



Legislative Fiscal Bureau

One East Main, Suite 301 • Madison, WI 53703 • (608) 266-3847 • Fax: (608) 267-6873
Email: fiscal.bureau@legis.wisconsin.gov • Website: <http://legis.wisconsin.gov/lfb>

February 1, 2022

TO: Members
Joint Committee on Finance

FROM: Bob Lang, Director

SUBJECT: University of Wisconsin System: Section 13.10 Request for Release of Funding for Freshwater Collaborative -- Agenda Item VIII

REQUEST

On November 16, 2021, the UW System submitted a request under s. 13.10 of the statutes for release of \$2,500,000 GPR in 2021-22 and \$2,500,000 GPR in 2022-23 for the UW Freshwater Collaborative.

BACKGROUND

Under 2021 Act 58, \$2,500,000 GPR in 2021-22 and \$2,500,000 GPR in 2022-23 is provided in the Joint Committee on Finance supplemental appropriation for release to the UW System upon request and approval by the Committee for the UW Freshwater Collaborative. The Act also created a new, continuing appropriation under the UW System for the Freshwater Collaborative to which funding would be transferred upon release by the Committee. On November 4, 2021, the Board of Regents approved the UW System proposal for use of the \$2.5 million annually for the Freshwater Collaborative.

In June, 2019, UW System announced the formation of the Freshwater Collaborative of Wisconsin (FCW). The Freshwater Collaborative is a partnership between the 13 UW-System public universities, connecting students and faculty with industry partners, local communities, policymakers, non-profit organizations, and advocacy groups. The Collaborative's mission is to: (1) contribute to Wisconsin's reputation as a world leader in freshwater science, technology, entrepreneurship, and economic growth; (2) provide support to meet the need for a knowledgeable and skilled water workforce through explicit structuring of curriculum, training, and workplace experience; and (3) establish a global water resource to identify and manage problems through collaborative research across the natural science, engineering, social science, economics, and policy arenas. A primary focus of the Collaborative is fostering collaborative research and initiatives across

the 13 campuses, private sector, and state institutions to address 10 significant modern water challenges (Attachment 1), including an initial focus on the challenges of agricultural water management, water quality and safety, and emerging contaminants.

In August, 2019, the Wisconsin Economic Development Corporation awarded \$670,000 to FCW, and UW System pledged \$1.4 million in funding as seed money for the initial phase of the Collaborative. In addition, each campus provided staff time to create a steering committee for the Collaborative to work on planning and programming, with UW-Milwaukee serving as the lead institution. Of the initial \$2.07 million, the FCW allocated \$1.06 million for research along five University of Wisconsin System tracks: research collaboration summits/working groups (\$60,000); strategic research (\$500,000); undergraduate interdisciplinary curriculum, training, and course development and design (\$240,000); freshwater research experience for undergraduate awards (\$160,000); and inter-institutional undergraduate training programs (\$100,000). The remaining funding was utilized for staff and operational costs.

The Governor's 2021-23 budget bill would have provided \$3,000,000 GPR in 2021-22 and \$6,000,000 GPR annually beginning in 2022-23, in a new continuing appropriation for a systemwide freshwater collaborative. Under the Governor's proposal, the Board of Regents would have been required to allocate funding from this appropriation for the freshwater collaborative. The proposal would have required that freshwater collaborative funding be used to do the following: (a) devise new watercentric training programs focused on undergraduates; (b) provide scholarships and student support to retain and attract new talent; (c) amplify marketing and recruiting relating to Wisconsin's role in freshwater science, including branding Wisconsin as the "Silicon Valley of Water"; (d) enhance workforce development programming; and (e) recruit new faculty and staff to advance training programs, research, and innovation.

ANALYSIS

Under the request, funding provided under Act 58 would be transferred to the continuing appropriation created under the Act and utilized to establish a FCW grant program, using a request for proposal (RFP) process, focusing on two of the 10 grand water challenges defined in the FCW's founding documents: the challenges of agricultural water management, and water quality safety and emerging contaminants. Grant award determinations would be made by the FCW Steering Committee, consisting of members from each campus and UW System. As a continuing appropriation, funds not utilized in a given fiscal year would be carried over for use in future fiscal years.

