

Contact: Diana Gonzalez

IOWA LAKESIDE LABORATORY REGENTS RESOURCE CENTER
2012-2013 ANNUAL REPORT AND BUDGET REQUEST FOR 2013-2014

Actions Requested: (1) Receive the 2012-2013 annual report of the Iowa Lakeside Laboratory Regents Resource Center (ILLRRC) and (2) recommend approval of the 2013-2014 budget for the Center.

Executive Summary: The ILLRRC annual report describes the activities undertaken in 2012-2013 to address the Center's Strategic Plan. The proposed budget (Attachment A) describes the planned objectives for 2013-2014. The proposed 2013-2014 budget for the Iowa Lakeside Laboratory Regents Resource Center has been reviewed by the Board Office and the Council of Provosts and is recommended for approval.

Background: For more than 100 years, Iowa Lakeside Laboratory has provided educational opportunities to the state of Iowa - the Regent universities offer science-based courses that allow students to study nature first-hand. The Regent Enterprise recognizes that its educational offerings can address a variety of statewide needs, including lifelong learning, especially for place-bound individuals; economic development; and entrepreneurship.

In September 2006, the Board of Regents approved (a) a name change from the Lakeside Laboratory to the Iowa Lakeside Laboratory Regents Resource Center (ILLRRC) to reflect its expanded functions, (b) a Strategic Plan which defined the mission, vision, and values, as well as short- and long-term objectives for the Center, (c) an increase in annual Regent university allocations from \$553,000 to \$600,000 for a five-year period,¹ and (d) assigning administrative responsibility for the Center to the University of Iowa through the Associate Provost and Dean of Continuing Education.

The ILLRRC Strategic Plan provided a springboard to expand the opportunities available through the Center (1) to meet the educational needs of northwest Iowa through the following key functions – scientific research, lifelong learning, entrepreneurship, and community involvement; and (2) to develop a model that can be used throughout the state to address unmet educational needs.

The Board also directed the Board of Regents Executive Director or designee and the Regent universities to conduct an in-depth evaluation during the fourth year (2010-2011) to determine both the continued viability of the Iowa Lakeside Laboratory Regents Resource Center and the ability to replicate the model throughout the state. The evaluation led to the development of a new strategic plan for the Center.

The ILLRRC continues to make progress by providing unique educational programs to university students, the public, public school students, and by collaborating with local associations and the Iowa Department of Natural Resources. During 2012-2013, the Center addressed its Strategic Plan's four key priorities and goals through the activities identified on the following pages.

¹ The universities' total allocation dropped below \$600,000 during the last three years and in the proposed budget.

◇ Academic Programs.

1. **Develop marketing and recruitment efforts to increase student enrollment by 15% in each of the next five years.**

- 📖 Marketing and recruiting efforts in 2012-13 increased the 2013 summer academic program (Science and Entrepreneurship) enrollment to 105 students and is approximately 13% greater than the average annual enrollment for the past five years (2008-2012).
- 📖 Seventeen students enrolled in UNI's EPSCoR Energy Institute Summer Workshop.
- 📖 The second offering of the Winter Ecology Workshop was conducted in January 2013 for one semester hour of academic credit. The workshop was staffed by ISU and provided a one-week immersion experience similar to the summer experience for 12 students.
- 📖 The ILLRRC faculty provided two special workshops in honor of 50 years of Diatom studies and conducted the Diatom course for secondary students.
- 📖 In addition to summer and winter classes, several universities brought students to the campus for field trips ranging from two days to a week.
- 📖 Both the ILLRRC executive director and newly appointed Director of Academics and Research visited the three university campuses in the fall and early spring semesters to promote academic programs at the Center. Marketing materials, including rack cards and posters, were distributed at all three universities to appropriate staff and faculty. There were presentations regarding the Center's potential to educate students and follow-up e-mails to select faculty at UNI and ISU throughout the spring. Reminders about Center courses and the uniqueness of the educational experience were sent to biology students at all three universities through various listservs. Courses of varying length and credit are more attractive to a wider audience than only four credit courses.
- 📖 The scholarships provided by the Friends of Lakeside Lab are critical to attracting students to the Center. Room and board scholarships were awarded to 35 students. The Friends of Lakeside Lab also administer five special scholarships – the John Clayton Kingston Diatom Fellowship to support a teaching assistant in the Ecology and Systematics of Diatoms course; the Charles W. Reimer Scholarship to support a student in Ecology and Systematics of Diatoms; the Jane Goodall Scholarship to support students or visiting researchers; the G. Dennis Cooke Aquatic Ecology Scholarship to support research in aquatic ecology; and the Parker/Gentry Scholarship to support students taking Lakeside's Conservation Biology course.

