

STRATEGIC PLAN

The Water Center

UNIVERSITY OF WASHINGTON



prepared by

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December 1, 2005

Introduction

Water is critical to the region. The availability of adequate supplies of clean water, and the health of our water resources and watersheds, are major concerns confronting the 21st century. Even in the rainfall rich Pacific Northwest, water controversies abound as demands increase for already stressed supplies. Further, effects of both local and global phenomena, from urbanization to climate change, create additional uncertainties about our water future. Thus, we need the highest quality science to address these issues, and to ensure the sustainability of our water and natural resources.

The Water Center can meet this need. The Center is ideally positioned to serve as the focal point of water research in the Pacific Northwest, and as the leading source of scientific information for making decisions concerning water. Moreover, the Center can provide the necessary interdisciplinary expertise and collaborative setting to address the complex water issues that affect nearly every sector of society.

This Strategic Plan describes the goals, actions, and measures for achieving the mission and vision of the Center. The strategies build upon prior successes, leverage existing advantages, and pursue promising new opportunities. This draft plan is intended to provide a starting point for the next essential step—obtaining your contributions and feedback.

A word about process: This draft plan represents a synthesis of interviews and data collection activities conducted by the Director over a period of one year (September 2004–September 2005), which included the following:

(1) Structured and semi-structured interviews with more than 150 people involved with the Center, including UW administrators (president, former president, provosts, deans, chairs), faculty, staff, students, alumni, Advisory Board members, officials from agencies, industries, and organizations, and other Center affiliates.

(2) Surveys of Center affiliates, conducted through the Center newsletter and website, requesting input on how the Center has helped them in the past, and how the Center can help them in the future.

(3) Comprehensive search for water-related faculty at UW in order to identify areas of expertise and potential research collaborations.

(4) Review of more than 15 years of Center publications and documents (newsletters, conference proceedings, correspondence with donors, journal articles, etc.).

(5) Investigation of other university-based water centers in the U.S. to determine what they do, what we could learn from them, and how we could position ourselves and utilize our advantages.

(6) Discussions with program managers at federal agencies, directors of foundations, potential donors, development officers, and others to identify opportunities for significant funding for the Center.

Mission

The mission of the Center is to produce scientific peer-reviewed research that will address key issues, advance understanding, inform decisions, and shape policies concerning water resources in the region and beyond. The Center serves as a catalyst for interdisciplinary research, bringing together expertise from a range of scientific, natural resources, engineering, and policy disciplines. Our research focuses on the scientific and societal aspects of water—demands and supplies; quality and quantity; physical, chemical, and biological characteristics; time and space variability; watershed processes; and economic, ecological, and equity considerations. The Center integrates research with education and outreach, thereby uniting researchers, students, professionals, and the public in a collaborative effort to solve problems.

Vision

The Center aims to address water problems through research, education, and outreach; to serve as the primary scientific resource and authoritative voice on water in the region; to train students and develop the next generation of leaders on water issues; to become a national model of a successful university-based water center; and to bring recognition, visibility, and resources to the University of Washington and the community of people and organizations involved with the Center.

Values

Values that guide the Center include the following: producing research that is of highest quality and responsive to regional needs; offering the education and opportunities for students to excel; providing resources that are useful to decision-makers and the public; and promoting an environment of collegiality, integrity, and excellence.

Strategic Plan Executive Summary

Five primary goals:

- 1. Leadership** **Increase reputation, recognition, and visibility as a leading water center**
- 2. Financial** **Secure large, long-term sources of funding**
- 3. Research** **Pursue scientific research and applications in strategic areas**
- 4. Education** **Increase student resources for interdisciplinary practice-based education**
- 5. Outreach** **Enhance outreach, scientific communication, and social capital**

Strengths: Promote and build upon what is already successful about the Center

- scientific research that addresses problems in the Pacific Northwest and beyond
- exceptional faculty expertise in water-related areas at UW
- student education through practice-based research
- established relationships and interactions with over 3,000 constituents
- dedicated Center affiliates (e.g., Advisory Board members, alumni)
- ability to create synergies among disciplines and among people/organizations
- problem-solving that is interdisciplinary and collaborative
- comprehensive, consolidated source of water information

