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May 8, 2019

Memorandum

TO: Faculty Senate Executive Committee

FROM: Jeffrey Brodd, Chair

Academic Program Review Oversight Committee

SUBJECT: Program Review of the Department of Environmental Studies

The Academic Program Review Oversight Committee has reviewed the Academic Program Review report of the Department of Environmental Studies prepared by Review Team chair Jeffrey Brodd and agrees that it is ready for final approval. The Committee thanks and commends all of those involved in the review for their collegial and effective approach to the process.

The Review is ready for action by the Faculty Senate.

cc: Jeffery Foran, Chair, Department of Environmental Studies
Edward Lascher, Interim Dean, College of Education
Kitty Kelly, Chair, Curriculum Policies Committee
Amy Wallace, Associate Vice President, Academic Excellence
Steve Perez, Provost and Vice President for Academic Affairs (Interim)

Academic Program Review Report

Department of Environmental Studies

California State University, Sacramento

Review Team

Dr. Jeffrey Brodd, Department of Humanities & Religious Studies (Chair)
Dr. Jesse Catlin, College of Business Administration
Dr. De-Laine Cyrenne, Department of Psychology

External Consultant

Dr. Matt Johnson, Humboldt State University

Spring 2019

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OVERVIEW OF THE PROGRAM REVIEW PROCESS

The Department of Environmental Studies, one of fourteen academic units in the College of Social Sciences & Interdisciplinary Studies, submitted its Self-study in January, 2017. A lengthy search for a suitable external consultant resulted in securing a visit on April 4 and 5, 2018 by Dr. Matt Johnson of Humboldt State University. He submitted the External Consultant's report at the end of April. In the intervening months since submission of Dr. Johnson's report, the Academic Program Review Oversight Committee has finalized a proposal for major revision to our campus' approach to program review. This Academic Program Review Report attempts to incorporate key elements of this revised approach while adhering to the still-current policy, as revised in 2013. These elements include focus on review of the specific degree programs offered by the academic unit, recognition of the external consultant's review and recommendations as representing an expert and authoritative perspective relative to that of the internal review team, and an outcome aimed at facilitating meaningful steps toward improving opportunities for student learning. Essential components of this outcome are recommendations that clearly indicate who needs to be responsible for taking appropriate action while also being broad enough in scope to solicit response from all necessary participants (e.g., sometimes including not only the Department but also the College and sometimes also the Provost). (The proposal for revision to approach to program review calls for production of an MOU/action plan once the program review report has been finalized; all reports must aim to facilitate this crucial subsequent step.)

Dr. Johnson proved to be a very capable external consultant. The Review Team accepts most everything in his report, all of which is incorporated within the body of this current report. Dr. Johnson's report does however suffer from failure to disaggregate the Department's two degree programs, the BA and the BS. It also does not address main aspects of the Focused Inquiry element of the Self-study. This current report endeavors to augment Dr. Johnson's report in these regards, while also providing commentary intended to contextualize the report's findings based on relevant specifics of our situation here at Sacramento State.

In its production of the Self-study, the Department appropriately followed the instructions contained in the Sacramento State *Academic Program Review Manual* as last revised in 2016. The Self-study consists of three main sections:

- 1. General information about the program, e.g., data on students, faculty, staff, facilities, etc. (most of which is supplied by Office of Institutional Research, Effectiveness, and Planning);
- 2. A statement of intended student learning outcomes at the program level; methods for assessing them, including the use of direct measures; assessment results to date; and documentation of the use of assessment results in efforts to achieve program improvement (assistance with the preparation of which is available from the University Assessment Coordinator); and
- 3. The results of a focused inquiry addressing issues of particular interest/concern to the Department, in the context of what is currently important to the College and University.

The focused inquiry is succinctly described in the opening paragraph (p. 23) of Section III (Focused Inquiry) of the Self-study (pp. 23-31):

The goal of the Focused Inquiry is to evaluate the Environmental Studies program to ensure that it is offering knowledge, skills, and experience that reflect the state of the discipline. To that end, we conducted a comparative evaluation of the CSUS Environmental

Studies mission and the missions and program components of Environmental Studies programs within and outside of the CSU system. As a majority of Environmental Studies graduates pursue careers in state government, we also evaluated knowledge and skill requirements for entry-level environmental positions to ensure that our program is preparing students appropriately to pursue careers in state government as well as other sectors that address environmental issues. Finally, we offer recommendations for future growth and development of the Department and the program.

The structure of this report is based on the three-section format of the Self-study. Prefatory material and an executive summary of commendations and recommendations are followed by 1) general information about the Program, 2) issues involving learning outcomes and assessment, and 3) analysis of the focused inquiry findings. A final recommendation is made to the Faculty Senate. The text of Dr. Johnson's external consultant's report is indented and set in Calibri font in order to enhance clarity.

This program review is based on consideration of various documents and websites and on consultation with various individuals and groups:

Persons Consulted

Dr. Jeffery Foran, Chair, Department of Environmental Studies

Dr. Edward Lascher, Dean, College of Social Sciences and Interdisciplinary Studies

Dr. Matt Johnson (External Consultant), Professor, Wildlife Department, Humboldt State University

Dr. Amy Liu, Director, Office of Academic Program Assessment

Students in ENVS 135, California Water and Society (class visit; this is a course for ENVS majors and minors)

Documents Consulted

Self-Study proposal (June 30, 2015):

https://www.csus.edu/acaf/programreview/Self_Study_Proposal/14-

15 Proposal/EnvironStudies Proposal 14-15.pdf

Self-Study (January, 2017):

https://www.csus.edu/acaf/programreview/Self Study Report/14-

15 Reports/EnvironStudies SSReport 14-15.pdf

Department of Environmental Studies website: https://www.csus.edu/envs/

California State University, Sacramento: 2019-2020 Catalog,

- BA in Environmental Studies: https://catalog.csus.edu/colleges/social-sciences-interdisciplinary-studies/environmental-studies/
- BS in Environmental Studies: https://catalog.csus.edu/colleges/social-sciences-interdisciplinary-studies/environmental-studies/
- Minor in Environmental Studies: https://catalog.csus.edu/colleges/social-sciences-interdisciplinary-studies/environmental-studies/

Assessment Documents:

• Assessment Plan, Environmental Studies: https://www.csus.edu/programassessment/assessme

