

2012 BUDGET RESPONSE FORM—ACADEMIC UNITS

School or College: College of the Environment (CoEnv)	Dean: Lisa J. Graumlich
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I. USE OF LAST YEAR'S FUNDS.
A. Please review <i>Attachment A: FY2011 Investment Funds and Bridge Funds Allocated to Units</i> of the 2012 budget letter (available at http://www.washington.edu/admin/pb/home/pdf/uw-bgt-process/Budget-Letter-from-Provost_Nov-2010.pdf) and respond to the following:
1. Amount of Provost reinvestment funding provided: _____ \$79,699 _____
Provide a short detailed summary of how you utilized the funding provided to you from the provost's reinvestments.
These funds were used in the same manner as the ABB funds. Both funding sources were used in three ways: 1) allocated to units to cover the newly implemented technology fee; 2) allocated by the Interim Dean to units as temporary operating funds until such time as the new permanent dean had sufficient time to develop a strategic plan for longer term use of the funds, and 3) returned to Central Administration in the mid-year budget cuts.
2. Amount of temporary funding provided: _____ \$473,000 _____
Provide details on how your share of the second (and last) allocation of temporary funding was deployed in your unit.
All temporary funds were distributed to CoEnv departments and schools and were allocated for direct support of teaching through TA and auxiliary faculty positions.
B. As specifically as possible please answer the following questions:
1. What administrative efficiencies have you achieved as a response to these budget reductions?
Units within the College of the Environment have implemented a variety of efficiencies, which improved service and reduced costs at the department level:
<ul style="list-style-type: none"> ▪ converting department administrative forms to interactive, web-based documents for easy access by faculty, staff and students ▪ reviewing and streamlining administrative processes to eliminate duplication and improve delivery of services ▪ implementing an online grants information guide to answer common questions with links to University and granting agency websites ▪ creating an online spreadsheet to assist faculty in creating budgets for grant proposals that produces internal GC1s and budget pages for grant submission ▪ Utilizing CATALYST tools for teaching and student services functions ▪ Reducing printing and paper costs by removing multiple public printers and replacing them with networked copy machines that produce double-sided copies and scan documents for electronic storage.
2. What has been the overall impact on faculty and instructional staff levels (including TAs) from the cumulative budget reductions and how did the funding provided in FY11 mitigate reductions to these levels?
Cumulative budget reductions have cut deeply into TA staffing and instructional staff levels with multiple positions being eliminated. The temporary provost funding was dedicated to teaching support (TAs and auxiliary faculty), which helped mitigate the effects of these cuts for the current and previous fiscal years. In FY12, mitigation funds will not be available and the full effects of these cumulative reductions, combined with additional cuts effective for FY12, will have a devastating effect on our ability to fully staff and support classroom learning for undergraduate students. In addition, decreased TA support for graduate students

will affect both their educational experience and our ability to attract and support quality students.

3. What has been the change in classroom education including course offerings, class size and use of alternative methods of instruction delivery? Please address the impact of changes.

Relatively minor efficiencies have occurred, such as encouraging faculty to use electronic materials, thereby reducing paper and printing costs. More concerning changes that have already occurred include reduction of writing assignments (as well as writing to generalized vs. specific points) and use of multiple choice and bubble sheets for homework and exams instead of essay or short answer questions. These have eroded both the faculty's ability to monitor student learning and the actual learning experience of the students. In addition, despite the ability of guest speakers and decision makers to connect students to the real world and provide insights and learning that better prepare students for careers in their chosen field, these powerful learning opportunities have decreased due to the logistics, planning time and costs associated with this tool.

4. What has been the overall impact on support and administrative staff levels from the cumulative budget reductions and how did the funding provided in FY11 mitigate reductions to these levels?

Cuts in administrative and other support staff have resulted in inefficiencies such as shifting more tasks to faculty, as well as shifting costs to other funding sources. Temporary funding provided to units from ABB funding (see I.A.1. above) has mitigated staffing reductions and allowed units to retain staff at a critical minimum; these funds are covering critical positions such as payroll coordinator and student services coordinator. Some costs for administrative and technical staff support have been shifted to other funding sources. However, real reductions have occurred through layoffs and freezing positions. Reductions in technical support have affected our ability to communicate with potential students and other audiences. For example, web sites are updated less frequently, which affects first impressions and perceptions of the units. Inefficiencies result from insufficient staffing, slowing responses and delaying adaptation of up-to-date information and processes. In at least one unit, the burden of logistics and scheduling of guest lecturers has been shifted to faculty, reducing the amount of time they can invest in updating lectures, providing office hours, and other, more direct academic activities. Some administrative burden has shifted to the Dean's Office as staffing in small units has reached critical levels. With so much uncertainty regarding FY12 budget cuts and ABB funding levels, we have not yet made decisions regarding mitigation funding for FY12.

5. What major compliance and risk issues have arisen in your units and what efforts have you made to mitigate these issues? Have you had to deal with additional compliance or risk exposures that have not been funded in your base budget?

To date, no major risks have arisen because of efficiencies that have been found as well as retaining staff through shifting costs to other funding sources. However, we have been searching for efficiencies now for several years and additional efficiencies will be difficult to uncover and will yield much smaller results. Additional cost shifting would be difficult to justify and would likely result in increasing compliance risks and further reductions in administrative staffing levels will result in having to raise our risk-acceptance levels. We are very concerned about the future effects of these actions.

II. PROPOSED BUDGET FOR FY12—ACADEMIC UNITS

Please answer the questions posed below regarding how your unit would deal with a 5% or 10% reduction level to your base.

1. What are your strategic priorities, based on your own strategic plan and the results from the Program Evaluation Initiative?

The goals of the college are to:

- Advance the scientific understanding of the environment.
- Advance the understanding of the relationship between humans and the environment.
- Advance the development and application of technologies, policies, and programs that solve complex environmental problems.
- Produce graduates who have the knowledge and skills to understand how the environment functions and to help solve environmental problems.

Based on these goals and the metrics for CoEnv shown in the program evaluation process, we believe it is prudent to strive to maintain a balanced portfolio at the college level of research, teaching and service. The College of the Environment is a productive and efficient college and has been able to leverage limited state funding into much larger programs that benefit the state and the nation.

2. What administrative efficiencies do you propose as a response to these budget reductions?

We are continuing to look at smaller units to see if efficiencies can be gained by merging or absorbing administrative functions into other units. In addition, units within the College of the Environment have traditionally provided extensive public service; we are pursuing savings associated with discontinuing or drastically reducing selected portions of these services. Most efficiencies have been identified over the past several budget cuts and units are now faced with decisions regarding critical public and student services that will need to be reduced or eliminated.

3. What will be the overall impact on faculty and instructional staff levels (including TAs)?

Classes that rely on TA support will need to be restructured (see discussion of existing and future effects in sections I.B.3. and II.5.). Faculty are already taking on a greater administrative burden as administrative and TA staffing is reduced. Due to the burden of taking on administrative tasks, less time will be available to invest in student learning experiences.

4. If you propose to cut faculty positions using vacant lines, what process will you use to reallocate future vacant positions to address your strategic priorities?

We will prioritize future vacant positions to build on clearly articulated core strengths within and between units that map onto areas of cutting-edge research and/or state and national priorities. We expect that many of these positions would be strategic investments in emerging, trans-disciplinary opportunities that could leverage partial positions across colleges.

5. What will be the predicted change in classroom education including course offerings, class size and use of alternative methods of instruction delivery?

Courses will need to be fundamentally redesigned. Additional changes that would need to occur with further funding cuts include either reduced class accessibility (class size reduction) or, more likely, a fundamental restructuring of classes to reduce the experiential component of student learning. In addition, the capacity to provide some courses, taught by non-state funded faculty will be lost. In some cases we are examining whether or not moving an open major to a competitive major will allow us to cap enrollment and thus limit the number of courses we are required to offer in order to provide a quality education in four years. Finally, more emphasis will be placed on distance learning, further reducing experiential learning and cross fertilization of ideas and experiences. In some cases, classes that require TA support will be discontinued, limited student choices.

6. What will be the overall impact on support and administrative staff levels?

Support and administrative staff levels would be below critical mass in several departments. We are reviewing several options including, but not limited to 1) merging administrative support across units and 2) centralizing support, such as academic advising, at the College level. This would undermine the ability of students to receive timely and detailed information affecting their education. It would also affect the timeliness of responses to faculty, staff and the public. In addition, staff familiarity that comes with being on site is critical to uncovering and addressing emerging issues and concerns before they become risks.

7. What major compliance and risk issues will arise in your units and what efforts will you make to mitigate these issues?

We are concerned about public perception and the very real risks to societal infrastructure as we move forward with discontinuing or reducing services that have been provided for many years to the legislature, the public, and state and local agencies. Depending on the depth of cuts to these public services, we expect strong reactions from our stakeholders and anticipate negative publicity focused on the University.

In more than one CoEnv unit, a 10% reduction in state funding would result in state support being available only for tenured faculty line positions; no staff support would be state funded. Paying essential staff, such as academic advisors, on non-state funding creates compliance and other risks. Eliminating advisors undermines the essential educational mandate of the university and the viability of programs. Centralizing advising services throughout the college would mitigate this but would result in less specialized and detailed focus on units and could undermine our ability to attract the highest quality students to CoEnv.

We are currently analyzing these issues and will be prepared to make appropriate mitigation decisions when it become more clear what level of funding cut will be forthcoming.

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III. PROGRAM EVALUATION APPENDICES

For this section, detailed instructions and forms will be available at the websites listed

below. When you have filled out those forms and templates, attach those forms relevant to your unit to this document as Appendices.

Instructions and forms for Appendices A & B will be available on the Program Evaluation website at:

<http://www.washington.edu/discover/leadership/provost/initiatives/2y2d/program-evaluation>

Central data, data definitions and data templates will be available on the OPB site at: <http://www.washington.edu/admin/pb/home/uw-pem.htm>

Appendix A: School or College-wide Program Evaluation documents *(For departmentalized schools and colleges only; non-departmentalized schools or colleges submit Appendix B only.)*

Schools and colleges are asked to include a school or college-wide evaluation that addresses the school or college as a whole.

Please read the instructions related to the program evaluation process carefully at the Program Evaluation website listed above. Use the Appendix A form and template provided to submit the required information for your school or college. School or college-wide program evaluations include:

1. School or college narrative addressing the program evaluation criteria; it is not necessary to repeat the information on strategic goals supplied in Part II of this 2012 Budget Response Form
2. Criteria with relative weightings
3. Centrally-provided data at the school or college level in the form of an Excel spreadsheet

Appendix B: Program Evaluation documents for departments and non-departmentalized schools and colleges

Please read the instructions related to the program evaluation process carefully at the Program Evaluation website listed above. Use the Appendix B form and template provided to submit the required information for each program in your unit. Program evaluations include:

1. Program narrative addressing the program evaluation criteria
2. Criteria with relative weightings by the unit
3. Data to measure the program in the form of an Excel spreadsheet with centrally-provided and program-provided data

HOW & WHEN TO SUBMIT

Submit all materials electronically to:

Deadline: **February 1, 2011**

Amy Floit, Director of Budget Operations
afloit@u.washington.edu

QUESTIONS

For questions about the budget base:

For questions about program evaluation metrics:

For questions about Program Evaluation or this form:

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ESSENTIAL RESOURCES		
Provost's 2012 budget letter with <ul style="list-style-type: none"> Attachment A: FY2011 Investment Funds and Bridge Funds Allocated to Units & Attachment B: FY2012 Budget Reduction Draft 	http://www.washington.edu/admin/pb/home/uw-bgt-process.htm	
Central data, data definitions and templates for adding local data to program evaluation appendices:	http://www.washington.edu/admin/pb/home/uw-pem.htm	
Program Evaluation instructions, forms, templates, and details:	http://www.washington.edu/discover/leadership/provost/initiatives/2y2d/program-evaluation	

2010-11 College-Level Program Evaluation Metrics

Seattle Campus, College Of Environment

2005-06

2006-07

2007-08

2008-09

2009-10

Students

Academic Year (Fall, Winter, and Spring combined) State-Reported Student Credit Hours (SCH)

Lower Division	37,947	37,292	41,903	43,929	43,936
Upper Division	19,884	17,565	18,411	20,863	20,119
Graduate/Professional	15,007	14,679	14,431	15,134	16,029
Total	72,838	69,536	74,745	79,926	80,084

Summer Student Credit Hours (SCH)

Lower Division	850	1,025	1,355	1,390	1,780
Upper Division	1,640	1,527	1,203	1,791	1,170
Graduate/Professional	1,058	915	901	926	910
Total	3,548	3,467	3,459	4,107	3,860

Non-State-Reported Student Credit Hours (SCH) - All Quarters

Fee-Based Enrollments	1,312	1,365	1,508	1,642	1,713
Exempt Enrollments	518	609	571	734	759
Total	1,830	1,974	2,079	2,376	2,472

Annual Average Number of Major Enrollments

Undergraduate	624	655	748	822	885
Graduate - Masters	260	250	233	252	236
Graduate - Doctoral	257	245	259	336	365
First Professional	0	0	0	0	0
Total	1,141	1,149	1,240	1,409	1,486

Degree Majors

Bachelors	202	208	157	212	228
Masters	96	99	91	77	91
Doctoral	49	46	43	43	32
First Professional	0	0	0	0	0
Total	347	353	291	332	351

2010-11 College-Level Program Evaluation Metrics

Seattle Campus, College Of Environment

2005-06

2006-07

2007-08

2008-09

2009-10

Resources

Budget by Type of Funds

GOF Permanent	\$17,139,844	\$18,685,694	\$20,339,656	\$22,047,164	\$20,950,992
GOF Temporary	\$1,202,888	\$1,355,618	\$708,482	\$733,246	\$2,425,995
DOF-LFA Permanent	\$1,610,228	\$1,624,882	\$1,704,863	\$1,688,357	\$2,910,669
DOF-LFA Temporary	\$3,962,920	\$1,027,668	\$3,451,908	\$572,312	\$2,476,764
RCR	\$9,516,684	\$4,541,612	\$12,174,201	\$5,257,787	\$13,723,858
Total	\$33,432,564	\$27,235,474	\$38,379,110	\$30,298,866	\$42,488,278

Grant and Contract Research Expenditures

Direct	42,689,092	43,338,684	56,401,437	67,210,235	79,456,748
Indirect	10,049,467	9,863,401	13,462,807	14,072,228	14,993,076
Total	52,738,559	53,202,085	69,864,244	81,282,463	94,449,824

2012 BUDGET RESPONSE FORM—APPENDIX A

SCHOOL OR COLLEGE-WIDE EVALUATION

For departmentalized schools and colleges only; non-departmentalized schools or colleges submit Appendix B only

School or College: Environment	Dean: Lisa J. Graumlich
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1. SCHOOL OR COLLEGE-WIDE NARRATIVE

For departmentalized schools and colleges only; non-departmentalized schools or colleges submit Appendix B only

Narratives are important in program evaluation, especially as they relate to our conversations about the future.

- Please draw upon strategic plans, academic program reviews, accreditation reviews, or other materials to provide a short (no more than 2 pages total) qualitative school or college-wide narrative.
- Please address your school or college as a whole and focus on the four areas listed below. The goal is to provide a big picture evaluation of your school or college rather than to repeat department narratives.
- You may choose to address each area individually in the spaces provided or draft one narrative that addresses them all together.

1. Key goals (or strategic plan)

Key goals and strategic plan are an important part of this evaluation. It is not necessary to repeat this information here. This information is supplied in Part II of the 2012 Budget Response Form.

2. Specific measures of progress or improvement

- a. Planned,
- b. Underway, or
- c. Accomplished

As a new College formed by bringing together units from three different colleges in 2008, the College of the Environment (CoEnv) is in the process of defining metrics and criteria to assess progress. We are using the current College Program Evaluation to define criteria and measures in the context of the shared core values these represent.

An advantage to this period of transition is that the individual units have been cultivated in different operating cultures and histories. In the process of developing a cohesive identity and standardized expectations across the college, we are able to examine individual current practices with a more critical eye and either adopt agreed-upon best practices or develop new ones. Areas where we have made progress or have begun conversations in this regard include peer evaluations of teaching effectiveness, the role of centralized student and academic services, implementing and tracking course fees, and the potential for sharing unique facilities and resources for research programs.

Our key criteria for looking forward are: quality, diversity, collaborations, and value to state. (See Section 2 for details) As such, any strategic initiatives in which we propose to invest our limited time and resources will be evaluated against their potential to impact these criteria. As described below, the College of the Environment is consistently one of the most productive and efficient colleges for the UW across all measures of research, teaching and service. We intend to keep it that way.

3. Constraints due to accreditation

Two programs in the CoEnv are accredited: 1) Bioresource Science and Engineering is an engineering program accredited by the Engineering Accreditation Commission; and 2) the Master of Forest Resources-Forest Management degree accredited by the Society of American Foresters. Accreditation does not pose a significant constraint on budget planning at this time given current FTE allocations. Erosion of faculty FTE through retirement and an inability to replace them could become an issue in the out years.

4. Opportunities to make prioritization decisions/areas for strategic investment and/or sunseting of sub-disciplines

Priorities for strategic decisions map onto CoEnv goals.

- Advance the scientific understanding of the environment:
 - Build on clearly recognized core strengths
 - Articulate CoEnv strategic plan with “grand challenges in the environmental sciences” as articulated by the National Research Council, National Science Board, International Council for Science and others
- Advance the understanding of the relationship between humans and the environment:
 - Strategically build the “human dimensions” expertise within the College through a carefully balanced investment in new hires and joint appointments
- Advance the development and application of technologies, policies, and programs that solve complex environmental problems.
 - Invest in faculty, programs and partnerships that present greatest potential for bringing robust science to bear on problems of regional and global importance
- Produce graduates who have the knowledge and skills to understand how the environment functions and to help solve environmental problems.
 - Ensure that undergraduate and graduate programs retain high quality, relevance and innovation
 - Invest in launching fee-based programs with high relevance and strong demand

Other

2. SCHOOL OR COLLEGE-WIDE CRITERIA WITH RELATIVE WEIGHTINGS

For departmentalized schools and colleges only; non-departmentalized schools or colleges submit Appendix B only

- Next to each of the criteria listed below, tick whether your unit weighted it of high, medium or low importance.
- For each of the criteria listed below, evaluate your school or college as a whole.

Support your responses with relevant qualitative and quantitative centrally or locally provided data.

- Again, please address the big picture, providing an overview of school or college criteria and supporting metrics at the interdepartmental and college-wide level.

General data/ Size

The general data that describe the overall size of the unit (number of majors, degrees, SCH, faculty instructional and research FTE, funding, research, etc.)

General data/size is relevant to all units

In absolute numbers the College of the Environment (CoEnv) is one of the most productive colleges within the UW with a very balanced portfolio of research, education and public service and outreach. Key statistics include:

- Instructional faculty FTE (9-month): **121**
- Average enrolled majors (2009-10 Academic Year):
 - Undergrad – **885** (currently at **968**)
 - Graduate – **601**
- Student Credit Hours (3-year avg, of State-reported Autumn, Winter, and Spring Quarter totals)
 - Undergraduate – **63,000 SCH/year**
 - Graduate – **15,200 SCH/year**
- GOF + DOF (3-year average):
 - Permanent – **\$23.2M**
 - Temporary – **\$3.2M**
- RCR (3-year average): **\$10.4M**
- Grants and Contracts Awarded:
 - FY09 – **\$74.9M**
 - FY11 (July 1, 2010 – December 31, 2010) – **\$82.4M**
- Endowments (#, value as of 10/1/2010): **223, \$68M**

See attachment of centrally-provided data for additional details. [Note that although the data provided for academic metrics (e.g., SCH and enrolled majors) are within acceptable differences of college-generated data, CoEnv does not endorse nor verify the financial data provided.]

Less quantifiable are the collective metrics associated with the large number of service and outreach programs managed within the CoEnv and supported in part by a variety of funding sources (including State funds). Examples of these units/programs include the State Climatologist, Pacific Northwest Seismic Network, UW Botanic Gardens, Washington Sea Grant Program’s Marine Advisory Services, and the Consortium for Research on Renewable Industrial Materials. Specific examples of metrics for the service and outreach programs can be found in Sections C and H.

a. Quality, Productivity and Efficiency

The indicators of quality, productivity and efficiency evident in the unit (e.g. rankings, honors, awards, learning outcomes, sponsored research, degree completion, publications, yield, etc.)

Tick the level of importance to your unit:

HIGH MEDIUM LOW

The stature of the units within CoEnv reflects high levels of faculty and staff achievement in research, teaching and service. Half of the academic departments are recognized as being at

the top of their fields (i.e., School of Aquatic and Fishery Sciences, Department of Atmospheric Sciences, School of Forest Resources) and the remaining three departments (i.e., Department of Earth and Space Sciences, School of Oceanography, and School of Marine and Environmental Affairs) are also highly regarded and considered to be national leaders.

Quality

Our faculty and staff are recognized by their peers and external organizations for their contributions both within the UW as well as externally. As elected fellows in national and international scientific organizations they have attained acknowledged eminence in their disciplines. As winners for regional, national and international awards, they are recognized for the impact of their contributions to society as a whole. As winners and regular nominees for UW teaching awards, they are acknowledged for their dedication to providing the most rigorous and creative, even transformative, environmental education available anywhere in the world.

Members of our faculty have received major awards and accolades, including:

External

- 6 National Academy of Sciences Members
- 60% of the full professors in the geosciences are elected fellows in their relevant professional societies. These include the American Geophysical Union, American Academy of Microbiology, Geological Society of America, and the American Meteorological Society. Many of these faculty have also received one or more of their society awards or honors for exceptional contributions to their fields.
- 15 Fellows of the American Association for the Advancement of Science
- Several national awards, including Heinz Foundation Award for the Environment (2005), Volvo Environment Prize (2006), MacArthur Foundation Fellow (2008), and Engineers Without Border's Humanitarian Award of the Year (2008)
- 14 Young Investigator and NSF CAREER awards
- 9 members of the Washington State Academy of Sciences

Internal

- David Thorud Leadership Award (2006)
- 5 existing faculty/instructors have been awarded UW Distinguished Teaching Awards. (In the School of Aquatic and Fishery Sciences alone, 20% of the current faculty have been awarded UW Distinguished Teacher Awards.)
- S. Sterling Munro Public Service Teaching Award (2009)
- James D. Clowes Award for the Advancement of Learning Communities (2005)
- Brotman Award for Teaching Excellence (2002 and 2007)

Productivity and Efficiency

Indicators of the productivity of CoEnv research, teaching and service can be seen in the metrics described in the General Size/Data section, above. Of particular note is the efficiency at which CoEnv produces these statistics. Collectively the departments within CoEnv generated:

- **\$677K/FTE/year** in **total grant and contract research expenditures** (3-year average)
- **527 undergraduate SCH/FTE** and **136 graduate SCH/FTE**. Individual units generated between 223 – 3,241 undergraduate SCH/FTE and 117-235 graduate SCH/FTE. (AY 2009-10)

- **2.7 degree majors/FTE/year**, including 1.6 undergraduate degrees/FTE/year and 1.0 graduate degrees/FTE/year.

These metrics put CoEnv as consistently one of the most productive and efficient colleges for the UW across all measures of research, teaching and service.

b. Impact on diversity

How the unit addresses diversity (e.g. faculty, students, curriculum, etc.)

Tick the level of importance to your unit:

HIGH MEDIUM LOW

As in many STEM fields, environmental, geoscience and natural resource disciplines and professions have been conspicuously underrepresented by both individuals and institutions that reflect the full spectrum of perspectives and cultures. Adding complexity and urgency to this lack of representation is that often environmental and natural resource problems are thoroughly intertwined with issues of equity and social justice. As a result, CoEnv has the critical responsibility of increasing recruitment and retention of a more diverse* constituency at all levels within the college (i.e., faculty, staff, students, stakeholders). In addition, CoEnv strives to increase the perceived relevance of the environmental, geoscience and natural resource disciplines among broad and diverse segments of the population.

* The CoEnv definition of diversity follows that of the UW 2010-14 Diversity Blueprint and is defined as "groups or individuals with differences culture or background, including, but not limited to, race, sex, gender identity, socioeconomic status, ethnicity, sexual orientation, age, disability, nationality, religion, and military status."

Students

Undergraduate

With a few notable exceptions (described below), the CoEnv student profile is very similar to the UW and national averages. **Underrepresented minority students** in the College currently represent **7.2% of the total undergraduate student population**. (UW average is 12.3%.)

Graduate

The percentage of **female graduate students** in the College is **52.3%**. (UW average is 54%.) According to the NSF Division of Science Resources Statistics, the percentage of female graduate students in the Earth, atmospheric, and ocean sciences in 2006 was 46.9% (2010-11 Academic Year, CoEnv: 51.5%). The percentage of female graduate students in the biological sciences in 2006 was 56.3%. (2010-11 Academic Year, CoEnv: 50.3%)

The percentage of **underrepresented minority graduate students** in the College is **8.2%**. (UW average is 8.8%) According to the NSF Division of Science Resources Statistics, the percentage of underrepresented minority graduate students in the Earth, atmospheric, and ocean sciences in 2006 was 5.8%. (2010-11 Academic Year, CoEnv: 5.3%) The percentage of underrepresented minority graduate students in the biological sciences in 2006 was 9.5%. (2010-11 Academic Year, CoEnv: 12.5%) One particular bright spot for CoEnv is the percentage of **Native American graduate students**. At **1.5%** of the total CoEnv graduate population, it is **two and a half times the national average** of 0.6% of the total post baccalaureate student enrollment in degree-granting institutions (U.S. Department of Education, Institute for Education Sciences, 2008).

Faculty

Within CoEnv 29 FTE (24.0%) of faculty are female, compared with the UW average of 40.1%. This is a significant increase relative to historic levels and the numbers of female junior faculty

reflect individual department efforts to increase diversity in their faculties. Out of the 49 Associate and Assistant Professors, 19 (39%) are female.

Diversity Initiatives and Programs

The UW’s 2010-2014 Diversity Blueprint has laid out strategies to increase and infuse diversity throughout our campus community, from the undergraduate and graduate communities, to the staff and faculty. The CoEnv diversity initiatives are nested within this larger framework to take advantage of the university’s integrated vision and shared responsibility for diversity.

Within the CoEnv units there are several initiatives/programs that should be highlighted as models for success, including the Bioresource-Based Energy for Sustainable Societies IGERT co-led by the School of Forest Resources and the Department of Chemical Engineering, the Friday Harbor Laboratories' Blinks - NSF REU Summer Internship Program, and the JISAO summer internship program for undergraduates. These programs and others work with partners and underrepresented communities on critical pipeline issues to attract, retain, and graduate a diverse and excellent student body.

At the college-level there is a search underway for the Associate Dean for Academic Affairs and Diversity. The role of this individual with respect to diversity initiatives will be to provide hands-on leadership and communicate commitment to diversity at the college level by developing a diversity plan and accountability measures that are tied to the UW’s Diversity Blueprint. Through leveraging of internal and external resources, the Associate Dean will be responsible for facilitating and encouraging diversity efforts so they become clearly articulated as essential elements in our missions of teaching, research, and service.

c. Collaborations

The nature and extent of collaborations in the unit (both UW internal, inter-departmental and external collaboration with the community)

Tick the level of importance to your unit:
 HIGH MEDIUM LOW

Our partnerships include formal interdisciplinary links across campus as well as collaborations with academic institutions, federal, state, and local governments, industry, and tribal entities. Joint and adjunct faculty are prevalent between CoEnv departments and with other UW units, as are WOT appointments in partnership with the Applied Physics Laboratory. Affiliate faculty from a wide range of external public and private agencies and organizations serve as graduate mentors and professional colleagues and we house USDA Forest Service, US Geological Survey, National Park Service, NOAA, and Washington State University personnel to foster mutually-beneficial collaborations.

Examples of collated and specific tracked metrics for collaborations and partnerships include:

- CoEnv departments work with a total of 220 affiliate faculty
- CoEnv departments work with a total of 44 adjunct faculty
- 31 (23%) of CoEnv faculty hold either joint or adjunct faculty positions in another UW department/college
- Since 2006, 12 community partners (7 local/municipal agencies, 1 Washington State Agency, 2 federal agencies, and 2 private sector partners) have hosted 17 keystone projects for the Environmental Management Graduate Certificate Program.
- The Washington Sea Grant (WSG) 2008 annual report identified 98 academic programs, 149 state and local agencies, 45 federal agencies, 29 tribes and regional entities, 71 industries/businesses and 99 nongovernmental organizations involved in WSG activities.

- Over 85 NGOs, businesses, tribes, government agencies (local, state and federal) and universities have collaborated in the Northwest Environmental Forum workshops.

d. Student demand

The amount of student demand in the unit (undergraduate and graduate)

Tick the level of importance to your unit:

HIGH MEDIUM LOW

Undergraduate

The College of the Environment is experiencing significant increases in demand from undergraduate students for the majors and courses offered across CoEnv. The number of **enrolled undergraduate majors** we are serving has **grown 43% in the last three years**, from 678 to 968 (Autumn Qtr, 10th day census). The total undergraduate Student Credit Hours we provide has also increased over 8% from 2007-08 to 2009-10 and many of our courses regularly reach capacity and are oversubscribed.

Graduate

Our graduate programs are selective and highly attractive. An average of ~30% of graduate applicants are admitted (10-15% are admitted for some of our most selective programs) and more than 50% of those admitted chose UW, with some programs regularly seeing more than 80% of the students they admit coming to their program. The graduate student SCH have also increased by 15% from 2007-08 to 2009-10.

Finally, while many of the CoEnv programs are at or over capacity, some additional demand for access to courses and programming is being met through non-traditional mechanisms to serve broader populations. These include online courses, evening seminar series open to both the public and registered students for credit, and partnerships with other institutions to deliver curricula and training programs.

e. Impact on revenue/sustainability

The leverage a state dollar provides the unit and the proportion of the unit that is self-sustaining

Tick the level of importance to your unit:

HIGH MEDIUM LOW

As described above in Section A, the CoEnv portfolio multiplies the state investment in faculty and staff salaries and again is shown to be one of the most efficient and productive colleges within the UW.

