

Program Review of the College of Forest Resources March 27, 2009

Review Committee:

Chair: Thomas Quinn, Professor, UW School of Aquatic and Fishery Sciences
William Rodgers, Stimson Bullitt Professor of Environmental Law, UW School of Law
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Introduction

The Review Committee (RC) began its work following receipt of the appointment letter, dated December 17, 2008 from Gerald J. Baldasty, Interim Vice Provost and Dean of the Graduate School and James Soto Antony, Associate Dean for Academic Programs. A binder of materials was provided by the College of Forest Resources (CFR) including an Academic Program Review Self-Study document and also documents pertaining to the review carried out in 1996 (report from the review committee, CFR response to the report, administrative actions, etc.).

On January 21, 2009 the members of the committee (by teleconference in the case of Drs. Smith and Standiford) met with James Soto Antony, Associate Dean for Academic Affairs and Planning, Bruce Bare, Dean, College of Forest Resources, Stephen D. West, Associate Dean for Academic Affairs, College of Forest Resources, Gordon Bradley, Professor and Faculty Chair, College of Forest Resources, John D. Sahr, Associate Dean, Undergraduate Academic Affairs, and Augustine McCaffery, Senior Academic Program Specialist, The Graduate School. At this meeting we discussed the goals of the review and various aspects of the process including administrative and logistic matters. It was recognized that the timing of the review is unusual and presents special challenges, as it comes during a period of severe budgetary problems and also in the early stages of the formation of the College of the Environment (CoEnv). The final composition of the CoEnv, in terms of core academic units, has not been finalized but a majority of the CFR faculty voted to enter CoEnv. For the purposes of this review we assumed that CFR would become a school and be among the core units in CoEnv. However, we realize that this is not a *fait accompli* and we do not intend to substitute our judgment for that of the Reorganization, Consolidation, and Elimination of Programs (RCEP) process.

Members of the review committee decided to adopt the committee's charge and use that as the focus of the review. To quote from the charge: The most important objective of your review is an assessment of the academic and educational quality of the College.

Important questions include:

- 1) Are they doing what they should be doing?
- 2) Are they doing it well?
- 3) How can they do things better?
- 4) How should the University assist them?"

Key Findings

Overall Impression

Overall, it is the unanimous impression of the committee that the CFR is a high quality, well-respected unit both nationally and internationally. It has undergone remarkable positive changes in morale and substance since the previous (1996) review and is now much stronger. We noted the exceptional atmosphere of mutual respect among representatives of all the groups with whom we met: a collegial, productive faculty with many well-chosen new hires, articulate and engaged undergraduate and graduate students, dedicated and loyal staff, and a transparent and responsive administration.

There have been very significant changes in the curriculum at both undergraduate and graduate levels in recent years. These seem to have resulted from successful long-range planning efforts, and reflect changes in the demographics of students (e.g., more women and a greater focus on conservation and ecology-related aspects of forestry and natural resources) and also changes in the external environment (need for forestry to integrate more closely with aquatic and fisheries research, urban and suburban systems, environmental conservation issues, sustainability, etc.). Specifically, CFR formerly offered seven undergraduate degree programs with total enrollment of 208 students in 2003.

In recent years the enrollment has increased to 156 graduate students and 250 undergraduates in autumn, 2008. Undergraduate enrollment growth over the past 5 years was over 20 percent. Enrollment increased by over 18 percent in both the ESRM and PSE majors in the past year alone. These changes in enrollment in CFR took place despite relatively constant overall undergraduate enrollment at the University of Washington. It is tempting to ascribe the increases to the specific changes made by CFR but this is difficult, given the diversity of factors affecting enrollment. We conclude, however, that the current curriculum is more appealing and easier for students to understand and seems to position the CFR to take advantage of the changes within and outside the University of Washington. We anticipate that CFR will need to develop metrics to assess the extent to which students trained in these programs are prepared for and considered by employers to be well qualified for the diversity of employment opportunities that await them upon graduation.

Notwithstanding the many positive changes in the CFR since the 1996 review, three major uncertainties were repeatedly noted by faculty, staff, students, and administration alike. These uncertainties are linked in many ways, and together seemed to pose the main challenges for the CFR.

First, there are serious concerns about budgetary matters. Obviously, the fall of 2008 and winter of 2009 have seen significant financial upheavals throughout the country, with effects on the State of Washington budget that will greatly affect the University of Washington. CFR cannot be immune to the budget cuts that inevitably result from these problems but uncertainty about the magnitude of the cuts and the ways in which they might affect staff, students and faculty clearly affected the people with whom we met.