- Annual Assessment Report (2015-2016), BS Environmental Studies [mislabeled as BA on OAPA webpage]: https://www.csus.edu/programassessment/annual-assessment/2015-16reports/Report%20PDFs%20and%20FEEDBACK/Report%20PDFs%20by%20College/Soc%20Sci%20and%20Interdis%20Studies/Environ%20Stdies/15-16%20ba%20envi%20stds.pdf
- Feedback for the 2015-2016 Annual Assessment Report, Environmental Studies BA [should be BS]: https://www.csus.edu/programassessment/annual-assessment/2015-16reports/Report%20PDFs%20and%20FEEDBACK/Feedback/SSIS%20Feedback/15-16%20ba%20enviro%20pkt%20final.pdf
- Annual Assessment Report (2013-2014), Environmental Studies: https://www.csus.edu/programassessment/annual-assessment/2013-14reports/Reports%20pdfs/Remaining%20Reports/2013-2014%20Envir%20Studies%20Assmt%20Rpt.pdf
- Feedback for the 2013-2014 Annual Assessment Report, Environmental Studies: https://www.csus.edu/programassessment/annual-assessment/2013-14reports/Reports%20pdfs/PACKET%20Environ%20Studies%20BA.pdf

Office of Institutional Research, Effectiveness, and Planning: http://www.csus.edu/oir/

- Fact Book Fall 2017: Environmental Studies: https://www.csus.edu/oir/datacenter/departmentfactbooks/Environmental%20Studies17.pdf
- The University Fact Book: Fall 2016: https://www.csus.edu/oir/datacenter/universityfactbook/University%20Factbook%202016.pdf
 External Consultant's Report: Sacramento State Environmental Studies Program Review External
 Consultant Report Site Visit: April 4-5, 2018, Dr. Matt Johnson (April, 2018)

Program Review (Office of Academic Affairs): http://www.csus.edu/acaf/programreview/

 Academic Program Review Manual (REV May, 2016): http://www.csus.edu/acaf/programreview/programreviewmanual2016.pdf
 Office of Academic Program Assessment: http://www.csus.edu/programassessment/

EXECUTIVE SUMMARY OF COMMENDATIONS AND RECOMMENDATIONS

Commendations:

Commendation 1: The Department, since its pathbreaking inception in 1972, has maintained true interdisciplinarity in its degree programs, appropriately drawing on the natural sciences, economics, policy studies, and ethical studies.

Commendation 2: The Department has, based on the precipitous recent increase in majors and its broad array of General Education course offerings, clearly been fulfilling a demonstrable need for our students in a subject area with obvious relevance for today's world.

Commendation 3: Departmental faculty show impressive commitment to excellence, and a notably thriving culture for faculty, staff, and students has been maintained.

Commendation 4: Chair Jeffery Foran has, since arriving to Sacramento State in 2013 as designated departmental chair, performed superbly in overseeing rapid growth in student enrollment while facing

challenging conditions with regard to the number of faculty. He also oversaw the completion of a very informative and conscientious Self-study.

Commendation 5: The Department has developed and maintained an exceptional internship program that provides significant learning opportunities for its students.

Commendation 6: The Department has made significant improvements even since the time of the external consultant visit in the area of student advising.

Recommendations:

Recommendation 1: Carefully consider the viability of maintaining the BA degree program.

Recommendation 2: Continue to apply systematic means of analyzing course content and pedagogical techniques; these might take the form, for example, of a departmental-wide review of syllabi and additional departmental retreats.

Recommendation 3: Consider the balance of transfers and native freshmen, and plan, admit, and recruit accordingly.

Recommendation 4: Work with departmental and campus leaders to decide if, how, and where to launch a graduate program.

Recommendation 5: Develop a five-year hiring and retention plan that considers increased enrollment and faculty attrition.

Recommendation 6: Enhance review of faculty, likely through revising departmental ARTP policy to ensure that it clarifies standards regarding teaching and research achievements.

Recommendation 7: Insofar as resources allow, strive to secure suitable space and staffing correlative to the increase in student enrollment.

Recommendation 8: Continue to enhance the valuable data sets made available through the Office of Institutional Research, Effectiveness, and Planning through feasible steps involving disaggregation, especially with regard to specific degree programs.

Recommendation 9: Do whatever is necessary to continue to maintain the internship program, and evaluate accessibility for students while also incorporating evaluation of the nature and degree of learning through appropriate means of assessment.

Recommendation 10: Develop and implement an effective, meaningful assessment system, taking steps to be as efficient as possible while still meeting campus-established standards.

Recommendation 11: Continue to implement and draw upon the indirect assessment tools of exit and alumni surveys.

Recommendation to the Faculty Senate:

Based on this program review, the Self-study report prepared by the Department of Environmental Studies, and the external consultant's report, the Review Team recommends that the degree programs in Environmental Studies be approved for six years or until the next scheduled program review.

INTRODUCTION

Dr. Matt Johnson begins his external consultant's report with strong words of praise and support:

In short, the Environmental Studies program at Sacramento State University is special; it should be cherished, protected, and promoted.

The Review Team fully concurs, while also noting (as does Dr. Johnson) concern regarding lack of sufficient development and enactment of assessment of student learning. This is the main criticism offered herein, accompanied by enthusiastic endorsement of the vitality of the BS in Environmental Studies. The Department faces important questions regarding the BA, which since the introduction of the BS has attracted relatively few majors, and regarding the possibility of launching a master's program. While program review is not intended necessarily to address minor degrees, it should be noted that the Minor in Environmental Studies is, like the BS, a sound program that offers significant benefits to students.

GENERAL INFORMATION

Overview of the Department of Environmental Studies

The Department of Environmental Studies is one of fourteen academic units in the College of Social Sciences & Interdisciplinary Studies. Dr. Johnson begins the main body of his report with the following section on "General program & review information":

Information from which this review is drawn

I visited the department and associated offices 4-5 April, 2018. Within the department, I met with the chair, the full time faculty collectively and individually (by phone after the in-person visit in some cases), students, part time faculty, and the Administrative Support Coordinator. In addition, I met with the Interim Assistant Vice President of Academic Programs and Educational Effectiveness, the dean of Social Sciences and Interdisciplinary Studies (SSIS), the director of the Office of Academic Program Assessment (OAPA), and the internal review committee. In addition, numerous reports and online materials were made available to me, most importantly the department's Self-Study report from Fall 2016 (and amendment in 2018), the Environmental Studies Fall 2017 Fact Book from Office of Institutional Research, the departmental webpages, departmental alumni survey and exit surveys, the OAPA's assessment reports and templates, and institutional baccalaureate learning goals.