2. **Develop at least one new and/or expanded course offering in each of the next five years.**

- 📖 Development of expanded course offerings are proceeding rapidly and re-instatement of a third term in Summer 2014 is under serious consideration. The following are potential courses:

- ⇒ An arts course for academic credit to be taught by an SUI faculty member is expected to be offered in Summer 2014. This 3-4 week course will be the first arts credit course offered at the Center.
- ⇒ Discussion with instructors is underway for two two-week courses – Field Mammalogy and Animal Behavior. The first course will be taught by an ISU faculty member and the second course will be taught by a faculty member at Des Moines University.
- ⇒ A two-week service course for naturalists and instructors on Pollinators and Pollinator Biology is in the planning stage.
- ⇒ A two-week course in Ichthyology is under consideration and a potential instructor has been identified.
- ⇒ An instructor is being sought for a possible offering of Aquatic Ecology, a popular course in the first session.

◇ Community Outreach.

1. **Maintain the current level of community outreach activities and determine the appropriate level and mix of staffing.**

- 📖 ILLRRC maintained its traditional summer programming, including nature day camps, Wednesday night family programs, Tuesday night lecture series, and a self-guided, educational “treasure hunt” for children. The number of day camps for pre-school children was doubled by hiring part-time teachers. School-year collaborations with the Spirit Lake and Spencer school districts continued throughout the year.
- 📖 Cohort 1 of the Young Investigators: Nature-Based Early Childhood Professional Development, funded by a Nature Connections grant of \$33,336 by the Resource Enhancement and Protection – Conservation Education Program, completed training in 2012-13; a new cohort will begin in Fall 2013.
- 📖 The goal of the Young Investigators’ Program, coordinated by Iowa Lakeside Laboratory, is to reach every early childhood educator, student, and school administrator in Northwest Iowa through training in a series of three cohorts over five years which will affect approximately 1,600 children. This innovative professional development exposes teachers to nature inquiry and provides them hands-on training/resources to begin immediate implementation in their classrooms and follow-up coaching.
- 📖 In response to community concerns about the emerging disease Bur Oak Blight, the Center held a public workshop in July 2012 on protecting and managing the bur oak trees that are such an important part of the local landscape. ISU’s Dr. Tom Harrington, a leading expert on bur oak blight, participated in the workshop.
- 📖 Other examples of public programming are available in Appendix B.

◇ Research.

1. **Fund one exploratory research project to be cooperatively co-sponsored at each Regent university.**

- 📖 Three undergraduate research fellowships were awarded in Summer 2013 for one student at each of the three public universities. Two of the students' academic research advisors visited the Lab and discussed other possible research projects at the Center. Visits by other SUI and ISU faculty were arranged to discuss research projects.
- 📖 An additional cooperative project between UNI, ISU, and the Center is being explored. This project involves rehabilitation of the Faculty Cottage with construction provided by a UNI class/workshop and design potentially provided by the Center for Building Energy Research at ISU.
- 📖 Exploratory research programs to monitor water quality before and after installation of new wetlands (in the feasibility stage of planning) have been discussed with SUI faculty, with the goal of introducing the project to UNI and ISU faculty in the near future.

◇ Financial Stability.

1. **Increase tuition and room and board revenue in relation to the enrollment goals.**
 - 📖 Both tuition and room and board revenue were increased due to the modest increase in enrollment.
2. **Investigate and adjust the charges for day camps.**
 - 📖 After reviewing charges for day camps (\$75 - \$150), it was determined that the Center's charges are comparable with similar camps in the area.
3. **Plan for a stable number of day camps based on student/parent interest and staffing needs.**
 - 📖 The number of day camps was increased to 10 in FY 2013.

◇ Organizational Effectiveness.

1. **Expand MIS and web capability to allow for direct participant access to registration for sleeping accommodations and classrooms.**
2. **Complete web revisions.**
 - 📖 An online room reservation system is in the process of being completed with a projected completion date of Fall 2013. Modest revisions to the website have been completed. The Center instituted a procedure that allows selected staff access to the site while also protecting the site.

◇ Infrastructure Development.

