



Memo

To: Curricular Affairs Committee of the Faculty Senate

From: Environmental Institute Review Subcommittee: Chris Burns (RSCA Chair, LIB), Catherine Paris (Review Committee Chair, Faculty Senate President, CALS), Christina Wojewoda (CAC, COM)

Date: September 6, 2016

Re: Recommendation: Approve

We have reviewed a proposal for a new, University-wide Environmental Institute¹ at the University of Vermont, submitted by Professor Taylor Ricketts, Director of the Gund Institute of Ecological Economics and Professor of Natural Resources in the Rubenstein School of Environment and Natural Resources. Dr. Ricketts will serve as Program Director of the Institute, which will be housed in the Provost's Office. It is anticipated that the new Institute will be launched in the Fall of 2016.

Description and Rationale

The proposed Environmental Institute is a University-wide research endeavor, whose mission it is to mobilize scholars and leaders to understand and work to develop solutions to the world's critical environmental problems. The three major elements of the Institute's strategy are to: 1) *catalyze* transdisciplinary research; 2) *connect* UVM with the state, national, and global communities; and 3) *solve* critical environmental problems. It will focus on several strategic themes and promote collaboration among scholars at UVM and beyond. The Institute will be instrumental in drawing together UVM's strengths and generating new synergies for transdisciplinary research and problem-solving.

Justification and Evidence for Demand

Providing for human needs without destroying the natural world is the defining challenge of our generation – one facing leaders in Vermont, across the United States, and worldwide. These issues are complex and span disciplines. Addressing them requires tighter interdisciplinary collaboration within universities, as well as stronger partnerships between scholars and leaders in government, business, education, and civil society than has been achievable so far. Many of today's global environmental challenges occur in Vermont in microcosm, making UVM

¹ The "Environmental Institute" is a placeholder until Institute staff can complete a naming process that includes consultation with stakeholders and donors. It is anticipated that the final name will be announced between October 2016 and January 2017.

particularly well positioned to address them. The proposed Environmental Institute responds to this challenge and opportunity. The new Institute will leverage many of UVM's advantages. First, UVM has an impressive array – and proud legacy – of talented minds working on critical environmental issues in Vermont and worldwide; *the environment is the single largest area of unifying scholarly activity on the UVM campus*. Second, the region surrounding the University offers a living laboratory where many pressing global environmental issues intersect. Third, Vermont offers a fertile political laboratory in which creative solutions can be tested, modified, and scaled up. And fourth, UVM is an unusual hybrid of a Land Grant university with strong programs in basic science and natural resources, and professional schools in medicine, engineering, nursing, business, and education. The Institute's core strategic goals are focused on capitalizing on these strengths by making connections between these programs and schools in order to create new opportunities for a transdisciplinary approach to environmental problem solving.

History of the Initiative

The Environmental Institute has been four years in the planning. At least twenty-six faculty, Deans, and senior leaders representing all eight degree-granting schools and colleges participated in its development. In 2012 the *Envisioning Environment* exercise was initiated, and in 2013 its working group recommended the creation of a university-wide Institute to encourage cross-disciplinary collaboration among UVM's broad community of environmental researchers and scholars. In 2014, a working group was charged with developing the Institute's mission statement, strategic vision, and operating plan. This work was furthered by another group in 2015, who focused on resourcing the Institute and refining its governance structure. Throughout this period, the President, Provost, and the Foundation worked to secure the philanthropic support necessary for the Institute's success. Finally, in June 2016, donors signaled their willingness to make a leadership gift to the Institute making the time ripe to bring plans for UVM's Environmental Institute to fruition.

Impact on Current Programs

The new Institute will replace and expand upon the work of the Gund Institute for Ecological Economics, a productive interdisciplinary research center. Gund Institute faculty fellows and staff are committed to the new Institute and excited about the enhanced research opportunities it will provide.

