FY 2027 Request for Proposals
Colorado Water Conservation Board
Seed Research Program

CLOSING DATE: March 27, 2026

Proposals are invited for the Colorado Water Conservation Board (CWCB) Seed Research Program, administered by the Colorado Water Center (CoWC) at Colorado State University.

The CWCB Seed Research Program was established in 2012 to support the development of water resources research, outreach, and education programs that aid the CWCB in fulfilling its mission. The Seed Research program is open to Faculty, Extension personnel, and Researchers at any institution of higher education in Colorado that has the capacity to support research, information dissemination, and graduate training programs that can address Colorado's most pressing water resource challenges.

Priority Research Topics:

For the FY 2027 Seed Program, the CWCB has identified the highest priority needs for knowledge development, as well as processes to ensure that this knowledge leads to actionable science and implementable solutions. In general terms, these priorities should focus on Supporting the Implementation of the Colorado Water Plan and Improving Water Management and Operations, with specific high priority topics described below.

1. General Topic: Understanding Post Disturbance Hydrologic Patterns and Normalization Trends

   Description: Prolonged drought and aridification has created disturbance regimes that are more intense and wider reaching with more stream catchment acres being impacted with greater severity events. This is specifically regarding fire, and some similar work could be done on flood. Widely understood metrics of watershed fire recovery place recovery times at around 5 years until the drainage functions similar to pre-fire conditions.

   Possibilities for research or literature review:

   - Review recovery timeframe: is 5 years still appropriate for fire recovery
   - Understand which metrics drive the recovery time in the catchment, specifically regarding how much water is delivered to the stream channel and when.
     - For catchments without gages we rely on modeled flow to understand streamflow generation. Models do not consider fire impact because it is a temporal metric. How and when will modeled flow be representative of actual conditions?

    - For catchments with gages that monitor impacted streamflow, how much weight to place on the impacted data in overall understanding of streamflow generation.
- What are the drivers: review of literature for water that is removed/added from geographic changes to the watershed
    - For example, how much change in streamflow generation, and in which direction, is due to fewer trees/increased solar radiation/shifts in soil composition/snow loading potential.
- Stream habitat recovery post fire disturbance
    - When can a stream channel reasonably maintain suitable habitat for different species?

2. General Topic: Quantifying and Assessing the Potential Impacts of Data Center Development on Water Security in Colorado

   Description: The rapid proliferation of data centers, driven by increased demand for cloud computing and AI, poses a growing, often opaque threat to local, regional, and statewide natural resources and water security, particularly in water-scarce areas. With the recognition that there can be an economic opportunity/incentive to develop data centers in Colorado, there is an urgent need for independent, quantifiable data and policy research to help assess tradeoffs and inform long-term water planning and responsible development.

   Overarching goals include:

   - Understand the actual range and consumptive nature of water use in existing and prospective data centers in Colorado.
   - Develop transparent, verifiable methodologies for measuring and projecting data center water consumption, accounting for both direct and indirect uses, and for varying development designs.
   - Analyze existing local policies that regulate and/or incentivize data center development to better understand the landscape of possible actions Colorado communities can take to balance water resource conservation and economic development.
   - Explore and evaluate innovative and efficient technologies, development, and operational practices to reduce data center water footprints while considering and balancing potential economic development opportunities.

   Potential research questions (bold indicates higher priority):

   - **What is the true range of consumptive water use for various data center cooling technologies (e.g., evaporative, closed-loop, air cooling)?**
   - **How much water is consumed indirectly through energy generation (water-energy nexus) to power data centers, and how does this compare to direct cooling consumption?**

- **What are the existing policy levers (e.g., demand offset programs, water budgets, large water user policies) for local jurisdictions to consider and assess large water users, which may include data center development proposals?**
- **What existing case studies (e.g., Aurora Water's Large Water User policy) can help identify transferable best practices for Colorado to balance natural resource use requirements and economic development?**
- **Other research priorities related to better understanding the potential impact of data centers in Colorado through a water-use lens.**
- What are the challenges and opportunities for data transparency and reporting requirements related to water consumption from data centers, including an analysis of any legal or proprietary barriers cited by developers?
- What is the technological and economic feasibility of low or no-liquid cooling systems (e.g., air cooling, non-liquid cooling) for large-scale and hyperscale data centers?
- What is the efficacy and potential for water recycling and reuse in modern data center design, with a focus on closed-loop systems with limited consumptive use and in consideration of water quality?

Funds Available:
The FY2027 CWCB Request for Proposals is supported by the use of Severance Tax revenues, and it is anticipated that approximate $350,000 in funds will be available for this year's funding cycle. The CWCB research funds are awarded through a process using peer review of both the scientific credibility and water management relevancy of the proposals. Proposals that leverage new or on-going activities are strongly encouraged.

Proposal Review Process:
All proposals are due to the Colorado Water Center via email (coloradowatercenter@colostate.edu) by 5:00 PM (MDT) March 27, 2026. The scientific merit of each proposal will be evaluated through a peer review process, overseen by the Colorado Water Center. The proposals receiving the highest scientific merit will then be reviewed by the Colorado Water Conservation Board to determine the projects that will be funded based on the relevancy of each project to practically address Colorado's top water management challenges, as identified above. The general criteria used for proposal evaluation includes: (1) justification of proposed research and/or outreach program; (2) technical merit; (3) responsiveness to RFP priority areas; (4) qualifications of investigators; and (5) extent to which Colorado water managers and users are engaged with project activities.

Eligibility:
The competition is open to regular, full-time faculty, researchers, and Extension personnel at Colorado's colleges and universities.