Department mission

The webpage and other department materials offer this consistent mission:

The mission of the Department of Environmental Studies at California State University, Sacramento, is to prepare students to understand and address environmental problems in their political, economic, social, ethical, and scientific contexts. We promote the use of an interdisciplinary approach to teaching and research, and we encourage the development of strong writing, research, and quantitative skills that give students the ability to identify the causes and consequences of human influence on the environment and to work toward sustainable solutions to complex environmental problems.

The mission is well-aligned with the department's curriculum and current activities. I only note that the department might consider subtle rewording of the first sentence. While certainly interdisciplinary, the curriculum has a clear foundation in life and natural sciences, and the department's self-study acknowledges the perception on campus that the program is not rigorous in STEM. The self-study uses somewhat different wording to describe its focus that perhaps more accurately describes the balance of emphases: "...the program is focused on providing a comprehensive scientific and technical curriculum, it also strives to integrate social, ethical, political, and economic perspectives and concepts."

The Focused Inquiry confirms that the Department's mission is generally in keeping with the missions of similar departments in the CSU and beyond. Dr. Johnson makes a good point with regard to the preferable language of the Self-study—something the Department should consider for its website statement. Another important step toward improvement will be to specify to which degree program, BA or BS, this mission statement refers. If it accurately refers to both, this raises the question as to why there are two programs rather than just one. Finally, as discussed below in the section on assessment, a further important step will be to develop programmatic learning goals and outcomes that are as appropriate as possible in light of the mission statement(s).

Two of Dr. Johnson's six formal commendations (#1 and #2) highlight the appropriateness of the Department's mission and the opportunities the Department affords to our students:

A long history of true interdisciplinarity. Started in 1972, and with a contemporary curriculum, the Environmental Studies program sits firmly in the nexus of natural & social sciences, economics, policy, and ethics.

Demonstrably serving a need. California and the rest of the world need well trained professionals that recognize the interface of natural science with policy, economics, and justice. This program helps advance that aim, and it is helping meet student and workforce demand as evidenced by a doubling of student enrollment since about 2008, and an impressive rate of job placement documented in alumni surveys.

As detailed in the Self-study (p. 2), when Environmental Studies major and minor programs were launched in 1972, they were among the first of their kind in the United States. Today, as the Self-study notes at the outset of its Focused Inquiry section (pp. 23-24), eleven campuses in the CSU system offer programs in Environmental Studies, eight with a BA and three with both BA and BS options; two of the campuses (CSU Dominguez Hills and San José State University) offer an MS. The Sacramento State Department of Environmental Studies is indeed to be commended on its illustrious history and its current interdisciplinary approach.

Commendation 1: The Department, since its pathbreaking inception in 1972, has maintained true interdisciplinarity in its degree programs, appropriately drawing on the natural sciences, economics, policy studies, and ethical studies.

Dr. Johnson correctly commends the Department for demonstrably serving a need, evinced in part by the rapid increase over the past several years in number of majors. The Fall 2017 *Fact Book* states that in Fall 2016 there were a total of 213 majors in the ENVS bachelor's programs. (The *Fact Book* does not differentiate between degrees, nor does it track statistics on the minor.) Table 1.1 in the Self-study Addenda provides an update, citing 256 "Enrolled Majors and Minors" in Fall 2017. Table 2.1 (Summary of program assessment in the current program review cycle) in the Self-study indicates that in academic year 2013-14 there were 191 enrolled in the BS and 0 in the BA. There were 53 bachelor's degrees conferred in 2016-17; the 5-year mean from 2011-12 through 2016-17 was 42, with the annual number rising steadily from 26 in 2012-13. The following table shows number of majors; it is drawn from Table 2 of the 217 *Fact Book* and from the Self-study Addenda.

2012	2013	2014	2015	2016	2017
180	165	174	197	213	256

Dr. Johnson also refers to "an impressive rate of job placement documented in alumni surveys." Although the Department has drawn on the results of only one such survey (of ENVS graduates who received degrees between 2007 and 2011), there is indication from the 41 respondents (a response rate of 29%) of fairly successful job placement. As noted on p. 8 of the Self-study, 80% were employed part- or full-time, or were attending graduate/professional school. 51% of respondents held government positions, and 43 % of respondents "were working in a job related to the major, used skills learned in the major, or were working in a job related to their desired career path." Whereas the Review Team agrees that the Department should be commended for "Demonstrably serving a need," it is somewhat more cautious, based on shortage of evidence, regarding "an impressive rate of job placement." As Dr. Johnson himself recommends (see below on his Recommendation #3), echoing the Self-study (p. 11, p. 29), additional alumni surveys will provide valuable data; this might indicate truly positive job placement attributable to the Department's degree programs.

Along with offering the BA, BS, and Minor in Environmental Studies, the Department serves two other large constituencies of students:

- Undergraduate students fulfilling graduation requirements in GE areas and Writing Intensive (with 10-term enrollment, Fall 2012 through Spring 2017, in brackets): A3 (ENVS 11 [840]), B2 (ENVS 10 and 10H [3,101]), B5 (ENVS 163 [116]), E (ENVS 21 [141]), and WI (ENVS 112 [472])
- Students in the General Education Honors Program, for whom ENVS 10H is the standard option for fulfilling Area B2

Commendation 2: The Department has, based on the precipitous recent increase in majors and its broad array of General Education course offerings, clearly been fulfilling a demonstrable need for our students in a subject area with obvious relevance for today's world.

Degree Programs

The Department offers two bachelor's degree programs: the BA in Environmental Studies (66-69 units) and BS in Environmental Studies (67-69 units). It also offers the Minor in Environmental Studies (25 units). The specifics of each of the bachelor's degree requirements are spelled out in Appendix 1 of the Self-study (pp. 32-35). The Self-study (p. 5) also explains that the BS was added in 2007-2008 and that as of the 2016-2017 academic year, 90% of majors opt for the BS degree. Chair Jeffery Foran confirms that students tend not to enroll in the BA program. This raises an important question that is not addressed directly in the Self-study or in Dr. Johnson's report: Should the BA degree program be eliminated?

Recommendation 1: Carefully consider the viability of maintaining the BA degree program.

Curriculum

Dr. Johnson, while not disaggregating the two bachelor's degree programs, does include a thorough review of curriculum, and the Review Team concurs with his perspective.