1. **Equip Mann Hall for virtual classroom use.**
2. **Insure usability of virtual conferencing in Waitt Hall.**
3. **Renovate sewer lines.**
4. **Continue trail restoration.**

Both Mann and Waitt Hall classrooms now have the availability of virtual technology; new equipment has provided wireless access across the campus. The Center initiated discussions with the Iowa Great Lakes Sanitary Sewer District. The trail restoration project is underway. All necessary approvals have been received regarding the wetlands; the trail in the northern campus area is nearing completion. Trail work to the learning side of the campus will be initiated in Fall 2013 with completion in Spring 2014. A grant from the Okoboji Foundation provided materials for the trail project.

◆ Partnership Development.

1. **Continued partnerships with the Okoboji Protective Association.**

The Iowa Great Lakes community is very concerned about aquatic invasive species and has funded a multi-year prevention program, which includes student interns who monitor boat ramps and help educate boaters. ILLRRC cooperates by working with the Student Conservation Association to recruit and house some of the interns. Supervision is provided by the Iowa Department of Natural Resources.

2. **Continue relationship with State Hygienic Laboratory.**

The State Hygienic Laboratory maintains a water analysis facility in Waitt Hall. This facility has now been included in the ongoing state appropriations.

3. **Investigate relationships for enrollment and course sharing with Iowa's independent colleges and universities.**

The Center contacted the executive director of the Iowa Association of Independent Colleges and Universities. A special scholarship will be discussed with the Friends of Lakeside Lab and follow-up discussion will occur with the executive director and appropriate faculty.

◆ Financial and Human Resources.

1. **Complete strategic plan.**

Development of the strategic plan included representation from the Regent universities, Board Office, Friends of Lakeside Lab, and Indiana University School of Medicine. The strategic plan has been completed and is available on the Center's website (<http://lakesidelab.org/>).

2. **Investigate the feasibility of an academic/research director.**

A part-time Director for Academics and Research was hired in FY 2013.

3. **Plan for the effective use of seasonal and part-time staff.**

This analysis is ongoing. The Center will continue to employ the Facilities Director and the Educational Coordinator. In addition, the Center now has a part-time Director of Academics and Research; similar positions at ISU and UNI and other post-secondary institutions will be evaluated. The need for an administrative assistant to assist the core staff/faculty is being evaluated.

To continue to address its Strategic Plan in 2013-2014, the Center prepared the budget provided in Appendix A and identified the following goals.

1. Increase enrollment and educational opportunities in science and other areas, such as art, writing, and business; increase enrollment in the undergraduate honors research program.
2. Re-establish the research and teaching opportunities between the Center and Regent universities.
3. Establish a working relationship with the independent colleges and universities to attract both students and faculty.
4. Establish selected seminars by nationally regarded scholars.
5. Market the online capability of the Regent universities.

CONSIDERATIONS RESULTING FROM THE FIVE-YEAR EVALUATION OF THE LAKESIDE LABORATORY REGENTS RESOURCE CENTER CONDUCTED IN 2011-2012

1. The Center continues to benefit from relationships with the Friends of Lakeside Lab. The staff works with Friends of Lakeside Lab and attends their board meetings.

The Friends of Lakeside Lab continue to fund a significant portion of the Educational Director's position as well as 35 scholarships for students taking credit courses. The Friends also funded the Diatom course for secondary students, the new undergraduate Honors scholarships, and scholarships for secondary students who took college level work.

2. For the academic summer session, Center staff and faculty will plan and implement new and expanded courses which are unique to the Lab or draw on historical strengths. These were outlined on pages 2-3 (Academic Programs 2012-2013 Goals).

3. Consideration of an academic/research director to strengthen the linkage between the ILLRRC, the Regent universities, and other higher education institutions.

The Director of Academics and Research was hired in FY 2013. A similar opportunity will be provided to ISU and UNI. The increased emphasis on academics will likely result in considering the availability of the talent and interests of non-Regent faculty.

4. Review the appropriateness of the ILLRRC to offer other academic course work.

Two areas are being considered for Summer 2014 – art and writing. The viability of a fall term for intensive science study supplemented by courses to meet general education requirements is being considered for Fall 2015.

5. Consider the usefulness of the Center to help promote distance education programs offered by the Regent universities.

An initial step is the development of a printed flyer similar to that used by the Southwest Iowa Regents Resource Center. This will identify online courses, certificates, and degree programs offered by the three Regent universities.