Of the \$2.5 million annually under the request, the FCW would utilize 10% (\$250,000) for administration including salary and benefits for an executive director and grant assistant, as well as materials, supplies, and travel expenses as shown in the following table. Beginning in 2022-23, the FCW would utilize five percent (\$125,000) of annual funding for FCW program marketing, including salary and benefits for a part-time marketing manager and related materials and expenses. The remaining funding would be utilized for the grants awarded through the RFP process.

TABLE 1

Freshwater Collaborative Funding Breakdown

	<u>2021-22</u>	<u>2022-23</u>	<u>Biennium</u>
Administration	\$250,000	\$250,000	\$500,000
Marketing	0	125,000	125,000
RFP	<u>2,250,000</u>	<u>2,125,000</u>	<u>4,375,000</u>
Total	\$2,500,000	\$2,500,000	\$5,000,000

The first round request for proposals (RFP) for research funds specifies that the purpose of the RFP is to "(1) provide funding for new or ongoing high impact projects that will yield demonstrable evidence of the utility of the FCW by June 1, 2022; and (2) provide funding for 12 to 18 month innovative projects that lay the groundwork for long-term successful collaborations among [UW] institutions." The RFP was posted to UW System institutions on November 1, 2021, with proposals due by December 1, 2021, and reviews and decisions made December 15, 2021, using a standard and public evaluation scorecard, and funds being made available to awardees upon JFC approval. According to FCW staff, they received 43 proposals by the deadline. Each proposal fit into one of the following categories: student experiences; course development (courses such as "Managing River Systems" and "Aquatic Biogeochemistry"); collaborative undergraduate research (with research topics such as "Rural Opportunities, Prosperity, and Sustainability in the Water Sector"); and career development (internships). The most common water challenges addressed included: agricultural water management; water quality safety and emerging contaminants; watershed management and restoration; and healthy recreational and transportation water use. Similar methodology would be utilized for the second year of funding RFP, which would be published in February, 2022.

According to UW System, the \$9 million provided under the Governor's budget proposal was viewed as the first phase of a three-biennia, \$27 million total investment. The RFP emphasizes the need to fund projects which demonstrate the value of the FCW to the Legislature prior to the 2023-25 biennial budget in order to secure funding in the 2023-25 biennium and beyond. According to the RFP, preference would be given to proposals that enhance the vision, visibility, economic importance and sustainability of the FCW. The proposals would also be required to align with FCW Core values of honesty, integrity, respect, innovation, equity, and personal accountability. Proposal criteria include elements of (1) collaboration: interdisciplinary collaborations on a single campus, collaborations between students and faculty/staff, and collaborations between campuses; (2) transformative experiences: hands-on electives that grow a student's network across Wisconsin while challenging the student's personal assumptions and preconceptions, including at least three of the following- field experience, lab experience, computer experience, internships, undergraduate research and conference presentations, networking/career connections; testing toward earning a credential, water career awareness opportunities, and high impact educational practices (teaching and learning practices widely tested and shown to be beneficial for college students from many backgrounds such as service learning); and (3) leveraged support: projects that contain matching funds, industry partnerships, or definitive University commitment (such as in-kind support,

instrumentation and expenses, research funding or other mechanisms).

For the first round of funding, January through June 30, 2022, the RFP states that the 13 UW-System institutions and the FCW would be required to provide a baseline of freshwater efforts, such as a portfolio of programs and initiatives that exist or will soon exist and demonstrate progress towards identified legislative priorities. These priorities include to: (a) devise new watercentric training programs focused on undergraduates (science and innovation); (b) provide scholarships and student support to retain and attract new talent; (c) amplify marketing and recruiting relating to Wisconsin's role in freshwater science, including branding Wisconsin as the global leader in freshwater; (d) enhance workforce development programming (economic growth goal); (e) recruit dedicated faculty and staff to advance training programs, research, and innovation (science and innovation goal); and (f) foster collaborative research and initiatives (between 13 universities, private sector, state institutions) that address the 10 grand water challenges. The projects may have six, 12, or 18-month terms, but projects beyond six months must include six-month benchmarks in proposals. Funds would be dispersed every six months pending demonstrable progress towards the benchmarks, FCW goals, and proposal outcomes. The metrics utilized to evaluate this are provided in Attachment 2.

