Strategic Direction 5
Second Report

Strategic Direction 5 - Strengthen and leverage research throughout the State to ensure greater breadth and depth of research. Develop a greater capacity to use research, scholarship, and creative expression to enhance Maine’s economy.

The Committee notes that teaching and scholarship are equally important and that each benefits the other.

Executive Summary

There is a documented cause-and-effect relationship between university research activity and the creation of new products, technologies, industries, and jobs in the State of Maine. To further enhance this cooperative venture, additional R&D funds from the State ($28M over four years) are requested to support research in specifically-targeted areas. This request is consistent with the recent Maine Science and Technology Action Plan for Maine 2005. Several recommendations are made that would facilitate participation by the smaller campuses.

Graduate education and research is an underlying critical driver for R&D success and recommendations are made to enhance the competitiveness and success of this program, which is more costly per student than undergraduate education.

It has been documented that the most effective way to encourage research is to provide meaningful recognition and incentives. Examples of rewards for faculty members that contribute to excellence in research are public acknowledgement, salary raises, and/or endowed professorships.

Certain infrastructure improvements are required to enable the expansion of research, scholarship, and creative expression. State-of-the-art R&D requires an adequately funded research library, comprehensive undergraduate libraries, and a statewide digital library. Information technology (IT) is constantly improving, and it is important to upgrade this necessary infrastructure on a regular basis.

It is widely recognized that involving undergraduate students in scholarly activity is considered a “best practice” in higher education. It is essential that scholarly activity, research, and creative expression be integrated into the curriculum at all levels. A number of recommendations are made to facilitate this outcome, including an increase in financial support, encouragement of independent study courses, and highlighting undergraduate research and creative work as an advocacy tool with the governor, legislature, and the public.

The Committee considered all of the above goals to be of equal importance and urgency.
I. Group Members and Process Used to Date:

Chairs: Michael Eckardt (UM)
       Evan Richert (USM)

Members:
       Faculty Board Rep:
       Student Board Rep.: Chad Walls (USM)
       Senate: Senator Lyn Bromley
       House: Representative Tom Saviello
       Karl Burgher (UMPI)
       Rita Heimes (Maine Law)
       Ellen Hostert (UMM)
       George Jacobson (UM)
       Samantha Langley-Turnbaugh (USM)
       Cathleen McAnneny (UMF)
       Ronald Norton (UMA)
       Daniel Sandweiss (UM)
       Steve Selva (UMFK)
       JoAnne Wallingford (UMPI)
       Jake Ward (UM)
       Margo Wood (USM)

Staff: John Lisnik (UMS)

Process: Committee had two in-person meetings (03/02 and 05/12/05) and six PolyCom meetings (03/17, 03/31, 04/28, 10/21, 11/22, and 12/20/05). A number of Committee members participated in the System Strategic Implementation Retreat on 16 September 2005. The seven goals identified in the implementation plan were discussed and self-selected subgroups formulated recommendations for each goal.

II. Goals and Recommendations: All seven goals are considered to be of equal importance.

1. Request Additional R&D Funds from the State to Support Sponsored Research
In 1997, the Maine Legislature established the Maine Economic Improvement Fund (MEIF) to help increase federal and private investment in university-based research. This investment was undertaken because of the documented cause-and-effect relationship between university research activity and the creation of new products, technologies, industries, and jobs. MEIF focuses on seven key areas:

Aquaculture and Marine Sciences
Biotechnology
Composites and Advanced Materials Technologies
Environmental Technologies
Information Technologies
Advanced Technologies for Forestry and Agriculture
Precision Manufacturing

Under Maine law, the State appropriates MEIF funds directly to the University of Maine System (UMS), which in turn allocates the funds to the University of Maine (UMaine) and the University of Southern Maine (USM), the two universities with specific institutional responsibility for basic and applied research in the seven research areas.

At both universities, MEIF funds are used for similar purposes: 1) to provide the required matching funds necessary to leverage grants and contracts; 2) to purchase research equipment and acquire or upgrade the physical space in which research will be conducted; and 3) for targeted support of researchers, support staff, and students. However, the use of those funds differs according to the role, history, and current needs of the two universities.