The department has developed a strong curriculum for both a B.S. and B.A. degree, and a recent faculty retreat and curricular revision work has ensured a strong sequence of courses. There is no current need for curricular work in terms of course selection or sequence for the undergraduate program.

However, the department should hold a faculty retreat to focus on course content and pedagogical techniques. In particular, it will be useful to share and compare course syllabi and individual course learning outcomes, to identify areas of redundancy and complementarity (some redundancy is wise and can be strategic, some is not). The latter, especially when clearly associated with a course sequence, can be explicitly acknowledged by instructors ("remember when you conducted the economic analysis of such and such in your course with so and so, this next assignment builds off of that..."). This work is especially important for departments like Environmental Studies that have recently hired new faculty, and for those with multiple part time faculty. This retreat can also include time on a comparison and discussion of pedagogical techniques. Through the work of the Center for Teaching & Learning (and other pathways), several faculty are experimenting with new strategies such as flipped classrooms, just-in-time quizzes, and other long-standing active learning techniques (e.g., write-pair-shares). In my conversations with both full and part time faculty, I was impressed with current experimentation and a willingness to use these new techniques, but I was also struck by how little the faculty had formally discussed these ideas with each other – this was especially conspicuous for part time faculty. Part time faculty should be appropriately incentivized to attend and participate (perhaps a small stipend, or at least a meal). The department already implicitly welcomes and acknowledges part time faculty as essential to the learning experience, and this spirit should also extend to departmental pedagogical discussion.

Recommendation: Hold a faculty retreat focusing on course content and pedagogical techniques. The department has already spent time working on program curriculum in terms of deliberate course offerings and sequence, but it has spent less time focusing on course content and pedagogical techniques. With three newish faculty and multiple part time faculty, a retreat on these topics would help ensure high quality teaching and progression of learning across the curriculum.

The Review Team concurs with regard to the potential benefits of holding another retreat focusing on course content and pedagogical techniques. In fact, the Department has continued to hold full- and half-day retreats at which these curricular issues are at least somewhat addressed. The Self-study, p. 5, reports that the 2013 retreat was very successful. There is so much to be discussed and determined in this regard, however, that one retreat hardly seems adequate. It might prove more effective to begin with a semester-long, or even year-long, review of course syllabi, followed by a retreat focusing on determining any needed changes. There also are good resources available through the Center for Teaching and Learning.

Recommendation 2: Continue to apply systematic means of analyzing course content and pedagogical techniques; these might take the form, for example, of a departmental-wide review of syllabi and additional departmental retreats.

Transfer Students

Dr. Johnson next takes up the issue the special challenges imposed by the high percentage of transfer students entering into the major degree programs.

The program is largely comprised of transfer students, though recent trends suggest the Freshmen cohorts may be growing faster. The relative balance of Freshmen and transfers has important implications for the department and university to adequately meet course demand and deliver a robust learning experience. The department should carefully consider what it considers to be the optimal balance, given faculty resources, seat capacity, and the learning environment offered by classes comprised of both transfer and 'native matriculated' students. Seat capacity bottlenecks currently exist in some courses, including in ENVS 112, 120, and 121, and, especially, outside the department (most notably in core science courses such as Biology and Chemistry). Recent increases in frequency and seat capacity in the ENVS courses may be alleviating some of the bottleneck, but continued growth will prompt persistent capacity issues. Meanwhile, the time to degree completion for transfer students in slowed by the availability of core lower division science courses that many incoming students have not yet completed. This situation should be addressed by the administration. There are two clear options: provide more faculty to the department, or limit its growth. If the university wishes to see continued growth in Environmental Studies transfer student enrollment unrestricted by additional admissions criteria, then it must adequately support the program with additional faculty hire(s), and it must ensure seat capacity to meet student demand for courses needed for degree progress (i.e., more Biology and Chemistry course seats). Alternatively, if meeting those demands are not currently feasible, then the Environmental Studies program should consider admitting transfer students only after they have completed some minimum number of articulated core science courses (e.g., the equivalent of Biology 1 and Chemistry 1A/6A). This would simultaneously ease demand on environmental studies courses and immediately accelerate transfer students' time to degree completion. Implementing this would require coordination with Admissions, and prospective students would also be well-served by careful and deliberate communication with several of the important feeder community colleges in the area. This work should not fall solely on the department; the department should be carefully consulted and approve any action, but Admissions or other administrative offices should be accountable. Admissions should also work with the department to develop appropriate recruiting materials for Freshmen.

Recommendation: Consider balance of transfers and Freshmen, and plan, admit, and recruit accordingly. The program has recently been comprised mainly of transfer students (~75%), though the number of first-time Freshmen has been rising the past few years (doubling since 2013). Consider admission criteria for transfers to manage growth and accelerate degree completion.

The Review Team concurs with Dr. Johnson on this issue, and endorses his recommendation. The Self-study (p. 3) notes "Juniors and seniors comprise 88% of the ENVS undergraduate population and a large majority of these students transfer into the program from community colleges." Chair Foran has confirmed that the bottleneck problems persist, most acutely with the lower-division Biology and Chemistry requirements. He has communicated with Dr. Joanna Mott, Dean of the College of Natural Sciences and Mathematics, and she has promised more seats. But there were no available seats for incoming ENVS students in BIO 1 this Spring Semester. Bottleneck problems in ENVS 111, 112, 120, and 121 have been compounded by the loss last year of two members of the faculty. (The Department is now down to four full-time faculty members even as enrollment continues to rise—a dire problem that will be addressed later in this report.) Our area community colleges tend to offer sound versions of the required lower-division Biology and Chemistry courses, making more viable Dr. Johnson's suggestion that incoming students be admitted to the major only after having "completed some minimum number of articulated core science courses."

Recommendation 3: Consider the balance of transfers and native freshmen, and plan, admit, and recruit accordingly.

Possible Master's Program

The Self-study (pp. 29-30) recommends the development of a master's degree program in Environmental Studies. Dr. Johnson appropriately takes a cautious approach to this idea.

During my visit, numerous conversations with faculty and administrators about the future of Environmental Studies at Sac State drifted toward talk about potentially launching a Master's program. There is clearly interest and sufficient faculty expertise, and there is likely unmet student demand, although an analysis of admissions rates of related programs in the CSU would help confirm this. To determine whether a graduate degree should be pursued, the department should first anticipate how it would impact the undergraduate curriculum and staffing. For example, assuming 3 or more full time faculty would at some point be earning WTUs for graduate thesis supervision, their capacity to teach would necessarily diminish (e.g., perhaps from 3/3 fall/spring courses to 2/2). How would the department ideally and feasibly offset this loss of teaching power? Could an additional full time faculty be justified and secured? If not, is the department willing to fill the shortfall with part time faculty? If the answer to either of the latter two questions is yes, then the idea should be pursued further.

Another consideration is course depth for a Master's program. Likely, a graduate program would demand the development of some additional courses unique to the graduate degree, drawing on the impressive expertise of environmental studies faculty, as well as faculty elsewhere on campus. Overall, however, the course requirements for a new graduate program are probably easily met. CSU Graduate programs commonly require 30 semester units, some of which (e.g., up to 9) can be thesis & research-associated, leaving only 21 or so units of required conventional coursework, and of those

units, some can permissibly be met with upper division undergraduate courses (e.g., existing courses in ENVS, biology, statistics, etc.). Moreover, there may be existing graduate level courses in other programs that are already relevant for a Master's in Environmental Studies (GIS, statistics, political science, etc.). Therefore, it may be possible to simply bundle existing courses together to largely meet necessary course depth for an interdisciplinary graduate program in Environmental Studies at Sac State.

Because the Environmental Studies is by its nature interdisciplinary, the department and college(s) should carefully consider what sort of graduate program best meets student and workforce needs, complements faculty expertise, and aligns with other graduate programs on campus. In conversations during my visit, I heard numerous ideas ranging from a graduate certificate program aimed largely at working professionals and offered perhaps at night on the downtown campus, to a MS graduate program involving independent empirical field research aligned with ongoing research topics pursued by existing faculty. These ideas (and others) each have unique pros and cons, and would require coordinating with different entities on campus. If a graduate program is pursued, it should be rooted in a vision shared by the department, the administration, and other related departments on campus. For example, it makes little sense to attempt to launch and sustain a Master's program in both Environmental Science (out of the NSM college) and Environmental Studies (out of SSIS).

Recommendation: Work with department and campus leaders to decide if, how, and where to launch a graduate program. There is interest, sufficient faculty expertise, and unmet student need for a graduate program. Launching a new Master's degree program, however, has consequences for departmental resources and, being interdisciplinary, must be negotiated with related offerings elsewhere on campus.

The Self-study (p. 13) indicates the Department's own reservations with regard to expending resources on "independent study projects" (at the undergraduate level)—a situation very similar to that which would arise with a master's program and the need to oversee culminating experiences (theses or exams or projects). The Review Team endorses Dr. Johnson's cautionary approach, and his recommendation.

Recommendation 4: Work with departmental and campus leaders to decide if, how, and where to launch a graduate program.

Graduation and Retention Rates

Dr. Johnson commends the Department with regard to student diversity and retention and graduation rates:

Strong core metrics. The program attracts a diverse student body (~24% from underrepresented groups, ~50% low-income) and it boasts retention and graduation rates that are generally as high or higher than for the university overall. The program has higher inflow than outflow, and often graduates a higher percentage of its own majors than do other programs in the college.

Table 14 of the 2017 Fact Book confirms this favorable appraisal of retention and graduation rates. Of the 12 years noted for freshmen retention rates, ENVS meets or exceeds college and university rates in 8 of them. For transfer retention rates, ENVS meets or exceeds in all 9 years noted. Table 15 of the Fact Book indicates that graduation ratees are not so impressive, with the Department lagging behind college and university averages in most categories for most years. The situation is not dire (for a "quick study," see the bar graph "Four-Year Graduation Rate: Undergraduate Transfers" on p. 18), but the Review Team opts not to confirm Dr. Johnson's commendation in this area.

Faculty and Staff

Dr. Johnson begins his section on "Faculty & staff" with strong words of praise for the departmental faculty and, in particular, the chair. Two of his six formal commendations (#3 and #5) refer specifically to the strength of the Department's faculty and its laudable culture.

Faculty & staff

The current excellence and promise of continued success of the program are in large degree a reflection of the exceptional faculty in the department – including long-time faculty that served students through the challenging times of low student enrollment and budget hardships, and a forward-thinking and administratively effective chair that has helped the department grow and thrive in recent years. As noted in the commendations, three relatively new faculty show tremendous energy and innovation, and they offer valuable, unique expertise to diversify the breadth of the department.

A thriving culture. Through all of my conversations, there was an obvious abiding interest in serving students, from both full and part time faculty and staff. While disagreements and tensions exist, as they often do, there was a conspicuous shared sense of purpose. Several interviewees, including students and part-time faculty, used the word "family" to describe the department's culture.

Excellent faculty strengthened by recent new hires of high quality and diverse expertise. Three new full-time hires all share an impressive commitment to teaching & scholarship, while each offers a unique area of emphasis that complements the others' and helps round the department's profile of expertise. These new faculty continue the impressive commitment to students exemplified by longer-serving faculty.

It is very regrettable that this past year the Department lost two full-time faculty, and so now it is down to four. The Review Team recognizes the fact that the Dean and Provost need to make resource allocation decisions in light of holistic considerations involving the entire College and University. The situation in ENVS, however, seems dire; all parties involved should work toward a remedy based on a sound hiring plan. The Review Team also acknowledges the outstanding work of all faculty and Chair Jeffery Foran over the course of this review period.

Recommendation 5: Develop a five-year hiring and retention plan that considers increased enrollment and faculty attrition.

Commendation 3: Departmental faculty show impressive commitment to excellence, and a notably thriving culture for faculty, staff, and students has been maintained.

Commendation 4: Chair Jeffery Foran has, since arriving to Sacramento State in 2013 as designated departmental chair, performed superbly in overseeing rapid growth in student enrollment while facing challenging conditions with regard to the number of faculty. He also oversaw the completion of a very informative and conscientious Self-study.

Dr. Johnson continues his section on faculty and staff by addressing concerns regarding RTP:

Conversations with faculty suggested to me that the retention, tenure, and promotion process, and departmental criteria should be clarified. In particular, it will be helpful to provide more explicit expectations in all areas: teaching, research, and service. For example, the department should consider setting guidelines for the expected number of peer-reviewed publications and grants for research by certain timelines, while also enabling flexibility to recognize that some of these contributions are more substantial in work and impact than others (small vs. NSF grants, regional vs. international journals, etc.). Likewise, clarifying what work 'counts' as service (e.g., campus service, professional service including reviewing manuscripts, etc.) will be helpful. In addition, explicit expectations for teaching and professional development should be clarified (e.g., number of courses, number of hours or sessions on pedagogical training from the Center for Teaching & Learning, etc.). These expectations should also explicitly acknowledge how grant buy-out and particular hiring loads may affect expectations (e.g., a grant-related course release should be offset by relaxed course expectations, but enhanced research expectations). I also recommend raising the research expectations. The new faculty are very active and will likely easily meet "the bar" or exceed it. Raising expectations will help acknowledge their work, demonstrate the department's excellence and rigor, and more firmly establish a departmental culture of teachers and active scholars for years to come.

