



Implementing Coastal Science Serving Texans

The Texas Sea Grant College Program Implementation Plan

2002-2005

The Texas Sea Grant College Program strategic plan for 2002-2005, *Coastal Science Serving Texans*, contains two primary goals related to research activities and programmatic aspirations. Both the research and the programmatic goals contain four broad subgoals and various numbers of approaches to address each subgoal. The strategic plan lays out, in broad terms, our vision for the program.

The process by which the strategic plan and this implementation plan were developed is as follows. In 2001, a blue ribbon committee comprised of individuals from academia, state agencies, federal government, the private sector and representative non-governmental organizations was convened. The panel met in July to make recommendations for the program's second strategic plan.¹ *Coastal Science Serving Texans* followed in response to those recommendations. The first draft was reviewed by the blue ribbon committee (see Appendix A), and revised. The second draft was then circulated to all Texas Sea Grant employees and once again to the blue ribbon committee. Following development of yet another draft, the plan was submitted to the Texas Sea Grant Advisory Committee (see Appendix B), and selected administrators from academia who interact with the program (Appendix C). This implementation plan, which includes performance measures, was

developed to provide details on plans to pursue the goals set forth in the strategic plan.

Research

The Texas Sea Grant College Program targets at least 50 percent of its federal funds for research support. One performance measure will be how well the Program meets that target for the 2004-2006 proposal cycle.

The proposal solicitation and review process for the 2004-2006 cycle will be similar to recent funding cycles, although the term of the cycle will be reduced from three to two years. This will allow the Program to respond more rapidly to changing needs and put Texas Sea Grant back in phase with most of the state Sea Grant programs, which will facilitate regional research projects. The process is time consuming, but transparent and competitive at all levels. A summary of the process is:

A Request for Proposals (RFP) is developed that includes the list of program priorities (developed with input from the Texas Sea Grant Advisory Committee) in January 2003.

- Availability of the RFP is advertised through the Program's distribution list of institutions and individuals that have expressed interest in the program and on the Program's web site. Hard copies will also be made available upon request.
- The Program's Director, Associate Director for Outreach, Associate

Director for Information and Fiscal Officer will travel to pre-selected sites to meet with prospective principal investigators to brief them on the process and answer questions (targeted for February 2003).

- Preproposals are received and sent to qualified individuals, most within Texas, who can advise on whether the proposed work falls within the priorities outlined in the RFP and addresses an issue important to the state or region.
- Full proposals are solicited from those who submitted preproposals deemed to be within the priority research areas.
- Full proposals received are sent out of state for peer review. Attempts are made to obtain a minimum of three reviews of each proposal.
- A panel of experts is convened to provide final prioritization advice to the Program's administration on the full proposals. An observer from the National Sea Grant Office is also invited.
- A letter of intent is sent to the National Sea Grant Office (NSGO) detailing which proposals Texas Sea Grant plans to incorporate in the omnibus proposal. In the meantime, proposals selected for funding undergo final revision based on peer reviewer and panel comments.
- The omnibus proposal is submitted to the NSGO in November.
- The funding cycle begins on March 1 of the following year (2004).

¹ *Charting Our Course*, produced in 1998, was the program's first strategic plan.

Research Goal: Maintain and expand a high-quality targeted, yet flexible marine research program.

Research priorities for the Program are established by the Sea Grant Advisory Committee (Appendix B). These priorities are re-evaluated periodically and revised as recommended by the committee. Two major research priority areas – Coastal Ecosystem Health and Coastal Ecosystem Development – were identified by the committee at a planning meeting during 1999 for the 2001-2004 funding cycle. The committee was polled again in 2001 to determine if those priorities should remain in effect. Respondents to the inquiry indicated that there should be no change in the priorities.

By today's standards, all research supported by the Program can be considered modest. Many supported projects produce considerable scientific advancement, but most require additional funding in pursuit of the ultimate goals of the research. Sea Grant avoids long-term funding (multiple cycles) on identical topics in most instances. In this context, the Program promotes the notion that sufficient information can be developed through funding for one or two cycles to provide the investigator(s) with the opportunity to use the Sea Grant support to help leverage additional funding. One performance measure is determination of the effectiveness of that philosophy.

The first two research subgoals reflect the input from the Texas Sea Grant Advisory Committee. In addition, it has been the policy of Texas Sea Grant to solicit proposals and fund at least one study relating to K-12 education. That policy is reflected in Subgoal 3. Finally, Texas Sea Grant tries to maintain some flexibility to respond to opportunities that may arise during any given funding cycle. That philosophy is encompassed in Subgoal 4.

