Rubenstein School of Environment and Natural Resources
University of Vermont

STRATEGIC ACTION PLAN

January 6, 2014

The Rubenstein School of Environment and Natural Resources (RSENR) is a learning community with the mission to *understand, nurture, and enrich the interdependence of humanity with healthy ecological systems.*

To fulfill this mission, we seek to create a community that encourages an engaged, culturally diverse, and challenging learning environment that applies foundational knowledge from diverse fields, critical thinking, and integrative analyses to design a more sustainable society.

To implement these goals, we seek to advance *education* and *research* in *service* to society through the following strategic priorities:

I.   **Deliver distinctive education programs in environment and natural resources** to prepare the next generations of leaders capable of working in complex and rapidly changing socio-ecological systems.

II.   **Advance integrated research to address environmental and natural resources challenges** faced by regional, national and global communities through leveraging our university capacity, state and regional resources, and strategic partnerships.

III. **Partner with stakeholders across our full mission** of teaching, research, and outreach to co-create knowledge and mobilize solutions for the challenges of today and tomorrow.

To implement these priorities, we initiate the following action steps.

STRATEGIC PRIORITY I
Deliver Distinctive Education Programs
in Environment & Natural Resources

To strengthen the education mission of RSENR, we seek to evaluate and evolve our undergraduate, graduate, and professional programs to:
- Strengthen distinctive areas of study within RSENR;
- Support clear relationships with campus partners;
- Advance the broader education mission of the environmental university;
- Efficiently manage teaching resources;
- Recruit and retain diverse and high caliber students;
- Evolve our teaching and advising capacity and approaches towards best practices; and
- Challenge our students and prepare them for successful career and life paths.

This will entail the following action steps and design criteria.

A. Revise and implement an undergraduate program that:

1. Shares broadly in introductory / preparatory courses between our School and cross-college majors;
2. Strengthens distinctive School majors with clear expectations for excellence for our students;
3. Clarifies and strengthens campus partnerships in delivering cross-college environmental majors and environmental literacy for all UVM graduates;
4. Incorporates an interdisciplinary undergraduate core curriculum that integrates racial and cultural diversity, practices collaborative problem-solving, and involves all RSENR tenure-track faculty in delivery;
5. Frees teaching resources to invest in the RSENR graduate program;
6. Promotes a teaching load that is equitable across faculty and in balance with research and service; and
7. Supports our research mission and community engagement (detailed below).

B. Revise and implement a graduate program that:

1. Expands and invests assistantship support and distinguished graduate fellowships in the RSENR doctoral program;
2. Develops an internationally recognized graduate curriculum with collaboratively taught courses and interdisciplinary problem-based learning experiences involving all graduate faculty;
3. Strengthens the RSENR professional MS option to include participatory action research projects, team-taught student cohorts, and training experiences with external partners; and
4. Advances graduate education in sustainability leadership through a distance education MS program that includes innovative teaching modules, a summer residential component, and workplace integration.

C. Recruit and retain a diverse, high-quality, civically engaged student body by:

1. Partnering with high school and pre-college programs that engage historically underrepresented groups in environmental fields of study;
2. Developing pre-college summer programs at UVM in environmental fields of study;
3. Continuing to refine and invest in a RSENR first-year advising program connected to the diversity and cultural competency objectives of our curriculum;
4. Improving undergraduate advising and mentoring through advisor support and training materials, a grad-to-undergrad mentoring program, and annual advising evaluation and review; and
5. Offering competitive funding packages to both undergraduate and graduate students through increased scholarships and fellowship opportunities.
6. Challenging students with meaningful opportunities to engage in research, management, and policy experiences.

D. Advance professional education and training that:

1. Develops teaching-to-practice and research-to-action collaborations through community learning hubs, including:
    a. Ecodesign Collaboratory at the GreenHouse Residential Learning Community;
    b. Green Forestry Education Initiative at the Jericho Research Forest; and
    c. Citizen science events on the Melosira Research Vessel.
2. Leverages our external funding and extends our learning community to fully involve our non-academic partners as educators and citizen scientists, and provide rich learning opportunities for non-matriculated students; and
3. Better utilizes facilities during the summer months and winter break for institutes, workshops, field courses, and other education and research programs that provide opportunities for matriculated students to collaborate with professionals;

E. Evolve the teaching capacity and skills of our faculty, staff, and students by:

1. Providing training in and integration of high-impact learning practices in our curricula and courses;
2. Practicing collaborative teaching and peer mentoring in the development, delivery, and evaluation of curricula and courses;
3. Developing best practices for teaching evaluations to measure learning outcomes, including degree of challenge and student engagement; and
4. Recruiting and retaining an ethnically and culturally diverse faculty.