According to the RFP, each UW-System institution may submit a single portfolio containing a single or multiple projects/research initiatives that address the 10 grand water challenges and align with the FCW strategic priorities of: community engagement; student recruitment; student retention/learning; collaborative research; collaborative curriculum; industry partnerships; internship placement; career placement; diversity; equity, inclusion, belonging; and growing and strengthening the FCW (Attachment 3).

ALTERNATIVES

1. Approve the UW System request to transfer funding held in reserve for this purpose in the Committee's s. 20.865(4)(a) appropriation of \$2.5 million annually to the freshwater collaborative continuing appropriation under s. 20.285(1)(ar) of the statutes.
2. Deny the request.

Prepared by: Erin Probst
Attachments

ATTACHMENT 1

10 Grand Water Challenges for Wisconsin

1. Agricultural Water Management
2. Industrial Water Engineering and Technology
3. Water Quality Safety and Emerging Contaminants
4. Great Lakes Management and Restoration
5. Water Infrastructure: Collection, Distribution, Treatment
6. Water Business and Finance
7. Watershed Management and Restoration
8. Water Security, Protection and Resilience
9. Healthy Recreational and Transportation Water Use
10. Aquaculture/Aquaponics/Water Food Systems

ATTACHMENT 2

Freshwater Collaborative RFP Award Metrics (December, 2021)

AWARD TYPE	METRICS
Student Experiences	<ol style="list-style-type: none"> 1. Number and percent of FCW students (including notation of students who fall into one of the categories listed under the FCW's DEIB goals) that <i>graduate</i> with FCW-related degrees or certificates in each FCW campus, vs. graduation rate of all UW students (annual). 2. Number and percent of FCW students (including notation of students who fall into one of the categories listed under the FCW's DEIB goals) that successfully complete FCW <i>core courses</i>, vs. successful course completion rate of all UW students (annual). 3. Number and percent of students (including notation of students who fall into one of the categories listed under the FCW's DEIB goals) that are <i>recruited and registered</i> as new students in the FCW program by each FCW campus (annual). 4. Number of FCW funded projects that provide access and learning opportunities to students (annual).
Course Development	<ol style="list-style-type: none"> 1. Number of innovative projects or new programs that result in collaborative opportunities and increased student engagement (annual). 2. Amount of FCW funding provide in support of new collaborative research projects (annual). 3. Number and percent of <i>core FCW courses and course credits</i> taught by FCW faculty and staff in each FCW campus vs. the teaching load of all UW campuses (annual). 4. Number and percent of <i>collaborative internship and fieldwork credits</i> taught by FCW faculty and staff vs. all UW faculty and staff in each FCW campus vs. the teaching load of all UW campuses (annual). 5. Number and percent of <i>collaborative research project credits</i> taught by FCW faculty and staff in each FCW campus, vs. the teaching load of all UW campuses (annual).
Student Scholarships	<ol style="list-style-type: none"> 1. Amount of funding to support equalization of tuition differentials across campuses (annual). 2. Amount of campus-level funding for supplies, materials, and safety/protective equipment for number of student fieldwork projects (annual). 3. Number and percent of FCW students (including notation of students who fall into one of the categories listed under the FCW's DEIB goals) that received campus-level funding for supplies, materials, and safety/protective equipment for student fieldwork projects (annual). 4. Amount of campus-level funding for stipends to alleviate financial constraints for students to participate in internships, research, or fieldwork projects (annual). 5. Number and percent of FCW students (including notation of students who fall into one of the categories listed under the FCW's DEIB goals) that received campus-level stipends to alleviate financial constraints for them to participate in internships, research, or fieldwork projects (annual).
Collaborative Research	<ol style="list-style-type: none"> 1. Number and percent of <i>targeted counties</i> (and DEIB-designated counties) that directly benefit from FCW campus-specific collaborative research projects (annual). 2. Number and percent of nine <i>targeted industry sectors and organizational partners</i> (and DEIB-designated sectors and organizations) that directly benefit from FCW campus-specific collaborative research projects (annual).