As noted in the commendations, my conversations with part time faculty clearly demonstrated their commitment to the program, its students, and the impressive professional expertise they offer to the learning experience. However, it was also clear that there has been little structured evaluation of these faculty in recent years. Minimally, the chair should conduct regular teaching observations and provide appreciation for their work and constructive feedback on their teaching. Also, these faculty have great pedagogical ideas that could benefit the faculty overall, and they would benefit themselves from learning more about pedagogical techniques and professional development offered by the Center for Teaching & Learning. A course content/pedagogical faculty retreat (see recommendation # 4) should include part-time faculty and would help address this need.

Recommendation: Enhance/revise faculty review. The department will benefit from more explicit criteria and benchmarks in its retention, tenure, and promotion policies. This is especially important given three new faculty hires. Also, the department should initiate a more structured evaluation process to provide feedback to and learn from its part time faculty.

The Review Team concurs with this recommendation. Dean Lascher has suggested that the Ethnic Studies ARTP policy might serve as a useful model with regard to clarifying standards. The Review Team suggests that the task of conducting regular teaching observations should not be left entirely up to the chair; rather, this can be delegated to all eligible faculty (review of temporary faculty does not

necessarily need to be done by tenured faculty), perhaps under the auspices of a designated ARTP committee.

Recommendation 6: Enhance review of faculty, likely through revising departmental ARTP policy to ensure that it clarifies standards regarding teaching and research achievements.

Dr. Johnson's next point involves the cramped office space for temporary faculty.

As noted in the commendation, the part time faculty are vital to the success of the program, and they offer unique expertise that draws effectively from the professional environmental community of Sacramento. They are also part of the "family" culture of the department. Students made no distinction between full and part time faculty, and part time faculty often help student with extracurricular pursuits, such as employment and career advice. However, there currently is inadequate office space for these important contributors to the student learning experience. This inadequacy should be addressed.

Recommendation: Secure office space for part time faculty. There is currently inadequate space for lecturers, with up to six sharing a single office. These faculty are integral to the department and vital to the student experience in the program; they are part of the family culture. Thus, their additional office space needs to be located very near other departmental offices.

The Review Team agrees that six faculty sharing a single office is very unfortunate. Similar to the situation involving replacement faculty hires, however, this challenge needs to be addressed within the larger context of College and University resource allocation. It is to be hoped that the new science building will alleviate some demands on space (generally, not only for the College of NSM) and allow for remedying the situation in Environmental Studies. Dr. Johnson's next two recommendations also involve resource allocation:

Staffing

The family culture extends to staff, including the Administrative Support Coordinator, who works tirelessly on behalf of the students and faculty. The ASC work would be greatly facilitated by a student assistant to help with tasks (filing, etc.) that would free up the ASC for more time consuming and mission-critical efforts (e.g., scheduling, internship coordination, etc.).

Recommendation: Secure resources (funding and physical space) for a student assistant in the departmental office.

Two of the existing faculty are approaching retirement or completion of the FERP period. The Environmental Studies program is large, still growing, and with a high student to faculty ratio. It is imperative to replace both positions. After completion of the FERP position, the department should be provided the opportunity to replace this position with a full time, tenure-track faculty member. The department should carefully select the subdisciplinary focus of this replacement position to complement existing expertise and course teaching needs, and it should also seek to diversify the make-up of the faculty. While the gender ratio of faculty is currently reasonably well-balanced, ethnicity is not. The other position that will soon need replacement is the chair. Again, subdisciplinary focus of this replacement position should complement existing expertise (and

possibly replace the current chair's expertise), and of course the person should have considerable administrative skill and experience. I recommend a national search for an external chair to maximize the pool.

Recommendation: Replace soon to retire positions and seek an external chair. The student to faculty ratio in the department remains high, and retirements should be replaced. With the current chair set to retire in the near future, the department should seek a new external chair. There are, of course, pros and cons to seeking an external rather than internal chair. In this case, I believe an external chair will help propel the department forward in years to come.

A replacement chair has been hired since the completion of Dr. Johnson's report and is set to begin this summer. The dire situation with regard to loss of two other faculty has been addressed above in Recommendation 5. Dr. Johnson's concerns regarding shortage of office space and need for additional staff support point to a more general need on the part of the Dean and Provost to be mindful of the challenges that come with rapid increase in student enrollment.

Recommendation 7: Insofar as resources allow, strive to secure suitable space and staffing correlative to the increase in student enrollment.

Student Affairs and Advising

As the following section shows, Dr. Johnson did due diligence with regard to review of demographics. The Review Team concurs with his findings.

Student Diversity & Inclusion

The student body in Environmental Studies is relatively diverse, though slightly less so than the campus overall: as of fall 2016, the undergraduate student body in the program was 46.0% white, 26.8% underrepresented minority [Using Sac State's criteria, this includes African American, American Indian, Latinx, and Pacific Islander], 47.4% low-income, and 21.6% first-generation (2017 Fact Book). There were also no substantial differences in the GPA of graduating seniors based on ethnicity (all roughly 3.0). However, it appears there could be achievement gaps. For example, based on data published in the 2017 ENVS Fact Book provided by the Office of Institutional Research (GPA of graduates by Ethnicity, page 13), the 2016 the graduating class (53) was 49% white, and only 13.2% underrepresented minority (the 5-year average is slightly higher, about 17%).

Recommendation: The Office of Institutional Research should provide more detail to the department by disaggregating retention and graduation rates by ethnicity and other student groups, and if achievement gaps are indeed present, the department should develop strategies and tactics to provide more equitable access to the excellent learning opportunities available in the program and on campus at large. I also recommend the department do an assessment of the diversity of students engaged in high-impact curricular and extra-curricular activities such as student-faculty research, involvement in the departmental club, etc. Also see recommendation #6 [i.e., "Sustain and support the internship program, and ensure equitable access"; see next section].