Project Budget Amount and Duration:
The total life of the project cannot exceed 12 months in duration, with the project start date being on or after July 1, 2026. The total budget request must not exceed $50,000. Projects of shorter duration and/or budgets less than $50,000 will be equally considered.

Proposal Submission:
Proposals are to be sent electronically as an Adobe PDF file no later than 5:00pm MDT, March 27, 2026, to coloradowatercenter@colostate.edu.

Proposal Preparation Guidelines:
The proposal shall not exceed 10 single spaced pages. Format guidelines for the proposal including tables, pictures, graphs, figures, and appendices, are as follows:

- 12-point font size
- Times New Roman font
- 1-inch margins (all sides)

The 10-page limit **does not** include title page, budget pages or CVs (items 12-15). **The proposal must be sent electronically as an Adobe PDF file. Please note the abstract (item 14/Exhibit "D") is required as a Word .doc file, in addition to including the abstract within the proposal (Adobe PDF file). Proposals exceeding the 10-page limit will not be considered in the competition.** The indirect cost is limited to no more than 15%. See additional itemized requirements below.

Proposals must include the following items:

1. **Title.** Concise but descriptive.

2. **Project duration** (month/year to month/year). Indicate the actual beginning date for the project and the estimated end date for the project.

3. **FY 2027 funds requested.**

4. **Principal Investigator name(s) and university.** Provide name, title, university, email address, phone number, fax number, street address, city, state and zip code of the Principal Investigator, Co-Investigator(s), and/or Collaborator(s).

5. **Abstract.** (Include within the proposal PDF.) Provide a brief (one-page or less) description of the problem, methods, objectives, and expected outcomes in the proposal. Use the format provided in Exhibit "D".

6. **Keywords.** Provide three keywords of your choice, descriptive of the work.

7. **Statement of regional or State water problem.** Include an explanation of the need for the project.

8. **Statement of the results or benefits.** Specify the type of information that is to be gained, who will benefit from the information, and how it will be used. Include here any ongoing partnerships you are involved in with relevant water-related groups.

9. **Nature, scope, and objectives of the project,** including a timeline of activities.

10. **Methods, procedures, and facilities.** Provide enough information to permit evaluation of the technical adequacy of the approach to satisfy the objectives.

11. **Related research.** Show by literature and communication citations the similarities and dissimilarities of the proposed project to completed or on-going work on the same topic.

12. **Budget.** Provide a brief preliminary budget using the formats provided in Exhibits "A" and "B". Indirect costs must not exceed 15% of total direct costs.

13. **Budget justification.** Breakdown and justify expenses using the format provided. See Exhibit "C".

14. **Abstract.** Provide a brief (one-page or less) description of the problem, methods, objectives, and expected outcomes in the proposal. The abstract must be submitted as a separate Microsoft Word (.doc) compatible document. Use the format provided in Exhibit "D".

15. **Investigators' qualifications.** Include resume(s) of the Principal Investigator(s), and key personnel. Resumes should not exceed two pages or list more than 15 pertinent publications.

Deliverables:

Funded projects will be required to submit semi-annual reports addressing the description of the problem, research objectives, methodology, principal findings, and significance. In addition, the PI will be required to aid in the development of an article describing the work performed and its impacts on Coloradans if needed. Principal Investigators may also be asked to provide oral briefings to the CoWC Advisory Committee, the Colorado Water Conservation Board, Colorado Legislature, and the Colorado Water Congress.

Questions:

Please contact the Colorado Water Center (coloradowatercenter@colostate.edu) if there are questions about this solicitation.

Budget – Category Based

Exhibit "A"

Project Title:

Cost Category	Rate	Amount	Total
1. -Academic Faculty -Administrative Professional -State Classified -Post-Doctorates -Non-Student Hourly -Student Hourly -GRAs **Total Salaries and Wages**			
2. Fringe Benefits-Provide % of effort for each employee category & amount			
3. Supplies			
4. Equipment			
5. Services or Consultants			
6. Travel			
7. Other direct costs			
8. Total direct costs			
9. Indirect costs (limited to no more than 15%)			
10. Total Project Costs			**$**

Budget – Activity Based

Exhibit "B"
Project Title:

Activity	Description	Time Period	Cost	Deliverable
Activity 1				
Activity 2				
Activity 3				
Activity 4				
Total				

Budget Justification

Exhibit "C"

Project Title:

Salaries and Wages. Provide estimated hours and the rate of compensation proposed for each individual. (Tuition remission and other forms of compensation paid as or in lieu of wages to students performing necessary work are allowable provided that the tuition or other payments are reasonable compensation for the work performed and are conditioned explicitly upon the performance of necessary work.)
Fringe Benefits. Provide the rate (%) and amount for fringe benefits applicable to each category of employee proposed in the project.
Supplies. Indicate separately the amounts proposed for office, laboratory, computing, and field supplies.
Equipment. Identify non-expendable personal property having a useful life of more than one (1) year and an acquisition cost of more than $5,000 per unit. If fabrication of equipment is proposed, list parts and materials required for each, and show costs separately from the other items.
Services or Consultants. Identify the specific tasks for which these services, consultants, or subcontracts would be used. Estimate amount of time required and the hourly or daily rate.
Travel. Provide purpose and estimated costs for all travel.
Other Direct Costs. Itemize costs not included elsewhere, including publication costs. Costs for services and consultants should be included and justified under "Services or Consultants (above).
Indirect Costs. Provide negotiated indirect ("Facilities and Administration") cost rate.

Abstract

Exhibit “D”

Project# (To be completed by the CoWC)

Title:

Project Duration:

FY 2027 Funds Requested:

Principal Investigator Names(s) and University:

Abstract: