Responses to Tree-Ring Lab 2006 APR External Review Report Recommendations

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Summarized recommendations of External Panel in bold:

A. Steps should be taken as soon as possible to re-house the tree-ring archive collections in a custom built facility. This was stated as the panel's "foremost recommendation". A new building housing the entire LTRR with other departments (e.g., ENRB) is recommended as an ultimate solution.

A new stand-alone archive building under the West Stadium bleachers has been envisioned. Preliminary cost estimates are about \$5.5 to 8 million. This solution would be satisfactory for LTRR for the next decade and longer, considering that a new renovation project adding about 8,000 usable square feet of office and lab space for LTRR in the West Stadium is now planned, and approved by the Arizona Board of Regents.

LTRR concurs that an optimal, long-term solution would be an entirely new building housing all of LTRR (offices, labs, archive), and in close contact with closely affiliated earth science departments.

B. A new full-time position of "collections manager" should be created to oversee the reorganization of the tree-ring archives, and to help develop proposals for external support for developing and improving the archive.

LTRR concurs that such a position is needed. A current opportunity to meet this need might involve a gift from a donor (or donors), and a University commitment to support such a position. The Director has had preliminary discussions with a donor about this possibility. The Director, CoS Dean and Development office will work on developing this possibility.

C. Increase collaborations with other departments and colleges.

We think this recommendation by the external panel is at least partly based on a misdiagnosis of a problem that has arisen relatively recently. This problem is mostly separate from issues of our visibility on campus, or the extent and impacts of our involvement in cross-campus collaborations. A genuine problem, which was raised with the external review panel by the Director, one or more faculty, and the Dean was regarding a recent lack of direct LTRR inclusion in important earth and environmental science initiatives and leadership on campus (e.g., 2004 ESEP panel, and environmental science sustainability "virtual" college, TER/TRIF). (More on this issue below.)

We certainly agree that inter-department and multi-college collaborations, visibility and leadership of LTRR on the UA campus is essential. In fact, we make a very strong and well-documented case in our APR that LTRR is extremely collaborative across campus,

and that we have a long and extensive history of on-campus interdisciplinary involvement and leadership in numerous aspects of earth and environmental sciences, teaching and outreach. For example: LTRR was instrumental in the creation of ISPE, and Dr. Hughes has served on the executive committee of ISPE since its inception; all LTRR faculty hold joint appointments in other departments, and many are involved in teaching and departmental issues in those units; Dr. Dean is a co-PI of the NSF IGERT Program in Archaeological Sciences, a multi-department and multi-college program; in recent years a major NSF MRI equipment award was successfully led by Dr. Evans and involved multiple other co-PIs in Geosciences; LTRR has had co-PI involvement in a host of other on-campus, large funded projects since their inception, including the multi-year \$3 million+ CLIMAS award from NOAA; LTRR faculty have been centrally involved in developing and administering graduate interdisciplinary programs, and the general education program, e.g., Dr. Hirschboeck has been a University (Provost's) award winner for her leadership in GenEd, and she is currently the chair of the Global Change IDP; Dr. Swetnam, Hughes, Evans and others have been involved in planning and promoting a variety of cross-campus initiatives, including NEON, National Phenology Center, and the Biosphere II; LTRR faculty have served on numerous faculty search committees in other departments in recent years, e.g., the successful searches for new faculty in Geosciences, School of Natural Resources (SNR), and the new Director of SNR.

We suspect that the panel confused the concern expressed to them about LTRR's lack of direct inclusion (i.e., invited/appointed participation in planning committees) in some very recent environmental science initiatives (e.g., ESEP, virtual college, TER) to be a reflection of a long-time lack of involvement in cross-campus collaborations and leadership.

We will certainly continue -- and to the extent possible – expand our cross-campus collaborations, contributions, involvement and visibility. As for recent environmental science initiatives, we have had discussions with our colleagues on these matters, and we expect that our direct involvement will increase, including opportunities for us to lead some aspects of these initiatives.

D. Develop a coherent, strategic plan for how the LTRR will develop over the next 10 years; a short 2-5 page "pithy" document, with amendable appendices that would discuss and list action items.