With UMaine’s formal responsibility as a research institution, MEIF funding is intended to help extend and expand the university’s well-established, historic role as the State’s primary and most diverse research institution. For USM, MEIF funding is used to build and develop the necessary infrastructure to compete for research funding in fields of scientific and economic relevance to the institution and its region. In FY04, UMaine leveraged 80% of the total MEIF funds available for a 5 to 1 return on investment, and USM leveraged their 20% of MEIF funds for a return of 1 to 1.

The UMS and the State of Maine do not currently have the resources to invest in research infrastructure that would enable all seven campuses to be competitive for federal and private funding. A clearly defined teaching mission and lack of critical mass and necessary research infrastructure are limiting to the smaller campuses. And yet, faculty on all seven campuses of the UMS are required to engage in research, scholarly activity, or creative expression, and communities seek partnerships to increase local jobs and economies.

**Recommendations:**

MEIF funding for UMaine and USM should be increased by $28M to a total of $40M by FY 2010 because of their demonstrated ability to leverage federal and private funds,
resulting in increased jobs and economy expansion. *Progress will be determined by the amount of additional MEIF funding achieved.*

Campuses other than UMaine and USM can participate in MEIF-related research in the following manner: (1) identify a specific MEIF area of interest; (2) document specific faculty members’ expertise and interest; and (3) provide evidence of local interest and support. President or designee will contact Research Officer at UMaine or USM and identify proposed project and interested faculty members. UMaine/USM will facilitate interactions with appropriate UMaine/USM researchers, resulting in a collaboration. It is expected that up to $300,000 of **new** MEIF funds will be invested in these joint collaborations and that these resources will be used to enable faculty members from other campuses to be full participants in the designated research project. A dissenting view has been expressed by the University of Maine at Machias (UMM; see Appendix A). UMM has proposed that it receive 5% of current and future MEIF funds. *Progress will be determined by the number of collaborative projects undertaken.*

A State-investment fund for non-MEIF areas needs to be established. There are acknowledged opportunities for investment that would benefit the State, e.g., prevention of childhood disorders (obesity) and chronic diseases (cancer, cardiovascular disease, diabetes); health services research; tourism; and the creative economy. This recommendation can result in System-wide collaborations. *Success will be determined by expansion of MEIF categories and/or the establishment of a new State investment fund.*

Funds collected by UMS from the indirect costs recovered by UMaine and USM will be used to match the professional development funds for scholarship at the other five campuses. *Progress will be determined by the amount of money transferred to the professional development accounts for the five campuses.*

2. **Strengthen Sponsored Research by Coordinating the Process of Requesting Increased Funding**

Advocacy, planning, and development are much more effective when all campuses are using the same process and coordinating their requests.

**Recommendations:**

The campuses at Fort Kent, Machias, and Presque Isle need to have a significantly strengthened grant-seeking capability and management capability so that they could build research resources to encourage scholarly activity. In addition, UMaine’s Office of Research and Sponsored Programs should be available for consultation and training seminars with these three campuses. The campuses at Augusta and Farmington also need to have a significantly strengthened grant-seeking capability and management capability so that they could build research resources to encourage scholarly activity. USM’s Office of Sponsored Programs should be available for consultation and training seminars with
these two campuses. Progress will be determined by the number of workshops and training seminars.

A calendar for annual R&D bond requests and R&D operating funds from individual campuses needs to be established. Requests should be communicated through the President of each campus to the System. System decisions need to be communicated back to individual campuses in a clear and timely fashion. There needs to be established a process for insuring coordination of constituencies, campus representatives, and System representatives. Success will be determined by the establishment of a calendar for requests of annual R&D bond and operating funds.

3. Increase Graduate Student Funding

Recent reports on Graduate Education by UMaine and USM note the current inadequacy of number and stipend level of available graduate assistantships (teaching assistantships) and fellowships (scholarships). At neither institution are the institutionally funded teaching assistantships competitive with their respective national peer institutions. This presents significant problems in the recruitment of students and the ability to compete in Maine, nationally, and internationally for the best available graduate students.