STRATEGIC PRIORITY II
Advance Integrated Research
to Address Environmental & Natural Resource Challenges

To increase the quality, relevance, and impact of the research mission of RSENR, we seek to:
- Define, analyze, and help solve significant environmental and natural resource challenges;
- Synergize partnerships, facilities, and research expertise in targeted areas of distinction and social impact;
- Recruit diverse and high caliber students, staff, and faculty into our collective research enterprise;
- Compete for major research grants and scholarship support;
- Leverage regional assets and direct experience with our Vermont environment, natural resources, and communities;
- Build reputation and capacity for cross-campus research on environment, sustainability, and health; and
- Exchange research ideas, advances, and results with other integrated social-environmental systems in the region, nation, and world.

This will entail the following action steps and design criteria.

A. Identify and coordinate integrated research foci with compelling capacity, strength, and partners, including:

1. Forest ecosystem science and management, with synergies among:
   a. McIntire-Stennis Forestry Research Program;
   b. Jericho Research Forest and experimental forests;
   c. Aiken Forestry Sciences Laboratory;
   d. UVM Extension in forestry;
   e. USDA Forest Service Northern Research Station;
   f. Vermont Department of Forests, Parks and Recreation; and
   g. Northeastern States Research Cooperative.

2. Watershed science and management of lake systems, with synergies among:
   a. Rubenstein Ecosystem Science Laboratory;
   b. UVM Extension and Lake Champlain Sea Grant;
   c. Vermont Water Resources and Lake Study Center;
   d. ECHO Lake Aquarium & Science Center;
   e. Vermont Department of Environmental Conservation;
   f. Vermont Department of Fish and Wildlife; and
   g. Lake Champlain Basin Program.

3. Environmental conservation, planning, and leadership, with synergies among:
   a. UVM Natural Areas;

     b. Park Studies Lab, National Park Service Conservation Study Institute, and Vermont Tourism Data Center;
     c. Eco-design Lab and Aiken Greening initiatives;
     d. Field Naturalist Program;
     e. Place-based Landscape Analysis & Community Engagement Program;
     f. Vermont Law School; and
     g. Vermont Agency of Natural Resources.

B. Enhance cross-cutting research initiatives, including:

1. Sustainable economic development with the Gund Institute for Ecological Economics and partners;
2. Long-term data monitoring and analysis with the Vermont Monitoring Cooperative and partners;
3. Conservation of biodiversity with the Vermont Cooperative Fish and Wildlife Unit and partners; and
4. Geographical information systems and integrated resource and community planning with the UVM Spatial Analysis Lab and partners.

C. Advance new, innovative, leading-edge, strategic research initiatives through:

1. Seed grant competitions;
2. Collaborative workshops, seminars, and joint projects with other UVM units; and
3. Partnership grants with the State, Federal agencies, and foundations.

D. Expand and enhance the distinction of the RSENR doctoral research program through:

1. Recruiting cohorts of new doctoral students into integrated research foci;
2. Expanding doctoral assistantship and fellowship support, including Rubenstein, Gund, Conservation Study Institute, and McIntire-Stennis Fellowships; and
3. Pursuing nationally-competitive doctoral research awards.

E. Improve RSENR research facilities and administration capacity through:

1. Investing in pre-award personnel to assist faculty and staff in targeting and applying for new funding to secure larger, multi-year, competitive grants;
2. Aligning the RSENR Business Service Center with growing demands on research administration;
3. Coordinating RSENR facilities management and capital improvement projects with research priorities;

F. Expand undergraduate research opportunities through:

1. Seeking state and federal STEM funding;
2. Coordinating perennial summer field crews opportunities; and
3. Expanding senior capstone research experiences.

STRATEGIC PRIORITY III
Partner with Stakeholders across our Full Mission

To fully engage with our partners across the range of our teaching, research, and outreach activities, we seek to commit to community engagement to:
- Enhance learning outcomes in our education programs;
- Mobilize knowledge across and between academic and non-academic audiences;
- Prepare our students for successful careers, life paths, and citizenship; and
- Strengthen School community and capacity for shared decision-making.

