Critical Objectives Task Force

Executive Summary

1. Research Excellence
2. Long Term Sustainability
3. Reputation and Visibility
4. Service to the State
5. Higher Education Role
6. Next Steps
7. Task Force Composition

January, 2015
Promotion of Excellence in Environmental Science
Research, Training and Communication

Critical Objective: Promote an atmosphere of continuously striving for higher levels of achievement in the field of environmental science by:

- Identifying and working at the cutting edge of research through the application of traditional and novel approaches and tools;
- Identifying, training and accelerating the advancement of the next generation of outstanding scientists through active recruitment of exceptional post-doctoral candidates;
- Communicating science and research results at the PI and Institute level with clarity, fidelity and rigor to a range of audiences through exceptional professional presentation skills, elevating publication and other science product quality, and engaging early scientists and STEM education practitioners at the K-12 level.

Strategy 1: Increase recruitment of high-quality post-doctoral fellows and early career scientists to increase breadth of DRI research and establish long-term collaborations.

Tactic A: Establish program that incentivizes PI and post-doc to enter into term arrangement. Recruit post-docs actively rather than wait for them to apply for open positions.

Tactic B: Increase visibility and attractiveness of DRI for post-doctoral studies. Give seminars at University departments and emphasize positive aspects of soft money research.

Tactic C: Host subject expert workshops that target a specific problem or area of scientific inquiry. This will aid in identifying promising hires, increasing DRI visibility to hires, and identifying subject areas where post-doc hires can be targeted.

Strategy 2: Improve quality of research end products such as reports, papers, software and other.

Tactic A: Provide the PI resources for meaningful internal review of final products and project progress.

Tactic B: Improve scientific communication, oral communication and professional presentation skills. This can be done formally as in a classroom setting or informally as part of existing seminar series practices.

Tactic C: Host subject expert workshops that target a specific problem or area of scientific inquiry. This is helpful for ensuring that research is relevant and that optimal collaborations with peers are sought.

Strategy 3: Improve effectiveness of business development efforts.

Tactic A: Host subject expert workshops that target a specific problem or area of scientific inquiry. Identifying what are widely held to be research gaps and opportunities for collaboration improves funding statistics.

Tactic B: Increase/enhance DRI’s visibility in the world of science. Specifically, expand Green Science Program to National/International scale and improve digital communication effectiveness (web and social media). These have direct impact on DRI brand recognition and valuation.

Tactic C: Improve quality of proposals and other research products through an internal review process. Provide resources for internal peer review to directly improve quality and fundability of proposals.
**Long-term Sustainability**

**Strategy 1: Financial Sustainability.**
Tactic A: Increased Foundation support and an effective fundraising office to aid in such things as: sabbatical funding, matching, reserve funding, new major initiatives, research faculty support.

Tactic B: Improved decentralized business development process being more vibrant, effective and proactive. Examples include: Better utilize external contacts. Establish a 3-5 year planning work group or think tank. Develop and foster more long-term contracts. Develop teaming relations with other contractors both large and/or advantageously positioned. Investigate GSA schedule involvement.

Tactic C: Improve internal business processes, such as: Evaluate DR Corp and usage. Investigate GSA mechanism. Look at the definitions of Education and Small Business rules for contracts (teaming arrangements). Investigate alternative charge models.

**Strategy 2: Promote Intellectual Capital.**
Tactic A: Fostering professional development, including such things as: intellectual development and training, clear definitions and paths for advancement, vetted programs for professional development.

Tactic B: Sponsoring and mentoring, including funding for mentoring, develop a 1 to 1 or 1 to many program, develop an organizational structure for mentoring, fostering the mentoring culture.

Tactic C: Recruitment/retention; hiring quality people with cutting edge talent and complementary skills to meet DRI’s changing environment. To include: more proactive recruitment and outreach program, clarity of job and funding expectation in new hiring process, invention of bonus system/or other reward/recognition mechanism.

**Strategy 3: Maintain and enhance Facilities at all levels.**
Find new and more efficient ways to fund/upgrade research equipment and laboratories at DRI. Other physical facilities and IT infrastructure is also a concern, particularly with the recent multi-year budget limitations.