Recommendations:

Graduate teaching assistantship (assist Professor in teaching students) stipends should, at a minimum, be set at the median level of assistantships at peer institutions. Different minima should be set for Masters and Doctoral students. Health insurance should be provided for all full-time graduate students. Progress will be determined by comparing stipend amounts for UMS institutions and comparison institutions. Success will also be realized when health insurance is provided for all full-time graduate students.

Institutionally funded research assistantships (such as the Provost and UGRA scholarships at UMaine and Graduate funded research assistants at USM) need to be of sufficient number and set at a higher funding level to attract and retain top graduate students. Progress will be determined by the number and funding level of research assistantships.

In collaboration with their respective Development offices, campuses need to develop and implement a fundraising campaign to generate endowed and/or named graduate scholarships. These programs should be designed to recruit the most promising graduate students to the universities and to support them in reaching their highest potential. Progress will be determined by the success of the fundraising campaigns.

Increased research on campuses will help secure more external funding of graduate research assistantships (assist researchers on grants and contracts). Universities also need to identify sources of support for students in the growing number of professional masters
programs whose support needs differ from students in research programs. *Progress will be determined by the number and level of funding for graduate assistantships.*

4. Enhance the Graduate Education Experience and Build the System’s Research and Scholarly Capacity

The graduate education experience in any university is multi-faceted. It is related to the learning, research, and mentoring experience; the supporting research infrastructure such as libraries and computing facilities; adequate financial support; a strong and vital graduate community; the recognition and promotion of graduate education on campus; and the promotion and marketing off campus.

**Recommendations:**

Graduate education, particularly at the doctoral level, can be an expensive enterprise, requiring dedicated faculty time, space, equipment, and fiscal resources. Each campus engaged in, or desirous of becoming engaged in graduate education, should develop a strategic plan which outlines the size of the student population to be served as well as the demand for, and the direction of, programs being developed. It should outline the capacity to support graduate education, most importantly the ability of its graduate faculty to deliver the programs and the potential funding to support graduate programs. *Progress will be determined initially by the development of a strategic plan. With further development, cost and revenue streams will be identified, and formal requests will be submitted to the System.*

In an increasingly interdisciplinary world, one role of graduate schools is to promote innovative courses and programs that take advantage of expertise across the institution to fill emerging niches. To achieve this goal, the Graduate Schools at UM and USM should be assigned budgets (graduate venture capital) sufficient to cover basic administrative and instructional costs of new, interdisciplinary courses and programs needed to fill emerging areas of state and national need. *Progress will be assessed by development of new interdisciplinary courses and programs and successful implementation of new revenue streams to base-fund these programs.*

Campuses which are unable to commit the necessary resources to offer quality graduate education should explore the option of providing access to graduate education through creative forms of collaboration with UM and USM, including distance education. This could be a particularly attractive option for place-bound students who wish to pursue professional graduate certificates, courses for certification, and non-thesis masters degree programs. *Progress will be measured by the number of graduate programs offered by the five smaller campuses in collaboration with UM or USM.*

A University’s ability to sustain excellent graduate research and education depends on its ability to hire and retain the best faculty. Departmental promotion and tenure guidelines should place an appropriate emphasis on graduate research, scholarship, and education.
consistent with the University’s Carnegie status. Where departments do not have strong graduate programs of their own or NEASC accreditation standards, the guidelines should address participation in interdisciplinary graduate study. Departments and other units sponsoring graduate degree programs should have clearly written criteria for appointment and reappointment to graduate faculty, and these criteria should seek to promote and maintain the quality of the department’s graduate program. Each University should implement an appropriate policy that recognizes and rewards strong faculty performance and participation in graduate research, scholarship and education. 

Progress will be assessed by the number of graduate faculty and the development of objective qualifications required for membership.

