



# Curriculum for the Bioregion: Connecting What We Learn to Where We Live



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# Connecting What We Learn to Where We Live

Our Puget Sound bioregion is majestically scenic.

It is ecologically diverse and culturally rich.

It is famously innovative.

And it is globally connected.

But dramatic growth is changing the bioregion. Congested highways, disappearing farmland and open space, deteriorating health of the environment, changing climate, and widening gaps between rich and poor all represent disquieting trends. In response to these challenges, farsighted people and organizations are stepping up and creating new approaches for sustaining our communities, economies, and ecosystems.

Our regional colleges and universities should be among these visionaries, playing a prominent role in preparing students for their future roles as stewards of the places where they live. But for the most part, they are not. Few of the 190,000 undergraduates in the Puget Sound region have tangible opportunities to connect what they learn with where they live, or to explore what it means to live here responsibly.

In the coming decades, the decisions that today's undergraduates make—in their homes, neighborhoods, and workplaces—will profoundly shape the communities and landscapes of this bioregion. Their college years offer a singular opportunity to explore the complexity, critical thought, and ethical questions that engagement with civic issues and sustainability requires. In Washington's higher education system, we have significant bioregional expertise, scores of interested, creative teachers, avid students, and an outstanding history of curriculum innovation and inter-institutional collaboration. Marshalling these resources to create a "curriculum for the bioregion" is within our reach.

# EXECUTIVE SUMMARY: INQUIRY AND PLANNING PHASE FOR CURRICULUM FOR THE BIOREGION

## The Idea

Bioregions are, literally, “life places”—places characterized by the interrelated natural and social systems upon which we rely for our well-being. The focus of this project, the Puget Sound bioregion, includes the Sound itself and the watersheds that drain into it. This bioregion is home to 4.2 million people as well as a rich diversity of marine and terrestrial life. Situating learning *in* our bioregion would mean connecting students with the immediacy and significance of what is happening here, linking classroom theory to local places, people, and practices. Creating curriculum *for* the bioregion implies that we prepare our students for a locally rooted citizenship that will ensure healthy communities, economies, and ecosystems.

We see “curriculum for the bioregion” not as a single, “add-on” course; this curricular need is too urgent and too relevant. Rather, we envision a collection of teaching approaches that could be used in existing courses and that engage students with the issues facing the bioregion. We also envision a community of faculty and staff engaging students in bioregional learning and with those people and organizations working on solutions. If this place-based learning is successfully implemented, more college graduates will be knowledgeable participants in the complex discussions of environmental quality and sustainability. They will have the tools to assume personal and community responsibility for environmental stewardship wherever they live.

*Our challenge is to give students a toolbox for developing a sense of place and an ingrained motivation for using those tools that they will carry with them wherever they go in the future.*

—Amy Snover, Research Scientist, Climate Impacts Group, Joint Institute for the Study of the Atmosphere and Oceans,  
University of Washington Seattle

## Inquiry and Planning Process

To gauge interest in this idea, find out what bioregional learning opportunities exist now, and discern what kinds of new learning opportunities are called for, we in the Washington Center for Improving the Quality of Undergraduate Education, with support from The Russell Family Foundation, launched an eighteen-month inquiry and planning phase for the “Curriculum for the Bioregion” initiative in January, 2005. Eighteen campuses in the Puget Sound bioregion participated: nine baccalaureate colleges and universities and nine community colleges. A twenty-eight member steering committee (drawn from the campuses and several partner organizations) helped shape this inquiry. In the spring and fall of 2005, we visited each campus and interviewed students, faculty members, staff, and senior administrators. Through an institutional survey, we asked what curricula involving bioregional learning are now in place and how these programs are supported. Through online surveys, we invited students, faculty, and staff to give us additional ideas. In February, 2006, we convened a one-day think tank, a gathering at which more than a hundred individuals reflected on our initial findings and gave us further recommendations.

## Findings

Through our campus interviews, surveys, and the think tank meeting, we learned that opportunities for bioregional learning are under-developed, especially in introductory and general education classes; that students, faculty, staff, and administrators recognize the need and opportunity here for new curricula; and that a number of existing initiatives should be productively built upon. Our specific findings follow.

1. Undergraduates are becoming increasingly concerned about the environmental quality of this region. They recognize the need not only to become more informed but also better equipped to understand complex issues and to do their part in creating a positive, sustainable future. Students were remarkably consistent in asking to explore issues in ways that “translate classroom knowledge to the real world” and to learn ways to participate actively in solutions.
2. A small but growing number of faculty members across disciplines believe that a bioregional approach to the curriculum is necessary and important and they are eager to contribute to it. They noted that the immediacy and relevance of bioregional issues could create significant learning experiences for students. Faculty members also emphasized that *they* need to learn more about the bioregion and its issues, and gain a grounding in the emerging field of “education for sustainability.”