Subgoal 1: Solicit and fund research proposals that relate to the Coastal Ecosystem Health priority

The Request for Proposals (RFP) that will be developed for the 2004-2006 funding cycle will include research on Coastal Ecosystem Health as a priority of the Texas Sea Grant College Program. Success associated with this subgoal will be measured

in terms of how many proposals are received, the number of universities submitting proposals, the quality of those proposals and how competitive they are relative to proposals associated with the other subgoals related to research. The mix of proposals relative to the three subgoals will also provide an indication of the appropriateness of the topic to the research community.

Performance will also be measured in terms of the number of publications that result from the research, the number of graduate students supported and the extent to which research results are translated and transmitted to the public through the Marine Advisory Service (MAS) and the Marine Information Service (MIS). Three approaches to research in this area have been identified.

Approach 1: Support research associated with biological, chemical, physical and/or geological processes that address issues related to the status and health of our natural environment.

Covered under this broad approach would be such topics as fisheries ecology, recruitment into the state's fisheries, population dynamics, toxic algal blooms, nuisance species, nonindigenous species, biogeochemical cycling, water quality, physical processes controlling nutrient dynamics, beach nourishment, beach erosion and sedimentation patterns.

Approach 2: Solicit proposals aimed at development of responsible aquaculture in land-based and offshore systems.

Marine aquaculture in Texas is currently based almost entirely on the production of shrimp and red drum in ponds. Future development in Texas and across the nation may concentrate on development of land-based systems (particularly at hatchery, larval rearing and fingerling facilities) and offshore where environmental impacts can be reduced through proper siting. Texas Sea Grant will consider proposals that will advance development of both types of facilities in Texas.

Approach 3: Seek out research proposals associated with relationships between upland activities in watersheds and subsequent effects on freshwater inflow to estuarine and coastal ecosystems.

Texas Sea Grant has concentrated its activities primarily on research in salt water; however, the importance of freshwater

inflow, the timing of that inflow and associated water quality are all significant to coastal ecosystem health. Having an emphasis in this area should broaden the number of scientists at the states' institutions of higher education who will be interesting in seeking funding from Sea Grant.

Subgoal 2: Solicit and fund research proposals that relate to the Coastal Ecosystem Development priority

The demographics of Texas are leading to rapid expansion of the states' coastal population. With that expansion comes increased competition among coastal inhabitants and visitors. Research on coastal ecosystem development was the second priority identified by the Program's Advisory Committee. New National Sea Grant Office initiatives in coastal communities and ports and harbors demonstrate that the topic has also become a national priority.

"Coastal Ecosystem Development" enjoys equal status with "Coastal Ecosystem Health." The priority did not produce the number of proposals anticipated during the most recent proposal cycle (2001-2004), thus additional effort will be made to identify social scientists interested in conducting this type of research and to encourage them to submit proposals.

The inclusion of a specific research goal associated with socio-economics began with the 2001-2004 proposal cycle. During this cycle, additional emphasis on distribution of the Request for Proposals associated with the 2004-2006 cycle will be employed and performance will be measured by the number of proposals received, the breadth of institutions from which they come, how the proposals respond to the approaches outlined above and the suitability of the proposals for funding.

Approach 1: Promote research on the socio-economic impacts of natural and human-induced hazards such as hurricanes, including studies related to providing updated floodplain information.

MAS and MIS activities associated with natural hazards have been ongoing for many years, but socio-economic research in that area has not been a high priority. The addition of human-induced hazards is a result of the terrorist attacks on the United States that began on September 11,

2001. The Texas coast is an attractive target for terrorism because of the concentration of petrochemical plants along the coast. Most of the attention on coastal natural hazards relates to hurricanes and flooding, but tornados are also a major threat. Each type of hazard mentioned is a fertile topic for socio-economic research.

Approach 2: Seek out research proposals associated with the impacts of legislation and regulation on fishing communities.

Fishing community structure in Texas is changing for a variety of reasons, one of which may be associated with changing regulations on the fisheries. While regulators maintain records on how regulations affect the fisheries,, there is little information available on the impacts on the fishermen and the coastal communities. Proposals funded under this approach would be expected to address that question.

Approach 3: Solicit proposals for research on demographic change along the Texas coast and projections associated with resulting user conflicts.

