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Michael O'Neill CSREES, moneill@csrees.usda.gov

Phaedra Budy Utah State University

Stephen DeGloria Cornell University

Ed Kanemasu University of Georgia

Jamie Robertson University of Wisconsin - Madison

See next page for additional authors

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Authors

Michael O'Neill, Phaedra Budy, Stephen DeGloria, Ed Kanemasu, Jamie Robertson, Derrel Martin, Anne K. Vidaver, Tylr Naprstek, and Donna Woudenberg

University of Nebraska-Lincoln

School of Natural Resources Review

Final Report

December 2003

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COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE 1400 INDEPENDENCE AVE. SW WASHINGTON, DC 20250

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I. Background

The School of Natural Resources

In July 2003, the School of Natural Resource Sciences was merged with the Conservation and Survey Division and the Water Center Nebraska State Survey. This merger produced the School of Natural Resources (hereafter referred to as the "School") in its current form. The University of Nebraska-Lincoln requested a ten-year review of the School's programs and activities. The review was administered by the Cooperative State Research, Education and Extension Service (CSREES) in cooperation with the University of Nebraska-Lincoln's Institute of Agriculture and Natural Resources, the College of Agriculture, and the School.

Much of the background information pertaining to the review process is contained in the Self-Study Document developed by the School. Readers are directed to the Self-Study for more details.

The Review Team

The Review Team had nine members. Dr. Michael O'Neill was the team leader and the CSREES representative on the team. External team members included Dr. Phaedra Budy (Utah State University and Cooperative Fisheries Unit), Dr. Stephen DeGloria (Cornell University), Dr. Ed Kanemasu (University of Georgia) and Dr. Jamie Robertson (University of Wisconsin and Wisconsin Geological Survey). Internal Review Team members included two faculty members from the University - Dr. Derrel Martin (Department of Biological Systems Engineering) and Dr. Anne Vidaver (Department of Plant Pathology), an undergraduate student from the School – Mr. Tylr Naprstek and a graduate student from the School – Ms. Donna Woudenberg.

The schedule for the Review Team appears in the Self-Study Document. Over the course of four days (September 6-10, 2003), the team conducted intensive interviews with faculty, staff, students, and administrators at the School, College, and University level. A final day (September 10, 2003) was dedicated to briefing administrators, faculty, staff and students of the general observations of the Review Team.

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The Review Document

The review document is divided into nine sections. The first section provides the basic background to the Report. Sections two through seven describe opportunities and challenges faced by the School organized around seven elements of a framework adopted by the Review Team. Section eight presents a summary of recommendations found within the report and the final section lists references cited in this report.

Comments relating to this review document or the Review Team should be directed to Dr. Michael O'Neill, USDA-CSREES (moneill@csrees.usda.gov; 202-205-5952).

Key Issues and Questions

A number of key issues were brought to the attention of the Review Team during meetings with the university administration, faculty, staff, and students of the School. Many of these same issues were highlighted in the Self-Study Document prepared by the School. A summary of those issues follows:

- 1. Increase the number of student credit hours (SCH) generated in the School and increase overall enrollments in the school.
- 2. Develop five-year (B.S. M.S. Combined) degrees for a Masters in Natural Resources, Masters of Legal Studies, and/or Masters in Water Science.
- 3. Improve collaboration between colleges lower "walls."
- 4. Lead or participate in a campus-wide water initiative.
- 5. Increase the diversity in the School gender and ethnic minority representation.
- 6. Add human dimensions to the mix of courses and research areas.
- 7. Improve linkages to Extension.
- 8. Address the competitiveness of graduate assistantships.
- 9. Conduct outcomes assessments for students track their success.
- 10. How does the School balance the need to maintain or improve disciplinary strengths while fostering interdisciplinary excellence?

- 11. What steps should SNR take to create a truly integrated unit particularly from a personnel standpoint?
- 12. How should the school address resource allocation (technicians, assistantships, funds) issues.
- 13. How can the administration manage the change taking place in the School?
- 14. What expertise is needed on the faculty?
- 15. How can the School best maintain field, lab, and other facilities?
- 16. How does SNR expand its research capacity and extramural funding?
- 17. How can SNR effectively integrate CSD faculty into the School?

In light of the many issues identified here, the Review Team chose to address specific recommendations in the individual sections of the review document. A summary of the key recommendations is provided at the end of this document.

II. Intellectual Core

Strengths

The Review Team was very impressed by the strengths of the many disciplines brought together within the School. The wide array of topical interests present among the faculty offer great opportunities for collaboration among faculty in the School as well as opportunities to collaborate with faculty from other Colleges or Departments across campus.

By bringing together the Conservation and Survey Division (CSD), the Water Center, the future U.S. Geological Survey (USGS) Co-Op Unit, and the School of Natural Resource Sciences, the university has created an excellent opportunity to establish the School as a national leader in the area of natural resources. The CSD offers greater breadth in the type and focus of scholarly activity, expands the opportunity and role of outreach within the School, and holds the potential to expand the teaching base of the School – where CSD faculty are interested in teaching assignments. The mission of the CSD to address natural resources issues of the State provides the School with an incredibly strong link to local issues – clearly reflecting the mission of the Land Grant University.

The existing Centers (e.g., CALMIT, NDMC, etc.) aligned with the School have demonstrated a strong leadership role in research and present a strong potential to act as part of the core concept defined by the School. The centers are internationally recognized and attract a number of excellent graduate students.

The opportunity to incorporate a U.S. Fish and Wildlife Service Fisheries Co-Op Unit into the School also represents an excellent opportunity to expand the research expertise and outreach of the School. The Co-Op Unit will strengthen the existing Fisheries program area and also build valuable ties to State and Federal programs for fisheries and wildlife management across the state and the region.

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Weaknesses

A major concern of the Review Team was that the School did not have a clearly thought-out or articulated unique identity that brought together its sometimes disparate topical and disciplinary interests. In essence, the Review Team was left wondering "what is it that brings this group together and what can they do better than any other similar group?"

In the Review Team'smany and varied discussions with the faculty, a wide diversity of lists, themes, focus areas and other descriptions were used to describe areas of research, outreach, and survey. However, it was clear to us that the School did not have a defined list – agreed to by the varied interests present in the School – that described the intellectual core of the unit. The Review Team sees this lack of coordination in the School as a major challenge.

Within the wide array of topics and disciplines, research, teaching, and outreach/extension are not correlated with the "need" for that particular area. Teaching FTEs appeared to be far below the level necessary to offer the needed classes to provide students with the top-flight education possible at the university. Research, teaching, and extension are very strongly discipline- based and fail to embrace a "common interest" across the School.

Opportunities and Challenges

The first and most important challenge facing the School is the definition of a clear intellectual core for the School. In essence, the faculty must get together and decide the common intellectual interest that brings together the many elements present within the School. Throughout our meetings, the Review Team heard discussion of ecosystem management as a potential core around which faculty could form. However, the Review Team did not hear a clearly articulated description of how this was defined and how it would be implemented in the research, teaching, and outreach/extension of the School. While the Review Team believes that there is great potential for this group to excel in teaching, research, and extension/outreach, there is an underlying sense that the School will not realize its full potential until such time

that it defines a clearly stated core that all faculty and staff support in all their activities.