*“Textbooks and lectures provide us with information but it doesn’t stay with us, unless we build personal connections to what we are learning.”*

Student comment, five-minute paper.

3. While study-in-the-major in environmental fields is well developed at most baccalaureate institutions, opportunities for *all* students to acquire bioregional knowledge, examine regional issues, or explore sustainability *in their general education classes* are underdeveloped and fragmented throughout. The rich interdisciplinary context of this area of study is under-utilized in most general education curricula. Faculty report few opportunities to collaborate across disciplines or with colleagues from other colleges and universities. Such collaboration is critical and it is virtually nonexistent in the state of Washington.
4. There is impressive research expertise and scholarship about the bioregion, yet mechanisms for sharing this knowledge for teaching or curriculum development purposes are rare.
5. On almost every campus, there are pockets of exciting, engaging curricular work—in interdisciplinary courses, learning community programs, integrative field courses, service learning projects, and civic engagement initiatives. These could be greatly expanded and adapted to other institutions in the region, or deepened through inter-institutional partnerships.

## Recommendations

Our campus visits and the think tank revealed an enthusiasm and readiness for moving forward collectively to create new learning opportunities for faculty members and students. Four recommendations emerged.

1. Expand and strengthen opportunities for undergraduate students to learn about this bioregion and its issues, especially in introductory and general education courses, including
  - the development of interdisciplinary curriculum with bioregional themes
  - the creation of bioregional and sustainability learning activities for infusion into courses that reach large numbers of lower-division students
  - the expansion of opportunities for students to engage in field learning, especially related to needed field research.
2. Create bioregional learning opportunities for faculty members.
3. Develop campuses as bioregional learning laboratories.
4. Create a clearinghouse for sharing of resources and teaching approaches.

*I love seeing the students become so excited about things they weren't aware of right in their own neighborhood/city/state. I get lots of comments from both extremes: students who have lived here their whole lives and "never knew" as well as students brand new to the area.*

—Ann Murkowski, Instructor in Math & Science,  
North Seattle Community College

## Next Steps

With continued funding from The Russell Family Foundation for the 2006-07 academic year, we in the Washington Center will begin to

- make existing bioregional curriculum resources accessible via the Washington Center website
- disseminate the promising approaches that are already in place through workshops and curriculum planning retreats on the integration of bioregional issues and sustainability into general education courses
- act on the recommendations by convening several inter-institutional working groups to develop several multi-year faculty and curriculum development projects
- make these opportunities available to all of the Washington Center member institutions in the Puget Sound bioregion
- further shape this initiative and identify new opportunities and partners with the initiative's steering committee.

Developing curriculum for the bioregion will require commitment and reaching across boundaries. It is best done collaboratively, in student and faculty learning communities that cross disciplines and institutions. We aim to build on the pockets of good work already under way on campuses in the region, draw on a growing circle of interested faculty members, and begin a process of more ambitious curricular transformation.

## Inquiry and Planning Phase Curriculum for the Bioregion Initiative

### Participating Campuses

Antioch University Seattle  
Bellevue Community College  
Cascadia Community College  
Edmonds Community College  
North Seattle Community College  
Olympic College  
Pacific Lutheran University  
Peninsula College  
Pierce College  
Seattle Central Community College  
Seattle University  
Skagit Valley College  
The Evergreen State College  
University of Puget Sound  
University of Washington Bothell  
University of Washington Seattle  
University of Washington Tacoma  
Western Washington University

### Organizational Partners

Association for the Advancement of  
Sustainability in Higher Education  
Environmental Education Association  
of Washington  
Washington Campus Compact  
Whidbey Institute

*My dream project would be to have a group of people work together to create a curriculum "library" that faculty could use for ideas about teaching about bioregional sustainability.*

–Sharon Anthony, Faculty Member in Environmental Studies,  
The Evergreen State College

# INQUIRY AND PLANNING PHASE FOR CURRICULUM FOR THE BIOREGION (2005–06)

Curriculum for the Bioregion is a new faculty and curriculum development initiative of the Washington Center for Improving the Quality of Undergraduate Education. A grant from The Russell Family Foundation has supported an inquiry and planning phase (January 2005–June 2006) that involved assessment, asset mapping, planning, and network building among eighteen campuses in the Puget Sound region: nine community colleges and nine four-year institutions. Other partners are the Association for the Advancement of Sustainability in Higher Education, the Environmental Education Association of Washington, Washington Campus Compact, and the Whidbey Institute.

