



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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Jared Polis, Governor
Dan Gibbs, DNR Executive Director
Rebecca Mitchell, CWCB Director

TO: Colorado Water Conservation Board Members

FROM: Lauren Ris, Deputy Director

DATE: May 17-18, 2022 Board Meeting

AGENDA ITEM: 9. Severance Tax Operational Fund Approvals

Staff Recommendation:

Staff recommends that the Board approve the funding requested for each of the items listed in Table 1 from the Severance Tax Operational Fund for fiscal year 22/23.

Background:

CWCB has access to up to a 5% share of the Severance Tax Operational Fund managed by DNR. Funding becomes available from the Operational Fund to CWCB on July 1 each year via the Long Bill enacted by the General Assembly. CWCB section chiefs have reviewed requests for funding and made recommendations to the CWCB Director. This agenda item requests the Board's approval of the funding for the following projects, programs, studies and internal operational activities listed. CWCB expects to receive a total of \$1,275,000 in funding this year; however, should that amount change, the recommended funding will also need to be revised. Table 1 provides a summary of the recommendations.



Table 1

SEVERANCE TAX OPERATIONAL FUND RECOMMENDATION
FOR FUNDING FROM JULY 1, 2022 TO JUNE 30, 2023

#	Name of Activity/Project/Ops	Description of the proposed Activity/Project/Operational Activity	Sponsor Section	PM	Cost	Matching	Recommend
CWCB Supported Activities/Projects/Operational Needs							
1	RFP Water Plan Marketing	Funding will support a marketing campaign to promote the Water Plan and raise awareness about CWB's grant and loan programs. Using an external firm to help promote the Water Plan will bring in specialized talent to address the niche marketing required for a policy document of this type and will free up staff time.	Water Supply Planning	Russ Sands	\$100,000	\$0	\$100,000
2	Colorado Climate Change Vulnerabilities Study Update	The Colorado Climate Change Vulnerability Study was originally published in 2015. The Study provides an overview of key vulnerabilities that climate variability and change will pose for Colorado's economy and resources. The purpose of the study is to provide state agencies, local governments, and others with background for preparedness planning. Since it was published in 2015, there have been updates to other important climate and hydrology datasets, and capacity for climate monitoring and data visualization has grown. Additionally, the demand for up-to-date, locally relevant information to inform adaptation practices and reduce risks has also significantly increased. CWCB seeks to update this report after the State of Climate in Colorado Report is revised, to leverage locally relevant data to address sector-specific vulnerabilities. Scoping this effort will include evaluating the existing report to identify existing strengths, information gaps, and opportunities to add updated information and improve the overall study. It may also include a series of scoping sessions with stakeholders to identify what information will be most useful and how best to communicate it in an update.	Water Supply Planning	Russ Sands	\$75,000	\$0	\$75,000
3	ISF outreach/education/travel	In most years, the Stream and Lake Protection Section has budgeted between \$12,000 and \$16,000 to fund operating expenses such as travel, telecomm, printing, equipment, official functions, and conference registrations. However, those funds have been supplemented in most years by the Section's Severance Tax Operational Fund Education and Outreach Project, which historically has been funded at \$15,000. The Section's operating budget can vary significantly from year to year depending on the amount of outreach activities that are required to address issues associated with new instream flow (ISF) appropriations, acquisitions, legal protection, and implementation of Colorado's Water Plan, including Section staff's involvement in stream management plans and Water Plan grants. Staff estimates that \$15,000 of supplemental funding will be required to address travel associated with meetings, fieldwork, and other outreach activities related to over 60 ISF new appropriation recommendations, ISF water acquisitions generated from the Request for Water Acquisition Program, stream management plans, and Water Plan grants.	Instream Flow	Rob Viehl	\$15,000	\$0	\$15,000