Opportunities: Take advantage of the Center's strengths and unique conditions

- water increasingly critical to region; affects everyone (in some way)
- large network of constituents whose support can be mobilized
- unprecedented institutional commitment to the Center
- major new partnerships within and outside UW
- increased support for interdisciplinary research and societal outreach
- new funding possibilities and sources

Challenges: Address the main barriers to achieving our vision

- lack of funding to sustain major research activities
- lack of consistent and significant funding for students
- lack of resources for outreach and attending to constituents
- lack of active marketing and documentation of Center successes
- lack of cohesiveness among Center researchers and activities
- lack of central and resounding message about what the Center does

GOALS AND ACTIONS

1. Increase reputation, recognition, and visibility as leading water center

** Serve as the prominent source of scientific information and the authoritative voice on water issues for decision-making in the region*

The Center has already developed a strong reputation among local communities as a source of expertise on water issues. Our goal is to strengthen the Center's role and reputation in the Pacific Northwest as an authoritative and unbiased source of information. For instance, if state officials need definitive scientific studies to support water policy decisions, the Center should be in a position to conduct the studies. If the media need an expert to speak about a current water issue, the Center should be their first contact.

** Become the national model of a university-based water center*

We will strive to gain national recognition as a model university-based water center. We intend to accomplish this by addressing regional water issues through studies that are interdisciplinary, integrated, collaborative, problem-focused, and results-oriented (see Appendix A). In addition, whenever possible, results of our regional studies will be applicable to other areas of the country. Further, by securing substantial federal funding, we can gain the status of a national leader (related to Goal 2).

** Establish stronger identity on campus*

The Center needs to establish a stronger identity on campus, with a unifying message, which will also help its off-campus visibility. With recent broad-based university support, the Center has opportunities to distinguish itself, build partnerships, and pursue strategic areas of research. The Center now has partnerships with more than half of the institutional units on campus (see Appendix B). It will be important to maintain close ties with units across campus and to demonstrate accomplishments to top administration at UW.

** Demonstrate and document Center "success stories"*

The success of the Center can be measured in many ways (see Appendix C). A primary way is how the Center makes an impact in society—how we identify questions that matter, conduct scientific research, and communicate that research so it is useful.

In discussions with Center affiliates, a surprisingly high number of “success stories” emerged about how the Center has helped them. Even more surprisingly, these success stories have not been systematically documented. For instance, Center research helped to save a local agency more than \$2 million last year. These documented outcomes are vital to demonstrating and reaffirming the Center’s value, and to obtaining future support.

** Work on marketing and media relations*

We will be developing a new outreach plan (Goal 5) and will work closely with the UW Office of Development and Alumni Relations and other media outlets to bring attention to the Center and its work. A story about the Center is already being planned for “Columns,” the alumni magazine.

** Change the Center’s name from “The Center for Water and Watershed Studies” to “The Water Center”* Why change the name?

(1) To more accurately reflect the Center’s strategic vision, expanded partnerships, and research activities. “Water” is the single consistent theme among the people and the research areas.

(2) To be able to pursue new sources of large funding that would be difficult to access under the current name. These sources include programs within NIH, NSF, NASA, and NOAA (see Goal 2).

(3) To ensure the Center’s long-term viability and flexibility to pursue strategic advantages—to open up new possibilities, while not foreclosing existing ones. For instance, we will continue to focus on water and watershed issues, but we can also pursue opportunities and funding related to global change, health, and water policy.

(4) To address concerns with the current name of the Center, as voiced by a number of Center affiliates. Among their concerns are that the unit of analysis of “watershed” does not adequately reflect their work or interests, the word “studies” is vague, and the current name is too long and cumbersome, yet too limiting to reflect new areas of research.

(5) The name is important. The Center needs a name that people can identify with, at least in some way. The Center also needs a name that is easily remembered and quoted. (A media official advised having a name that is four words or less.) It may be impossible to find a name that everyone avidly likes, but our goal is to have a name that unifies our people, our work, and our mission.

2. Secure large, long-term sources of funding

Funding determines the ability to accomplish nearly all of the goals of this Strategic Plan. Therefore, a primary activity in both the short term and long term will be securing a significant and sustainable level of support.

Historically, the Center has been able to piece together various funding sources in order to conduct its activities. For instance, over the last eight years, more than 20 local agencies and organizations have collectively provided more than \$650,000 to the Center. (See Appendix D for sources of funding.) This local support is important and is a testimony to relevance of the work produced by the Center. Yet the Center cannot rely solely on local agencies as the source of long-term, consistent, and large-scale funding. For one, many of these local agencies face uncertain budgets from year to year. Also, current levels (and possible future levels) of local agency funding could probably not sustain the Center at any significant level of research activity.

Our goal is to reach a level of consistent funding of at least \$500,000 per year (after overhead and benefits). This would be sufficient to support one full-time director (with 4.5 months covered by an academic appointment), one to two program coordinators, one to two researchers or other staff, three to five graduate students, and general operations costs. Obtaining more funding would enable supporting more personnel and activities.

** Concentrate on securing large federal agency grants*

Federal agencies, in particular NSF, NOAA, NASA, EPA, and NIH, will be the focus of government grant proposals. The level of funding targeted would be a multi-million dollar multi-year grant or combinations of grants. Programs within these agencies have already been identified as targets for this next funding cycle, for instance, NSF Biocomplexity, NSF IGERT, NOAA Human Dimensions, NASA Water Management, and NSF Science and Technology Centers.

** Pursue state and local sources of support*

In addition to federal sources, we will pursue funding from state agencies, such as the Washington Department of Ecology and Washington Department of Transportation, and from local government agencies and organizations. We plan to continue our strong relationships with the agencies and organizations that have supported the Center in the past, and provide research that can address their water issues.

** Seek foundation funding*

In addition to government agencies, the Center will also pursue foundation support. Potential sources include the following: The David and Lucile Packard Foundation, The Bill and Melinda Gates Foundation, The Andrew W. Mellon Foundation, The Gordon and Betty Moore Foundation, The William and Flora Hewlett Foundation, The Laird Norton Foundation, The Russell Family Foundation, The Century Foundation, and The Bullitt Foundation. We are working with the UW Earth Initiative to develop partnerships and submit proposals.

** Pursue corporate and individual donations*

We are also working with development staff in the Colleges to cultivate relationships with industries and individual donors, and to support the UW capital campaign. An objective will be to seek an Endowed Chair as well as Graduate Fellowships for the Center.

3. Pursue scientific research and applications in strategic areas

The University of Washington possesses an unmatched strength in the quality and diversity of its faculty in water resources. Our water faculty are leading scholars in their respective areas, and this interdisciplinary expertise is vital to addressing contemporary water issues. In addition, UW encourages faculty to engage in collaborative studies that have broader societal impact. This institutional encouragement for interdisciplinary research and outreach is notable for a major research institution (i.e., faculty are not limited to narrow isolated theoretical studies) and is a strategic advantage of the Center at UW.

A challenge is that these diverse areas of water research at UW are also dispersed. Although faculty have come together, in an ad hoc way, to address particular problems as they arise, we need a more targeted research strategy. In other words, we need to develop some strategic concentration areas, based on faculty expertise, regional needs and issues, and potential funding sources. This concentration will also help to clarify the message about what the Center does.

** Concentrate research on areas of greatest impact and expertise*

To take full advantage of the interdisciplinary strengths at UW, and the synergies created by the Center, we need to identify our strengths and the resources to support them. The Center also needs to provide individual faculty something that they couldn't get on their own. For instance, the Center can provide the funding for interdisciplinary research, and established conduits to outside agencies.

To identify these priority areas, an assessment was conducted by the Director (see "process" in the Introduction), asking questions such as, "What are the important issues that we should be addressing? What are our comparative advantages and strengths at UW? What are likely future opportunities and resources?"

This process led to the identification and synthesis of key topics and research priority areas (see Appendix E). Note that these areas will be refined and adapted: We will meet regularly with faculty, students, Advisory Board members, Center affiliates, and others to identify projects and research areas.

Over the next five years (or more), the Center will focus research in three main areas: (a) water and watersheds in the region, (b) water and global issues, (c) water and health.

The first, water and watersheds, has been and will remain the priority research area of the Center. The second and third areas will gradually develop after two to three years (depending on UW expertise and level of funding in these areas).

** Emphasize research on regional water and watershed problems*

The Center will continue its strong record of scientific research and application to problems and issues in the region. Research topics include ecological function of aquatic systems, forests and riparian systems, fish and fish habitat, stream processes, water quality management, water resources management, and water policy. Findings from these studies have particular relevance to regional issues such as urban growth, sustainability, fisheries, forests, endangered species, natural resources management, and climate variability.

** Gradually expand into new strategic areas, such as global and health issues*

The Center will gradually expand its capabilities in two strategic areas: global water, and water and health. These areas offer substantial potential for growth, based on faculty expertise, societal problems, research needs, and advantages of UW and its regional resources. For instance, the UW School of Public Health and Community Medicine has started a program in Global Health, and Seattle is now regarded as an international leader in global health initiatives.

Global water issues include water security, transboundary water disputes, water resources in a global economy, water and wastewater in developing countries, global change and its effects on water resources. “Global” refers both to international water work, and to global phenomena that affect the region.

Water and health issues include emerging contaminants in water supplies, health of water resources and watersheds, impacts of water quality on human and environmental health, wastewater treatment processes, climate variability and its effects on water and health.

** Conduct a “showcase” project—early on—to bring together researchers and bring visibility to the Center*

The Center is in a position to conduct high-impact large-scale studies that local agencies and organizations may be unable to conduct. Plus, such a study could catalyze research and resources, and put the Center “on the map.” Possible showcase projects include a drought management plan for the state or region, or a report on Washington’s Water Future for the state legislature.

** Make “sustainability” a fundamental theme of research*

Sustainability will serve as a common theme in our research, where sustainability is concerned with the economic, ecological, and equity aspects of water, and with meeting the needs of the present without compromising the needs of the future (paraphrasing the Brundtland Commission definition). We will strive not only for sustainability, but also for enhancement, such as improved access to clean water.

4. Increase student resources for interdisciplinary practice-based education

The Center is well-known for providing students practical experience with real-world water problems. This practice-based approach to education creates several reinforcing benefits: Real problems motivate student learning. Students gain valuable professional experience. Professional organizations benefit from student training and, in turn, can provide advocacy for the Center. Students contribute to the solution of problems in their community and are “jump started” to work on projects after graduation. This educational goal will build upon these strengths in several ways:

** Provide long term, secure funding for graduate students*

Although the Center has supported (in some way) more than 100 graduate students over the past eight years, the support can be piecemeal and uncertain—a quarter here or there for a student. The Center will strive to provide sustained funding for students, for the period of their research studies at UW, and to develop a cadre of “Water Center Students.” We will also seek funds to recruit talented incoming students by offering them fellowship packages.

** Develop innovative, interdisciplinary, practice-based courses in water resources*

As one approach, we will develop problem-based, service-learning courses in which students tackle real-world water resources problems, working together with an agency, industry, or organization. This approach draws upon the Director’s experience in conducting such courses, during the past ten years, for problems related to water resources and sustainability.

** Secure student internships with regional agencies and industries to provide real-world grounding (and potential funding) for graduate students*

Graduate students could work part-time during the academic year (and potentially full-time during the summer) with an agency or industry partner on a water-related project. The project could, in turn, provide a basis for the student’s thesis research or independent study course. This collaboration could also provide possible funding for the student’s research.

** Explore opportunities for undergraduate involvement in research*

The Center has traditionally funded graduate students in research. Undergraduates, however, could also contribute to Center research. Moreover, financial resources for undergraduate research are available through existing UW programs, such as the Undergraduate Research Program.

** Emphasize student publication of refereed journal articles*

The Center houses dozens of Master's theses and research reports, most of which were never published as peer-reviewed journal articles. We will encourage students to produce journal articles (with or without faculty co-authorship) as an outcome of their research.

5. Enhance outreach, scientific communication, and social capital

The Center has a successful history of outreach—working with agencies, organizations, industries, and the public, and providing them scientific studies and resources. A list of these resources is provided in Appendix F.

Outreach, though, means more than providing information. Outreach also means responsiveness and usefulness. Accordingly, the Center will create mechanisms to listen and respond to regional issues (without getting into political maelstroms), and to develop and communicate information so that it is used by decision-makers. We will continue to emphasize and enhance our outreach and communications efforts through the following activities, among others.

** Develop and implement outreach plan*

The outreach plan will design ways to communicate research more effectively and to learn about research needs (as well as “success stories”) from our constituents. We will also establish a process for feedback and evaluation to learn what is needed and what is most useful. Similarly, we will emphasize on-campus outreach to faculty, students, staff, and administrators.

** Capitalize on social capital*

The Center boasts a broad constituency (see Appendix G). Our newsletter reaches more than 3,000 readers. Our Annual Review regularly attracts more than 300 attendees. Our website receives more than 200 hits per day. Our weekly seminars, over the past ten years, bring 35–50 attendees each week. Our active alumni network spans agencies, industries, and organizations.

The Center will dedicate personnel to meet regularly with our constituents. Our constituents, in turn, can provide valuable political support for the Center; for instance, by writing letters for Center grant proposals and government funding initiatives.

** Develop mechanisms for matching problems with expertise and resources*

The Center is a hub where people bring water-related problems/questions and people also bring water-related expertise/resources. A formal mechanism is not yet in place for doing this “matchmaking” between the problems/questions and the capabilities to address them. To develop this mechanism, we will create a process and specific products, such as a

regularly updated list of funding opportunities, and a database of contacts according to areas of expertise.

** Create an external advisory board of national leaders*

Our experts in the community, who serve on our Advisory Board and in other important ways, will be retained as critical contacts and trusted sources of guidance for the Center. In addition to this Advisory Board, we plan to create a national board with prominent individuals who could help generate the financial resources and visibility needed to advance the Center.

Next Steps

The Center Director has the primary responsibility for ensuring the implementation of the plan. The Center staff, Advisory Board, faculty, students, and committees of affiliates will assist with the implementation. The time frame for implementation is over the next five years: 2005-2010. As part of implementation, throughout this five-year period, we will regularly revisit, evaluate, and refine the plan.

Appendix A

Hallmarks of Center Activities

Interdisciplinary—The Center brings together expertise from multiple disciplines, assimilating perspectives and information in order to more effectively solve problems and advance understanding in water resources.

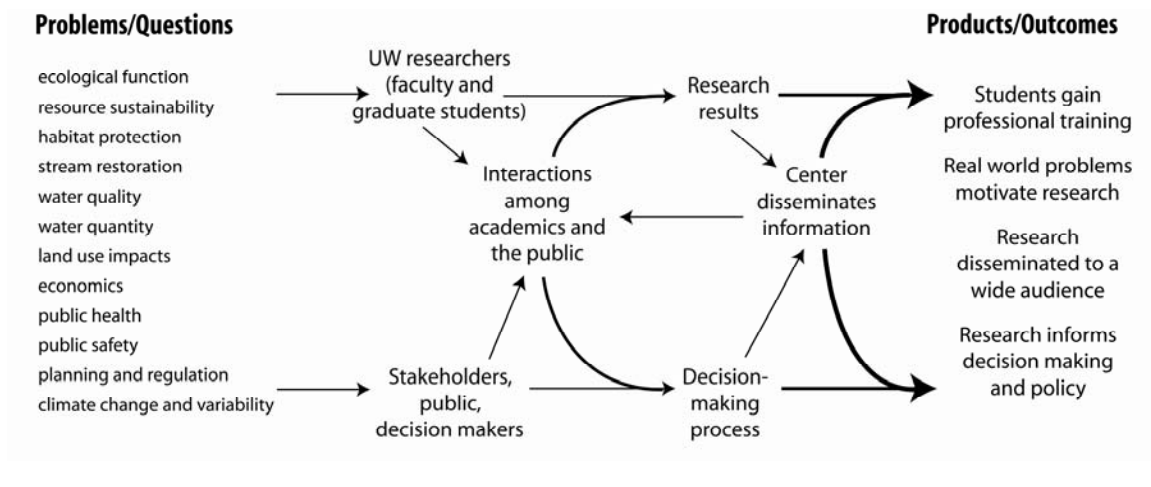
Integrated—The Center integrates research, education, and outreach, making the overall impact greater than the sum of each. For instance, research helps to address real-world questions faced by agencies. In turn, real-world problems motivate students and provide practical experience and training. Students help contribute to the solution of societal problems. Agencies attest to the value of academic collaborations. Research and education demonstrate broader societal relevance and impact.

Collaborative—We bring together people from on- and off-campus (faculty and researchers, students, practitioners, decision-makers, and the public) in a collaborative effort to help solve problems.

Problem-focused—Real-world problems serve as the catalyst for research and for interactions. Problems also determine the types of products and outcomes needed by stakeholders.

Results-oriented—We pursue scientific research that results in products useful to stakeholders and that informs decision-making and policy.

Center Interactions



Appendix B

University of Washington, Contributors and Partners

Financial contributors

College of Forest Resources
College of Engineering
College of Ocean and Fishery Sciences
School of Public Affairs
Department of Civil and Environmental Engineering
UW Earth Initiative
ADVANCE Program
Climate Impacts Group

Partners and scholarly contributors

College of Architecture and Urban Planning
College of Arts and Sciences
Center for Science in the Earth System
Policy Consensus Center
CELT/CAEE
PRISM
Valle Program

Partnerships being developed

Program on Climate Change
Program on the Environment
School of Law
School of Public Health and Community Medicine

Student organizations

American Fisheries Society
Society for Ecological Restoration
American Society of Civil Engineers
American Water Resources Association (Director is Faculty Adviser)
Engineers Without Borders (Director is Faculty Adviser)

Appendix C

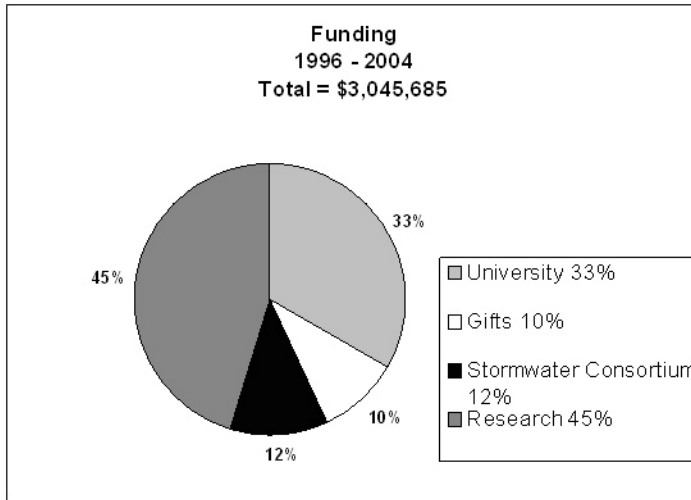
Metrics of success

Influence/impact in region
Products/outcomes useful to decision-makers and public
Journal articles published
Research money generated
Synergies and partnerships created
Economic value of Center research
Success stories from stakeholders
Reliance on Center by legislators and policy makers
Recognition in newspapers
Citations of Center journal articles
Number of students funded
Alumni placements in jobs
Conference presentations
Annual Review attendees
Newsletter recipients
E-mail recipients
Donors and donations
Attendance at seminars
Number of website visits
Inquiries for information
Newspaper and magazine stories
Diversity of expertise
Fact sheets distributed to targeted audiences

(This list is still being developed. Also, the order in this list does not necessarily connote the relative importance.)

Appendix D

Center Funding Sources (1996-2004)



Research Funds

USFS	\$490,000
NWIFC	\$9,000
EPA	\$660,000
DOT	\$117,000
NOAA/NWFSC	\$99,000
Total	\$1,375,000

University Funds

UW	\$150,000
CFR	
State	\$285,000
Corkery	\$500,000
COE	\$80,000
Total	\$1,015,000

Gifts

CH2M Hill	\$1,000
Taylor & Associates	\$1,000
Tetra Tech	\$400
Entranco	\$850
Parametrix	\$400

Gifts, continued

Anchor	\$200
NOAA	\$1,350
UCTG Assoc.	\$14,800
WFFC	\$12,385
Weyco Foundation	\$260,000
SER	\$1,000
Sub-Total	\$293,385
Stormwater Consortium:	
City of Bellevue	\$25,000
City of Everett	\$19,500
City of Olympia	\$35,000
City of Kent	\$35,000
City of Seattle	\$48,300
City of Issaquah	\$4,000
King County	\$49,500
Kitsap County	\$40,000
Pierce County	\$35,000
Snohomish County	\$44,000
Spokane County	\$27,000
Sub-Total	\$362,300
Total (\$293,385+\$362,300)	\$655,685

Appendix E

Strategic Research Areas

(illustrated with a small sample of topics, denoted by bullets)

Water and Watersheds in the Region

Forests and Riparian Systems

- large woody debris recruitment
- ecological function of streams
- fire ecology

Wildlife and Wildlife Habitat

- stream and streamside habitat
- effects of management on wildlife
- conservation strategies

Fish and Fish Habitat

- habitat protection and restoration
- salmonid natural history and productivity
- salmon recovery planning

Stream Processes

- stream restoration and rehabilitation
- evaluation of instream flows
- dam removals

Water Quality

- stormwater management
- best management practices
- low impact development

Water Resources Management

- water shortages and droughts
- water and energy planning
- climate change and climate variability

Water Policy

- water economics; water markets
- watershed plan implementation
- water conflicts and resolutions

Water and Global Issues

- water security
- transboundary water disputes
- water resources in a global economy
- water and wastewater in developing countries
- global change and its effects on water resources

Water and Health

- emerging contaminants in water supplies
- health of water resources and watersheds
- environmental health
- wastewater treatment processes
- global change and its effects on water and health

Appendix F

Outreach Materials and Resources

Events

For over ten years, the Center has offered weekly seminars covering water resources and watershed topics with lectures from scientists on and off campus. There are 35-50 attendees each week from off-campus and on-campus.

For more than two years, the Center has facilitated weekly trainings in water resources and watershed/marine ecology for NOAA scientists.

For each year during the past 16 years, the Center has held an Annual Review of Research showcasing UW research to the public. The last six Reviews have had an average of over 300 attendees.

Publications

The Center has the following documents available on its website, which receives approximately 200 hits/day: <http://depts.washington.edu/cwws/>

- Annual Review abstracts for past eight years
- Slide presentations from the 2006 Annual Review
- 188 theses and dissertations abstracts on web
- 19 fact sheets, which provide a summary of Center research findings
- Back issues of newsletters from The Water Center, and its predecessors (CWWS, CSS and CUWRM)
- Presentations from events and seminars given by affiliated faculty, students, and professionals
- A new Center brochure
- Journal articles and agency reports

Newsletters

The Center sends out a quarterly newsletter, presenting UW water-related research and updates, to over 3,000 constituents.

E-mail

The Center maintains e-mail lists to which we send out event and job announcements.

650 total recipients

260 on-campus (faculty, students, staff)

390 off-campus (industry, agency, other schools)

Resources

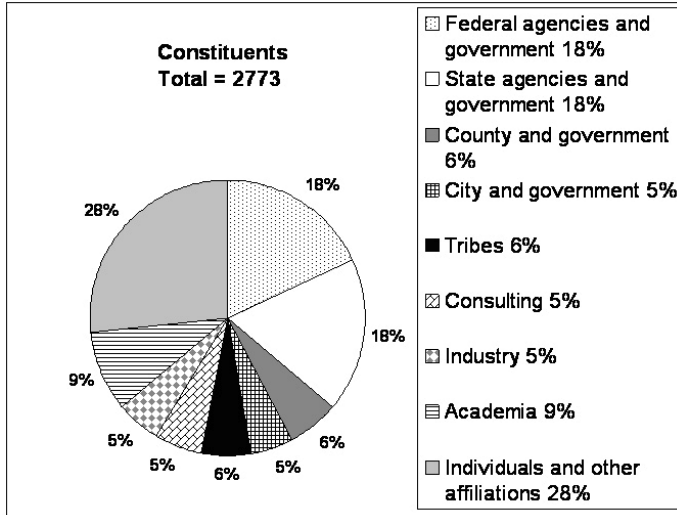
The Center maintains lists of the following online resources:

- bibliographies
- publications
- organizations
- jobs and grants

Appendix G

Center Statistics and People

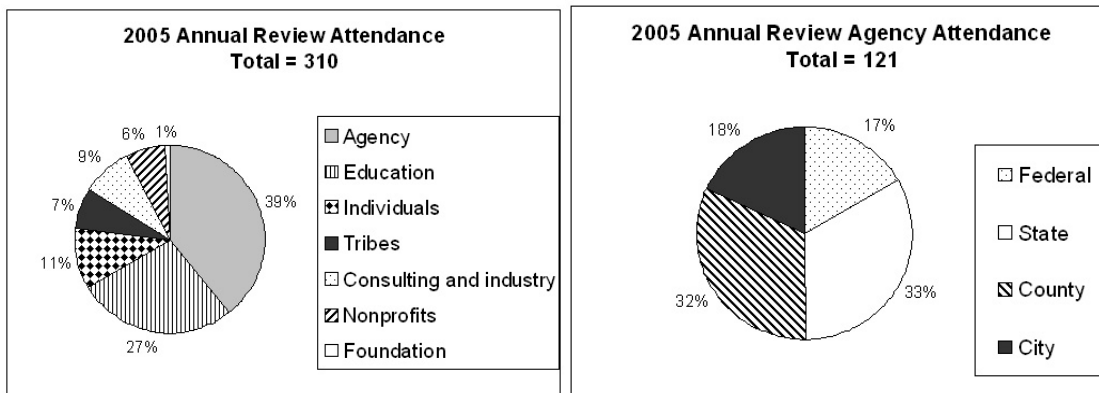
Constituents



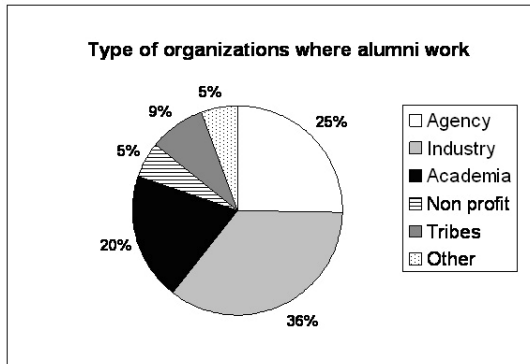
Over 3,000 people are on the mailing list, with approximately

- 500 from federal agencies and government
- 500 from state agencies and government
- 170 from county agencies and government
- 140 from city agencies and government
- 165 from tribes
- 150 from consulting
- 150 from industry
- 260 from academia
- 738 individuals or other affiliations

Annual Review Attendance, 2005



Alumni



118 alumni

85 MS or MSCE degrees; 33 Ph.D. degrees

66 from Forestry

25 from Fisheries

18 from Civil and Environmental Engineering

4 from Geology

4 from QERM (Quantitative Ecology and Resources Management)

1 from Marine Affairs

27 work for agencies (21 at federal, 2 at state, 4 at local)

32 work for industry (30 at consulting firms, 2 at forestry companies)

18 are in academia (5 pursuing PhDs, 7 professors, 5 researchers, 1 unspecified)

5 work for non profits

8 work for tribes

28 other

Faculty

29 affiliated faculty (currently)

11 from Forest Resources

6 from Aquatic and Fisheries Sciences

6 from Civil and Environmental Engineering

1 from Anthropology

1 from Earth and Space Sciences

1 from Geography

1 from Landscape Architecture

1 from School of Public Affairs

1 from Urban Design and Planning

Students

20 affiliated graduate students (currently)

6 from Forest Resources

5 from Aquatic and Fisheries Sciences

5 from Civil and Environmental Engineering

1 from Earth and Space Sciences

1 from Environmental Management

1 from Landscape Architecture

1 from School of Public Affairs