The success of graduate students depends, in part, on the strength of graduate programs. Campuses should periodically evaluate the quality of their graduate programs through internal or external review. Marginal programs should be given the opportunity to improve, and failing improvement they should be terminated. Progress will initially be determined by the number of graduate programs undergoing review. Subsequently, progress will be determined by the number of programs that are responsive to recommendations.

High-quality graduate research and education can only be achieved if the campuses have high-quality infrastructure and resources. Key elements of this include libraries, particularly Fogler Library, which is the State’s only research library, and which must be a world-class repository of knowledge. In addition to physical holdings, access to comprehensive, on-line, and full-text literature must continue to be an extremely high priority for all campuses. Progress will be judged on the availability of library materials to all campuses.

Acquisition and upgrading of analytical instrumentation and cyber infrastructure must keep pace with national developments if our graduate students are to develop the skills and expertise to make them competitive in the new, high-technology job market. Progress will be based on yearly reporting of unique or expensive equipment acquisitions. In addition, status of cyber infrastructure will be assessed each year and compared to national standards.

5. Set Greater Incentives for Faculty Research, Scholarship, and Creative Expression

Faculty on all seven campuses of the UMS are required to engage in research, scholarly activity, or creative expression. The most effective way to encourage research is to provide meaningful recognition and incentives.

Recommendations:
Reward faculty members that contribute to excellence in research with public acknowledgement, salary raises, and/or endowed professorships including Distinguished Research Professorships. Progress will be determined by the number of endowed Professorships and number of Professors added due to enhanced revenue streams on campuses.

Create a baseline of indirect costs recovered above which a portion of subsequent indirect costs is returned to the principal investigator who generate it as well as to their Department/Center. Progress will be determined by the amount of indirect costs returned to the faculty and their Department/Center.

Better integrate research goals with undergraduate education by, for example, giving teaching credit to those who work with work merit students, encouraging student-faculty research relationships by urging students to take independent studies with faculty (and giving faculty teaching credit for these), and encouraging faculty to teach seminar-type courses centered around their own research projects. All of these could result in undergraduate research (REU) applications to the NSF. Progress will be determined by the number of REU applications to NSF, number of students participating in independent study courses, and number of seminar-type courses offered.

Increase pool of work-study students allocated and provide more summer work-study or work-merit, so that undergraduate research help is available on all campuses. Tuition and fee waivers and stipends can also be used to encourage undergraduate research. Progress will be determined by the number of additional work-study and/or work-merit students allocated to the program.

Reward scholarly success of tenured faculty by linking Post-Tenure Review salary increments (administration option) strongly to external indicators based on field-specific benchmarks created by comparison to peer institutions. Success will be achieved by establishment of field-specific measures of scholarly activity.

Create a set of incentives for non-faculty with advanced degrees to engage in research (e.g., paid/unpaid leave, retirement). Progress will be determined by number and magnitude of incentives established.

Create an annual or biennial System-wide research demonstration and PI recognition events, similar to ones held on individual campuses, that showcase and reward outstanding undergraduate, graduate, and faculty research and that provides opportunities not only for positive community relations but also for potential future collaborations among attendees. Success will be determined by establishment of campus-specific faculty and student recognition events for scholarly activity.

6. Support Faculty in Generating Grants and Contracts
A strong well-funded research library, comprehensive undergraduate libraries, and a statewide digital library are essential to support the expansion of research and creative expression focused on growing Maine’s economy. Access to an in-depth collection of materials strengthens communication and collaboration between and among the research, business, government, and educational communities.

Success in meeting the goals of Strategic Direction #4 (Enhancing Libraries) directly impacts the goals of SD #5 and the ability of the University to support high-quality undergraduate and graduate education and the research that is integral to obtaining professional degrees.

The following connections between SD #4 and SD #5 should be recognized:

1. Requests for increased R&D funding should include development of library resources on all campuses.

2. Enhancing graduate education and growing the System’s research and scholarly capacity should include enhancing and growing library resources and services.