LTRR agrees that this is a very good idea. We plan to hold retreats with faculty staff and students in the 2007-2008 academic year, with a goal of producing such a document by spring 2008. We recognize that the Director must fully engage in this effort, providing vision and leadership in its development and execution. The faculty and staff must also take initiative in this effort to identify goals and actions to be taken, and to be very actively involved in the implementation. The plan should identify benchmarks, timelines and a process for assessing progress on achieving goals and objectives.

E. Restore state funding for LTRR support staff; work to leverage state and external funding to support these positions; attract and train new, young people into these positions.

We heartily concur with this recommendation, but we see no way to achieve allocation of state funds to restoring positions (we have lost 3 staff positions in last 5 years or so due to state budget cuts) unless our state budget is increased. On the other hand, the loss of staff positions will certainly necessitate that external grant funds be obtained and allocated to covering as much of these costs as possible. This will undoubtedly increase the cost of our grant proposals, and will potentially decrease their competitiveness.

We will strive to identify funding opportunities, both internal and external, to rebuild our staff support. The development of a strategic plan (see point D, above) will be one opportunity to identify mechanisms to recruit and train new people into critical staff support positions.

F. Expand breadth of contributions to teaching; coordinate with LTRR's partner departments (e.g., Geosciences, Anthropology, Atmospheric Sciences, etc.)

LTRR recognizes that we can increase our undergraduate teaching contributions. We made a large increase in our undergraduate teaching at the beginning of this APR period (i.e., in 1999-2000), but until recently we have not further increased our undergraduate student contact hours. We are increasing our general education course numbers substantially in the 2007-2008 year.

Our graduate student teaching is now at an all time high (about 17 graduate students). We will work toward increasing those numbers further. The newly renovated office and lab space in the West Stadium will enable us to do this. A new fellowship program has recently been established in collaboration with the Anthropology Department, and is funded by an endowment gift from Agnese Haury. This program will support new graduate students in Anthropology with tree-ring interests, and will serve to increase our ties to that department and our pool of graduate students.

Regarding coordination with other departments, it is notable that all of our courses must of necessity be coordinated with multiple departments because we do not have our own degree programs. Most of our courses are cross-listed in multiple departments (e.g., ANTH, WSM, GEOG, GEOS). Also, most LTRR faculty hold joint appointments in other departments and mentor graduate students matriculating in those graduate programs. We concur, however, that there is a need to improve communications and coordination with other departments regarding teaching matters. We will strive to achieve this through more frequent contact between the Director and relevant Department Heads, and by LTRR faculty participating more pro-actively (when appropriate) in curriculum matters in relevant departments where they hold joint appointments.

G. Focus outreach efforts more on "training trainers"; reduce staff commitment time to pure outreach.

LTRR concurs that we need to refocus our increasingly limited professional staff time, with a more efficient use of part of this time on outreach. We are discussing the possibility of helping achieve this by establishing a "docent" program, wherein we would recruit interested volunteers, train them in aspects of dendrochronology and our history, and utilize these folks for leading tours, giving presentations to schools, groups, etc.

H. Actively pursue endowment funds with assistance from CoS Development and UA Endowment.

LTRR agrees that this is an important endeavor to pursue, and we have been actively involved in seeking and obtaining such support. We suggest that University assistance to us in identifying and securing endowment support for a stand-alone archive building, or an entirely new building, could be the most viable means for pursuing this and recommendation A. As noted in our APR Report and above, we are the beneficiaries of two relatively new endowments established by Agnese Haury, i.e., an endowed chair and an endowed graduate fellowship in archaeological dendrochronology.

I. Commit to becoming a recognized institutional leader and model in energy reduction and energy conservation.

We concur that there are good reasons for LTRR and the University to strive to be as "green" as feasible, especially given the high visibility and critical role we have played, and will continue to play, in documenting and understanding regional to global climate changes and their impacts. We will carefully consider specific recommendations itemized by the external panel in this regard, as well as others as we become aware of them. We expect to implement some of these recommendations in coming months and years. For example, this effort may include establishing specific goals and actions to be articulated in the strategic planning effort (see item D). We note that some of our faculty, staff, and students already practice energy conservation in various ways.