The planning process began with the creation of a twenty-eight member steering committee drawn from our participating campuses and partner organizations. With their advice, we designed surveys to capture institutional information as well as the perspectives and advice of students, faculty, and staff. Steering committee members facilitated visits, generally two days in length, to each campus. These visits comprised

briefings to the institution’s senior staff; interviews with faculty, staff, and students; class presentations; and faculty workshops. We asked faculty how students currently engage in learning about this region and its issues and where and how they learn about the theory and practice of sustainability. We also asked them what their dream courses or programs might be. Institutional surveys requested that campuses report on how environmental and sustainability studies, especially those focusing on the bioregion, currently appear in the undergraduate curriculum and what support there is for field- or community-based research, service and civic learning, and faculty and curriculum development.

On February 2, 2006, a “Curriculum for the Bioregion Think Tank” brought together more than a hundred faculty members, academic administrators, and representatives of seventeen regional initiatives involved in environmental stewardship or sustainability. We presented our findings and asked this group’s advice about next steps. The following sections summarize what we learned and the recommendations that emerged.

*Taking the survey made me aware of the fact that I had no education prior to college that connected me to a place. The number one element important to making people care about other people in their communities and the environment is to make them realize that they are not an island or their own entity.*

–Student comment, five-minute paper

# What Students Told Us

We gleaned student perspectives from two sources: an online survey completed by 490 students, and meetings with approximately 500 students in campus leadership groups and in an array of undergraduate classes. At the end of our meetings, we often asked them to contribute ideas and suggestions on “five-minute paper” index cards. The online survey was not set up as a random sample; rather, the intent was to gather a range of student perspectives from different classes and campuses. Most of the student respondents were enrolled in various lower-division, general education classes. The survey and its results can be found at the Curriculum for the Bioregion website.

1. Students told us they are concerned about environmental quality in this bioregion.
  - a. Interview and survey data revealed that many of our students *do* think about environmental quality and that they are concerned about it. Of the survey responses, 74% fell on the “concerned” side of a seven-point scale, and 46% indicated the two highest levels of concern.
  - b. Students majoring (or planning a major) in health or natural science showed the strongest degree of concern.
  - c. Students’ degree of concern appears to intensify as they progress from freshman to senior year.
2. Nonetheless, students indicated that their knowledge of this region, its systems, and its problems is quite limited. They are very interested in becoming better informed.
  - a. They admit that they don’t know why their knowledge is as limited as it is. Fewer than half the students indicated they had acquired environmental knowledge in their formal (K-12) education. In on-campus discussions and in the survey, they commented that this learning had primarily occurred in their elementary school years.
  - b. When asked to rate their existing knowledge of 27 arenas of study about the bioregion (e.g., energy, geography, plants and animals, social issues, sustainability), students generally rated their knowledge as low.
  - c. At the same time, students are eager to become better informed. When asked what bioregional information (in these 27 categories) they would like to learn more about, the student survey respondents indicated the strongest interest in
    - plants, animals, and biodiversity
    - environmental health
    - energy use and conservation
    - history, language, and cultures
    - social issues (literacy, poverty, crime, homelessness)
    - global climate change and its effects in the region.

3. Sustainability (a rapidly emerging field that involves learning to make decisions that consider the long-term future of economies, social equity, and the health of natural and human communities) is a new concept to most students but those familiar with it acknowledged its importance.
  - a. The students most energized by the idea of sustainability were those few who had substantial experience with an academic program or a campus sustainability task force.
  - b. Most other students admitted their lack of familiarity with the term.
  - c. Online survey-takers rated their knowledge of sustainability as generally low, but indicated interest in learning more.
  
4. When asked specifically what kind of learning experiences they would recommend, students from first-year to senior were remarkably consistent. They wanted opportunities to
  - a. Engage in community-based learning and field study. Experiential learning was identified as centrally important for translating “classroom knowledge” to “the real world.”
  - b. Explore the major issues facing the region.
  - c. Have learning experiences with which “to feel more hopeful about the future.” Asked what these experiences would actually look like, students said they wanted to
    - “Learn what *we* can do, personally”
    - understand how agencies, non-governmental organizations, and workplaces actually work on problems
    - participate in projects that make positive contributions to agencies, organizations, or communities.