2013 – 2014 PROPOSED BUDGET²

IOWA LAKESIDE LAB REGENTS RESOURCE CENTER	FY 09 Actual	FY 10 Actual	FY 11 Actual	FY 12 Actual	FY 13 Budget	FY 14 Proposed Budget
REVENUE						
Carry forward	\$449,080	\$407,074	\$217,794	\$153,439	\$71,557	\$24,133
Regent university allocation	\$598,967	\$565,793	\$557,231	\$548,338	\$562,046 ³	\$573,286
Room and Board	\$72,844	\$64,869	\$66,300	\$67,177	\$82,195	\$89,000
Center revenue	\$71,590	\$95,916	\$99,271	\$73,265	\$85,500	\$87,210
Friends Support Non-Credit Education Program	\$22,500		\$30,000	\$33,000	\$33,000	\$45,000
Course Fees		\$3,186	\$7,119	\$3,640	\$5,700	\$5,500
TOTAL REVENUE	\$1,214,981	\$1,136,838	\$977,715⁴	\$878,859	\$839,998	\$824,129
EXPENDITURES						
Salaries and benefits	\$440,422	\$408,620 ¹	\$388,851	\$403,483	\$413,570 ³	\$409,496
Travel and hospitality	\$42,037	\$39,901	\$33,455	\$41,078	\$42,900	\$49,000
Supplies and Other	\$55,904	\$70,305	\$60,879	\$45,025	\$46,500	\$49,500
Utilities	\$46,478	\$46,334	\$42,622	\$35,416	\$50,000	\$52,000
Maintenance and repairs	\$89,910	\$257,094 ⁵	\$132,810	\$166,667	\$132,000	\$135,000
Equipment	\$106,051	\$36,701	\$35,267	\$18,329	\$25,000	\$25,000
Marketing		\$3,656	\$389	\$1,963	\$5,000	\$5,000
Tuition Allocation to ISU/UNI/SUI		\$29,097 ⁶	\$121,496 ⁷	\$58,472	\$70,000	\$35,000
Debt Service	\$17,014	\$17,014	\$8,507			\$0
Scholarship Expense				\$36,869	\$30,895	\$35,000
Operational planning	\$10,092	\$10,322				\$0
TOTAL EXPENDITURES	\$807,907	\$919,044	\$824,276	\$807,302	\$815,865	\$794,996
NET BALANCE	\$407,074	\$217,794	\$153,439	\$71,557	\$24,133	\$29,133

² Decrease due primarily to unfilled ISU coordinator position and office manager retirement.

³ Includes 2.5% approved salary increases.

⁴ FY 2011 – Received a gift from Lavonne Foote Estate in the amount of \$100,000 to improve the campus. This gift was non-operating and was not included in the report.

⁵ Includes improvements to main cottage, facilities manager's house and bathhouse, new roofs for stone labs, life-safety improvement, IT upgrades.

⁶ Tuition transfers to ISU and UNI for Summer 2008 and Summer 2009.

⁷ Tuition transfers to ISU and UNI for Summer 2010 and SUI tuition transfers for Summer 2008 - 2010.

ILLRRC PUBLIC PROGRAMS

As a Board of Regents resource center, Iowa Lakeside Lab offers educational and enrichment programs for people of all ages. Many of the Center's programs are co-sponsored by the Friends of Lakeside Lab, the Center's non-profit support group. All public programs are free of charge unless otherwise noted.

Summer 2013 Public Programs

🌳 Bur Oak Workshop, July 27, 2013

The Center offered a workshop on protecting and managing oak trees in response to public concern about Bur Oak Blight. The program included a presentation by ISU Professor Thomas Harrington, an authority on Bur Oak Blight and its management.

🌳 High School Science Camp, July 15-19, 2013

🌳 Wild Wednesdays

June 19, 2013 – Fen, Marsh, Lake, and Flark! The Diverse Waters of the Iowa Great Lakes

June 26, 2013 – Landward Ho! The March of Frogs

July 3, 2013 – Is Okoboji Blue? Iowa Great Lakes Fact and Fiction

July 10, 2013 – The Power of the Prairie

July 17, 2013 – It's Sedimentary, Dear Watson! Lake Detectives and Climate Change

July 24, 2013 – Sink, Swim, Dip, and Dive: Freshwater Physics of Water Animals

July 31, 2013 – The Forest for the Trees!