A second area of uncertainty is tied in with the College of the Environment (CoEnv) as approved by the Board of Regents. Sixty percent of the faculty of CFR voted to enter the CoEnv and, although we did not consistently poll this topic since it was not part of our charge, we perceived support for this move and optimism about the new College, in general. However, many aspects of the position of CFR in the new College are uncertain, including, but not limited to, perceptions about this change by alumni and representatives of the outside community with whom CFR interacts (e.g., federal, state, and local agencies that manage forest land, industrial forestry companies, non-governmental organizations) and the possible conflict within the new CoEnv between natural resource programs (i.e., Forest Resources and the School of Aquatic and Fishery Sciences) and programs pursuing more basic and largely physical sciences (i.e., Earth and Space Sciences, Atmospheric Sciences, and Oceanography). Some of these units have not voted yet to join the new College, so all discussion of the new College had a speculative tone. Nevertheless, this will likely have profound effects on the entire Forest Resources program at the University of Washington.

The third area of uncertainty relates to the future administration of the CFR. We see clear reasons for the University of Washington central administration to promptly make decisions that will ease the transition into the next biennium and the new CoEnv, should that move occur. We note that Bruce Bare has served as Dean of the CFR for eight years and all materials we reviewed, and the overall tone of our review, suggested that he has done an excellent job. The 1996 report to the Graduate School noted a number of problems linked to previous administration's style and substance that affected morale among faculty and students. These problems seem to have been overcome, thanks to the transparent leadership style and commitment to collegial strategic planning of Dean Bare. Indeed, the entire administrative team (Chair of the Faculty Gordon Bradley, Associate Dean for Academic Affairs Stephen West, and Associate Dean for Research Robert Edmonds) are to be praised for their roles in the improvements in the CFR. However, both Dean Bare and Chair Bradley are scheduled to step down from their administrative posts at the end of June 2009 and this will leave the CFR in a particularly weak position at the very time when fiscal challenges and potential transition from a college to a school within the CoEnv will require experienced leadership. We were repeatedly told that the uncertainty as to who would lead the unit and how the difficult transitions would be handled were causing stress and providing the main sources of tension within the CFR community. These concerns should be dealt with quickly and decisively. We strongly urge the central University of Washington administration to put this uncertainty to rest as soon as possible by explaining clearly how the process will unfold, who will lead the unit, and in what capacity (e.g., interim Dean, interim Director of a school, etc.). Failure to move decisively could set back many of the very positive accomplishments that have taken place in the past decade. Continuing the current administration through the potential transition was mentioned as an effective and no-cost solution to a serious problem.

Teaching

The graduate program offers Master of Science and Doctor of Philosophy degrees in Environmental Science and Resource Management, with Research Interest Groups in

Bioresource Science and Engineering, Forest Ecology, Forest Soils, Forest Systems and Bioenergy, Restoration Ecology and Environmental Horticulture, Social Sciences, Sustainable Resource Management, and Wildlife Science. This represents a large change, brought about in 2004, from a series of programs with separate coding into one with common requirements. There are also degrees of Master of Forest Resources (MFR) with Society of American Foresters accreditation, and Master of Environmental Horticulture (MEH). These latter two programs are professional degrees with only a single curricular pathway in each.

Graduate students spoke highly of the quality of the faculty, in terms of scholarship, and also accessibility and mentoring. Comments by Graduate School Representatives on the PhD exams indicated generally rigorous examination processes and enrollment by highly qualified students. We conclude that the graduate program is increasing in quality as a consequence of several factors: improved faculty quality including hiring of numerous talented assistant professors, improved morale in the entire college, and outstanding office staff. Faculty and students (both graduate and undergraduate) were unanimous in their effusive praise for the skill and compassion of the student services staff; these individuals evidently have played an important role in the increased enrollment and improved student morale.

The undergraduate program has been consolidated from seven former programs into two: Environmental Science and Resource Management (ESRM) and Paper Science and Engineering (PSE). The ESRM program has options in Landscape Ecology and Conservation, Restoration Ecology and Environmental Horticulture, Sustainable Forest Management, and Wildlife Conservation. These changes were put in place in 2004 and have been associated with increased enrollment. The programs are too new to allow full assessment of their success but all indications are that they were well-designed and will better suit the future interests of the undergraduate student body than the previous, more complex and traditional curriculum. Interviews with undergraduate students revealed similar trends to the graduate student interviews described above. In addition, students were especially positive about the strong emphasis on quality teaching by the CFR faculty and the access to them for advice and feedback.