While some of these concerns may fall outside of the 3-5 year time window, laboratory funding seems most critical and should be evaluated within this time horizon.

Tactic A: Implement programs to provide equipment funds at the Division and VPR level. Reassess the current recharge cost-center approach to allow for more flexible accruing of funds for equipment purchases.

Tactic B: Assess a suitable timeline for IT and Facilities department funding models.
Reputation and Visibility

**Strategy 1: Enhance DRI’s research excellence reputation locally, nationally and globally.**

Tactic A: Encourage high quality and high visibility research publications, participation in national and international science/policy committees (NAS, NSF panels and international symposiums), scientific journal editorships.

Tactic B: Enhance opportunities for development of quality publications (e.g. increase number of sabbaticals, mini-sabbaticals and faculty research support funds. Develop an independent reward structure for publications akin to PI funds.

Tactic C: Encourage and support active involvement in professional society leadership roles, editorial boards, host professional conferences at DRI and inviting national and international audiences to the conferences.

**Strategy 2: Improve visibility through partnerships.**

Tactic A: Develop a plan to target private industries, foundations, research institutes, and universities for partnerships on specific result oriented programs benefitting cities, communities, societies and livelihoods (not only in science).

Tactic B: Engage DRI Foundation and friends of DRI to secure local teaming arrangements and heavily market our expertise and qualifications to local industry partners. Reach out to local/statewide agriculture communities, cooperative extensions, other agencies via articles in local newspapers, faculty presentations at local events, and joining mailing lists, etc.

Tactic C: Engage DRI’s upper administration in working with companies and organizations to find entry points that faculty can use to help develop work and funding opportunities.

**Strategy 3: Educational reputation – Establish a national level graduate student program based on scientific themes.**

Tactic A: Establish nationally recognized graduate student program based on specific themes (e.g. global water initiative, air quality desertification and others) and recruit students nationally/internationally.

Tactic B: Work with DRI’s fund raisers and Foundation members to acquire funding that would support numerous (i.e. greater than 12 new positions per year) graduate students to DRI. This will also help DRI’s partnership with UNLV and UNR, bolster DRI’s research output (and thus DRI’s visibility and reputation) and provide possible future post-docs, all relatively inexpensively.
**Service to the State**

_Critical Objective:_ DRI provides essential services to the State of Nevada and is the “go-to” entity for State-related environmental issues.

**Strategy 1: Increase DRI’s funding from agencies within NV by increasing outreach and improving relationships with state and local agencies**

- **Tactic A:** Schedule at least one half day round table discussion annually with state and local agencies to talk about their issues and possible solutions.
- **Tactic B:** Prepare a matrix of state and local agencies that we have or should be working with.
- **Tactic C:** Take advantage of current and future relationships with legislative groups such as the National and Western Governors Association and National Conference of State Legislators. Information from these groups should be used to pair faculty with hot topic issues.

**Strategy 2: Seek legislative changes that would promote and/or require agencies to consider using a NSHE institution to conduct research within NV**

- **Tactic A:** DRI senior administration meets with senior leadership of other NSHE institutions to discuss the list of research funding from state and local agencies to external (outside Nevada) entities and whether they would be supportive of legislative changes that would require state and local agencies to consider NSHE institutions first when funding research. If so, then ask the Board of Regents to take this recommendation to the NV legislature.
- **Tactic B:** Document cases where a NV institution tried to get a state agency contract and an outside entity was selected instead. Communicate that information to legislators. Contact the agencies to seek information on why DRI was not selected.
- **Tactic C:** Continue to send letters and outreach information about DRI’s research to all legislators after each election and to other contacts as appropriate, to develop advocates among elected officials and promote DRI’s successful track record. Make DRI database easy to access and available to the public to enhance visibility and promote DRI.