August 7, 2013 – Olly Olly Aquifer! How Water Hides Underground Special

🌳 Special Event – Young Birders Expedition – June 29, 2013

Birders ages 8-18 were invited to participate in the expedition from 9 AM to 12 PM. Parents and grandparents were encouraged to attend.

🌳 Conservation Conversations

Coffee and conversations on environmental topics were held at 8 AM on the Waitt Hall porch on the third Fridays of June, July, and August.

🌳 Nature Camps

🌳 Summer Lectures

May 28, 2013 – Art Bettis, University of Iowa – “Mobilizing Students and Citizens to Assess Urban Stream Conditions and Storm Water Issues”

June 4, 2013 – Evelyn Gaiser, Professor, Florida International University – “From Poutine to Boiled Peanuts: Unraveling the Biogeography of Karstic Wetland Diatoms from Canada to the Tropics”

June 11, 2013 – Brent Danielson, Iowa State University – “Why Mice Really Do Matter to a Sustainable, Modern Agriculture”

June 18, 2013 – Steve Hendrix, University of Iowa – “The Critical Role of Wild Bees and Landscapes in the Pollination of Crops”

June 25, 2013 – Dr. Amy Toth, Iowa State University – “Viruses and Nutritional Stress: The Perfect Storm for Bee Population Declines?”

July 2, 2013 – Dr. Laura Jackson, University of Northern Iowa – “The Prairie Roots Project: Visualizing Soil Processes and Ecosystem Services”

July 9, 2013 – Stephen Heard, University of New Brunswick – “The Fountain of Biodiversity: Plants, Insects, and the Evolutionary Importance of Picky Eating”

 Natural History Weekend, September 28, 2013

This weekend will include field trips and lectures.

 Volunteer Opportunities

The Cooperative Lakes Area Monitoring Project uses volunteers to help monitor the health of the lakes. Training and equipment is provided.

 Coffee and Grounds Committee

This group meets every week to learn about ecology while restoring natural landscapes and a native plant garden at the Center.

IOWA LAKESIDE LABORATORY REGENTS RESOURCE CENTER STRATEGIC PLAN

Strategic Planning Committee

Chairperson: Stephen D. Hendrix (Biology, SUI)

Members: Tom Bedell (Friends of ILL), Lee Burras (Agronomy, ISU), Kavita Dhanwada (Biology, UNI), Diana Gonzalez (CAO, Board of Regents), Mike Lannoo (Indiana University School of Medicine), Mary Jean Montgomery (Friends of ILL), Sue Richter (Friends of ILL)

Report Summary

The Strategic Planning Committee reviewed numerous reports, plans, and other documents, all of which showed a consistent vision for Iowa Lakeside Laboratory. These documents, along with discussion by the committee, informed the creation of a new mission statement. This statement incorporates the traditional values and goals of Iowa Lakeside Laboratory with new ones reflecting its role as a Regents Resource Center. Previous reports and this Strategic Planning Committee observed the difficulty of reaching articulated goals; simultaneously those reports make numerous suggestions for improvements, many of which continue to hold merit. The major problem facing ILLRRC in attaining the goals of its mission is the failure to develop an administrative structure that can effectively implement (or discard for any variety of reasons) the many recommendations made previously in reports and by committees like this one. Indeed, ideas to improve ILLRRC continue to be made by numerous individuals associated with ILLRRC who remain passionate about the facility and its possibilities.

Outreach programs are strong, but could be strengthened if vigorous effort is put into initiating recommendations in this report. Academic programs critical to the mission of ILLRRC have struggled to maintain enrollments and a stable offering of courses. Recommendations are made to improve the student and faculty marketing/recruiting efforts for ILLRRC courses at Regent institutions and other colleges and to seek the incorporation of immersion field study courses as a specific requirement in majors at Regent institutions, both of which were identified as major problems facing the academic program. The Strategic Planning Committee also recognized the connection between academics and research at ILLRRC such that simultaneous improvement in both will have significant synergistic effects on attaining the goals of each. Specific recommendations have been made to encourage research at ILLRRC to revitalize this important component of the Lab's mission. An administrative recommendation is that the Executive Director position be reassigned to a different Professional and Staff category and that the position be redefined with appropriate qualifications, requirements, and duties to attain the outreach, academic, and research goals in the mission statement. Also recommended is the creation of an Advisory Board to assist the Executive Director and staff of ILLRRC in reaching its goals.