*I never realized . . . how disconnected I really am from the elements in my life.  
I didn't know where my water came from, how my home was heated,  
what the air quality was, or what contaminants were in my soil.*

—Student comment, five-minute paper

*I would like to learn more about the bioregion's history and cultures,  
environmental issues, and civic issues—  
and I would like to be more aware of how I can help.*

—Student comment, five-minute paper

# What Faculty and Staff Members Told Us

We gleaned faculty and staff perspectives from two sources: meetings with approximately 400 faculty, staff, and senior administrators at the eighteen institutions (on twenty-one actual campuses); and results of a detailed online survey completed by 131 faculty and staff members, all of whom are engaged in environmental or sustainability studies or sustainability-related campus projects. The online survey was not designed as a random sample; rather, the intent was to learn what already-engaged faculty and staff members are doing now and to hear their advice about directions this initiative might take. The survey and its findings are posted at the Curriculum for the Bioregion website.

1. Faculty members with whom we met expressed strong interest in the idea of a bioregional approach to curriculum development. Many faculty members said that the concepts of “bioregional learning” and “sustainability” offer a fresh way to focus on what is important, “a new way of aligning our practices around larger, more inclusive ideas.” Those faculty members who currently involve students in on-campus sustainability projects and wider “study of the local” reinforced how valuable it is for students to
  - have direct experiences with the natural world, the built environment, and relevant communities and leaders—to have the abstract become real and to build deeper, personal connections with local places and people
  - begin with current *local* issues with which they already have some familiarity and then “scale up,” building outward to more global concerns
  - learn how local/regional problems are being addressed by participating in those issues
  - have enough time to build a richer understanding of issues, especially their historical, cultural, scientific, political, and economic dimensions.
2. Faculty and staff members overwhelmingly emphasized that they themselves need to learn more about the bioregion and about the emerging field of “sustainability education” and to translate that learning into curriculum development. The following topics received the most interest among respondents to the online survey; at least 75% indicated interest in learning more about these topics, and more than 80% indicated interest in the first six topics in the list.
  - The campus as a bioregional resource for its communities
  - Sustainability concepts and practices in general
  - Energy use and conservation
  - Social issues (such as literacy, poverty, homelessness)
  - Justice issues (social, economic, environmental)
  - Ethics and civic responsibility
  - Plants, animals and biodiversity
  - Environmental health
  - History, languages and cultures
  - Pollution and solid waste issues
  - Climate change in the region
  - Environmental education and communications
  - Land use, planning, and transportation issues
  - Hydrology, watershed analysis, water resource protection

3. Even the most interested and committed faculty and staff members acknowledged these challenges
  - a. The limited knowledge most students have of their local landscapes. *Geographic knowledge* was seen as particularly weak among students; the student self-reported survey data confirmed this.
  - b. The limitations of their *own* knowledge: faculty members remarked how quickly issues are changing, how quickly sustainability is emerging as a field, and how challenging it is to stay current.
  - c. The need to find effective ways to engage students in learning about complex issues without their feeling intellectually or emotionally overwhelmed.
  - d. The scarcity of time and resources: both faculty and staff commented on how stretched they feel and how stretched their institutions are. The yearning for more reflective time and space was nearly universal.
  - e. Professional tensions: several were identified, including serving the department/ preparing students in the major and serving the larger undergraduate population through general education courses; how study in the major should be shaped, particularly what priority should be given to disciplinary or interdisciplinary skills; research expectations and reward systems that often favor “study of the far-away and exotic” over “study of the local”; and, as several put it, “It is challenging to reconcile our professional training as ‘objective scholars’ with a growing personal sense of urgency regarding local and global problems.” Many indicated they want to explore these tensions with colleagues.
4. Faculty and staff engaged in this work said they were eager to learn what their colleagues are teaching, not only on other campuses, but their own as well. They recognize that new, interdisciplinary curriculum calls for reaching out beyond the choir. There is a tangible interest in building both new curriculum and new relationships with colleagues as well as reaching into the community for learning opportunities and teaching partners.

*I treasure opportunities to meet and learn from others doing similar work.  
In this, as in so many other endeavors, we often find ourselves out here on our own.*

–Victor Nolet, Associate Professor, Secondary Education,  
Western Washington University

*We need training for us to be better able to teach students in these ways.*

–Grace Sparks, Biology Instructor,  
Seattle Central Community College

# Institutional Building Blocks and Areas for Growth

Colleges and universities everywhere use an array of tools for strengthening student learning, faculty development, and curriculum change. From information provided by our steering committee members and through our interviews, we learned which supports are already in place relative to bioregional learning, and imagined how they could be marshalled on behalf of new curriculum development and transformation.