3. Removal of such barriers as inadequate electronic journal and database subscriptions will contribute to increasing incentives for faculty research and scholarship and provide needed support in generating and fulfilling grant requirements.

4. Access to comprehensive and in-depth library collections are essential for the development of research opportunities.

*Progress will be assessed by the number of researcher-identified needs that have been satisfied.*

A strong information technology (IT) infrastructure is required to support research on all campuses. True broadband to all locations is necessary for campuses to collaborate with one another on research. This will allow the smaller campuses to share in the computing horsepower of the larger campuses and facilitate access to data-mining software and support personnel. *Progress will be determined annually on the basis of improved performance over baseline.*

Streamline Administrative Procedures to Improve Efficiency. *Progress will be determined annually on the basis of improved performance over baseline.*

1. Create a culture of administrative efficiency on all campuses.

   a. Simplify and speed-up hiring, purchasing, and merit-raise procedures for research personnel on funded grants and contracts.
b. Make access to post-award budgets web-based and more comprehensible.

c. Create a local FastLane-like system for grant preparation and administration, including an electronic "green sheet", automatic generation of current and pending commitments for faculty, etc.

d. Streamline record-keeping as much as possible.

2. Provide formalized administrative procedures training for appropriate personnel at all campuses.

   a. As part of the training, provide a booklet of all research administrative procedures in one place: PAFs, hiring, raises, purchasing, etc., also available in searchable form on line. Progress will be based on successful accumulation of research administrative procedures in one place.

   b. Provide real salary incentives for outstanding administrative staff. Progress will be determined by number of administrative staff who receive stipends for outstanding performance.

7. Expand Opportunities for Undergraduate Research

Faculty members on all seven campuses of the UMS are required to engage in scholarly activity. It is widely recognized that involving students in scholarly activity is considered a “best practice” in higher education. Thus, it is essential that scholarly activity, research, and creative expression be integrated into the curriculum at all levels. This can be accomplished by recognizing that teaching takes on many forms, including guiding Masters and Doctoral students through their programs as well as introducing undergraduates to the academic enterprise of research, scholarship, and/or creative expression.

1. Involving undergraduates in scholarly activity should be considered a "best practice" by UMS. Success will be achieved when the UMS establishes undergraduate scholarly activity as a best practice.

2. Better integrate scholarly activity goals with undergraduate education by, for example, giving teaching credit to those who work with work-merit students, link increased participation with undergraduates in scholarly activity to decreased expectations for campus and/or system service work for faculty. Encourage student-faculty research relationships by urging students to take independent studies with faculty (and giving faculty teaching credit for these activities), and encouraging faculty to teach seminar-type courses centered around their own scholarly activity projects. Progress will be determined by
number of students participating in independent study courses and number of seminar-type courses offered.

3. Link increased participation with undergraduates in scholarly activity to decreased expectations for campus and/or system service work for faculty members. Progress will be determined by the number of campuses that raise this issue with local administrators.

4. Provide time for faculty to write Research Experience for Undergraduates (REU) proposals to NSF, and when said proposals are funded, provide time and administrative assistance to implement those programs. Progress will be determined by the number of REU proposals submitted to NSF.

5. Provide support to cover the costs of undergraduate research supplies and encourage access to specialized research equipment located on the larger campuses by faculty members and students from the smaller campuses. Progress will be determined by the amount of money invested by each campus and by the number of visits to the larger campuses by faculty and students from the smaller campuses.

6. Develop a system-wide mechanism for purchasing general-use equipment, statewide software licenses, service contracts, etc. to be used by undergraduates in their scholarly activities. Progress will be determined annually by the number of such purchases achieved.

7. Showcase undergraduate research and creative work as an advocacy tool with the governor, legislature, media, etc. Undergraduate scholarly activity from every campus could be regularly featured in state-wide media outlets such as the Bangor Daily News and the Portland Press Herald along with local television outlets. Progress will be determined by the number of media events.

III. Key Areas of Overlap

Strategic Direction #2 – Faculty/Staff Development. Many of the recommendations for strengthening and leveraging research throughout the state include opportunities for professional development of faculty and staff at all campuses.