**Strategy 3: Improve DRI's financial appeal. It would be beneficial to look at different financial models to improve perceptions about the cost of funding research to DRI faculty**

- **Tactic A:** Provide more IR&D/IPA funds that are specific to state collaborations (and could be viewed as cost share). This could be a possible role for the DRI Foundation. A new goal for the DRI Foundation could be to raise funds to maintain DRI’s competitiveness. IPA proposals could be ranked on their potential to build business with agencies within the state.
- **Tactic B:** Address perception of DRI’s ICR (and fringe) rates being too high, making it appear that we are too expensive. Look at a different format for building budgets and billing for non-government groups. Educate state agencies about the comparison between consulting budgets and DRI budgets during the round table sessions. Look at how other state institutions outside Nevada are helping their state agencies in a collaborative capacity and are providing reduced rates.
- **Tactic C:** DRI will explore other possible approaches to developing a State ICR rate.
DRI’s Role in Higher Education

Critical Objective: To collaborate with other NSHE institutions in creating a vision and implementation plan for harnessing the strengths of NSHE to create and foster knowledge, and to help students discover and apply that knowledge to improve the global environment. This partnership should be financially viable and sustainable for all involved parties.

Definition: DRI’s role in higher education is vital to DRI’s mission and this role must be financially viable as well as sustainable. DRI provides solid, cutting edge science and research; by partnering with UNR and UNLV, DRI helps educate future scientists by teaching students to discover and apply knowledge relevant to local and global environmental issues. DRI’s role in NSHE provides valuable tangible and intangible benefits to DRI faculty, students at DRI and the Universities, NSHE and the State.

Strategy 1: Verify that NSHE, the Universities and Community Colleges, the State and DRI are all in agreement that DRI does indeed have a role in Higher Education
Tactic A: Work with the Board of Regents Academic and Student Affairs Committee to ensure “effectiveness…of faculty effort” and to “facilitate the development, review and implementation of policies by the Board…” regarding DRI’s role in higher education.

Tactic B: Poll those in positions of authority to be sure there is “buy in”.

Strategy 2: Establish DRI faculty/administration’s understanding of DRI’s role in higher education
Tactic A: Determine from a policy perspective whether DRI’s role in education: (i) may be subsidized by DRI, (II) must financially support DRI (via ICR) or (iii) should be at minimum cost neutral (salary plus fringe).

Tactic B: Educate and report to faculty/administration on the finances of student research.

Tactic C: Investigate the overall tuition/credit hour benefit of DRI students to UNR and UNLV with respect to cost and benefit of DRI teaching. Establish equitable teaching reimbursement agreements with NSHE institutions.

Strategy 3: Establish formal collaboration with UNR, UNLV, SNC and other (potential) graduate degree granting institutions
Tactic A: Request Regent designation of intra-NSHE adjunct status so that DRI (or other) faculty can be primary advisor of a student he/she funds in any department at another NSHE institution.

Tactic B: Analyze and report ways DRI can support UNR and UNLV Tier 1 research institution status goals through increased PhD enrollment and quality of graduate education.

Tactic C: Explore and leverage Regent, faculty and administrative incentives which encourage collaboration.
Next Steps

✓ Retreat

✓ Focus Groups and Work Sessions

✓ Review Results of Retreat, Focus Groups and Working Groups by President and Vice Presidents.

✓ Review & Comments by Expanded Executive Staff – April 7, 2014

✓ Strategic Planning & Faculty Forum Integration – April 30, 2014

✓ DRI’s Role in Higher Education (Input from Divisions and from Faculty Senate)

✓ Review & Comments by DRI Internal Stakeholders: Faculty Senate, Research and Admin Divisions, TAC and GRAD

✓ Create Task Force Teams per Objective – focusing strategies, tactics and vision strawperson teams consisting of faculty, admin, TAC and GRAD; 3 faculty (1 from each division, 1 faculty nominated by F.S., 1 admin nomination, 1 TAC nomination and 1 GRAD nomination (see page 11)

✓ DRI Internal Review, Institution Presentations, Discussion and Comment

☐ DRI Research Foundation Review and Comment

☐ Synthesis by Leadership & Review by Key Stakeholder Leadership

☐ Finalize and Present to Board of Regents

☐ Implementation
# Task Force Members

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