Specifically, for every dollar of permanent GOF and DOF, CoEnv generates:

- **\$3.52 in total grant and contract research expenditures** (\$3.07/\$ of total GOF and DOF) (3-year average)
- **\$0.45 of RCR** (\$0.38 RCR/\$ of total GOF and DOF) (3-year average)

In addition CoEnv generates

- Student credit hours at an average cost of **\$340/SCH** (3-year average) [Note that this ratio does not exclude the GOF and DOF dedicated to specific research and outreach programs, such as the Pacific Northwest Seismic Network and the State Climatologist, so the true cost of \$/SCH is much lower.]

Self-sustaining budgets are currently managed by units who provide conference facilities and educational programs in partnership with UWEO. Additional course fees are also relatively common for CoEnv courses to cover hands-on research activities (e.g., lab supplies, field trips) and online courses. CoEnv is currently assessing the feasibility of developing professional masters programs and additional programs/courses in partnership with UWEO to generate additional self-sustaining revenue.

f. Uniqueness

The uniqueness of the unit and the overlap that exists with other units at the UW, in the state, and/or in the nation

Tick the level of importance to your unit:

HIGH MEDIUM LOW

With respect to other leading U.S. environmental programs/colleges, the UW College of the Environment is unparalleled in both the depth of its strengths and its breadth.

Within the CoEnv, units offer a combination of programming that serves unique niches as well as programming that reflects a more liberal arts perspective. Specifically with respect to academic programs,

- Several departments are one of only a handful of national peers and stand out as national resources. These units offer unique undergraduate and graduate experiences and draw more out-of-state students than the college average.
- Several departments may have a moderate number of peers across the country, but they are known nationally for the quality of their research and education. These units often have a research emphasis (that is not exclusive) on regional issues and have well established ties to state and regional agencies and institutions.
- The remaining units offer more conventional degrees that are in high demand, and therefore offered at more institutions.

Overall, the CoEnv is unique within the UW for the almost 100% participation of undergraduate students in intense experiential learning through senior research and thesis requirements, senior capstone projects, and undergraduate research opportunities.

g. Centrality / Contribution to UW Core Mission

The central and essential nature of the unit to the core mission

Tick the level of importance to your unit:

HIGH MEDIUM LOW

The UW has three core missions of learning, discovery and engagement and CoEnv has a balanced portfolio that contributes to all three.

Discovery

Higher education in general has a responsibility to tackle challenges that threaten the well-being of the planet and social systems through cutting-edge research and education. Through the creation of the College of the Environment, the UW has taken a leadership position in defining emerging fields of research, integrating approaches to understanding coupled physical, biological, and human systems, and creating innovative mechanisms to accelerate the impact of university research on the preservation, management, and enhancement of the environment. As the 2y2d exercise has identified, this is an area of investment that will help position the UW to thrive in the next twenty years.

Learning

In addition to serving CoEnv majors, there is very high demand for CoEnv courses from students from across the UW. This comes from a combination of providing numerous opportunities for students to earn their Natural World general education requirements (as well as those for Individuals and Societies) and general student interest in environmental literacy.

The high demand for courses relative to the number of majors in CoEnv (measured by SCH/enrolled major) is unique within the UW and demonstrates the central role that CoEnv plays in educating the entire student population. This demand requires that we have an

efficient advising and student services team to manage the relatively large number of individual students that have contact with our units. Specifically, in 2009-10 CoEnv provided the equivalent of a full load of SCH for each of our ~885 majors and, in addition, provided the equivalent of a full load of SCH for another ~540 students (i.e., an additional 61%). In comparison, in 2009-10 the College of Arts and Sciences provided the equivalent of a full load of SCH for each of its majors and an additional 31% of their total majors and the College of Engineering provided the equivalent of a full load of SCH for just under half of all of its majors.

Engagement

Engagement is one of the pillars of the UW vision and values and is also one of the most challenging to sustain in times of decreasing fiscal support. To ensure the UW and the CoEnv educate a diverse student body to become responsible global citizens and future leaders, we must remain committed to the active pursuit of global engagement and connectedness and to serving all our citizens.

CoEnv is strongly positioned to advance the contributions of academia to the very concrete problems of the world around us. Its structure combines an operational academic framework for supporting fundamental education and research with a flexible institute model that forges innovative partnerships that initiate and define emerging areas of research needs and pragmatic solutions. Fundamental to the College is the concept of creating science-based tools and products for a broad range of stakeholders. We provide these tools to our region and the world through strong collaborations with industry, government and grassroots organizations. This outreach component is the vital link that makes the entire spectrum of the UW’s environmental research, development and application available to those who use, manage and safeguard our natural resources.

h. Value to the state

The value the unit provides WA state in social and/or economic impact

Tick the level of importance to your unit:

HIGH MEDIUM LOW

CoEnv faculty, staff, field agents, and students provide a comprehensive array of service and value as a dynamic mix of best science, advice, testimony, education, leadership, and outreach. We are engaged in debate and help define issues of wide public interest such as the impacts of climate variability and change, effects of hatcheries on wild populations, use of Marine Protected Areas for conservation, water regulation and health of salmon, habitat destruction and restoration, life cycle analyses of timber products and trade, and the use of the State’s excess biomass as a renewable energy source. Every day of the week we talk to the people of this state (and around the world) in many ways about myriad issues that affect their lives and economy. News media, government panels, citizens oversight committees, thousands of individual emails and letters ask us for opinions and insight and ask us to participate in an impartial, neutral fashion to speak in formal testimony, keynote addresses, as expert witnesses on myriad issues that affect our communities, our economies, and our lives.