Gund institute faculty fellows have received regular updates on the Institute's progress, including a full-day retreat in May 2016 attended by 50 fellows, staff, post-docs, and graduate students. This event generated important input on key aspects of the Institute, including:

- Research themes
- Seed grant program design
- Recruitment of Ph.D. students, post-doctoral associates, and research faculty
- Community building: How to engage faculty, affiliates, students, and post docs

Gund Institute ecological economists are pleased that ecological economics will be an inaugural and enduring research theme, and understand the Institute means more support, opportunities, and attention for their work. Other areas of strength identified in the 2013 *Envisioning Environment* report include 1) fundamental science related to the natural environment; 2) sustaining landscapes and watersheds; 3) promoting regional food systems; 4) environment and society (e.g. economics, business, culture and governance); and 5) environmental public health.

The Institute will not be housed in a specific department, school, college, or center, but rather catalyze University-wide transdisciplinary collaborations.

Additionally, the Institute will not grant degrees or serve as the home department for participating faculty. Instead, it will provide resources and opportunities that will enhance faculty members' work as teachers, scholars, and citizens in their own departments.

Budget and Resource Requirements

The Institute's budget in the first year is \$1.3 million, ramping steadily to a continuing level of \$2.2 million in year five. The Institute will be funded through a combination of 1) repurposed existing funds from the Gund Institute for Ecological Economics and the Rubenstein School of Environment and Natural Resources; 2) new strategic investment funds (\$500,000 annually); and 3) philanthropy and grants.

Repurposed existing funds, augmented by new philanthropy, will support the Institute's core team, which includes the Director, Research Coordinator, Communications and Policy leads, and Administrative Assistant. All but one of these positions are already supported at the Gund Institute; they will transition to the new Institute. *One hundred percent of UVM's new strategic investment funds, as well as a significant portion of new philanthropy, will be allocated to activities for the benefit of participating faculty and students, including faculty seed grants, support for faculty research, Ph.D. students and postdoctoral associates, grant-writing support, course releases, visiting scholars, symposia, conferences, and major events.*

Assessment Plan

The Institute will be led by a Director and internal and external boards of advisors. It will be evaluated in years three and five on the basis of performance metrics and processes described in the full proposal. The fifth-year review will be conducted in collaboration with the Faculty Senate, as required of all academic centers and institutes.

Evidence of Support

The Deans of all seven undergraduate degree-granting schools and colleges plus the College of Medicine and the Graduate College have provided letters of support for the new Institute. The Deans of Continuing and Distance Education and the Libraries also supplied support letters. No concerns have been advanced so far in response to the Senate Office's circulation of the proposal abstract to all UVM faculty.

Strengths of the Program

As *Envisioning Environment* and other reports made clear, the Institute is needed to 1) capitalize on the UVM's relative strength in the environment and other competitive advantages; 2) increase interdisciplinary research; 3) increase UVM's impact, reputation, and visibility; 4) attract external funding; 5) attract and retain top scholars; 6) enhance scholarship and learning for faculty and students; 7) support UVM's *Academic Excellence Goals*; and ultimately, 8) address critical global environmental problems.

To address these needs, the Institute will facilitate:

Building from strength: There is a widespread understanding, articulated in *Envisioning Environment* and related reports, that UVM is not fully capitalizing on its strong roster – and proud legacy – of environmental scholars, in terms of research, solutions and impact. The proposed Institute is designed to address this, to improve UVM's profile and impact, and to re-assert the University's leadership in the broad arena of environmental scholarship.

National competitiveness: Environmental institutes help universities to increase interdisciplinary research, compete for funding, and attract and retain top researchers. Without the Institute, UVM will miss opportunities to advance its research competitiveness, and risks losing its competitive advantage – and strong reputation – in the field of environmentally focused research.

Collaboration and synergies: UVM has many scholars working on environment-related issues in schools and colleges, but lacks a central mechanism to increase transdisciplinary environmental research across the University. The Institute will connect UVM's environmental talent, and incentivize and fuel interdisciplinary collaboration and synergies.