The Review Team agrees that disaggregation of such data by the (newly named) Office of Institutional Research, Effectiveness, and Planning would be helpful. More vital still is the need to disaggregate with regard to degrees (in the case of ENVS, between the BA and BS).

Recommendation 8: Continue to enhance the valuable data sets made available through the Office of Institutional Research, Effectiveness, and Planning through feasible steps involving disaggregation, especially with regard to specific degree programs.

Internship Program

Dr. Johnson offers a strong commendation (#6) regarding the Department's effective adaptation of our region's special resources, especially for enhancement of the valuable and extensive internship program:

The program wisely capitalizes on its location. The department's internship program and its part-time lecturer pool strongly benefit from regional partnerships with professionals, agencies, and NGOs in the area actively engaged in environmental work. The department has wisely leveraged these partnerships into enormous learning opportunities for its students.

As noted in the list of commendations, the internship program strongly benefits from the department's wise use of regional partnerships with professionals, agencies, and NGOs in the area, providing enormous learning opportunities for its students. This should be sustained. Therefore, the recommendation is not to change practice per se, but for the department and the campus to help ensure the persistence of these opportunities. Additionally, with a diversifying student population including many low-income (PELL-eligible) students, the department should work to help ensure equitable access to these internships for all its students.

Recommendation: Sustain and protect the internship program, and ensure equitable access. The internship program is a crown jewel for the college, and it should be sustained. Managing liability and risk can be challenging, so the campus administration should prioritize identifying a feasible process that avoids onerous obligation on the students or Environmental Studies department. To evaluate equitable access, the department should conduct an inventory of paid and unpaid internships and assess the placement of low-income and underrepresented students in each. If necessary, a process to prioritize placement of low-income students in paid internships may be warranted.

The Review Team fully concurs, noting that the internship program is indeed vital and essential to the Department's success. This seems to present a good opportunity for the Department to enhance its assessment system through meaningful evaluation of student learning via internships—something the Self-study (p. 13) hints at in its response to previous program review Recommendation #12.

Commendation 5: The Department has developed and maintained an exceptional internship program that provides significant learning opportunities for its students.

Recommendation 9: Do whatever is necessary to continue to maintain the internship program, and evaluate accessibility for students while also incorporating evaluation of the nature and degree of learning through appropriate means of assessment.

Advising

Regarding advising of students, a topic not addressed in Dr. Johnson's report, the Review Team notes that the Self-study (p. 12) responds to the previous program review's Recommendation #9 by noting that the department chair "has taken the lead for student advising..." According to Chair Foran at the time of Dr. Johnson's visit, advising was not required but highly recommended; about 80% of students were seeking advising at least once per year. At the beginning of Spring Semester 2019, the Department has implemented a shared advising model. All full-time tenured/tenure-track faculty are now engaged in advising and have been trained in the use of EAB to facilitate advising appointments and memorializing the results of student advising appointments.

Commendation 6: The Department has made significant improvements even since the time of the external consultant visit in the area of student advising.

ASSESSMENT

Dr. Johnson's section on student learning and assessment includes three recommendations, each prefaced by narrative sections.

Student Learning Outcomes

The department has identified five key programmatic learning outcomes¹ (from eight program learning objectives). A qualitative assessment of some learning outcomes was conducted in 2013-2014, no formal assessment was conducted in 2014-2015, and an assessment of writing skills was conducted in 2015-2016. The department has also pursued its own surveys of graduates and alumni (see below). In short, until recently the assessment has been informative, but haphazard. A more formal assessment strategy has now been developed whereby each year a key programmatic learning outcome is assessed (details in Table 2.3 of the department's self-study report). The Office of Academic Program Assessment maintains useful templates and provides guidelines for assessment of programmatic learning outcomes. It is now time to more rigorously follow a long-term assessment strategy and stick with it, reporting back to the department faculty and OAPA. With that said, it is imperative to not conduct assessment for assessment's sake (i.e., to "check the box"), rather, assessment should be a genuine process by which the department will meaningfully examine student learning in order to modify and fine tune its curriculum and pedagogical techniques. The department's recent assessment of its writing student learning outcome concerning written

¹ (a) Ability to write clearly and persuasively.

⁽b) Ability to carry out research tasks appropriate to analyzing environmental problems.

⁽c) Ability to assess environmental problems solutions by applying scientific concepts.

⁽d) Ability to assess environmental problems solutions by applying economic and political concepts.

⁽e) Ability to integrate knowledge, research, and interpretation with substantially greater sophistication than commonly expected in coursework.

communication exemplifies this – the analysis offered in the self-study report identifies several areas of excellence and other areas in need of improvement. Therefore, my recommendation is simultaneously to the Department and to the OAPA – the department should more carefully follow the template and procedures provided by OAPA, and OAPA should recognize the department's holistic program evaluation efforts (including graduate exit surveys and alumni surveys), and accept some flexibility in the process to ensure the department is meaningfully closing the loop of assessment and continuous improvement.

Recommendation: Follow campus-established templates and processes for program assessment; focus on meaningful assessment for continuous improvement. The department has conducted minimum essential assessment, but rapid growth, new faculty hires, and program modification has curtailed a full assessment of learning outcomes following campus protocols. Going forward, these processes should be followed with an eye on assessment techniques that yield authentically useful information for the department. I recommend that individual faculty be tasked with taking the lead on assessment of individual programmatic learning outcomes to better ensure full departmental participation in the process. Delegating assessment to the chair risks making it an administrative task, rather than a collective activity that improves the student learning experience.

The Environmental Studies's curriculum is likely poised well to meet Sacramento State's five baccalaureate learning goals. However, from my review I do not see that the department has evaluated this alignment. I recommend the department does so by conducting an inventory of these learning goals in its existing curriculum. For example, the department could construct a simple matrix of the learning goals and the program's courses as rows and columns, populated by cells with a code to indicate whether and to what degree each learning goal is a focus of each course. If this "mapping" exercise identifies any areas of deficiency (it may not, given the department's strong interdisciplinarity), then the department could consider individual course modification or even slight curriculum changes (course sequence).

Recommendation: Conduct an inventory of baccalaureate learning goals onto the environmental studies curriculum.

The department has used an exit survey for its graduates, which provides very useful information. For example, the Spring 2016 and 2017 surveys suggest that most graduating seniors are ranking the program's emphasis on its core topics very strongly, though scores on economic and political content regularly scored a bit lower than did scientific topics. The department's recent hiring of a full time faculty with an emphasis on social science may address this shortcoming to some extent, but the exit surveys should be continued to see if there is any movement in students' responses, and if not, consider curricular adjustment.