## 1. Public Statements of Commitment

One of the most powerful ways that institutions can communicate leadership, vision, values, and strategic directions is through mission statements and other formal declarations. Several of the mission statements of the eighteen participating institutions do express significant public commitment to civic engagement, community service, and environmental care. Four mission statements (of Cascadia Community College, Pacific Lutheran University, Skagit Valley College, and Western Washington University) speak directly to environmental stewardship. Six (Cascadia, Edmonds Community College, North Seattle Community College, Skagit Valley College, The Evergreen State College, and Western Washington University) state a commitment to sustainability. Community service or civic engagement appears in the mission statements of eleven campuses (Antioch University Seattle, Pacific Lutheran University, Seattle Central Community College, Seattle University, Skagit Valley College, The Evergreen State College, University of Puget Sound, the three University of Washington campuses, and Western Washington University). The University of Washington system has a special statement on environmental stewardship that appears on the university's mission statement web page. Two university presidents, at Pacific Lutheran University and the University of Puget Sound, have signed the Talloires Declaration, thereby joining more than 300 campus presidents worldwide committed to environmentally sustainable colleges and universities.

## 2. Campus Sustainability Initiatives

As functioning communities, college campuses have enormous potential as demonstration sites and local learning laboratories for sustainable practices. With roads, lawns, parking lots, classrooms and office buildings, eateries, and energy, water, and waste systems, they mirror the functions of small cities. Through coursework and student clubs, students around the country are assisting campuses in taking steps and measuring progress toward sustainability. In our bioregion, most campuses are beginning to adopt sustainable purchasing and management practices. Eight campuses have formed sustainability task forces in the past two years. Nine campuses have begun to conceive of their landscapes as outdoor learning labs—as models of sustainable design, wildlife habitat, or research sites. Sustainability outreach projects involving the wider campus neighborhood are also emerging. Several student clubs have taken the lead in this. Nevertheless, on most campuses, integrating these achievements into the curriculum is still in its infancy. Interest in “sustainability across the curriculum” is just starting to emerge.

## 3. General Education Curriculum Offerings

Often composing a year or more of lower-division academic credit, general education coursework represents a significant opportunity for bioregional learning and civic engagement. Although often criticized for lacking in purpose or coherence, general education programs can be exciting, formative arenas where students explore complex issues and develop the integrative skills necessary for social responsibility. Many colleges and universities throughout the nation are reforming their general education curricula to highlight the connections across disciplines and to encourage development of critical thinking and holistic understanding. The immediacy,

relevance, and urgency of bioregional issues and the local dimensions of global sustainability easily lend themselves to general education offerings.

While coursework with environmental sustainability foci are well developed for majors and professional/technical degree programs, opportunities for students to acquire bioregional knowledge in their general education classes are often under-developed and fragmented. Neither environmental literacy nor sustainability is yet a general-education requirement at any campus in the bioregion. There are random, individual courses with bioregional content. But, unless students are majoring in an environmental field (such as environmental science/studies, geography, natural resources management, or community planning), they will encounter little, if any environmental or sustainability content in their coursework. Consequently, most students have minimal opportunity to explore the major issues facing the bioregion. Few faculty members are thinking about this gap in the curriculum—either as a problem or as an important educational opportunity for heightening student interest, deepening civic engagement, or strengthening general education programs overall.

#### **4. Opportunities for Interdisciplinary Learning**

In our interviews and surveys, faculty members repeatedly identified interdisciplinary learning as the ideal for enabling students to see the multi-dimensional nature of complex issues. Interdisciplinary studies are already hallmarks of institutions throughout the Puget Sound region. Five campuses in the Puget Sound region (Antioch University Seattle, Fairhaven College at Western Washington University, The Evergreen State College, The University of Washington Bothell and University of Washington Tacoma) have interdisciplinary curricular missions. Several community colleges require interdisciplinary studies for an Associate of Arts (transfer) degree. Fourteen of the eighteen campuses offer learning community programs (where courses are linked around interdisciplinary themes and enroll a

common cohort of students); these are substantial initiatives on eight campuses. Learning communities not only offer students integrative learning, the faculty collaboration in them provides an important venue for faculty development. Interdisciplinary courses and learning community programs with bioregional themes have been occasionally taught on all campuses: these offerings could be scaled up dramatically.

#### **5. Bioregional Expertise**

At every participating institution, there is abundant historical and contemporary knowledge regarding the ecological and human communities of this region. However, the incorporation of this knowledge in general education courses could be greatly expanded. The University of Washington has the most extensive capacity in terms of research expertise and cross-unit working groups. Its Program on the Environment and the UW Earth Initiative, which develops larger research, teaching, and service partnerships with faculty, staff, students, and the wider community, are promising resources. There are also scores of regional agencies and non-governmental organizations that are rich information sources for current issues and approaches to problem solving. Beyond sporadic topical conferences and research forums, we need vehicles for faculty across disciplines and institutions to access these resources and then develop and share teaching ideas.