This will entail the following action steps and design criteria.

A. **Create a cohesive service-learning framework in all School programs that systematically builds:**

1. Independent thinking skills;
2. Collaborative group work; and
3. Adeptness in critical thinking, problem-solving, and decision-making.

B. **Formalize and coordinate internship and career track opportunities with private, public, community, and civil society partners, including:**

1. Networks of socially responsible and environmentally active businesses;
2. Parks, recreation, and tourism industry;
3. Vermont Agency of Natural Resources and other state agencies;
4. Land Stewardship (LANDS) Internship Program with the Student Conservation Association;
5. Community-based and watershed partnership organizations;
6. Environmental advocacy organizations;
7. Environmental education organizations;
8. Charlie Ross Practicum for policy-related interns; and
9. RSENR internships with School greening initiatives, UVM Natural Areas Program, Jericho Research Forest, Rubenstein Ecosystem Science Laboratory, Aiken Forestry Sciences Laboratory, and other School facilities and programs.

C. **Engage our professional staff in the delivery of curriculum and hands-on learning experiences with students;**

D. **Enhance and coordinate the School's communication efforts, including:**

1. Evaluation and re-design of RSENR web page;
2. Creation of a central "Study Environment" page to promote all UVM environmental related majors and curriculum;
3. Creation of a "Research and Service in Action" web presence; and
4. Update of promotional print and display materials.

E. **Fully incorporate co-curricular engagement into the student experience, including:**

1. Campus sustainability initiatives;
2. Community volunteer work;
3. Environmental advocacy; and
4. Policy analysis and legislative lobbying.

F. **Enhance and coordinate internal community governance and faculty-staff-student partnerships, including:**

1. Student Advisory Board;
2. Rubenstein Graduate Student Association;
3. Rubenstein Stewards;
4. Diversity Task Force;
5. School Community and Sustainability Committee;
6. Greenhouse Residential Learning Community; and
7. RSENR student groups (i.e. Forestry Club, Wildlife and Fisheries Chapter).

SCHOOL MANAGEMENT PLANS

In support of these strategic priorities and action steps, we will maintain and further develop the following RSENR management plans.

Diversity Plan to:
- Guide and facilitate faculty, staff, and student recruitment of under-represented groups in the environmental and natural resources fields;
- Enhance and coordinate diversity education and training in the curriculum and through professional development of faculty, staff, and external partners; and
- Connect our education, research, and outreach mission to under-served, economically marginalized, and victims of environmental injustice in Vermont, the nation, and abroad.

Student Recruitment and Retention Plan to:
- Attract a diverse, high-quality, and civically engaged student body;
- Improve the School's retention and graduation rates; and
- Prepare students for careers in environment and natural resource fields.

Facilities Management Plan to:
- Coordinate and synergize School facilities, experimental forests, natural areas, vehicle pool, boat fleet, and other assets under strategic research areas;
- Inventory greenhouse gas emissions across all School facilities and achieve net zero goals to advance and support the UVM Climate Action Plan; and
- Create a sustainable financial model to support facilities operations, maintenance, and alignment with research and teaching needs.

Faculty and Staffing Plan to:
- Elevate standards of excellence and align new RSENR faculty hires and secondary appointments with strategic priorities;
- Partner with other UVM Schools and Colleges to support cross-campus curriculum and research in environment, sustainability, and health; and
- Align staff organization and function with strategic priorities, changes to UVM budget model, and support of core research, teaching, and outreach mission.

Budget Alignment Plan to:
- Guide investment in strategic priorities;
- Generate new revenues and consolidate and control costs of core School functions; and
- Prepare for transition to a new UVM budget model based on principles of Incentive-Based Budgeting;

Capital Campaign to:

- Increase endowed professorships in RSENR to advance our education, scholarship, and partnership initiatives;
- Provide sustained support of expanded student internships, service-learning projects, and professional training opportunities;
- Expand undergraduate scholarships and graduate student support to enhance student diversity, quality, and retention;
- Expand graduate and post-doctoral fellowships to attract nationally competitive applicants;
- Support capital improvement projects to improve opportunities to teach, do research, and serve the larger community.