	<ol style="list-style-type: none"> 3. Number and percent of FCW students (including notation of students who fall into one of the categories listed under the FCW's DEIB goals) that successfully complete FCW campus-specific <i>collaborative research projects</i>, vs. successful completion rates of all UW students (annual).
Career Development	<ol style="list-style-type: none"> 1. Number and percent of water organizational partners and nine industry sectors in which job placements (and DEIB placements) made by graduates of each FCW campus, vs. job placement rate of all UW campuses (annual). 2. Number of new campus-level business partnerships formalized between industry and FCW (annual). 3. Number and percent of targeted counties (and DEIB-designated counties) that directly benefit from engagement in FCW site-specific collaborative internship and fieldwork projects (annual). 4. Number and percent of targeted industry sectors and organizational partners (and DEIB-designated sectors and organizations) that directly benefit from engagement in FCW site-specific collaborative internship and fieldwork projects (annual). 5. Number and percent of FCW students (including notation of students who fall into one of the categories listed under the FCW's DEIB goals) that successfully complete FCW site-specific collaborative internship and fieldwork projects, vs. successful completion rates of all UW campuses (annual).

This is a list of campus-level performance indicators for each funding award type. The indicators listed cover a of range program inputs (i.e., funding received), outputs (i.e., scholarships or stipends administered), short-term results (i.e., courses internships completed), mid-term results (i.e., the number and type industry partnerships developed), longer-term outcomes (student graduations with FCW degrees and job placements in freshwater-related industries). In response to this RFP, please identify the indicators that are most appropriate to the timeline and content of the activities proposed.

The data for some of these indicators may be collected and reported at the campus level (i.e., number and type of collaborative research projects created) using site-level data sources. Other indicators may be collected and reported centrally by FCW evaluation staff (i.e., student participation in cross-campus collaborations), using university system data sources. This fall, the FCW administrative team will work with a FCW working group to design the plan to implement standardized and consistent collection and reporting of these indicators across the FCW campuses.

ATTACHMENT 3

Appropriation for Supporting FCW Strategic Priorities as Identified in December, 2021, RFP

Community Engagement	Building relationships with communities and identifying how FCW and campuses can help meet community freshwater needs. This also needs to consider issues and challenges that impact community access to freshwater.
Student Recruitment	FCW is looking to recruit from all communities including those currently underrepresented in the water sector with a local, regional, national, and international scale.
Student Retention/Learning	The FCW programming needs to engage students through hands-on water training that offers them real world experience and transforms their future career prospects.
Industry Partnerships	Linking the FCW, its curricula, and its students to industry gives a pathway to fund and tackle the 10 Grand Water Challenges [SEE appendix] through research and development and in-the-field applications.
Internship Placement	Internship placements can be made by growing current campus career services programming and hosting a regional water and environment career fair.
Job Placement	Job placements can be made by growing our internship programming and secured because students will have work experience in freshwater science, policy, etc., and have a marketable skill set and demonstrated competency (i.e., fieldwork, research, internship, project-based skillset, etc.).
Collaborative Research	FCW-supported research should tackle the 10 Grand Water Challenges and offers hands-on real-world problem solving and learning to students. FCW will focus these undergraduate research experiences on cross-campus collaborations to expand the possibilities for growth for each student.
Collaborative Curriculum	Courses can be offered at more than one campus-- possibly at all 13. Funds can be used for planning and working through the logistics of sharing courses (ie. financials, student credit hours, etc.). A curricular core is being developed to offer majors, minors, certificates, concentrations in the future. The vision includes undergraduate, and graduate programs that utilize the expertise of faculty from across the state to structure a strong, comprehensive freshwater learning experience.
Diversity, Equity, Inclusion, Belonging (DEIB)	DEIB needs to be incorporated into all things above. This focuses on under-represented populations in the water sector (including Black, first-generation college, Hmong, Indigenous, Latinx, LGBTQIA, low-income, people with disabilities, people identifying as women, and rural populations).
Growing & Strengthening FCW	All projects must address this as part of the application and must answer how the outcome of the proposal promotes the value of the FCW and why it should receive the State's support.