Accreditation of the PSE program by the national Accreditation Board for Engineering and Technology (ABET) was renewed in 2007. The program has significant endowment support for enrolled students and excellent job prospects for those who graduate. Therefore, although enrollment is small, and the nature of the program is more closely aligned with Chemical Engineering in many ways than forestry curricula, it seems sufficiently successful and well-integrated into CFR for us to recommend no change in its status. Indeed, the faculty with whom we met in this program, were motivated, forward-looking, and eager to see their program join the CoEnv. They are making efforts to include new areas of materials science related to wood and bio-based products, and biofuels in their research and teaching. The main concern that we have for this program is that the faculty are so few in number that they are at risk of not having sufficient “critical mass” to sustain the program. Teaching loads for PSE staff seem to be high; the

ability to teach the required classes depends on continued involvement of recently retired faculty, and also places heavy demands on new faculty.

Although the teaching program appears to be strong overall, we are concerned about the limited funding for teaching assistants. This was identified in the 1996 report as an area of concern by graduate students, and does not appear to have been satisfactorily addressed. The faculty and administration were frank in stating that the State of Washington teaching budget is inadequate to support the number of TAs needed, and so funding associated with vacant faculty positions are currently being used to provide support. This is clearly not an ideal situation for various reasons, but will be especially so in the new College, where such vacant positions will likely be controlled by a new dean. This situation is exacerbated by pending budget cuts that may further constrain the range of options. Support for TAs is exceptionally important and a good value, especially for a program such as CFR. First, teaching assistants are critical to the safety of undergraduate students in field and lab classes that are essential to the success of CFR. Second, they greatly enhance the quality of the courses by virtue of their interactions with students. Third, they free up valuable faculty time for research and administrative activities. Fourth, they provide training for the graduate students who serve in this role. The TA duties typically cause graduate students to consolidate their mastery of the material. Moreover, those graduate students seeking academic careers find the training critical for the development of their skills and their resumes. Finally, the TA positions provide a critical safety net of funding for graduate students and a source of matching funds that faculty often can leverage with outside grant support. Strong financial funding packages are essential for the competitiveness of University of Washington in recruiting highly qualified graduate students. We believe that increased support for teaching assistants will benefit the CFR and UW in general in these and other ways, and encourage UW administration to implement related recommendations.

Research

The CFR has long had a strong reputation for high quality research in basic and applied aspects of forestry and forest sciences, joining the University of British Columbia and Oregon State University as the leading institutions in the Pacific Northwest. Examination of the resumes of the faculty indicates that the reputation is consistent with current quality. There has been a remarkable turnover of faculty, with 23 retirements or departures and an equal number of new faculty hired since 1996. The new faculty members have been hired in specialty areas determined on the basis of CFR's successful strategic planning process and reflect changes in the overall focus of the CFR from traditional forest management to broader environmental conservation and sustainable natural resource and community development based on strengths in economic, social and environmental, and ecological sciences. We believe this transition was remarkably well done, realigning traditional programs, such as pulp and paper, in directions thought best by experts in that field while taking on new challenges (e.g., climate change) brought to the fore by contemporary research.

The CFR has eleven facilities, centers and institutes that focus on specific aspects of the diverse research mission of the college. These units are all different from each other, in

terms of history, present size and scope, extent and source of research support, facilities, clientele served, involvement in the teaching mission of CFR, and other important attributes. They include, for example, several large facilities (Pack Forest, the University of Washington Botanic Gardens, and the Olympic Natural Resources Center) and some that are vigorous but rely on human resources more than infrastructure (e.g., the Center for International Trade in Forest Products (CINTRAFOR) and the Water Center). We found it very difficult to adequately assess these centers and institutes in the time available to us because of their diversity as a group and complexity as individual units. Rather, we urge the CFR to continue to critically assess each unit, considering the costs of administration and facility maintenance, utilization in teaching and research, and relevance to the mission of CFR and the CoEnv. We see these centers as major potential resources for the new CoEnv. They are a key mechanism to involve stakeholders in mission-oriented research programs. As most of the directors of these centers approach retirement in the next few years, new leadership will need to be recruited in the context of a rationalized strategic plan for all centers.

Faculty

We met with members of the faculty in several small groups, and were impressed by their level of morale and commitment to the program. We were particularly impressed with the assistant professors, with whom we met separately from the tenured faculty. The faculty (both senior and junior) generally conveyed a collegial attitude towards each other, optimism regarding their future in the CoEnv, and respect for CFR students, staff and administration. It is clear that the faculty as a whole have taken the comments from the 1996 review very seriously and made many steps, along with the administration, to address the problems that were noted. Specifically, the earlier report noted “sharp, public disagreements among certain faculty, that have been personal in nature, centering on professional differences about the use and management of forests and their resources”. These disagreements are no longer a major issue within the faculty. Particularly noteworthy is the organized mentoring effort provided to the large cohort of assistant professors, which bodes well for their future success. The overall improvement in morale was evident, but we were repeatedly struck by concerns related to the budget, the transition to the CoEnv, and the uncertainty as to who will lead the unit in the near future. These concerns were expressed by junior and senior faculty as well as administrative staff, and threaten the strength and cohesion of the unit as a whole.