#### **6. Service Learning and Civic Engagement Initiatives**

Because service learning and civic engagement initiatives connect student coursework to local and regional community-based projects or public issues, they offer a natural platform for bioregional learning and engagement. In the past fifteen years, more than half the campuses have initiated such programs. Eleven of the eighteen campuses we visited have formal offices to support service learning. These play important roles in developing relationships with community organizations and brokering student-learning projects. Most involve students in environmental projects, largely because

funding has come from the Corporation for National and Community Service, one of whose five major focus areas is the environment. Washington Campus Compact, the statewide coalition that supports service learning and civic engagement, plays an important role in assisting these campuses with program development and capacity building.

In the Puget Sound region, major bioregional service learning projects have focused on watershed protection, with longstanding collaborations among campuses, local agencies, and citizen organizations. Outstanding examples include Edmonds Community College in Lund's Gulch Creek, North Seattle Community College in Thornton Creek, Pacific Lutheran University in the Clover Creek watershed, and Western Washington University and Sehome High School in Connolly and Padden creeks. More recently, the three University of Washington campuses have established a Restoration Ecology Network (UW-REN) that engages upper-division undergraduates in a yearlong capstone sequence of classes in the theory and practice of conservation and restoration ecology. In addition, many more faculty members are involving students in short-term partnerships related to community planning, environmental health, sustainable agriculture, and environmental education. Many of these partnerships could be developed further.

Less common are initiatives explicitly oriented to civic engagement, involving students in the

study of public policy issues and democratic processes. Yet, several such initiatives have emerged in the past three years, taking different forms. Bellevue Community College's Center for Liberal Learning and Edmonds Community College's Arts, Culture, and Civic Engagement initiative have focused on arts and cultural life and the creation of occasions for community dialogue. The University of Puget Sound's Center for Civic Scholarship seeks to engage faculty and students in civic research-and-action projects in the South Puget Sound region. Western Washington University's American Democracy Project (in partnership with the American Association of State Colleges and Universities) offers a variety of programs to involve students in exploration of and dialogue on civic issues. Projects such as these could be important catalysts for bioregional engagement.

## **7. Support for Faculty and Curriculum Development**

Research and development centers for teaching improvement and curriculum reform have always been modest in scale in institutions of higher education, yet they serve as critical incubation sites for new initiatives in curriculum and teaching. Ten of our eighteen Puget Sound campuses (five community colleges and five universities) have established teaching and learning centers with designated staff to orient new faculty mem-

*I would like to involve students and community-members more in "citizen science" where data are gathered and projects are carried out by community/student members, results are analyzed and interpreted, and next stages planned cooperatively.*

—Martha Groom, Associate Professor, Interdisciplinary Arts and Sciences,  
University of Washington Bothell

bers and offer consultation on curriculum development, teaching approaches, and assessment. In recent years, these offices have engaged faculty primarily with learning outcomes assessment, writing-across-the-curriculum, diversity and pluralism in the curriculum, the development of online learning, and the scholarship of teaching and learning. In addition, most campuses currently have some kind of mechanism in place so that faculty members can apply for stipends for course redesign or new course development. These resources are largely seen by faculty as quite modest and variable from year to year, dependent on college budgets, institutional curriculum development priorities, and grant-related projects. Occasionally, major initiatives enable some faculty to work on curriculum reform: in recent years, special faculty and curriculum development projects have focused on globalizing the curriculum, service learning, and citizenship and social justice. Working collaboratively with service learning and civic-engagement initiatives, faculty development centers could play critical roles in supporting new curriculum development and community-based pedagogies.

## **8. Inter-institutional Support for Faculty and Curriculum Development**

For the past twenty years, several statewide networks and initiatives in Washington have made this state nationally recognized for curriculum reform activity. As a result, there is well-established ground on which to build and a readiness of campuses to respond to new initiatives. **The Washington Center for Improving the Quality of Undergraduate Education** is both a statewide and national resource center for learning community development. The Washington Center also supported the first wave of calculus reform in the early 1990s and still convenes an

annual retreat on the teaching of mathematics. Additionally, the Washington Center has long supported academic success for under-represented students; in the 1990s, as one strand of this work, a Ford Foundation-funded initiative in collaboration with the University of Washington involved twenty-six campuses in the integration of American pluralism into the general education curriculum.