The Review Team presents three options for how the school could describe a strong intellectual core that would provide a common identity among the many varied interests present within the School. The Review Team presents these options as suggestions from which the School can/should define its own intellectual core. Successful implementation of such a core concept ultimately will depend upon the ability of the School to reward those persons who embrace the core concept and make it happen in their teaching, research, and outreach activities. For additional information on core concepts, readers are directed to "Good to Great" (Collins, 2001).

Options for Defining an Intellectual Core

Ecosystem Management

Throughout the Review Team's discussions with the faculty, repeated specific reference was made to establishing "ecosystem management" as the core concept of focus for the School. Figure 1 depicts a conceptual model for organizing topical expertise (listed outside the circles) associated with disciplines (bold type inside the circles) that identifies a common area of interest – Environmental and Agroecosystem Sciences. The School could use a similar strategy to portray current technical expertise within their affiliated disciplines (e.g., Fisheries and Wildlife, Forestry, Soils) that could define a similar core concept for the School. It is important to note that such approaches delineate other areas of intersection (e.g., Agronomy, Environmental Management, and Information and Decision Support) where faculty can pursue common interests. However, the core piece should remain the principal focus of the School's scholarly and educational activities.

Issues-based Approach

A related approach places disciplines at the periphery of the core concept and considers how each disciplinary area contributes to this core (see Figure 2).

6



Figure 1. Example of intersecting disciplines in an institutional framework. Surrounding topics represent areas of faculty expertise.

7





The focus here is on the "topics" where disciplines in the School have common interest. Because of the wide array of disciplinary foci, it is likely that two or three areas may emerge from this exercise. Completing this exercise requires that members of the school consider both how their scholarship contributes to this core concept and how education efforts support this core concept.

Physical/Biological/Social Dimensions of Natural Resources Issues

Another strategy for identifying an intellectual core for of the School is illustrated in Figure 3. Here, the focus of the core principle is defined by the intersection of the three domains of science that intersect for a given topic. This strategy could also be applied to any or all topics or areas identified in the previous section (e.g., ecosystem management). The

Review Team believes that an important feature of this strategy is that it forces the School to address human dimensions as it defines its core concept.



Figure 3. Combining Physical, biological, and social dimensions when addressing a common research interest.

A campus-wide "Water" initiative could be developed/strengthened as an outgrowth of defining the intellectual core for the SNR. Such an initiative could build upon the School's existing strength in the Water Center and add a component for "Human Dimensions" that addresses social and economic issues. However, such a water initiative is best defined as a product of the SNR's effort to identify its intellectual core.

No matter how it is defined, in order for this core concept to become "institutionalized" throughout the School, the School needs to develop mechanisms that encourage faculty to participate in the core concept. This encouragement would allow faculty to continue to pursue their individual interests but ultimately would reward those faculty whose teaching, research, and outreach/extension support the core concept. Additional details for this process are presented in the section on **Unit Administration**. Commitment to the intellectual core also needs to be demonstrated through faculty recruitment and hiring efforts. Each faculty line that becomes available through retirement, new opportunities, or the departure of existing faculty must be evaluated in light of the expertise needed to fulfill the School's obligation to its intellectual core. In order to address this critical challenge, the School must identify its intellectual core and then prepare a strategic staffing plan that recognizes topical and functional gaps in faculty expertise and outlines a plan for prioritized hiring based on these gaps and needs.

Recommendations (Intellectual Core)

- Conduct a two or three day retreat with the single purpose of identifying an intellectual core that reflects the varied interests of the School. The core should incorporate existing disciplinary strengths as well as help identify areas of expertise where new faculty members are needed. The retreat should be led by professional facilitators – available from the university or from off campus. These facilitators should serve to gain consensus from among faculty regarding what topics should be at the intellectual core of the School and what roles all faculty should play in advancing this core. This retreat also could form the basis of subsequent strategic planning in the School.
- Define the roles of faculty members in terms of their scholarly contributions (teaching, research, outreach, survey) and educational contributions to the core concept(s).
- Develop a strategic hiring plan to meet gaps in expertise within the School. The plan should outline topical expertise and functional roles (teaching, outreach, extension, survey) needed to support the School's defined intellectual core.

III. People

"Our ability to succeed is directly related to our ability to collaborate ..."

Strengths

The success of any school or department in an academic institution is measured by the productivity, accountability, responsiveness, and accessibility of faculty programs. Faculty in the School represents multiple natural resource disciplines, supported by a dedicated professional staff and a diverse group of dedicated and motivated students. Collaborative and interdisciplinary faculty programs are productive and exemplary in many cases, but uneven in practice. The necessary components exist at the university to build a highly-successful interdisciplinary School of Natural Resources where research and level of programming are visionary and responsive to societal needs at multiple scales of operation.

The School has a reasonable mix of junior and senior faculty, but the distribution of Teaching, Research, and Extension/Outreach/Survey (TRE) responsibilities of faculty seems unbalanced. Some junior faculty appear to have unusually heavy teaching loads while, at the same time, carrying expectations for high research productivity. Though the unsettled nature of the School has impacted performance to some degree, the faculty appears to be motivated to excel in their respective sub-disciplines. They are looking forward to the time when they can be housed together in Hardin Hall, when they will be treated equally with their agricultural faculty counterparts by the administration, and when they can move forward with their colleagues in an administration-supported, collaborative, interdisciplinary fashion.

Supporting faculty programs and projects is a professional staff dedicated to the SNR mission. This staff is respectful of faculty programs despite uncertainties relevant to institutional commitments, changing responsibilities and supervisory structures, and a perceived lack of involvement in decision-making. The staff is committed to service functions and willing to assume new roles and responsibilities with appropriate training and recognition through reclassification and compensation measures. Individuals with whom the Review Team met take a professional approach to problem-solving and clearly recognize

opportunities for improving operational efficiencies throughout many service functions of SNR.

Undergraduate and graduate students in SNR exhibit a level of enthusiasm and support for SNR that reflects positively on faculty programs and staff support. These students appear content and satisfied with their respective decisions to satisfy their degree goals at UNL. They are especially complimentary to certain teaching faculty and believe there are seemingly unlimited opportunities to pursue their academic interests as presently defined. They are a motivated group fully supportive of SNR and UNL as an institution of higher education that provides to them the knowledge they need to be successful in the professional world.

Weaknesses

A major concern expressed repeatedly by faculty, staff, and students involved a perceived lack of involvement in decision-making processes of the School. Though optimism remains high in most sectors, morale is sinking and a somewhat defeatist attitude is beginning to prevail. The Review Team recognizes that much of this results from frequent reorganizations, ineffective communication, pending faculty retirements and reassignments, and lack of recognition and appreciation of natural resource programs in a highly agricultural state.