The Office of Institutional Research (OIR) conducted an alumni survey in 2013. The results are impressive, with an 80% rate of employment or graduate school, and 43% in a job related to the major. This survey was conducted for alumni that graduated between 2007 and 2011. Much has changed in the department since then. Moreover, although the response rate was relatively high (29%), 70% of respondents were male, and 66% were white. The program's students are far more diverse now.

Recommendation: Repeat alumni survey. The alumni survey is vital for self-evaluation, and also for confirming program quality and providing information to help communicate the program's quality to prospective students, campus leaders, and the community.

The Review Team for the most part agrees with Dr. Johnson, who evinces in this section of his report that he understands well the nature and intention of assessment of student learning. Most impressively, he asserts that "assessment should be a genuine process by which the Department will meaningfully examine student learning...," and he calls for "assessment techniques that yield authentically useful information for the department."

The Self-study acknowledges that the "annual assessment process been, at best, haphazard" (p. 10) and that "objective assessments have not been conducted to evaluate student knowledge and characteristics" (p. 26). There was no 2017-2018 annual report submitted to the Office of Academic Program Assessment (OAPA). During the exit interview with Dr. Johnson, Chair Foran acknowledged that the Department has yet to make real progress with regard to assessment. He also suggested, though, that new faculty will likely "own it" and work to make improvements.

Having considered carefully the relevant factors and Dr. Johnson's critique, the Review Team contends it is not the case that the Department has willfully neglected its responsibilities with regard to assessment. All other areas clearly indicate that, on the contrary, the Department and Chair Foran have striven hard for excellence. But, to draw upon the old adage, even where there's a will the way forward can be impeded. In this case, impediments include a perceived lack of sufficient resources and lack of confidence in current means of doing assessment on our campus. The prevailing attitude seems to be that these current means require only that departments "check the box" without necessarily yielding real benefits.

The Review Team suggests that the best way forward will be to build and implement a meaningful assessment system that recognizes and negotiates the need to be realistic regarding availability of resources. This will involve development of a full-fledged assessment plan that includes PLGs and PLOs that are strategically connected to the degree program's mission statement and to the University's Baccalaureate Learning Goals. It will also include a curricular map and a schedule of implementation—the latter of which has already been accomplished in the current assessment plan. Of course, being realistic regarding resources while also meeting campus-established standards is much easier said than done. But helpful steps can be taken. For example, an effective assessment tool could be embedded in the program's capstone course assignments. The Self-study (p. 16) describes the process of assessing written communication in 2015-2016, referring to the review by an outside party of students' drafts. A more effective approach will be for the instructor to assess the drafts while also providing feedback to the students; one other person, presumably a member of the departmental assessment committee, could also assess the drafts. Data from two reviewers, with proper norming, would be sufficient. Other steps toward building an effective assessment system are suggested in the following section of this report, on the Focused Inquiry.

Recommendation 10: Develop and implement an effective, meaningful assessment system, taking steps to be as efficient as possible while still meeting campus-established standards.

By all accounts, the alumni survey has helped the Department better to understand the effects of its degree programs on graduates. One means of implementing alumni surveys in the future involves

developing a survey, for instance, using Qualtrics, and then partnering with the Office of University Advancement in order to distribute it.

Recommendation 11: Continue to implement and draw upon the indirect assessment tools of exit and alumni surveys.

FOCUSED INQUIRY

The Department undertook an impressive focused inquiry that, as noted near the beginning of this report, endeavored "to evaluate the Environmental Studies program to ensure that it is offering knowledge, skills, and experience that reflect the state of the discipline" (Self-study, p. 23). The inquiry seems to have yielded valuable information. In the perspective of the Review Team, even more valuably it sets up opportunities to make real progress with regard to assessment of student learning. The focused inquiry section closes with the Department's recommendation to itself for: "The development and implementation of effective assessment strategies for the program, its learning outcomes, and its aspirations" (p. 31). The Review Team suggests the following practical steps to help fulfill this recommendation.

Consider how the campuses analyzed might offer "best practices" ideas for a sound assessment system that could be applicable for the Department. There should be a number of examples illustrating appropriate linking of mission statements to programmatic learning goals, and so forth.

Regarding "knowledge and skill requirements for entry-level environmental positions" (p. 23), assess student learning as per the degree of correlation to these requirement standards.

The Focused Inquiry (p. 24) rightly points out that the Department is distinctive in the CSU system for its extensive opportunities for experiential learning through its internship program. Assess this learning, so as to acquire evidence-based support for its continuation and enhancement. After all, this "jewel in the crown" (as Dr. Johnson calls it) deserves to be displayed to all relevant parties with clear indication of its value.

Section B of the Focused Inquiry, "What We Offer and What Is Required" (pp. 25-27), sets forth a helpful bullet-point list concerning "the nature and extent of knowledge that students should possess upon completion of the Environmental Studies program." Many of these points can effectively be converted into sound programmatic learning goals or (by stating in language that makes them clearly measurable) programmatic learning outcomes.

The Focused Inquiry notes that the Department "evaluated entrance exams for state employees to determine whether courses and other opportunities in the ENVS curriculum provide the knowledge, skills, and experience required to pass these exams" (p. 26). Like everything else about the Focused Inquiry, this is helpful. But to make this truly beneficial the logical next step will be to establish effective assessment of student learning that indicates the extent to which students are ready to succeed on these exams. In other words, enlightened planning of curricular structure and course design are essential, but without sound assessment of student learning, where is the evidence that such planning is actually working? It would be a powerful thing to be able to show students and all

other stakeholders that the degree programs are in facilitating success on these exams. Appendix 3 of the Self-study ("Knowledge/Skills/Experience required for California State civil service exams") provides a good head start.

Finally, with regard to the two concluding bullet-point lists on p. 28 ("Our challenges include:" and "Ultimately, the Environmental Studies faculty aspires to the following:"), to most of these points the phrase "via sound assessment of student learning" could be added to good effect. For example, "Properly identifying and communicating our program strengths to external partners and stakeholders" is much more effectively done with the hard evidence that sound assessment, grounded in direct means of measurement, provides.

RECOMMENDATION TO THE FACULTY SENATE

Based on this program review, the Self-study report prepared by the Department of Environmental Studies, and the external consultant's report, the Review Team recommends that the degree programs in Environmental Studies be approved for six years or until the next scheduled program review.