In addition, our alumni cover a wide range of careers important to the State: scientists who serve as senior administrators and section heads of major federal, state and local government agency divisions (e.g., NOAA, USGS, USDA, WDFW, WDOE, King County), as well as for tribes in Pacific Northwest; serve as leaders, scientists and managers of businesses at the foundation of our State’s economy and workforce (e.g., Arctic Storm Co., Weyerhaeuser, Port Blakely Tree Farms, Taylor United Shellfish, 3Tier); and serve as staff scientists and as leadership for NGOs such as the Cascade Land Conservancy, and The Nature Conservancy.

Specific examples of tracked service/outreach metrics:

- Visitors to UW Botanic Gardens annually: 320,000 (250,000 to the Arboretum; 70,000 to the Center for Urban Horticulture), 98% are from Washington state. (As compared

to the 200,000 annual visits to the UW campus for cultural events hosted by the UW performance venues and museums.)

- UW Botanic Gardens Educational Programs: 11,240 people participate annually
- Elizabeth C. Miller Plant Answer Line: 5,500 calls/year
- Volunteer hours in Washington Sea Grant-sponsored activities (2009): 10,153

i. Role in the field

The degree to which the unit contributes to the overall field or discipline

Tick the level of importance to your unit:

HIGH MEDIUM LOW

Examples of metrics include:

- High rate of faculty peer-reviewed papers in leading journals of the fields, including *Science* and *Nature*
- Very high rate of faculty peer-reviewed papers in leading across the CoEnv units relative to their peers (source: NRC 2010 doctoral program rankings)
- Very high citation rates across the CoEnv units relative to their peers (e.g., Geosciences at the UW ranked 3rd in the world (and the top university) in the ISI Essential Science Indicators for Institutional Rankings: Citations per paper (Jan 1 1999- June 30, 2009)

In addition to the productivity metrics above, CoEnv contributions to the relevant fields disciplines is also demonstrated through the leadership and facilitation roles of CoEnv units/personnel, including:

- CoEnv faculty and staff serve on editorial boards for dozens of peer-reviewed journals
- CoEnv faculty have served as NSF program managers, and routinely participate as peer reviewers for federal and state funding programs
- CoEnv faculty frequently serve as external reviewers for federal and university programs
- CoEnv operates unique and world-class facilities and research platforms/networks for the state, national, and international research community (e.g., R/V Thompson, OOI Regional Scale Nodes (Neptune), Friday Harbor Laboratories, Pacific Northwest Seismic Network, Wind River Canopy Crane, World Wide Lightning Location Network, etc.)

j. Strategic relevance

The strategic importance of the unit to the UW's ability to stay relevant in addressing society's most pressing issues

Tick the level of importance to your unit:

HIGH MEDIUM LOW

The increasing human footprint on Earth poses great environmental challenges that will continue to grow over time. An unprecedented effort is required to mitigate the adverse effects that human activities have on the ecosystem, effects that in turn alter how we interact with the Earth and with each other. CoEnv is committed to playing a major role in advancing our understanding of the environment and our interactions with it, and in developing innovative approaches to address environmental problems.

CoEnv's unique strength is the combination of outstanding faculty studying the earth's atmosphere, land and water systems with those studying human dimensions of the environment, the application of engineering and technological solutions to environmental problems, and the impact of policy on environmental change. Through the CoEnv, the UW is positioned as a world leader in understanding environmental function, developing

collaborations to meet environmental challenges, and educating future generations of environmental scholars and leaders.

3. CENTRALLY-PROVIDED DATA AT THE SCHOOL OR COLLEGE LEVEL

For departmentalized schools and colleges only; non-departmentalized schools or colleges submit Appendix B only

- Please attach to this form the Excel spreadsheet of centrally-provided data available at the website below.

Central data definitions and data will be available on the OPB site at:
<http://www.washington.edu/admin/pb/home/uw-pem.htm>

This document was prepared by: Stephanie Harrington	Contact information: 3-0878, stephah@uw.edu
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HOW & WHEN TO SUBMIT	
Submit this form as an appendix with your 2012 budget form to: Amy Floit, Director of Budget Operations afloit@u.washington.edu	Deadline: February 1, 2011
QUESTIONS	
For questions about program evaluation metrics or data templates: Carol Diem cdiem@u.washington.edu 543-6285	For questions about the Program Evaluation Initiative, the evaluation process, or this form: Marisa Nickle mnickle@uw.edu 685-2745
ESSENTIAL RESOURCES	
Provost's 2012 budget letter with <ul style="list-style-type: none"> • Attachment A: FY2011 Investment Funds and Bridge Funds Allocated to Units & • Attachment B: FY2012 Budget Reduction Draft 	http://www.washington.edu/admin/pb/home/uw-bgt-process.htm
Central data, data definitions and templates for adding local data to program evaluation appendices:	http://www.washington.edu/admin/pb/home/uw-pem.htm
Program Evaluation instructions, forms, templates, and details:	http://www.washington.edu/discover/leadership/provost/initiatives/2y2d/program-evaluation