The Review Team also recognizes a need for consistent, effective mentoring of junior faculty, new professional staff, and beginning undergraduate and graduate students. Many staff members are concerned about reclassification, promotion, and reward systems in SNR. There is a trend toward specialization, reduction of administrative support staff for faculty and students, and a disparity of compensation between programs.

Independent of their respective responsibilities in SNR, people need meaningful and sincere recognition of their accomplishments and guidance for accomplishing mutually defined goals. This can be accomplished through timely periodic performance evaluations that assess accomplishments and chart a course for future actions through meaningful dialogue and leadership by example.

There are perceptions that staff support positions are declining at the expense of ^{faculty} positions, that diversity goals - with respect to hiring and mentoring of women and

underrepresented minorities - are unclear, and that opportunities to provide input on SNR reorganization are declining.

Major concerns of SNR faculty and students are focused on:

- recruitment and retention to increase the very low number of students in some majors,
- the disparity between research and instructional laboratory instrumentation,
- mixed advising experiences,
- lack of diversity goals that adequately reflect the available pool of potential students, and
- the competitiveness and equity of stipends for M.S. and Ph.D. students.

Some students felt opportunities to provide input on the reorganization and allocation of space resources have been declining. Information transfer from the administration and faculty to undergraduate students on such matters is very limited. For example, some students only heard about the eventual move to Hardin Hall through the local campus newspaper.

Stipend competitiveness was raised as an issue of concern by senior administrators. Interpretation of recent data compiled by Dr. David Sylvia indicates that UNL graduate student stipends for M.S. students (\$13,500) and Ph.D. students (\$14,500) at UNL are not competitive with comparable institutions (see Table below).

Table 1. Graduate stipends at selected institutions.

		Maximum	Mean	Minimum
Stipend Level *	Ph.D.	\$34,860	\$16,892	\$11,380
	M.S.	\$34,860	\$17,733	\$9,936
Number of Assistantships		20	8	0

* Nine of eleven institutions sampled offered full tuition waivers with assistantships.

Table 1 provides a summary of survey data collected by Dr. David M. Sylvia, Professor and Head, Department of Crop and Soil Sciences, The Pennsylvania State University, during September 2003 (personal communication). The following departments participated in the survey: Cornell (Crop and Soil Sciences), Delaware (Plant and Soil Science), Iowa State (Agronomy), Michigan State (Crop and Soil Sciences), Minnesota (Agronomy and Plant Genetics), Minnesota (Soil, Water, and Climate), North Carolina State University (Crop Science and Soil Sciences), and Wisconsin (Agronomy).

Challenges and Opportunities

Though optimism remains high in the School, leaders need to work on raising the level of trust and morale of faculty, staff, and students. This can be accomplished by

- improving modes and effectiveness of communication,
- adopting proven models of effective organizational structures, and
- soliciting the help of independent and professional facilitators to clearly define and nurture effective scholarship, business and support services, and student instruction and advising.

The School administration should strive to share important budgetary information within confidentiality constraints; to publish annual reports of School goals, accomplishments and challenges for the coming year; and to ensure participation and inclusiveness in decision-making and information sharing throughout the School. Such efforts also should include effective mentoring and emotional strengthening of junior faculty, consistently informing students of academic requirements and professional opportunities, personally demonstrating a genuine interest in the accomplishments of faculty programs through personal contact and encouragement, and fostering more interaction among faculty, staff, and students.

A model of an organizational structure that fosters cooperation and collaboration, recognizes diversity of accomplishments for variable stakeholder groups, and contributes to interdisciplinary scholarship and education is the Cooperative Fish and Wildlife Research Unit model of the USGS-Biological Resources Division. This model may be most effective for Conservation and Survey Division faculty programs and evaluation. The School should also consider simplifying and rebalancing the effort distribution of faculty. The Review Team discourages the School from implementing a three-way split of effort among teaching, research, and extension/outreach/survey. This is especially true for junior faculty. Also, no effort distribution for teaching, research, or extension/outreach should be below a given threshold (e.g. 0.30 FTE). Effectiveness and evaluation of an effort distribution below such a threshold is problematic, ineffective, and inefficient of faculty effort. Such a simplified distribution will serve to recognize the best educators and scientists without diluting faculty work activities across all disciplines in the School.

Summary

- Faculty in SNR represents multiple environmental disciplines, supported by a dedicated professional staff, and a diverse group of dedicated and motivated students.
- The necessary components exist at the university to build a highly-successful interdisciplinary School of Natural Resources where research and level of programming are visionary and responsive to societal needs at multiple scales of operation.
- Faculty, staff, and students in SNR need to be treated equally with their agricultural faculty counterparts by the administration.
- Professional staff is committed to service, willing to assume new roles and responsibilities with appropriate training and recognition through reclassification and compensation, take a professional approach to problem-solving, and clearly recognize opportunities for improving operational efficiencies throughout many service functions of SNR.
- Undergraduate and graduate students in SNR exhibit a level of enthusiasm and support for SNR that reflects positively on faculty programs and staff support.

Recommendations (People)

• An independent facilitation service should be employed to assist in the organizational development of SNR. Such facilitation will remove distrust of current administrators, objectively mediate contentious issues, and help develop effective leadership teams to provide input to and feedback on decision-making.

- More interaction should be fostered among students, providing student training in professional development and ethics, significantly improving the representation and emphasis of natural resources and the environment in the campus Ambassador Program, establishing more student internships with professional organizations, both paid and volunteer, and establishing a formal mechanism for students to provide input to decision-making in the School.
- Faculty assignments should be simplified and the effort distribution re-balanced.
 The Review Team discourages faculty members being assigned a three-way split of effort among teaching, research, and extension/outreach/survey.

IV. Scholarly Activities

The School of Natural Resources (SNR) administration must recognize that much of what their faculty does has the potential to be "scholarly." However, the SNR administration and faculty must first collectively agree on a definition of "scholarship", and, at the same time, identify the broad range of SNR faculty activities that present opportunities for "doing scholarship." Such a school-wide exercise will also serve to clarify criteria for tenure and promotion.

The Challenge

The academic, survey, and extension groups and research centers now aggregated into the SNR have brought to this new school a disconcertingly broad range of historic missions, statutory mandates, disciplinary specialties, and academic perspectives. They each also carry with them a specialized vocabulary that each has traditionally used to describe the work they do and define the context for decisions about job performance, tenure, and promotion. Examples include:

- Teaching
- Basic Research
- Applied Research
- Extension/Outreach
- Service
- Scholarly Service
- Survey

Historically, these different groups that are now part of the SNR have used different sub-sets of the above performance terms to characterize, guide, and evaluate their work. In some cases, it even appears that different groups have interpreted the same performance term differently.

There is significant anxiety among SNR faculty that future institutional performance judgments will be made by an administration unfamiliar with (and possibly not suitably appreciative of) their specific area(s) of work and responsibilities.