Other networks in Washington have successfully initiated additional reforms. **Washington's State Board for Community and Technical Colleges** leads a multi-faceted statewide effort to strengthen learning outcomes' assessment. Since its founding in 1992, **Washington Campus Compact** has supported campuses in the development of service learning programs. Sustainability has emerged in one new inter-institutional project in the Puget Sound region led by the **Association for the Advancement of Sustainability in Higher Education** (formerly called Education for Sustainability-Western Network). Faculty and staff members from eight baccalaureate campuses have met for the past three years to share their work of sustainable campus practices and curriculum infusion. One outgrowth of this project is an inter-institutional working group developing common protocols for measurement and reporting of "sustainability indicators" related to campus operations. This year, **The Evergreen State College** partnered with five other colleges and universities in the Northwest to develop teaching cases on issues facing Native American communities and tribes, many of which will focus on natural resource and environmental topics.

All of these inter-institutional initiatives have been vital stimuli to curriculum reform; they have brought isolated individuals into communities of practice, stimulated experimentation, disseminated promising approaches, and created support systems. And they are logical leadership sites for curriculum development and dissemination projects.

# Recommendations

Four major recommendations emerged out of our campus interviews, online surveys, the think tank, and steering committee meetings. Additional suggestions related to these recommendations are provided on the Curriculum for the Bioregion website.

## **1. Expand and strengthen opportunities for undergraduates to learn about this bioregion and its issues, especially in introductory and general education courses. These specific approaches were suggested.**

### **a. The development of interdisciplinary curriculum with bioregional themes.**

Faculty across the disciplines said the ideal “curriculum for the bioregion” should be interdisciplinary. They cited the need for interdisciplinary courses or learning communities (classes linked around a theme during a given term that students take collectively) that would explore such topics as bioregional geography, history, literature, and cultures; issues facing the region; human communities and community health; and sustainability, both global and local. Additional ideas included situating issues in science in their social science context; using the arts and humanities to illuminate connections to place; and linking environmental quality and social justice.

### **b. The creation of bioregional and sustainability learning activities for infusion into general education courses that reach large numbers of lower-division students.** Concerned for students’ widely varying general knowledge of the geography, cultures, and history of this region, faculty pointed to the need for

learning “landscape literacy” in a range of general education classes that reach large numbers of undergraduates. Faculty teaching English composition, American studies, introductory biology, economics, and business and were particularly interested in infusing bioregional material into their courses.

Faculty suggested creating “teaching cases” (that is, narrative stories of complex problems that stimulate student research, analysis, and discussion). They also requested protocols for doing community-based research with students. Additionally, faculty recommended that internship and service learning be expanded at organizations addressing bioregional problems and solutions.

While interest in the study of sustainability came primarily from environmental studies faculty, a broad range of other teachers also expressed interest in this topic, from disciplines such as political science, psychology, sociology, global studies, English composition, and the visual arts. Think tank participants pointed out that because the idea of sustainability is still so new for most students and faculty, there should be further dialogue about what constitutes “sustainability literacy” for the general student and what “sustainable practices” should look like. Examples of learning activities need to be disseminated.

### **c. The expansion of opportunities for field learning, especially related to needed field research.** Faculty members agree on the value of learning experiences beyond the classroom and campus; they also

acknowledge that field- and community-based learning is logistically challenging. They suggested focusing on the development of *local* field learning opportunities that are project-based and that generate useful information for local or regional agencies. Faculty and students could gather and report data to those agencies in an ongoing relationship.

## **2. Create bioregional learning opportunities for faculty members.**

A surprisingly large number of faculty and staff members said they are eager to gain more grounding about this bioregion, both its natural and social systems. They also wanted to learn more about regional issues and to build relationships with involved stakeholders and organizations. They asked for workshops or summer institutes involving community-based or field-based learning, especially on the topics mentioned earlier. They also remarked that engaging regional learning opportunities would be ideal for reaching beyond the choir to their faculty colleagues. Faculty members involved with K-12 education outreach projects pointed out that in-service schoolteachers have the same need to learn about the bioregion and sustainability that college teachers do; they suggested that these opportunities be extended to K-12 teachers as well.

## **3. Develop our campuses as bioregional learning laboratories, so students can both study and contribute to the campus landscape and sustainable campus practices.**

Those faculty, staff, and students who had formed partnerships around sustainable campus practices were enthusiastic about the potential of campuses as laboratories for learning. They recommended that campus sustainability initiatives be expanded to involve more students and classes. They also recommended expanding our conceptions of campus landscapes as bioregional demonstration sites and teaching resources.

## **4. Create a clearinghouse for sharing of resources and teaching approaches.**

A central clearinghouse is needed to coordinate activities and share technical expertise and promising practices, opportunities, and resources. Suggestions included web-based resources (bioregional information, syllabi, recommended readings and videos, ideas for student workshops and projects, out-of-class assignments) and a coordinating function (to establish inter-institutional projects and act as a convening authority).