Strategic Direction #4 – Enhancing Library Resources. The importance of adequate library resources, and their accessibility, cannot be emphasize enough. It is especially important at the smaller campuses, where fewer resources mean more limited physical holdings, and a trip to the libraries at Southern Maine or Orono often means the loss of a full day of work. Lack of comprehensive on-line full text access to the literature slows down the work of all researchers at all campuses.
Strategic Direction #7 – Information Technology. It is important to acquire and maintain state-of-the-art information technology, including transmission speed, attachment size, and enhanced IT support.

IV. **Budget**

This has not been addressed due to a lack of time, complexity of estimates (e.g., library and IT), and the sensitive nature (current level of professional development for each campus).

V. **Decision-Making Matrix**

As noted above, the Committee considered all priorities to be of equal weight. Our inability to develop realistic estimates of the costs associated with each goal prevented the completion the decision-making matrix.

VI. **Implementation Timeline**

Implementation of the recommendations can commence immediately, and measures of progress for each of the recommendations have been developed and are stated after each recommendation.
Appendix A

December 7, 2005

To: The Members of the Committee for Strategic Direction #5, Dr. Michael Eckardt, Chair

From: The Division of Environmental and Biological Sciences at The University of Maine at Machias
   Dr. Sherrie A. Sprangers, Chair
   Dr. Alan J. Lewis
   Dr. M. Gayle Kraus
   Mr. Richard O. Paul
   Dr. Brian F. Beal
   Dr. Ellen E. Hostert
   Dr. Shallee T. Page
   Dr. William Otto
   Dr. Ruth H. Carmichael

Re: Draft Final Report

The Division of Environmental and Biological Sciences at The University of Maine at Machias wishes to thank you for the frank discussions that have occurred on the topic of research at Maine's seven publicly-funded University campuses. The discussions on increasing the capacity of all of the campuses in the University of Maine System for research, scholarship and creative expression to enhance Maine's economy have been far ranging and illuminating. The final report of this committee should provide the administration, faculty, and staff within the University of Maine System with a set of goals and a roadmap for reaching those goals for the next several years. Given the e-mail message from Dr. Eckardt on December 1, 2005, it is, in our opinion, even more important to make our views clear, and to establish a clear public record on the matter of access to the Maine Economic Improvement Fund (MEIF).

Prior to receiving Dr. Eckardt's e-mail, our division met on December 1, 2005 to discuss the four versions proposed for extending MEIF funding to the smaller campuses contained in Dr. Eckardt's e-mail message of November 22, 2005. Since Dr. Eckardt's communication on December 1, 2005, other ad hoc discussions have occurred. Our collective view is that the Report from the Strategic Direction #5 Committee must include the recommendation to expand access to MEIF resources to include the five smaller campuses in the University of Maine System. While some may say that the legislative and economic climates in the state are not favorable for the enactment of this change, we know that those climates can change dramatically in a short time. The value of a strategic plan is that it identifies needs, sets goals for meeting those needs, and develops a plan which, when implemented, achieves those goals over the course of several years.
One of the most important impacts of the University of Maine System on the economy of the State of Maine is the training and education of the state's workforce. Our undergraduate students will shortly become wage earners. We need to provide them with the very best set of hands-on skills and experiences to enhance their future employment and earning potential. Pedagogical studies in the education of undergraduate students show undisputedly that involving students in research, scholarship, and creative expression is the most effective way to teach. Also, recent data by researchers at the National Science Foundation indicate that the only way to substantially retain students in science is to provide access to research training and opportunities in areas currently underserved. These studies indicate that not only is it important at all institutions, but it is especially important at smaller, less well-supported campuses. The opportunity for students to participate in research enhances their learning experience, and it increases the technical capacity of Maine's workforce.