A major challenge for SNR will be to develop some common language and definitions that deal with faculty work performance and job expectations that can be applied schoolwide. A representative faculty committee would be a good vehicle to begin this exercise.

Defining Scholarship

Following the work of Boyer (1990), the Review Team believes SNR should consider scholarship in an expanded context of discovery, integration, application (outreach), and teaching. Equally important is the development of a mutually agreed-upon set of tools (definitions, criteria, and procedures) for recognizing and assessing these expanded scholarly endeavors. The Review Team recommends *Scholarship Assessed* by Glassick, Huber, and Maeroff (1997) as a logical starting point. Additional useful information on scholarship may be found in a case-history of recent experiences at the University of Wisconsin – Extension that has been summarized in a Journal of Higher Education Outreach and Engagement article by Wise, Retzleff, and Reilly (2002). At UW-Extension, for example, the critical elements of scholarship have been concisely defined as:

- Creative intellectual work;
- Reviewed by the scholar's peers who affirm its value;
- Added to our intellectual history through its communication; and
- Valued by those for whom it was intended.

Research

In the Boyer model, traditional academic research is equated with the "scholarship of discovery." Research remains a familiar, easily recognizable, **but not unique** faculty activity that meets the definition of scholarship. Depending on the details, many "survey" programs and projects may also fall in this "scholarship or discovery" category.

Teaching

The Review Team suggests that SNR develop an expectation for "teaching" that recognizes and rewards both traditional (on-campus, classroom/laboratory) and nontraditional (off-campus, factory/farmyard/forest) settings and subject matter. A land-grant university has a fundamental responsibility to serve all of its state's citizens, not just those who happen to be paying tuition and be in residence on the campus. The Review Team believes that SNR is ideally situated to fulfill this statewide responsibility because some portion of its broad natural resource focus will be relevant to almost every Nebraska resident.

Extension/Outreach/Survey

Institutionally, the SNR must come to better appreciate the varieties and value of "outreach" as a special, but very important kind of "teaching." Even "extension", or "service", is, in its broadest sense, the selective application of knowledge to address complex social and technical issues. Such activities may very well qualify as "scholarship of integration" and/or "scholarship of application."

The Review Team saw only limited commitment of resources to traditional extension/outreach in the School. While specialists were in place on campus, very little human and fiscal resources were committed to county based activities in natural resources. The addition of CSD in the School presents an opportunity to greatly expand the extension/outreach effort. Defining the appropriate scholarship for extension/outreach/survey activities will be critical to the success of the School in its efforts to meet the land grant mission.

Recommendations (Scholarly Activities)

- SNR should replace the traditional academic performance behavior called "research" with a more broadly defined expectation of "scholarship."
- SNR should convene a representative committee of administrators, faculty, and scientific support staff to develop a mutually agreed-upon, school-wide definition of scholarship that also recognizes the breadth of potentially "scholarly" faculty work performance activities.
- SNR should incorporate this new definition of scholarship into a revised set of criteria for tenure and promotion.

V. Campus-based Educational Activities

Broadly speaking, "Educational Activities" include all aspects of teaching and information delivery of the SNR faculty. Thus some components of extension and outreach must be considered "Education." However, this section of the Report focuses exclusively on the "traditional" campus-based educational activities of SNR.

A critical need for the SNR, at this time of reorganization, is to determine the relative roles of the faculty (both FTE's and conceptually) to meet the joint needs of Scholarly Activities (research, survey, extension) and Educational Activities (education, mentoring, advising, extension, and outreach). Given the mission of the University and the SNR, an important component of defining the new SNR is remembering that everyone has education responsibility. How that responsibility is defined and met may vary widely across the School. Overall, the Review Team identified a lack of commitment to educational activities as one of the greatest weaknesses that could hamper the future success of the SNR.

Undergraduate Program

At the undergraduate level, the Review Team identified several important issues that must be overcome for the SNR to be successful at undergraduate education. The two most glaring issues revolve around the relatively low and dropping enrollment and the apparent mismatch between the strengths of the faculty and the degree programs being offered.

Undergraduate enrollment and student credit hours have been dropping since 1995, and the trend looks likely to continue. There are at least three majors with less than 10 undergraduates, in some cases as few as one or two students are enrolled in the major (e.g., Environmental Soil Science, Pre-Forestry, and Rangeland Ecosystems). These low numbers indicate either a lack of interest in the degree offered, a continued level of dissatisfaction with the degree from graduating students, a possible lack of jobs for graduates, and/or inadequate or unsuccessful recruiting. By contrast, Fisheries and Wildlife and Environmental Studies appear to be responsible for an extremely large proportion of the total undergraduates enrolled. The success of these program areas should be used as an example of an undergraduate program that is working. Low enrollments in majors is far from optimal for the students as they don't have a cohort or group with whom to move through their educational experience and to form bonds and alliances. Additionally, scheduling is problematic when there are many programs requiring classes but only limited enrollments in these classes. Further, when academic accountability is considered, many majors with low enrollments are extremely problematic.

The low enrollments in majors could be overcome by combining all SNR degrees into a single Natural Resources major with different emphasis areas. Each major could have a common core of classes to choose from (e.g., choose one class from the physical block, one class from the biological block, and one class from the human dimensions block). The Review Team believes this can be accomplished without requiring all students to take the same classes. Each area of emphasis would have electives with recommended classes or series for the areas that were formerly majors. This type of approach would also allow advanced undergraduates to design individual specialization in key areas, areas of focus and expertise of the School's best and most engaged faculty.

Undergraduate Curriculum

The Review Team noted that the curriculum is not well aligned with the strengths of the faculty, and there are a limited number of faculty teaching undergraduate courses. These limitations imply lack of emphasis on undergraduate education by the SNR, and limit the breadth of student experiences. The overwhelming majority of undergraduates are enrolled as Fisheries and Wildlife majors. However, there are only 2-3 faculty with that expertise. By contrast, the School lacks undergraduate degree programs or emphases in areas of climate, meteorology, and biogeochemical cycling where faculty have internationally recognized reputations. It is important to have a core of faculty with strong interests in the degree program area being offered to

- teach undergraduate classes,
- serve as mentors,
- advise, and

provide research opportunities for undergraduates in research labs and on summer
 research projects.

Undergraduates noted the existence of many phantom classes (i.e., classes that are shown on the books but are no longer taught or not being taught that year). The large number of phantom classes makes it hard for them to fulfill their major requirements and is frustrating from a scheduling perspective. Similarly, undergraduates complained that course scheduling leads to excessive conflicts (within and across campuses). Given the recent reorganizations and the size of the SNR, these scheduling issues are not unexpected. However, these issues must be corrected or minimized, as they leave undergraduates feeling unsatisfied and unimportant, and will contribute to recruitment problems in the future. Classes can be combined, co-taught, and offered every other year to maximize the number of students educated in the most efficient manner. Degree requirements should be more flexible, such that students can substitute surrogate courses, if a required or suggested course is not available. Ultimately, the School must build a "top-flight" curriculum and then assign the appropriate faculty to teach it.