4	ISF Database and GIS Project	Purpose: The instream flow (ISF) database is accessed on a daily basis by staff and the general public (data is linked to the Colorado Information Marketplace). Funding this request will ensure that this database continues to be user friendly and compatible with other DNR systems. The ISF Section is also migrating from its current GIS based decision support system to ESRI's ARC Pro platform. This funding will provide training to CWCB staff on how to use this new system and ensure that GIS ISF data remains available to the public.	Instream Flow	Rob Viehl	\$50,000	\$0	\$50,000
5	Weather Modification, New Remote Generator	Installation of a new remote generator for weather modification. The generator will be deployed in either a new county on the West Slope or within one of the existing permitted programs. Weather modification is the only tool that adds water to the system.	Interstate & Federal	Andrew Rickert	\$60,000	\$0	\$60,000
6	Cost-share with SPWRAP / Northern Water for S. Platte modeling	Our cost-share agreement would facilitate the modeling of the South Platte and provide additional data, information, and certainty for IFWI Section, as well as South Platte water users.	Interstate & Federal	Emily Zmak	\$100,000	\$75K SPWRAP and Northern Water	\$25,000
7	Funding for UCRC Modeling	The UCRC will provide post-2026 planning and modeling to support ongoing negotiations between the Basin states.	Interstate & Federal	Amy Ostdiek	\$100,000	\$0	\$100,000
8	Accessibility Manual Testing	This project will provide manual testing of CWCB websites and apps to determine if they meet OIT's Accessibility requirements per HB21-1110.	Operations	Carolyn Kemp	\$25,000	\$0	\$25,000

9	Climate Change in Colorado Report Update - Phase II	<p>The Climate Change in Colorado report has been an essential guide for water resources managers and others responding to the challenges of a warming climate. There have been two editions - the first edition was released in 2008, and the second edition in 2014. These reports have had broad applications for stakeholders throughout Colorado and serve as a foundational resource for explaining how the climate has changed in Colorado, what is projected for Colorado's future climate, and the associated impacts to water and related resources. Since the publication of the 2014 report there has been a release of updated climate model projections (CMIP6), releases of and/or updates to other important climate and hydrology datasets, and an increased capacity for climate monitoring and data visualization. We have access to nearly a decade of new observations to extend our understanding of the climate changes that have already occurred. Including these data in an updated analysis is necessary for several reasons. Major changes in Colorado's climate have been observed in the 21st century. Communicating observed changes in climate and the associated impacts we are already experiencing in Colorado requires using an analysis through 2020 and beyond, when possible. The completion of a third edition of the Climate Change in Colorado report requires two phases. The first phase, which is now underway and was funded in part by CWCB, includes the initial work needed to gather data, update observations, and synthesize other recent climate assessments, new research studies, and impacts relevant to Colorado. The second phase, for which additional funding is needed, will include downscaled climate projections using CMIP6 and the full development and implementation of an interactive website. Phase 2 will produce the second section of the updated report, including analysis of downscaled CMIP6 projections for Colorado, and further exploration and analysis of ongoing and potential future climate impacts. Finally, we will develop a section focused on current mitigation and adaptation activities, with specific case studies within Colorado, and some recommendations for further mitigation and adaptation activities. With the complete updated report, we will also develop a companion interactive website that will provide access to observation and projection data and visualizations.</p>	Water Supply Planning	Kathryn Weismiller	\$100,000	<p>Denver Water is a partner on Phase I and contributed about \$25K for that effort. CWCB contributed \$45K for Phase I. Denver Water has indicated potential ability to contribute to Phase II but the amount is not yet known.</p>	\$100,000
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10	Flood Mitigation and Project Compliance	The CWCB has identified a substantial need for identification of deficiencies to flood mitigation projects throughout Colorado, a point vastly reinforced by the devastating floods of September 2013 and the post-wildfire events experienced in recent years. Funds from this program will be used to develop solutions to bring these projects back into technical or regulatory compliance. In some cases, some financial assistance may be provided to smaller communities to perform required one-time maintenance activities for regulatory purposes provided that the local governments and other entities benefiting from the project expend as many local resources as available to perform the work. The focus of this work will be to address local requests as well as identification and design of projects that can be implemented or upgraded to reduce the flood risk. The best example of the use of these funds are the current nationwide focus on the condition of levees, which has already impacted some Colorado communities and is expected to impact many more in the coming years. Many of these levees and other flood control/mitigation projects are located in small or impoverished communities throughout the state that are in need of both technical and, in some cases, financial assistance. Finally, the section is evaluating the impacts of climate change to flood flows, and funds from this account could be used for a portion of this work. The CWCB staff is requesting this Severance Tax non-reimbursable investment to provide a means of cost-sharing with local entities and other agencies to accomplish the much needed work. Cost-sharing will be emphasized when practicable to leverage the severance tax dollars.	Watershed & Flood Protection	Kevin Houck	\$300,000	Local match as applicable (usually 50%)	\$150,000
11	Huerfano County Base Level Engineering Hydrology Optimization	The main purposes of this project are to provide more accurate flood hazard information for Huerfano County, and compare methodologies for predicting watershed response to storm events. The project will take advantage of recent features available in version 6.2 of the US Army Corps of Engineers Hydrologic Engineering Center River Analysis System (HEC-RAS) computer model. The Base Level Engineering (BLE) analyses will make use of the spatially varied Curve Number (CN) feature to more accurately estimate the amount of varying infiltration, interception and storage capabilities of different land cover in predicting direct storm runoff for watersheds in Huerfano County. Modeled values will be verified with comparison and calibration to previously calculated reference flows (stream gages and regional regression calculated peak flows). Values will also be compared to draft hydrology produced using a constant CN for the watershed. Results will be used to provide more representative flood hazard information within Huerfano County, and to determine the relative differences between the CN methodologies.	Watershed & Flood Protection	Terri Fead	\$24,300	\$0	\$24,300
12	Outreach Plan for Spanish Speakers	The plan will focus on strategies and techniques to effectively engage our target audience. It will supplement our ongoing passive outreach efforts for disseminating flood hazard information, and flood risk awareness. Efforts will provide active processes and comfortable avenues to allow information exchange. This will increase representation by larger portions of our communities to allow our projects to be more relevant to the communities we serve. This could be supplemented with FEMA or State funding if necessary.	Watershed & Flood Protection	Terri Fead	\$75,000	Additional funding from Co Floodplain Map Modernization Fund (up to \$50K)	\$75,000
13	GIS Training for CWCB Staff	GIS software and capabilities are rapidly evolving. New software versions are vastly different from existing ones, requiring training to get up to speed. In addition, there are more tools available, such as StoryMaps which can help CWCB's outreach. Training will allow staff to adapt quickly and put these tools to their most beneficial use for the agency and the public.	Watershed & Flood Protection	Carolyn Kemp	\$20,000	\$0	\$20,000