As alluded to above, the Texas coast is becoming more crowded. The major population node is the Beaumont-Galveston-Houston area, which houses several million people. Other burgeoning areas are Corpus Christi and Harlingen-Port Isabel-Brownsville. Competition for use of the nearby bay and Gulf of Mexico waters is intensifying. The ramifications of these conflicts on coastal management, access to the water, availability of public facilities for recreation, displacement of one or more user groups to accommodate others, etc. remain to be studied. Respondents to this approach will begin to provide information that could be useful to city planners and managers and to natural resources agencies.

Subgoal 3: Solicit and fund at least one proposal during each funding cycle in the area of Marine Education.

An educational roles that Texas Sea Grant plays is introducing lesson plans, information and materials to the K-12 classrooms that conform to the Texas Essential Knowledge and Skills (TEKS) program. Each RFP that the Program

produces specifies Marine Education research as an ongoing priority. Proposals fitting within that category are not always received, and those received are judged competitively with all other proposals. That being the case, marine education will be a separate proposal category that will be considered by the final proposal review panel. The intention will be to fund at least one educational proposal, but only if one or more proposals is competitive qualitatively with proposals received in the other two priority areas. All materials developed as a result of an educational proposal will be expected to undergo field testing in the classroom and to be modified, as necessary, before they are released.

Performance will be evaluated, in part, on the basis of the Program's success in obtaining and funding proposals. More importantly, success will be measured by the willingness of K-12 educators to adopt the materials and lesson plans, the scope and breadth of materials developed and the number of teacher workshops with which the program is involved each year.

Approach 1: Solicit proposals for research aimed at curriculum development for K-12 students.

Lesson plans constructed around marine examples are popular with K-12 students. Such lesson plans do not have to be developed strictly in conjunction with science-related classes. They can also be developed for a wide variety of other classes, such as mathematics and social studies. Periodic updates of such lesson plans are required as new knowledge is developed and as the technology used in the classroom changes.

Approach 2: Support the development of various types of educational materials, including books, CD-ROMs and websites that relate to Texas Sea Grant's mission.

As increasing numbers of K-12 classrooms obtain computers and students of all ages become computer literate, the need for educational materials delivered via CD-ROM or DVD and via internet websites will continue to increase. The Program is dedicated to making contributions to education at all levels that utilize the latest technology that has been adopted in the schools.

Approach 3: Provide support for symposia and workshops for teachers that lead to publication of proceedings.

The Program's interest and responsibility in education extends to higher education. In addition to supporting graduate students on research projects, the Program supports proposals to conduct symposia and workshops that result in publications of proceedings that can be utilized by educators throughout the state's educational system.

Subgoal 4: Be prepared to address unanticipated problems and take advantage of unanticipated opportunities.

Advance planning with respect to research is important if the Program is to develop a portfolio of projects that address important, sufficiently focused issues. Sea Grant does not have the resources, nor does the expertise exist within the state's universities, to address every issue that arises, and, since the Program invests primarily in applied research, not all issues of interest to potential investigators are appropriate topics for Sea Grant funding. While the foregoing guides the research supported by the program, Sea Grant does not want to bypass opportunities where limited amounts of funding may have a significant payoff. A rapid response fund is maintained during most years to provide those limited amounts of funding (generally less than \$10,000 per item) as needs arise.

Performance will be measured by how well expenditures associated with rapid response funding produce the desired results. Examples may be counted in terms of students supported, publications by the investigator(s) involved, Sea Grant publications (such as an issue of *Texas Shores*) and success in leveraging additional funding. One metric will be the degree to which new faculty in the universities of Texas submit proposals for rapid response and project development funding and the outcome of those projects in terms of dissemination of information and/or success of the investigator in obtaining additional funding based on the results obtained from the project development funds. The same metric will be applied to research demonstrations projects approved for MAS agents and specialists.

Approach 1: Provide modest amounts of funding to test concepts that may lead to development of larger proposals submitted to Sea Grant or other funding agencies.

Investigators often come up with ideas or require supplemental funding of non-Sea Grant supported activities which, if awarded, carry a high probability of helping leverage additional funds, prove a new concept, follow a new line of investigation related to current activity or fund the additional student required to effectively complete a project. The Program welcomes brief proposals for such activities and subjects them to peer review prior to making any award. In general, no more than two to four such projects are approved during a year and the term of the projects is typically 12 to 18 months. All proposals are reviewed.

Approach 2: Help new faculty in Texas institutions of higher education initiate their research programs.

While rapid response funds may be allocated to any qualified marine researcher, preference is given to new faculty who are attempting to establish a research program. In many instances, the funding available from the rapid response pool is sufficient for such an individual to purchase needed supplies and equipment or gather preliminary data that can be used in support of a larger research grant from Sea Grant or some other funding source. Proposals submitted by new faculty are peer reviewed.