Undergraduate Advising and Mentoring

The advising services that undergraduate are receiving are inadequate and unbalanced. Undergraduates the Review Team spoke with either 1) could not say enough good things about their advisor and the level of guidance provided, or 2) more typically, they do not know their advisor, how to contact them, or they have never been able to get a moment of solid advising from them. It was unclear to the Review Team and to the students, how students were assigned to advisors. Advising undergraduates needs to be a priority if the School hopes to succeed at undergraduate education, as specified in their mission. During promotion reviews, faculty need to be rewarded or re-directed for their relative contributions to this activity, just as they are for education, research, extension, or survey. Group advising opportunities should be explored – as many topics can be handled at once – especially when students are new and students can learn from one another. In addition, advisors need to assist in finding internships and employment opportunities, not just helping with curriculum issues.

Several of the undergraduates noted that there was a distinct lack of undergraduate experience-based opportunities (e.g., volunteer or employment opportunities for undergraduates in research labs and on summer research projects), which will also

ultimately affect recruitment. At many similar institutions, undeclared or less-certain undergraduates are drawn into specific fields because they got a job working in that area. and thus became more familiar with the work of those types of professionals. These experiences allow undergraduates to work more closely with graduate students and faculty - that is, real people who are engaged in their work. Exposing undergraduates to real-life research, extension, or survey can also be facilitated with a lower-level class that requires each undergrad to spend some minimum amount of time interacting with a research lab or aroup of faculty in a specific area. The students can go out in the field, sit in on weekly lab meetings where readings are discussed or where graduate students give talks, or participate in lab work, for example. In addition to hands-on experience within the University, the undergraduates expressed interest and highlighted the need for internships with the local natural resource agencies (local, state, and federal), such that they can sample their job opportunities and narrow down their interests. The SNR and the faculty advisors should facilitate these outside internships for the students and consider ways to increase the opportunities within the School that will allow undergraduates to work and interact in the School's top labs, centers, or with specific groups of engaged faculty.

Undergraduate Recruiting

In the area of recruiting, although the SNR has many good ideas, the Review Team saw several areas for consideration. One of the biggest limitations at this time is directly related to the lack of a core concept described earlier in this report. After the School has identified their core concept and programmatic foci, recruitment should be a logical and natural next step. While working on undergraduate curriculum revision, the SNR needs to consider revision of majors to make them attractive to undergraduates who may have somewhat underdeveloped or vague ideas about natural resources (e.g., what key words can be used in major titles, or course titles, for those students blindly searching on the internet?).

As described above under *'Undergraduate Advising and Mentoring'*, the ^{Undergraduate} students indicated there was a lack of labs or research projects to work with, ^{for} ^{undergraduate} hands-on experience. At many institutions, this is one of the most ^{successful} ways to recruit students into a major. The Review Team believes there are many

labs and projects that the students <u>could</u> get involved in, as the SNR obviously does a considerable amount of research. This process needs to be facilitated through the school administration of undergraduates. Labs looking for hourly or work study technicians (paid partially by financial aide – and a great deal) or labs willing to mentor volunteers or undergraduate theses or projects should be encouraged to recruit students. These labs could provide job/work information to a central source, where the info could be posted to a job board across the University and within the SNR. At other institutions, many undergraduates don't really know what they want to do (or major in) until they have had the chances to experience the work hands-on and see engaged people working, who love their jobs.

Another successful recruitment tool is a "grab or hook class", delivered at the lower level to freshman and sophomores. This class could be co-taught by many faculty and could be an overview of Natural Resources, important and current topics, areas of research in the SNR, and options for employment. If every SNR related student is required to take this class, not only will they be exposed to a wide variety of different areas of foci and faculty within the college, the class also could be used to orient students to opportunities like workstudy and internships. The class also could build cohorts of students that move through their degree program together, a cohesion that currently seems to be missing.

The Review Team's discussion with the undergraduates also suggested there was an imbalance with the Ambassador Program such that the current Ambassadors appear to represent the College of Ag, and not the SNR. The School needs to become better integrated in the Ambassador Program to achieve the appropriate recognition in recruitment efforts.

Once these "kinks" are worked out and the SNR is ready to really start recruiting, in addition to hiring a recruitment coordinator, the SNR should take a marketing orientation. There are excellent companies and consultants that have expertise in how to sell programs or products; this approach may be worthwhile for the early stages of developing a solid recruitment program.

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Recommendations (Undergraduate)

- All SNR degrees should be combined into a single Natural Resources major with different emphasis areas.
- The administration needs to revisit the current allocations of FTE's, such that an adequate and sufficient amount of time and effort is committed to undergraduate teaching. This exercise should allow for maximum flexibility (i.e., those faculty who both enjoy and excel at teaching can teach more and do less extension, for example, with the understanding that education includes many different types of information transfer. Conversely, a faculty member who does considerable outreach and extension may not be required to teach as many classroom courses.
- One person (or a designated department) should be assigned to oversee all undergraduate education within the School. This person should work within the School, across colleges, and even across campuses (City versus East) to minimize scheduling conflicts and to oversee a program that can meet the diverse needs of a wide variety of undergraduate students and faculty. Given the large number of faculty, staff, groups, students etc. within the School, this role must be filled at the School level to succeed.
- The Review Team suggests that it is premature to hire a Recruitment Coordinator until the SNR has determined their identity and their strengths, and has revamped the undergraduate curriculum to fit this identity.
- The School should develop/pursue outside internships for students and consider ways to increase the opportunities within the School that will allow undergraduates to work and interact in labs, centers, or with specific groups of engaged faculty.
- As part of the curriculum revision, the School should develop and teach a mandatory "grab or hook class", delivered at the lower level to freshman and sophomores, potentially co-taught by several faculty (e.g., Human Impacts on the Environment).

Graduate Program

The Review Team observed a distinct asymmetry in graduate experiences and feelings across those students interviewed. However, less than 50% of the students said

they would recommend SNR to a peer. Likewise, less than half of the students indicated that they would return to SNR if they could do it again. Graduate students from the CALMIT program were extremely enthusiastic and felt a great deal of satisfaction from their program. One graduate commented that through the CALMIT program, he received not only a graduate degree and education, he also "got a reputation." Thus the CALMIT graduate program, and others like it, should serve as examples for graduate success. The Review Team expects that the new USGS Co-Op Unit will contribute greatly to the graduate program, as that is one of their noteworthy contributions at many similar land grant institutions.

Graduate Curriculum

Many of the comments provided above under 'Undergraduate Curriculum and Mentoring' apply to the graduate program. The comments the Review Team received regarding graduate curriculum were diverse and inconsistent. Graduate students came from such a wide variety of different graduate programs that overall generalizations are difficult. Some graduate students noted that the graduate curriculum should be tailored to serve students in their career rather than promote faculty research programs. There is an important need for classes that 1) teach the fundamentals of the relevant field while also expanding a student's breadth and 2) simply teach graduate students how to become professionals (e.g., give presentations, do interviews, write, secure funds, do outreach and extension, balance budgets etc.)