Introduction

The charge to the committee was to evaluate and suggest ways to improve outreach programs, academic programs, and the present administrative structure to fulfill the mission of ILLRRC. For each topic, the committee was provided a summary of relevant statements from previous reports, plans, and sets of potential recommendations to discuss and evaluate.

The following mission statement was developed and approved by the Strategic Planning Committee. It reflects the many different purposes of ILL as an RRC. The opening paragraph can be used as an abbreviated mission statement; the next two paragraphs summarize objectives and core values.

Mission Statement

The mission of the Iowa Lakeside Laboratory Regents Resource Center (ILLRRC) is to provide facilities and programming as a field station and community resource to support scientific education, research, and outreach programs of the Regent universities and other institutions. The education and research programs as well as collaborative activities of the ILLRRC also address state, national and international needs such as lifelong learning, entrepreneurial education, and economic development.

Science Education, Research, and Outreach Objectives

The ILLRRC offers and encourages science-based courses and learning opportunities that allow students from early childhood through adulthood to study nature first-hand. Core values include integrated research and education and the unique value of immersion learning in a natural setting. An objective of ILLRRC is to be recognized internationally as a premier site for the study of nature in nature. The primary research focus is on the diverse ecosystems that surround ILLRRC, with special emphases on water quality and the biodiversity of pristine or restored environments.

Lifelong Learning, Entrepreneurship, and Economic Development Objectives

Core values include ILLRRC's commitment to collaborations through partnerships and advocacy for the use of scientific research to inform public policy and economic development. To achieve these objectives, ILLRRC provides lifelong scientific and cultural learning opportunities to citizens of Iowa and beyond with on-site and distance learning programs. ILLRRC, in partnership with the Regent Universities, also sponsors on-site entrepreneurial educational workshops for students attending the Regent Universities.

Outreach Programs

The outreach programs are thriving and represent greatly improved, important connections to the Lakes Region community since Iowa Lakeside Laboratory became a Regents Resource Center in 2006. The Education Coordinator has indicated that secondary school outreach programs are at or near maximum enrollment given current staffing. The Okoboji Entrepreneurial Institute is a success. The recent development of a collaborative public arts and science project has increased important connections between the arts, ILLRRC, and the community of northwest Iowa. Finally, an early childhood consortium at the Lab provides unique opportunities for professional development on nature-based teaching and learning.

The Strategic Planning Committee identified five areas to be considered to improve the diversity of outreach offerings at ILLRRC and stimulate the connections between the ILLRRC and Iowa community of teachers, students, and citizens.

Outreach Programs Recommendations

1. Investigate a role for ILLRRC in implementation of the Iowa Core Curriculum and STEM initiatives.
2. Increase workshops that function as outreach for community lifelong learning to enrich citizens, students, and faculty of ILLRRC.
3. Reinvigorate the role of ILL in training and professional development of new and current teachers.

4. Increase course offerings available to high school students eligible to take college courses.
5. Increase internship opportunities in coordination with Friends of Lakeside Lab and other groups.

Academic Programs

The Strategic Planning Committee adopted the following Statement of Curricular Philosophy: "All undergraduate academic courses and outreach programs offered at ILLRRC will take advantage of the immersion learning opportunity available on site and in the surrounding natural ecosystems. All courses will seek to use an inquiry-based approach incorporating the scientific process and emphasizing the study of 'nature in nature'."

Academic courses offered to students at the university or college level at ILLRRC are the *raison d'être* of Lakeside's establishment and continue to be a core component of ILLRRC's mission; they must inform our partnerships with the community and other organizations. The success of these academic programs is linked to the success of research programs because students are attracted by both the quality of the faculty and the nature of the courses. Committed faculty with Lakeside research programs are more likely to be attracted to teach at the Lab, will be more likely to bring students with them, and will help promote the Lab at their home institution. Therefore, implementation of recommendations for Academic Programs and Research should be simultaneous.

Academic programs have struggled to maintain enrollments. Lack of effective promotion of the ILL courses at the state universities and colleges is a major problem and present visibility of ILLRRC on the Regent campuses is low. Interactions between the ILLRRC administration and the various academic units at Regent institutions are sporadic, unproductive, and not likely to produce a vibrant academic (or research) program as envisioned in the new mission statement. The Strategic Planning Committee noted that incorporation of field-oriented, immersion courses such as offered by ILLRRC as a specific requirement for academic majors has only occurred in the Environmental Science major at SUI. In the University catalogues, Lakeside courses are scattered throughout large menus (e.g., Environmental Science) or they are mentioned as a group in a large menu (Biology). A number of improvements were suggested.