Approach 3: Fund research demonstration projects for Marine Advisory Service (MAS) agents and specialists.

MAS agents and specialists routinely come up with ideas for research and demonstration projects that result from their interactions with stakeholders. Examples include minor fishing gear modifications to improve vessel fuel efficiency, working with retailers to help them keep bait shrimp alive, and evaluating modifications in seafood processing procedures that might improve efficiency without affecting product safety. Such projects have an advantage in that in many cases the results are quickly adopted by user groups, so there is an immediate payoff. Periodically, when funding allows, MAS personnel are asked to submit proposals for research demonstration

projects. All proposals are peer reviewed and only the most meritorious are selected for funding. Typically, the entire pool of available funds within a given year is no more than \$10,000 to \$15,000.

Programmatic Goal: Improve the Effectiveness of Texas Sea Grant

The effectiveness of the Texas Sea Grant College Program is related, in part, to available financial resources. One ongoing activity involves seeking ways to enhance these resources. Part of the effort is aimed at expanding the core budget of the program, both from the Department of Commerce and the Texas Legislature. Sea Grant also increases the ability to pursue its mission by successfully competing for funds from outside sources; partnering with other groups within the universities, agencies, or private sector; and through establishing endowments.

Even more important than the funds available to the program are the people who make up the Texas Sea Grant support staff. These staff members (Program administrators, MAS agents and specialists and MIS editors) provide first-class service to stakeholders and those researchers supported by Program funding. Texas Sea Grant is dedicated to providing services in a timely and professional manner, with the imposition of as little red tape as possible. The program strives to keep administrative costs to a minimum in order to support the research, outreach and education activities at the highest possible levels.

Data on publication distribution, contact numbers associated with MAS agents and specialists, service in professional societies, on boards and committees, as well as numbers of publications generated by Sea Grant personnel and the researchers supported by Sea Grant are all important in measuring performance. Historical data are maintained and will be compared with annual data summaries that are generated into the future.

Sub-goal 1: Enhance the ability of the program to provide service to the citizens of Texas.

When residents of Texas and visitors to the state's coastal region engage in either marine-related recreation or commerce, they may interact with the Texas Sea Grant College Program in some fashion. The

probability is high that the interaction will be with MAS or MIS personnel, not with researchers supported by the program. Stakeholders often do not realize that each form of information they obtain from Sea Grant is available largely because of the network that exists both within the state and across the nation – indeed, sometimes internationally. Sea Grant staff gather the best available scientific information available from whatever source and deliver it in a form that is readily understood by the recipient. MAS agents and specialists have the uncanny ability to reduce highly technical information to terms that can be understood by lay audiences. The task becomes increasingly daunting as the amount and complexity of scientific information increases exponentially. Methods of communication are also changing as are the stakeholders. Keeping abreast of the information that is in demand and disseminating it in a timely manner will continue to be a challenge.

Approach 1: Expand the number of seminars, symposia, workshops and training programs conducted.

In recent years, Texas Sea Grant has been responsible for some highly successful meetings and workshops. Examples that document the diversity of stakeholders served by the program include the Third Open Ocean Aquaculture Conference (scientists, producers and natural resources agencies), the Sharing Our Gulf Conference (scientists, managers, K-12 educators and citizen interest groups) and most recently "A Watershed Event" conference in Houston that focused on the aftermath of tropical storm Allison (land use planners, hazard response teams, general public). The third meeting underscores an effort within the program to develop a stronger focus on socioeconomic and community problems, although that in no way implies that other foci will be reduced or eliminated.

Conducting activities that engage significant numbers of people, particularly when training is involved and published or electronic materials are made available at the time of the event or are developed as a result, serve to get information out more broadly and efficiently than the more traditional way of dealing with individuals. While the latter approach will not be dropped, the objective will be to seek out opportunities for Sea Grant to plan and host events that bring together people to

discuss current issues, build consensus and perhaps find new ways to resolve problems.

Sea Grant is also dedicated to the goal of stimulating interest of students in the K-12 education system with respect to science and mathematics. By developing marine-related curricula - much of which can be related to the Sea Grant floating classroom program - and training teachers in the use of the lesson plans through workshops, progress toward the goal can be achieved. Inspiring students with interesting class materials, followed by a trip on the water and into the marshes may instill a thirst for scientific knowledge that will follow the young people as they enroll in institutions of higher education.