*I would like to see a course that encourages students to use sustainability concepts to design and complete campus projects. These projects would have a substantial service-learning component that would benefit the campus and local community.*

—Rose McKenney, Assistant Professor, Geosciences and Environmental Studies,  
Pacific Lutheran University

## Next Steps

These recommendations ask us to cross our disciplinary and institutional boundaries, forge partnerships, and learn from one another—both on campus and in our communities. Despite the challenges, the feedback and recommendations from our campus interviews and the think tank reveal an enthusiasm and readiness to move forward collectively. With continued funding from The Russell Family Foundation for the 2006-07 academic year, we at the Washington Center will move forward on these recommendations.

- a. We will begin making existing bioregional curriculum resources accessible through the Washington Center website, highlighting those model programs that successfully make campus-community connections.
- b. We will disseminate promising approaches and practices that are already in place through two daylong workshops and two overnight curriculum planning retreats on the integration of bioregional issues and sustainability into general education courses.
- c. We will begin acting on the curriculum development recommendations of this project's planning phase with several inter-

institutional working groups. More ambitious faculty- and curriculum-development projects will require new resources, so several major grant proposals will emerge.

- d. We will make these opportunities available to all the Washington Center member institutions in the Puget Sound bioregion by inviting twelve additional campuses to be involved with this project.
- e. We will continue to work with our steering committee to shape this initiative and identify new opportunities and partners.

If it is to be successful, Curriculum for the Bioregion will be both a process of inter-institutional and campus-community collaboration, and a set of products—a collection of exciting ideas for curriculum and student engagement. We believe that this initiative will create new ways for educators to collaborate, both with colleagues and communities. More important, we believe that Curriculum for the Bioregion will create a different kind of college graduate, one who is not simply aware of problems but motivated by hope to participate in the collective search for informed, realistic solutions. We welcome additional ideas and suggestions.

*None of us are experts; we all need to learn together, the issues can quickly seem large and overwhelming; we each just need a place to start.*

-Kim McNamara, Instructor in Business and Director,  
Shelton Campus, Olympic College

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# WASHINGTON CENTER

FOR IMPROVING THE QUALITY OF UNDERGRADUATE EDUCATION

We are for the academic success of *all* students. Increasing access to significant learning experiences for students, especially those under-represented in higher education is our primary goal. The measure of our success over time will be improvements not only in retention rates, but also academic achievement and graduation rates.

We work at the state, regional, and national levels with faculty members, staff, and administrators to share good practices and carry out collaborative projects aimed at improving undergraduate teaching and student learning. Through workshops, institutes, campus visits, publications, and a website, the Washington Center promotes projects aimed at enhancing the learning of all students. Through our website and publications, and through campus visits and consultations, we connect people, projects, and resources.

## Our work

We focus our work in four major areas: *curricular initiatives*, including developmental education, quantitative literacy, and curriculum for the bioregion; *equity and diversity*, including the organizing of an annual retreat for campus teams; *faculty enrichment*, including the scholarship of teaching and learning; and *learning communities*, including national summer institutes and a web-based national learning community directory and resources.

## Our assumptions

Three major assumptions inform our practice:

- (1) collaboration is key both within and across institutions,
- (2) effective educational practices need to be recognized and built upon, and
- (3) systemic long-term change results from small-scale, locally determined changes in practice that are carefully documented and nurtured.

## Mandate and funding

The Washington State Legislature established the Washington Center in 1985 as a public service center of The Evergreen State College, with a mandate to work with two- and four-year higher education institutions and other educators throughout the state to improve the quality of undergraduate education. The Exxon and Ford Foundations provided start-up funding; since 1987, the Legislature has funded the Center's work.

## Consortium members and staff

Washington Center is organized as a statewide consortium with a national reach. Our fifty-one member institutions include thirty-three community and technical colleges, six public four-year institutions, one tribal college, and eleven independent colleges in Washington State. Our core staff comprises two co-directors and two support staff.

## Collaboration

In addition to organizing initiatives, the Center collaborates in other state, regional, national, and international educational reform initiatives. We regularly seek grants for special projects. The National Council on Education in the Disciplines, the William and Flora Hewlett Foundation, The Pew Charitable Trusts, the Ford Foundation, the National Science Foundation, the Mathematical Association of America, the Washington State Board for Community and Technical Colleges, the Fund for Improvement of Post-Secondary Education, and The Russell Family Foundation have supported Washington Center's work.

### About the cover:

Tom Carlson, Assistant Professor in Geography and Geographic Information Systems in the Urban Studies Department at the University of Washington Tacoma, created this map for the Curriculum for the Bioregion initiative. The map's bioregional boundaries were derived from the watershed units that drain into Puget Sound. The land cover types were derived from a 2001 Landsat 7 satellite image.