Academic Programs Recommendations:

1. Educate faculty and advisors in appropriate departments at Regent institutions about advantages/uniqueness of Lakeside courses.
2. Promote the ILLRRC courses directly to students in appropriate classes at Regent institutions and other colleges.
3. Promote the integration of field-oriented, immersion courses as a specific requirement into curricula at ISU and UNI.
4. Continue to diversify outreach programs with additional emphasis on offerings that cross-over between science and the arts.

Research Program

Research has been recognized as a cornerstone of Lakeside Lab's mission as emphasized in its long history at the Lab, as well as by statements in the 2006 Strategic Plan and subsequent annual reports. Noteworthy areas of successful research programs are the water monitoring program conducted by Waitt Hall (and the State Hygienic Lab) and the Diatom Lab which has a rich history with a national and international reputation. Other areas of research, such as prairie ecology, wetland ecology, and limnology, that have had a presence at the Lab in the past are now largely lacking. Today, the Lab is used primarily by a few researchers as a result of their association with the Lab and a relatively small number of graduate students. Some of the previous documents have offered lists of hurdles to invigorating these other areas of research, while others have suggested ways to improve research productivity at the Lab. Unfortunately, no program to reinvigorate research has been created and executed. Research possibilities are not promoted at the Regent institutions and there is no effort to recruit researchers. Considerable discussion by this Committee and others has been devoted to the problems recruiting researchers and many potential solutions to these problems have been suggested.

Research Program Recommendations

1. Formalize research areas (e.g., Prairie Ecology, Wetland Ecology, Limnology, etc.) not now recognized or emphasized at ILLRRC (such as Water Quality, Diatoms) while simultaneously seeking funding from industries and national, state, and local agencies that benefit from sound, unbiased environmental information. An emphasis on reclamation and restoration of ecosystems and long-term ecological monitoring may be a useful starting approach. The Committee recognized that naming/branding research programs at ILLRRC are important, but did not reach a recommendation on naming research programs.
2. Determine the needs of researchers, particularly with respect to housing and the specifics of their research programs, with the goal of facilitating lab use by faculty, post-doctoral students, graduate students, and undergraduates for research purposes.
3. Pursue the creation of an information/data management portal for legacy data at ILLRRC and for new ecological data as it is created by monitoring and research programs.
4. Investigate mechanisms to incorporate modern molecular techniques into the research capabilities of ILLRRC. Such techniques can be powerful tools to monitor invasive species and should be incorporated into monitoring programs involving the public.
5. Increase programs featuring world-class scientific speakers to stimulate students and faculty intellectually and increase topical workshops to reconnect scientists and scientific information to the community.

Administration

Administration of ILL was envisioned historically as potentially either a one-person position (a possibility included in the 2004 Friends Business Plan) or a two-person position with a Director of Operations and Outreach and a Director of Academics and Research. Regardless, the many roles of the Executive Director(s) are crucial to the success of ILLRRC as envisioned in the new mission statement. An ideal single executive director should have the ability to 1) maintain the present outreach programs and create new ones, 2) promote and enhance academic activities, including creation of innovative courses and attraction of a diverse, vibrant faculty and student population, 3) stimulate research activities with creative programs to attract researchers, 4)

maintain and promote positive interactions with the local community, and 5) assist in fund raising activities, and direct the maintenance and improvement of the ILLRRC facilities.

This set of professional abilities demands a person with unique qualifications including strong leadership skills, an established record of successful outreach activities, an outstanding record of original research, qualifications for an academic position in an existing department in a Regent institution, and an established record of fund raising in the scientific and public arenas. In addition, the Okoboji region should be the executive director's primary site of residence.

Given that a change in administrative structure will be a slow process, the Committee makes a long-term and a short-term recommendation.

Administration Long-term Recommendation (to be executed in the next 12 months)

Reclassify the Professional and Staff position from Academic Support to Administration, and redefine qualifications and requirements for the position.

Administration Short-term Recommendation (to be executed immediately)

Appoint an interim Director of Academics and Research to promote and enhance academic activities, and stimulate research activities.

The Strategic Planning Committee recognized that effective attainment of goals in the mission statement will be enhanced by advice from knowledgeable individuals at regular intervals. Therefore, the Committee made the following recommendation.