It appears that Biology classes don't always meet the needs of SNR graduate students, but often these are the only classes available to meet graduate student curriculum needs. Similarly, there was a complaint from several graduate students that the faculty don't open up their courses to a broad population of students, a hurdle that will need to be overcome if the SNR is going to successful as an Interdisciplinary School, rather than a collection of subgroups related only by administration. SNR faculty should be given credit for advising students in other areas/majors. "Accounting" for graduate students and administration of graduate students should be done at the school level. A final component of graduate education and recruitment is some form of 'Outcome Assessment', where graduate students are tracked to see their final career choice and success. This outcome information will help develop and enhance the graduate program.

Graduate Mentoring and Peer Interactions

As discussed for the undergraduate program, there is a need for programs and opportunities that foster relationships among peers for the graduate students. Few of the graduate students interviewed knew each other before the Review Team's group session, also highlighting this need. Some graduate students said they felt very isolated and noted that there were few chances for interactions among the graduate student body. There is a need for a graduate seminar or orientation class. This class would serve some of the same roles as the undergraduate seminar series; the class should be mandatory and taken early on, cover orientation issues, how to succeed in graduate school and beyond, ethics, creative/critical thinking, and time management.

The graduate students also noted that they would prefer if there were some more uniform expectation for professional presentations; this need could perhaps be met by having students give practice talks to peers at a brown bag lunch group or similar forum. Some graduate students get considerable encouragement and mentoring (particularly regarding presentations), and others get little to none. The Review Team recognizes that inequalities exist in faculty mentoring of graduate students. However, proactive thinking at this time of reorganization may help limit or overcome these difficulties.

Graduate Assistantships and Stipends

The Review Team believes the graduate stipend level is not competitive nationwide. It is not clear that the stipends being offered are sufficient to attract students to Nebraska; perhaps other incentives will need to be added. It is also noted that while the minimum amount should be fixed, increases from this base stipend can be flexible and need not be necessarily uniform. The stipend can be raised depending on the students' achievements (progress or achievement based) and should consider students' needs. Every single person interviewed at all levels complained about the heath insurance and the health support system, including graduate students. Unfortunately, this is not something the SNR is likely

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to fix. However, for graduate recruitment packages, if SNR truly wants to be competitive nationwide, perhaps a partially-paid alternative can be devised.

Support for travel to professional meetings varies across the various groups and faculty – and this is expected based on different levels of available funding. However, providing small amounts of travel money (it often takes very little), offered competitively to graduate students who apply, is one way that 'Centers' could help the SNR as a whole. These travel funds would encourage non-Center faculty and staff to interact with and appreciate Center faculty and staff, and vice-versa, and would improve the reputation on the SNR nationwide, as more graduate students would be presenting at national meetings and acknowledging the SNR and the Center.

Graduate Teaching Experiences

Although it appears there are adequate opportunities for getting teaching experiences through TA's etc, the Review Team's interviews indicated that the opportunities were not available for all PhD students (who should have priority by default). For many graduate students, teaching experience is a major part of the decision making process regarding one's future career, specifically, a career in academia or not. And while the Review Team understands the benefits of having the same graduate TA teach a class more than once (e.g., better prepared, less oversight needed), this repetition should not occur unless there are no other PhD students in SNR (with the adequate back ground), that are interested in gaining teaching experience. The Review Team also noted that the graduate teaching experience should be mentoring process, not time-release for faculty. Faculty should plan to spend time with the graduate students who are teaching, listen to their lectures or attend their labs, and provide course materials from past teachings.

Masters of Natural Resources 5 year degree

There was substantial discussion regarding the need and utility of a five-year professional degree. The degree would consist largely of class work with no field or laboratory research, and would be considered a terminal degree (no PhD to follow). The

Review Team believes there was insufficient information to provide a recommendation on this degree at this point. The following questions need to be answered:

- Is there a need for this type of degree within the state of Nebraska?
- Do the various private, local, state, and federal agencies that hire UNL graduates consider this level of education sufficient, and would they hire these graduates?
- Who would provide instruction for the MNR program? Presumably the research faculty would play a secondary role, as the students would not be doing research based theses.
- How are similar degree programs structured around the country (e.g., Duke), what are their success rates, and what is the ultimate status of their graduates?
 State and Federal stakeholders interested in such a degree program should be queried and asked if they would help design the program.

Recommendations (Graduate)

- Many of the Review Team recommendations and comments provided above under *'Undergraduate Program'* apply to the graduate program as well.
- The graduate curriculum should be revised to better serve students in their career, rather than to promote faculty research programs.
- A graduate seminar or mandatory orientation class should be developed for the School. The class should be taken early in students' graduate program and should cover orientation issues, how to succeed in graduate school and beyond, ethics, creative/critical thinking, and time management.
- The School should appoint a team to complete a Needs Assessment with State and Federal agencies to determine the "need" for a five-year MNR degree program.
- Centers should establish a small pool of travel funds offered competitively to graduate students for participation in professional meetings. This would strengthen "citizenship" of the Centers to the School. These travel funds would encourage non-Center faculty and staff to interact with and appreciate Center faculty and staff, and vice-versa. These funds also would improve the reputation of the SNR nationwide, as more graduate students

would be presenting papers and posters at national meetings and acknowledging SNR and the appropriate Center.

- A college-wide assessment should be undertaken to determine how credit is awarded to faculty for advising and teaching students in other areas/majors/departments/colleges.
- Additional facilities or access to facilities should be made for group interaction in Hardin Hall (e.g., break room, computer room, common graduate student offices) and activities that promote group interaction (e.g., Tuesday coffee and donuts in the atrium for grads and faculty).

VI. School Administration

Unit administration refers to the current leadership structure of the School. This administrative structure includes a Director, two Associate Directors and several coordinators. The School also has the administrative support of the Natural Resources Business Center (NRBC). The NRBC provides administrative support for research, education, and outreach programs of the School. The NRBC has an administrative team manager and several support staff.

Strengths

The upper administration has made the decision to appoint a Director for a term of two years and then initiate a national search in 2005. The appointment of Dr. Mark Kuzila as the Director in August 2003 appears to be accepted by the faculty and staff. There appears to be a seamless transition from Dr. Kyle Hoagland, Interim Director, to the new Director. There are numerous senior faculty members and distinguished Center Directors to provide a leadership pool for the Director to consult and solicit advice. The upper administration is strongly committed to making the merged unit successful.

The NRBC provides a wide array of functions that support the research and education efforts of the faculty. The School's commitment to the NRBC creates an excellent opportunity for faculty to focus on research, education, and extension/outreach/survey activities while allowing the NRBC to manage administrative functions.

