshell.



Figure 6. CEHMM Staff Planting Trees at the BLM Cottonwood Day Use Area.

IX. FIRST QUARTER 2021 PROJECT UPDATES

CEHMM and the SLO did not fund any new projects during the first quarter of 2021.

Black River Wetland Action Plan- In the fall of 2019, CEHMM submitted a proposal to the New Mexico Environment Department for the Black River Wetland Action Plan (WAP), and the contract was awarded in the spring of 2020. The THM CCA/A provided matching funds in the amount of \$4,669.81. The New Mexico Wetlands Program facilitates the development of comprehensive wetlands restoration and protection in watersheds throughout New Mexico. The WAP will be a planning document designed to address wetlands and riparian resources within the boundaries of the Black River watershed. A WAP describes the current status of wetlands/riparian types, distribution, and conditions within the watershed. It is recognized as a working document representing the best information available at the time. This plan also documents and provides information for improving wetland conditions, identifies sites that can be protected and/or restored, and determines where additional monitoring and inventory are needed.

Q1 Progress: During the first quarter of 2021, the majority of the WAP's resource analysis section and introduction were developed. The resource analysis section includes subsections such as: history of the Black River area, current landscape use, wildlife communities, aquatic communities, a plant inventory, threatened and endangered species, water quality and quantity, and wetlands mapping and classification. Mapping for these subsections is still in progress and is not currently included in the Black River WAP draft. The development of the resource management section will commence during the second quarter of 2021.

CEHMM/SLO Instream Flow Program Initiative for the Texas Hornshell Mussel - CEHMM and the SLO partnered on a proposal from CEHMM to the National Fish and Wildlife Foundation (NFWF) for a \$250,000 grant to fund the development of an instream flow program to protect the endangered Texas hornshell mussel and other at-risk species in the Black and Delaware rivers. The overall objective of the initiative is to provide instream flow for the Texas hornshell in the Black and Delaware rivers through the purchase or lease of water rights, or through alternative mechanisms such as forbearance agreements or strategies that make water available for instream flow during otherwise dry periods or when high flows are needed for life history requirements. The first expected outcome of the grant would be the execution of one or more short-term (3-5 year) agreements that, at a minimum, will provide sufficient flow in the Black River to prevent the existing Texas hornshell population from being extirpated by lack of water while long-term solutions to instream flow are developed. The second expected outcome of the project will be the development of a framework for a long-term plan and budget for maintaining stream flows in the Black and Delaware rivers, including multiple options such as outright purchase of water rights, long-term forbearance agreements, or other mechanisms to reduce diversion from the rivers.

Q1 Progress: During the first quarter of 2021, CEHMM and the SLO were notified that the Instream Flow Program Initiative grant had been approved by the NFWF. CEHMM and the SLO look forward to working on this project in the coming months.

River Flow Regime Requirements Study- This study was approved and funded in October of 2020 for \$168,772. A collaborative team of researchers from Miami, Texas A&M, and Auburn Universities will conduct a series of laboratory experiments and field monitoring studies to examine lethal and sublethal effects of thermal and hypoxia stress on various life history stages of the Texas hornshell. Relationships between flow, temperature, and dissolved oxygen in the Black River will also be studied. Results will be used to identify flow regimes most likely to induce mortality and/or thermal stress in the Texas hornshell. Combined with historical datasets, results will be used by both CEHMM and the Service. CEHMM will determine whether frequency of stressful periods has been increasing over time, and the Service will make specific flow recommendations for Texas hornshell populations in the Black River. This project is currently on hold pending further budget discussions with the universities and approval by the Implementation and Executive Committees due to funding delays with the original funder.

Q1 Progress: During the first quarter of 2021, funding was approved for the second year of the Flow Regime Requirement Study. The universities have already commenced work for year two of the study.

Black River Erosion Control Project - This erosion control project was approved and funded in August 2020 for \$5,291.00 to restore five acres of habitat along the Black River. Ten to fifteen erosion control structures will be installed at the head waters of Flume Draw. The structures will reduce sedimentation of the Black River and will promote vegetative growth in a highly eroded ephemeral drainage. V-fence will be cut to a width of 36 inches and bent into an L with the bottom 18 inches being buried. Natural woody substrate will be lined on the bottom of the fence to create a porous dam.

Q1 Progress: During the first quarter of 2021, CEHMM staff conducted an onsite visit to the project location for mapping and planning purposes. The project is planned to be completed in the second quarter of 2021.

Flume Draw Erosion Control Project - This erosion control project was approved and funded in August 2020 for \$2,912.18 to restore three acres of habitat along the Black River. Ten erosion control structures will be installed at the head waters of Flume Draw. The structures will reduce sedimentation of the Black River and will promote vegetative growth in a highly eroded ephemeral drainage. V-fence will be cut to a width of 36 inches and bent into an L with the bottom 18 inches being buried. Natural woody substrate will be lined on the bottom of the fence to create a porous dam.

Q1 Progress: During the first quarter of 2021, CEHMM staff worked with the BLM to obtain NEPA and archeological clearance for the project. Results for the BLM's approval are still pending. However, pending approval from the BLM, the project is expected to be completed in the second quarter of 2021.

X. FUTURE PROJECTS

CEHMM and the SLO are now accepting proposals to fund projects related to research and monitoring, or habitat restoration for the THM and the Other Covered Species. Proposals are ranked and funded on a quarterly basis.

The deadline to submit project proposals for each quarter are as follows:

- Q1: January 1, 2021
- Q2: April 1, 2021
- Q3: July 1, 2021
- Q4: October 1, 2021

Proposal forms are available for download:

<https://www.cehmm.org/index.php/info/news/51-texas-hornshell-cca-a-project-proposals-now-being-accepted>

XI. HABITAT CONSERVATION PLAN

Due to the THM federal listing in 2018, the CCAAs are closed to new Participant enrollment. To provide stakeholders with another option to participate in a conservation agreement, CEHMM, the Service, the SLO, and the NMDGF have been working together since 2019 to develop a Habitat Conservation Plan (HCP) for the THM and other CCA/A covered species. An HCP is similar to the CCA/A since it is a mechanism for Participants to engage in its Covered Activities, while promoting conservation of the THM and other Covered Species. The HCP is expected to be sent to stakeholders in the second quarter of 2021 for public comment.

The HCP will be very similar to the CCA/A in many ways. Like the CCA/A, participation in the HCP will be voluntary. The HCP will cover the same species as the CCA/A. Both the CCA/A and HCP will have the same boundary area. Also, enrollment into the HCP will be very similar to that of the CCA/A, in that each Participant will enroll through a CI unique to their enrollment. However, one important topic to note is that federal lands cannot be enrolled into the HCP.

SIGNATURE

If you have any questions, please call Matt Ramey at (575)-885-3700.

Signed: _____
Emily Wirth
Executive Director

Date: _____