Administration

The 1996 report noted “an ‘us versus them’ division between the faculty and the College administration resulting from differences of view about certain internal decisions made over the previous years.” We were pleased to note that the administration of the CFR is currently widely perceived as fair and their actions transparent for all to see. Indeed, Dean Bare has gone to unusual lengths to make his memos and decisions accessible to those who wish to scrutinize them. We heard praise for the administration’s fiscal management, commitment to strategic planning, shared governance and respect for faculty and staff. These give good reason for optimism for the future. However, as noted elsewhere, there are concerns as to who will lead the CFR, and in what capacity, in the upcoming months as the transitions to the next biennium and the new college take place.

Conclusions and Recommendations

The College of Forest Resources is a strong unit that has responded in many ways to the constructive comments in the 1996 Graduate School review. The administration has changed in both personnel and managerial style, the curriculum has been streamlined and revised, the faculty rejuvenated and motivated by new hires, and the student enrollment and morale have improved. We did not detect any fundamental weaknesses within the unit but rather were impressed by the positive steps that have been taken and the benefits to the program. We see no reason why the next Graduate School review should be any sooner than the normal period of ten years from this review.

The CFR is troubled primarily by external forces, most notably by uncertainty regarding 1) the budgetary crisis affecting the University of Washington and the broader community at this time, 2) the transition from status as a college to a school within the CoEnv, with all the attending issues related to self-control, changing set of peers evaluating faculty promotion and tenure decisions, access to resources and information, and other important matters, and 3) uncertainty as to who will lead the College/School of Forest Resources into the new administrative realm and the upcoming biennium. We urge the University of Washington to provide as much assistance as possible to this unit to allow it to continue its trajectory of improvement and to prevent unnecessary stress to faculty, staff and students during this unsettling period.

The changes in the academic program are exciting and show great promise in terms of student enrollment and quality of education. It is too soon to know how successful these will be in the long run, and we recommend that CFR develop metrics to assess how well-suited the students are for the current and likely future career opportunities across the range of fields that are open to students. Conversations with the CFR's Visiting Committee revealed diverse expectations regarding the skills and background that graduates should have.

The PSE program is small but vital, and provides training for students in an area with good prospects for employment. We commend the PSE faculty for their efforts to integrate with the rest of the CFR and to consider their role in the broad mission of the CoEnv. However, the number of faculty is small for the teaching demands, and we recommend that the CFR administration determine what level of faculty will be needed to maintain the vitality of PSE and to make plans accordingly.

The 1996 Graduate School review identified the inadequacy of funding for graduate students in general, and the availability of teaching assistant positions in particular, as a concern. Despite the best intentions of the administration, this issue has not been resolved. We recognize that in some disciplines graduate students are not universally or even typically supported during their years at the university, whereas in other disciplines it is expected that financial support will be provided for the student and his/her research needs (e.g., equipment, travel, field assistants, etc.). We recommend that teaching assistant positions be prioritized highly, and that efforts be made to provide financial support to graduate students to the greatest extent possible.

The CFR is a complex unit, and the many centers enhance the program but place ongoing demands as well. The recent review by The Ad Hoc Committee for Review of College of Forest Resources Centers (chaired by Dr. Robert Edmonds, report dated February 27, 2009) identified the strengths and weakness of each unit, and highlighted their diversity. The combination of present and likely future financial problems, significant under-utilization of some facilities, uncertain leadership (in some cases) and diversity of clients and funding sources make these units unwieldy as a group. The CFR faculty and administration will need time to carefully consider the Ad Hoc Committee's report (which was completed after our committee's site visit) but the status quo does not seem sustainable. If any units are to be eliminated or consolidated the decision should be based on likely future contributions rather than the past, and underutilized units will need specific plans or their financial needs may compromise other programs.

Closing Remarks

As a committee we are grateful to the Graduate School for the opportunity to conduct this review. We deeply appreciate the efforts of the many CFR faculty members, staff, administrators, and students who took the time to meet with us and also to facilitate our visit. We hope that our comments are taken as constructive and positive, and that they are helpful in the enhancement of this important part of the University of Washington.