14	Community Assistance Program Non-Federal Cost Share	To provide technical and administrative assistance for communities in the state for administering floodplain regulations and other related issues. To assist communities in adopting updated floodplain management regulations, including the requirements promulgated in the Rules and Regulations for Floodplains in Colorado. IMPORTANT NOTE: This is twice the historical request because FEMA has expanded the program to two positions beginning in July.	Watershed & Flood Protection	Kevin Houck	\$300,000	FEMA federal funding grant pays 75% of costs, this request pays 25%	\$75,000
15	Water Plan Implimentation	Each year the CWCB funds projects and activities that help advance the Water Plan and CWCB's mission to conserve, develop and protect Colorado's water.	Agency	Lauren Ris	\$50,000	\$0	\$50,000
16	CWCB Project Signage	CWCB will begin to utilize signage at project sites to identify the funding source and support of the Department of Natural Resources - Colorado Water Conservation Board.	Agency	Lauren Ris	\$50,000	Waltons	\$25,000

Total CWCB Requested \$894,300

Higher Education Study/Projects							
a	Colorado State University - Agricultural Experiment Station and Agriculture & Resource Economics	Winter Pea Crop Rotations as an Approach to Make Summer Irrigation Water Available for Temporary Water Sharing Arrangements <i>Jessica Davis, Perry Cabot, Daniel Mooney</i>	Interstate & Federal	Nora Flynn	\$49,990	\$0	\$49,990
b	Colorado State University - Fish, Wildlife, and Conservation Biology	Literature review of instream flow approaches to protect fish in Colorado <i>Kanno Yoichiro</i>	Instream Flow	Pete Conovitz	\$49,344	\$0	\$49,344
c	Colorado School of Mines - Civil & Environmental Engineering	Modeling the Long-term Hydrological Effects of Post-fire Rehabilitation Techniques in Two Experimental Watersheds in Colorado: A Preliminary Assessment <i>John McCray</i>	Watershed & Flood Protection	Andrea Harbin-Monahan	\$50,000	\$0	\$50,000
d	Colorado State University - Civil & Environmental Engineering and Geosciences	Calibrating 2D hydraulic models using end-members of watershed response to wildfire <i>Ryan Morrison, Ellen Wohl</i>	Watershed & Flood Protection	Andrea Harbin-Monahan	\$50,000	\$0	\$50,000
e	Colorado State University - Mechanical Engineering	Integrating Bioenergy Crops with Alternative Transfer Methods to Reduce Agricultural Water Use, Maintain Agricultural Production, and Improve Rural Economics <i>Jason Quinn</i>	Interstate & Federal	Nora Flynn	\$50,000	\$0	\$50,000
f	Colorado State University - Natural Resource Ecology Laboratory	Effects of post-fire mulch applications on long-term watershed recovery Anthony Vorster	Watershed & Flood Protection	Andrea Harbin-Monahan	\$50,000	\$0	\$50,000

Total HigherEd Requested \$299,334

Grand Total \$1,193,634