Create an Advisory Committee of members of the academic/administrative communities of SUI, UNI, and ISU, ILLRRC alumni, and members representing interested groups (e.g., Friends of Lakeside Lab).

The Strategic Planning Committee did not reach any conclusion about the viability of the current Curriculum Committee, although it was generally agreed that the functional role of this entity is dubious.

Charge to the Iowa Lakeside Laboratory Regents Resource Center Planning Committee

Over the past five years the Iowa Lakeside Laboratory Regents Resource Center has attained administrative and financial stability, and made important advances in some critical areas such as educational and scientific outreach programs. An assessment of progress with a strategic view toward positioning ILLRRC to make even greater contributions to the citizens of Iowa and the scientific community is now both timely and needed.

The Planning Committee shall assess progress and propose a strategic vision and goals to enhance each of the following:

1. mission statement
2. curricular program for undergraduate students
 - a. curricular philosophy
 - b. outcomes assessment instruments
3. graduate program
4. educational and scientific outreach programs
5. research programs and potential research centers of excellence
6. administrative structure
7. usefulness of a potential ILLRRC Advisory Committee
8. funding, marketing and promotion of ILLRRC

Iowa Lakeside Laboratory Background

- ◇ The Lakeside Laboratory campus, established in 1909, is a residential facility located on the shores of West Okoboji Lake. The campus, most of which is a nature preserve used as an outdoor classroom, includes more than 140 acres.
- ◇ From 1909 to 1936, the Laboratory was operated by the Iowa Lakeside Laboratory Association of the Alumni and Friends of the University of Iowa.
- ◇ In 1936, the Association deeded the property to the State of Iowa Executive Council under provision of the Trust Agreement of April 30, 1936. The agreement states that the Laboratory shall be used for “the accommodation, promotion, support, and maintenance of scientific studies and research in the field of biological sciences.”
- ◇ From 1936-47, the Laboratory was administered by a Board of Managers representing the State Conservation Commission (now DNR), the State Board of Education (now Board of Regents), Iowa Lakeside Association, the U.S. Fish and Wildlife Service, and the University of Iowa.
- ◇ In 1947, the Board of Regents assumed responsibility for the Laboratory. Since then, it has been run cooperatively by Iowa State University, the University of Iowa, and the University of Northern Iowa through the Board of Regents.
- ◇ In December 2004, the Board of Regents approved a Business Plan for the Laboratory which focused on increasing the availability of educational offerings, including providing year-round activities.
- ◇ Between 1997 and 2006, the credit enrollment at the Laboratory ranged from a high of 185 students in 1997 to a low of 83 students in 2005 and 2006. The lack of substantial scholarship and grant funds has prevented students and faculty from participating more fully at the Laboratory.

Expanded Lakeside Laboratory Functions

The Lakeside Laboratory Regents Resource Center encompasses the following functions which will be provided on a full-cost recovery basis.

- ◇ *Scientific Field Research.* The purpose of this function is to continue the Lakeside Laboratory as a field station that supports the science programs, including education, research, and outreach, of the Regent institutions and the Lakeside Consortium.
- ◇ *Lifelong Learning.* The purpose of this function is to provide needed learning opportunities to the citizens of northwest Iowa. The Center executive director will work with the programmatic and distance education administrators at each of the Regent universities to determine the need for programs/courses in northwest Iowa. The universities will provide the instruction and faculty. Other postsecondary institutions seeking to offer distance education courses at the Center will work through the Center executive director to ensure that there is no conflict of interest. Cultural offerings that support the liberal arts mission of the Regent universities will be provided as appropriate. Services that support the Regent universities’ programs in social work, health, and similar areas will be provided through the Center.



- ◆ *Entrepreneurship.* The purpose of this function is to expand the entrepreneurial educational opportunities for Regent university students. The Center executive director is responsible for working with the Regent universities to provide entrepreneurial workshops at the Center.



- ◆ *Economic Development.* The purpose of this function is to address the Board of Regents' role in economic development in partnership with the Iowa Department of Economic Development, the community college system, private colleges, local governments, and regional economic development organizations. This approach will create a model for cooperative rural economic development through educational opportunities and collaborations with other community resources that can be replicated throughout Iowa.



- ◆ *Community Involvement.* The purpose of this function is to obtain community support for the Center that will result in endowment funds for the long-term operation of the Center, including tuition and housing assistance for students, faculty research grants, housing assistance for faculty, and acquisition and maintenance of a specialized equipment pool. The immediate goal for the endowment is \$600,000.