As long as faculty at the smaller campuses are conducting research in one or more of the areas targeted by the legislation that created MEIF, they should have access to these funds. We are already doing a good job in preparing our students for their futures, but we could do even more. It is unlikely that the legislature will appropriate large amounts of additional funds for the Education and General budget of the UMS. Funds needed to provide more high-quality research experiences for our students are more likely to come from grants awarded by outside sources. Strengthening the grant-seeking and management capabilities of the smaller UMS campuses seems the most logical and responsible approach.

To that end, it is essential for the growth and development of the smaller campuses that this report include the recommendation to expand access to current and future MEIF resources to include the five smaller campuses in the UMS. Division members reiterated our support of the motion passed unanimously by the faculty of The University of Maine at Machias on April 22, 2005. The motion outlines the history of research in aquaculture and marine science at the Machias campus and ends with the following passage: "That UMM receive a 5% share of annual MEIF funds to help conduct applied research in the targeted areas." A copy of the full motion is attached. Further, we do not see the logic behind requiring a competitive process for some campuses, but not for all campuses, and not even for the campuses with access to the largest pools of funds. We recommend that the process be the same for investigators at all campuses. If that process is competitive for all, that is satisfactory, as long as it deals fairly with the small and large campuses. We recommend that proposals be evaluated and ranked for funding by an objective outside party, for example the Maine Technology Institute (MTI).

Our Division wants the members of the committee to know The University of Maine at Machias has a well-documented history of successful externally-funded research in marine sciences and aquaculture extending back to 1977. That funding has come from agencies that include the Maine Sea Grant College Program, the National Oceanic and Atmospheric Administration's Saltonstall-Kennedy Program, NOAA's National Coastal Resources Research and Development Institute, and the National Science Foundation. Further, the Mission of The University of Maine at Machias has included applied
research since 1992. Our mission statement includes the following very clear statement, "The University's applied research and public service contributes to the improvement of the quality of life and economic development in Downeast Maine."

Members of the committee may not be aware that on November 22, 2005 President Bush signed H.R. 2862, "An Act Making Appropriations for the Departments of Commerce and Justice, Science and Related Agencies, for the Fiscal Year Ending September 30, 2006 and for Other Purposes." Contained in this legislation is an earmark of $1,000,000.00 for the Board of Directors of the non-profit organization Downeast Institute for Applied Marine Research and Education (DEI) to use in the completion of the purchase of an 8 acre property known as Black Duck Cove. With this purchase, DEI will have a permanent home, and The University of Maine at Machias will have a field station where students, faculty, and staff can conduct marine research on important marine resources for years to come. The acquisition of this property is the most recent step in nearly 20 years of marine research and development initiated through the Beals Island Regional Shellfish Hatchery, a program created by The University of Maine at Machias.

For all of these reasons, the Division of Environmental and Biological Sciences at The University of Maine at Machias considers it essential that the committee recommend to the University of Maine System administration and Board of Trustees to open access to MEIF to all campuses. In the area of marine sciences and aquaculture, The University of Maine at Machias has a long and successful extramural funding history, the Mission, and a facility to support our arguments. We are convinced that all of this demonstrates our expertise, commitment to, and the critical mass we have developed in an MEIF sector. It is for these reasons that Dr. Hostert has been advocating so strongly for access to the MEIF for the smaller campuses. She will, with our full support, continue to do so. It is necessary that the University of Maine System recognize the achievements in research, scholarship, and creative expression of faculty at the smaller campuses and deal with all faculty in a fair and equitable way.

If the committee is unable to incorporate our comments into the Final Report, we ask that this memo be included as an Appendix in the Final Report.

Thank you.