Weaknesses

The coordinators are viewed by some as non-administrators with little power. There is a clear need to establish position descriptions with reporting lines for all the above positions. It is also necessary reevaluate the need for all coordination positions. The Director needs to proceed in a timely manner to fill the positions. He needs to consider establishing an ad hoc executive council to provide guidance in setting the leadership structure of SNR. A major challenge is to establish the appropriate leadership structure while maintaining a transparency so that faculty, staff, and students feel informed and empowered throughout the process. The leadership team needs to have the full support of the faculty in order for it to be effective. Standing committees established by the School (e.g., curriculum, graduate mentoring, etc.) need to be formally charged and to be fully engaged in the business at hand.

The NRBC has rapidly grown, and the business manager has taken on additional responsibilities in response to changes in administration and merging of units. Some of these responsibilities conflict with those of a traditional business manager who is to represent the business office and staff. The School's leadership team needs to clearly articulate those duties for which the NRBC will be responsible and separate them from duties better filled by an administrative assistant.

In the organizational diagram provided to the Review Team, the centers and their roles within SNR were not clearly defined. The reporting lines need to be clearly articulated at all levels. Because of the prominence in the state, nation and world, they need a clear role in SNR. They must see the advantages in being a part of SNR and vice-versa.

The centers have developed in different ways and receive funding from a variety of agencies. Some have federal or state mandates. Perhaps, a compromise on the indirect cost return policy can help to accomplish the linkages between Centers and the School. While the administration feels that indirect costs are returned to the Centers in various ways, a higher return of indirect costs to Centers would be a clear signal that being a part of SNR offers an advantage that would draw them together.

Challenges and Opportunities

UNL and SNR must move quickly to develop a shared vision and mission for the School. This activity is critical to the administration and function of SNR. The leadership of SNR and UNL must view the activity as important and they must market it to the faculty and staff. In the end, all must buy in to the activity. The process will be as important as the end document. There is a need for free exchange and team building during the process. The faculty and staff currently are not familiar with one another. Future interdisciplinary activities will be an important element of the vision and mission of SNR, therefore individuals must know one another and respect others' contributions and potential especially in a diverse and

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newly merged unit. The end document should be a guide for prioritization of programs and positions. The document will provide transparency to the decision making process, in particular to new/future positions, promotions and priorities.

Interdisciplinary activities require additional networking and interaction above traditional discipline activities. How can interdisciplinary activities be encouraged to advance this key element of SNR? The Review Team believes that the administration of the School could provide **additional resources** such as funds, equipment, graduate students, fellows, etc. to faculty participating in interdisciplinary teams. Teams could be formed to accomplish their mission in a specific timeframe (e.g., apply and secure extramural funding and carry out grant activities over a five-year period). At the end of the time period, the group could be dissolved or it could be renewed.

Within the newly formed School, the Conservation and Survey Division (CSD) presents a special challenge. The CSD and its mission are clearly defined in Nebraska state statutes. The CSD is specifically mandated to survey, study, and describe the natural resources of the state with special emphasis on geology, water, soils, mineral resources, and geography. While contributing its talents and resources to the SNR, the CSD must, at the same time, remain appropriately "faithful" to the statutes that created it. It will be especially important that the CSD maintain an adequately recognizable/distinct institutional identity and ability (staff and resources) to continue to carry out its statutory mission – particularly in the areas of framework geology, soils, and water resources.

Communication will be a key element in the functioning of SNR at all levels. This aspect will be a major consideration in the discussion to establish the intellectual core. The leadership at all levels including faculty and staff units will need to address how to develop efficient and timely channels of communication.

Recommendations (School Administration)

• The Director should consider an administrative assistant with responsibilities clearly separate from those of the business manager. The business manager needs to delegate responsibilities to others in order to meet critical, time-sensitive deadlines, particularly where these deadlines relate to personnel actions for staff. Delegation of

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these responsibilities will allow several functions of the business office to proceed in a more timely and efficient manner.

• The School should consider making the CSD some kind of "center" with its own administrative head, set of programs, and ability to seek and receive outside funding. This stature also will help to preserve the statutory identity of the CSD.

VII. Physical Facilities

The allocation of Hardin Hall to house the School of Natural Resources presents an excellent opportunity to centrally locate faculty and bring together disparate programs. Administrative decisions to house non-SNR programs (e.g., Department of Statistics) in the north wing of Hardin Hall are not fully understood by the Review Team, especially if this decision prevents all SNR faculty programs from being located there.

The Review Team understands and appreciate the trade-offs that must be made to accommodate competing interests with respect to facilities and renovations throughout the Lincoln campus. In light of these trade-offs, it is strongly encouraged that the UNL administration commit those resources required for development of facilities that fully support the vision of SNR.

Based on the experiences of those on the Review Team, there are some concerns for locating faculty, staff, and students in a high-rise building that was constructed for nonacademic purposes. Such buildings tend to vertically stratify faculty programs either by discipline or by faculty effort in teaching, research, or extension/outreach/survey (TRE).

Allocation of space within Hardin Hall should reflect disciplinary strengths and build a sense of community while avoiding vertical stratification by faculty TRE effort. The Review Team strongly discourages the random distribution of faculty by discipline model promoted by the former SNRS director. Faculty, staff, and students should be included in planning space allocation and utilization patterns in the new building. Integrating disciplines by faculty functions (Teaching, Research, Extension/Outreach/Survey) may be a workable solution. However, those involved in extension or survey programming often tend to interact with other extension disciplines rather than research and teaching faculty in the same discipline.

Lounges should be established on each or alternate floors to encourage and facilitate interaction among disciplines and faculty TRE effort. These lounges should be available to faculty, staff, and students without discrimination toward any particular group with accommodations financially supported through discretionary SNR funds rather than from individual faculty programs.

Another mechanism to facilitate communications and interactions within a vertically stratified building is to hold periodic "Town Hall" meetings at least once a semester or more

frequently depending on need. Such meetings are open to the entire School and open for discussion on the topics of the day. Some employees and students may be inhibited from openly contributing in such settings, so disciplinary or functional groups may need to meet separately and have representatives report to the full SNR community during these meetings. Perhaps this responsibility for encouraging staff participation can be added to the Staff Professional Development Committee charges.

SNR should take a more active role in the management of IANR field facilities and be represented fairly and equally on relevant committees and decision-making organizations within the Institute. The Review Teamalso recommend that SNR move forward with appointing an ad hoc committee for coordinating and assessing needed improvements to those field sites for which SNR holds ownership or principal management responsibilities.

Recommendations (Physical Facilities)

- Commit those resources required for the development of facilities that fully support the vision of SNR.
- Allocate space within Hardin Hall to reflect disciplinary strengths and build a sense of community while avoiding vertical stratification by faculty TRE effort.
- Encourage and facilitate interaction among disciplines and faculty TRE effort by developing facilities that foster social interaction among faculty, staff, and students.
- Facilitate communications and interactions within a vertically stratified building by holding periodic "Town Hall" meetings to convey and discuss current issues and opportunities.
- Establish fair representation of SNR in the management of IANR field facilities and on relevant committees and decision-making organizations within the Institute.