Greater research capacity: The Institute's annual seed-grant program (available to scholars in all UVM units), its support for new doctoral students, postdocs, and research faculty, and its proactive fundraising efforts will significantly increase UVM's interdisciplinary research capacity in a key area of strength (two key University goals).

Academic excellence: The Institute's creation will support UVM efforts to reach *Academic Excellence Goals* that directly support the *President's Strategic Action Plan*, including:

1. Increase interdisciplinary teaching, research, and scholarship.
2. Increase research and scholarship in areas that generate high impact, recognition, and visibility.
3. Increase enrollments in graduate and professional programs.

Summary and Conclusions

UVM has a proud history as “the Environmental University.” World-class research has come out of our faculty labs, including, among others, the identification of acid precipitation as a major cause of forest decline in the Northeast, the discovery that treeline is shifting upward in response to global climate change, and the demonstration that land around Washington, D.C is subsiding

in response to changes in the earth's mantle following the last ice age. In the teaching arena, our Environmental Studies program, established in 1972, was one of the first of its kind, and is today one of the nation's most highly regarded. However, we can do more in environmental research and scholarship, and we can do better. The Environmental Institute at the University of Vermont has been planned over a period of four years, in discussions involving faculty across all of our schools and colleges. A major gift opportunity appears to make it possible to launch the Institute at this time. Now is the chance to capitalize on one of UVM's greatest strengths.

The Faculty Senate committee charged with reviewing the proposal for a new UVM Environmental Institute recommends it without reservation.

Faculty Associated with the Development of the UVM Environmental Institute Concept

Name	Title	College	Working Group^a
David Barrington	Professor and Chair, Plant Biology	CALS	3
Bob Bartlett	Professor, Political Science	RSENr	2
Pablo Bose	Assoc. Professor, Geography, and Interim Director, Global & Regional Studies	CAS	3
Breck Bowden	Professor, Watershed Science & Planning	RSENr	2,3
Alison Brody	Professor, Biology	CAS	2,3
Richard Bundy	President and CEO, UVM Foundation		4
Melody Burkins	Senior Director for Research and Strategic Initiatives at UVM		3
Jan Carney	Professor, Pulmonary Medicine	COM	3
Christopher Danforth	Assoc. Professor, Mathematics & Statistics, Computer Science	CEMS	3
Joshua Farley			3
Richard Galbraith	Professor, Clinical Pharmacology, Vice President for Research	COM	4
Luis Garcia	Professor, Dean	CEMS	4
Stuart Hart	Professor	GSB	4
Adrian Ivakhiv	Professor, Environmental Studies	RSENr	3
David A. Jones	Assoc. Professor	GSB	2
Stephanie Kaza	Professor Emerita, Environmental Studies	RSENr	2
Nancy Mathews	Professor, Dean	RSENr	4
Ernesto Mendez	Assoc. Professor, Plant & Soil Science	CALS	2
Matthew Poynter	Professor, Pulmonary Medicine	COM	2
Taylor Ricketts	Professor, Director of the Gund Institute	RSENr	2,3,4
Donna Rizzo	Professor, Civil & Environmental Engineering	CEMS	2,3,4
Don Ross	Research Professor, Plant & Soil Science; Director, Ag. Testing Lab	CALS	2
Regina Toolin	Assoc. Professor, Education	CESS	2
Tom Vogelmann	Professor, Plant Biology, Dean	CALS	3,4
Beverley Wemple	Assoc. Professor, Geography	CAS	2
Burton Wilcke	Assoc. Professor, Med. Lab. & Rad. Sci.	CNHS	3

^a Working Group 2: Envisioning Environment, 2012

Working Group 3: Envisioning the Institute, a group charged with developing the Institute's mission statement, strategic vision, and operating plan, 2014

Working Group 4: Resourcing the Institute, 2015