Cc: Dr. Cynthia Huggins
    Mr. Stuart Swain

WHEREAS, in May 1997, the Maine State Legislature passed L.D. 1854, “An Act to establish the Maine Economic Improvement Fund” to administer investments in targeted research and development and product innovation and to provide basic investment necessary to obtain matching funds and competitive grants from private and federal sources;
WHEREAS, the targeted areas defined in L.D. 1854 and in L.D. 617 (1999) include: Aquaculture and Marine Sciences; Biotechnology; Composites and Advanced Materials Technologies; Environmental Technologies; Information Technologies; Advanced Technologies for Forestry and Agriculture; and Precision Manufacturing;

WHEREAS, the Board of Trustees of the University of Maine System administers the Fund and is charged by the Maine State Legislature to: 1) Invest in applied research and development in the target areas within the University of Maine System, and 2) Support the development of private enterprise based upon research and development performed within the University of Maine System;

WHEREAS, L.D. 1854 defines research and development as “applied scientific research and related commercial development conducted by the University of Maine System, its member institutions and its employees and students in the target areas;”

WHEREAS, funds for MEIF that have been approved by the Maine State Legislature and Maine’s citizens have increased annually since 1998, and, from FY 2001 to FY 2004 were approximately $10 million;

WHEREAS, the administrators of the MEIF funds, the University of Maine System Board of Trustees, have decided to allocate all MEIF fund to the University of Maine (UM) and University of Southern Maine (USM) in an approximate 80:20 split. In 2004, for example, the allocation of MEIF research dollars to UM and USM was $8.5 million and $1.9 million, respectively;

WHEREAS, the allocation of MEIF funds are used by UM and USM: 1) to provide the required matching funds necessary to leverage grants and contracts; 2) to purchase research equipment and acquire or upgrade the physical space in which research will be conducted; and 3) for targeted support of researchers, support staff, and students;

WHEREAS, the State Funded Research Annual Report (December 2004) from the University of Maine System states that UM and USM have specific institutional responsibility for applied research in the seven targeted research areas;

WHEREAS, since 1992, each mission statement of the University of Maine at Machias (UMM) has included language about “applied research in marine resources management,” or, more generally, in “applied research.” At present, the language from UMM’s mission statement that was recently approved by the University of Maine System Board of Trustees reads: “The University’s applied research and public services contribute to the improvement of the quality of life and economic development in Downeast Maine.”

WHEREAS, since 1977, faculty at UMM have been engaged in extramurally-funded applied research in marine science and/or aquaculture;

WHEREAS, since 1987, faculty at UMM have worked closely with Maine’s coastal communities to provide information about managing shellfish habitat, enhancing intertidal areas with cultured clam seed, and conducting applied marine research with undergraduate students, stewardship committees, and harvesters leading to peer-reviewed articles published in national and international scientific journals;
WHEREAS, since 1994, UMM has employed a fulltime faculty member with one-half time committed to applied marine research and outreach.

WHEREAS, since Spring 1999, faculty at UMM have worked closely with a local non-profit, the Downeast Institute for Applied Marine Research & Education (DEI), to create a marine laboratory, shellfish research and production facility, and marine education center in the town of Beals that serves as UMM’s marine field station;

WHEREAS, in September 2002, UMM received a three-year grant for $600,000 from the National Science Foundation (NSF) to “Create New Economic Opportunities in Downeast Coastal Maine by Enhancing Marine Education and Research Capacity by Developing the Infrastructure for Innovation;”

WHEREAS, UMM has created two new faculty positions with the NSF funds that are half-time teaching and half-time research; a position in marine biology is designed for the person to work at the marine field station and to develop applied mariculture research programs; and a natural resource economics faculty responsible for determining the economic aspects and viability of field and laboratory demonstrations and other project activities with fishers, entrepreneurs, and staff at DEI.

WHEREAS, UMM faculty, students, and staff have never been given access to MEIF funds by the University of Maine System Board of Trustees to conduct applied scientific marine research; now, therefore,

THEREFORE, the Faculty at the University of Maine at Machias make the following MOTION:

“That UMM receive a 5% share of annual MEIF funds to help conduct applied research in the targeted areas. One-half of UMM’s annual allocation will be used to provide match for federal and other grants, and to support faculty, students, and staff at UMM as well as to purchase equipment, continue and enhance UMM’s scientific journal holdings in marine science and aquaculture, and for faculty development. The other half of UMM’s annual allocation will be used to support its marine field station at Black Duck Cove on Great Wass Island in the town of Beals.”

This motion was passed on April 22, 2005, 22-0