VIII. Summary and Recommendations

Summary

This review report describes the many strengths, opportunities, and challenges that the Review Team observed for the School during its visit to campus and through review of the SNR's Self-Study Document. Within this report, the Review Team addressed the challenges identified for this review and have attempted to provide some guidance for building a successful, productive School within the college.

The Review Team is concerned that the timing of the review may have been less than optimal given the very recent reorganization of the School. Recognizing the "shifting ground" on which the School currently exists, the Review Team has attempted to provide the best available judgment regarding opportunities and challenges facing the School.

Key Recommendations

- 1. Conduct a two or three day retreat to develop the intellectual core of the School.
- 2. Based upon the outcome of the retreat, develop a strategic hiring plan for all new faculty.
- 3. Use a professional facilitator to guide the School through sessions on maintaining the identity of existing centers, groups, and teams while building a common shared culture within the School.
- Establish a leadership team to revisit definitions of scholarship based on the diverse, complex faculty now in the School.
- 5. Conduct a complete curriculum review and revision (graduate and undergraduate) around core issues defined in the retreat.
- 6. Establish a leadership team that promotes communication among all members of the School and insures transparency of decision-making in the School.
- 7. Devote the necessary resources to locate "all" faculty, staff, and students associated with the School into the Hardin Hall facility.

IX. REFERENCES

- Boyer, E.L., 1990, Scholarship Reconsidered: Priorities of the Professoriate: The Carnegie Foundation for the Advancement of Teaching, 147 p.
- Collins, J.C., 2001, Good to Great: Why Some Companies Make the Leap... and Others Don't, 300 p.
- Glassick, C.E., Huber, M.T., and Maeroff, G.I., 1997, Scholarship Assessed: Evaluation of the Professoriate: The Carnegie Foundation for the Advancement of Teaching, 130 p.
- Wise, G., Retzleff, D., and Reilly, K., 2002, Adapting Scholarship Reconsidered and Scholarship Assessed to Evaluate University of Wisconsin-Extension Outreach Faculty for Tenure and Promotion: Journal of Higher Education Outreach and Engagement, v. 7, no. 3, p. 5-18.

March 14, 2004

Dean Darrell Nelson 207 Ag Hall East Campus 0704

RE: Response to Comprehensive Review of the School of Natural Resources

The Comprehensive Review Team provided seven sets of recommendations plus a set of Key Recommendations. This letter will list a response to each set of recommendations.

INTELLECTUAL CORE

It is likely that the format of the self-study report coupled with comments made by some faculty led the review team to ask the question "what is it that brings this group together and what can they do better than any other similar group?" We agree that SNR needs to answer this question. A facilitator has been hired to work with SNR. The plan for the facilitation is attached. Once we identify our priorities we will develop a prioritized list of faculty positions to that address gaps in expertise.

PEOPLE

We do not agree that there is excessive distrust of the SNR administration and that there are numerous contentious issues. As a result, an independent facilitation pertaining to those issues is unnecessary. The SNR Interim Advisory Committee worked had to revise the SNR By-Laws which addresses the issue of SNR leadership. The process to fill positions for the SNR Associate Director, Teaching, Research, Extension, and Survey coordinators, and the entire SNR committee structure is underway.

We agree that improve student activity within SNR. As a start we have recently help meetings to re-establish the SNR Graduate Student Association. A leadership structure is being developed and by-laws are being drafted. We intend to address issues with undergraduate students in the near future.

We agree that there may be a need to redistribute some FTE within SNR. Once we identify our priorities we plan to propose the appropriate FTE changes. We understand that FTE changes are looked upon more favorably if they are part of a reallocation within the unit.

Darrell Nelson, March 14, 2004 cont.

SCHOLARLY ACTIVITIES

We are willing to work attempt to develop a "school-wide definition of scholarship". A newly elected Promotion and Tenure Committee will be in place by July 1, 2004. The SNR Director will request that they assist SNR in addressing this issue.

UNDERGRADUATE PROGRAM

We agree that SNR has much work to do pertaining to undergraduate education. When selected, the SNR Associate Director will provide leadership to the re-invention of the SNR curriculum. The project will include the evaluation of the curriculum in all Natural Resource Majors, teaching FTE distribution, and the coordination of teaching activities with units that we teaching cooperatively with. As part of this project we intend to adjust class offerings to address the issue the need for a "grab and hook class".

We do not agree that it is premature to hire a recruitment coordinator and we intend to continue to take steps to focus staff on the recruitment effort.

GRADUATE PROGRAM

We agree that the SNR graduate curriculum should be re-evaluated. Included in that re-evaluation should be the assessment of the need for a graduate orientation class and a MNR degree program. The re-evaluation of the graduate curriculum should occur within the re-invention of the SNR curriculum activity.

We agree that SNR needs to maintain a positive atmosphere for graduate students. We intend to have the newly invigorated SNR Graduate Student Association assist us in determining how to do that. We will strive to provide travel opportunities for students and to have a warm environment for them to interact in.

SCHOOL ADMINISTRATION

We have taken steps to identify an administrative assistant to assist SNR administrators. This position will be separate from the NRBC. This action will have a positive affect on both SNR and the NRBC.

We agree that the survey function is an important component of the SNR research and extension missions. We also think that the survey function is an excellent addition to SNR. It brings something to the table that no other school of natural resources has to offer. It should provide unique opportunities for students and researchers alike. We have worked to integrate survey into SNR as indicated in the newly adopted by-laws. Until such time that Nebraska Statutes change, it is also important that we be able to identify the activities of SNR survey as equal to those attributed to the Conservation and Survey Division. The SNR by-laws identify a Survey

Darrell Nelson, March 14, 2004 cont.

Coordinator and Survey Committee. The SNR director will ask the Survey Coordinator and Survey Committee to address this issue.

PHYSICAL FACILITIES

We agree that Hardin Hall presents a great opportunity. We will make every effort to allocate space in a manner that facilitates integration and interaction while building on strengths. We view the Hardin Hall auditorium as an excellent venue to hold periodic "Town Hall" meetings to facilitate communication between the faculty and staff.

We agree that there may not have been adequate representation of SNR in the management of IANR field facilities, however positive we see indications that the situation is changing.

KEY RECOMMENDATIONS

An external facilitator has been hired and a series of forums culminating in an SNR annual meeting has been scheduled. This activity will address the issue of an intellectual core and building a shared culture.

Once that is completed we will address the issue of a strategic hiring plan and a complete curriculum review.

The newly elected Promotion and Tenure Committee will address the issue of the definition of scholarship.

The newly adopted by-laws provide for the establishment of a leadership team that promotes communication among all members of the school. The team should be in place by July 1, 2004.

We agree that the necessary resources should be devoted to Hardin Hall so that all of SNR can be located there. We also understand that every effort possible is being put toward this endeavor.

Sincerely,

Mark Kuzila Director