Approach 2: Develop additional mechanisms for funding *Texas Shores* magazine and increase both the quantity produced and the distribution.

Texas Shores, the award winning quarterly magazine of the Texas Sea Grant College Program, suffers from its own success. The publication is distributed free to residents of Texas who request it. New subscribers are not being solicited as the cost of the publication is threatening to exceed the funds available for that purpose. Yet, if even a modest cost is imposed (as has been tried in the past), subscriptions drop precipitously. MIS has examined the possibility of establishing an endowment to help support publication of *Texas Shores*, but to date that approach has not been successful. The situation may change as the University's recently announced campaign to solicit contributions to the institution includes support for *Texas Shores* as part of the College of Geosciences support request.

Whether or not an endowment through the university campaign is forthcoming, Sea Grant will be working on developing funding alternatives or at least mechanisms for augmenting the existing funding level. MIS' designer has worked extensively with the contract printer to realize maximum cost effectiveness. Changing to a self-cover format and to direct-to-plate production has allowed the magazine to go full color at the same cost of the prior limited color printing. Another idea that is being considered is to include a complimentary copy of the magazine with every out-of-state publication order, along with a paid subscription form. The staff is

also investigating the possibility of contracting with a magazine distributor to handle paid newsstand copies.

Approach 3: Develop innovative methods for producing and distributing information through the Marine Advisory Service and Marine Information Service.

Texas Sea Grant has adopted new technology in recent years to remain abreast of the rapidly changing and expanding approaches associated with information transfer. The web site is a primary means by which the Program provides stakeholders with information about Sea Grant and, in conjunction with e-mail, provides a convenient way to provide the scientific community with information on requests for proposals and a variety of other time-sensitive types of information.

Texas Sea Grant has produced a few CD-ROMs for use in distributing information (for example, the most recent omnibus proposal was made available to other Sea Grant programs on CD-ROM). This activity will be expanded to include annual progress reports, certain meeting proceedings and other items, as appropriate.

The proposal cycle for two years scheduled to begin on 1 March 2004 will utilize the internet and e-mail exclusively for the first time. The goal is to make the process less onerous for those who apply, reduce the amount of paper generated and expedite transmission of preproposals, proposals and reviews. Ultimately, the Sea Grant network may have software that will be adopted by all programs, but in the interim we will provide downloadable forms that can be put into word processing formats for completion and will adopt a mechanism for receiving material from applying scientists and reviewers of proposals via e-mail attachments of MS Word or WordPerfect files.

Technology changes in locating ones position at sea from Loran to GPS have made our hangs books (which show locations of obstructions on the bottom for use by the fishing community) approach obsolescence. A major activity during the period covered by this plan will be to produce a new hangs book in a different format and with GPS coordinates.

Texas is a primary target for hurricanes, yet there has not been a severe storm in

several years. Texas Sea Grant has produced hurricane information in the past and will develop new information in forms, such as on CD-ROMs, that will be entertaining as well as informative as a means of creating and maintaining public awareness.

Sub-goal 2: Fully integrate and expand upon the research, outreach and educational components of the program.

Texas Sea Grant administrators began a process of better integrating the research, outreach and communications parts of the program in about 1998 when principal investigators on research grants were asked to identify an outreach or communications person from within Sea Grant to participate in their research projects. The purpose was to provide a more rapid and seamless flow of research information to stakeholders through rapid interpretation of results (outreach) and media releases (communications). This process has been partially successful but needs to be strengthened. In addition, with expansion of Sea Grant's activities into coastal community development, ports and harbors, recreational fishing and renewed focus on fisheries extension, there is a need to expand the capabilities of the program and to provide some shifts in emphasis with respect to technology transfer and sustainability.

Approach 1: Further develop the interaction of MAS personnel with each funded research project.

Beginning in 2002, Texas Sea Grant plans to host meetings of supported researchers, MAS and MIS personnel and interested parties on an annual or biennial basis to provide an opportunity for researchers to present results of their Sea Grant supported research. As importantly, these meetings will provide an opportunity for researchers, extension agents and specialists, as well as communicators to interact both formally and informally. One outcome will be to get researchers more closely associated with outreach and communications personnel and to better integrate those two components of the program into the researcher's activities. In addition, each researcher will be approached by a communicator annually and be requested to provide newsworthy information. The involvement of MAS

personnel in research activities will be more formalized. A key element in relating the researchers to the MAS staff is ensuring the applied research is relevant to the issues and concerns of the coastal decision makers and citizenry. Efforts through the Sea Grant Researchers Conference and involvement on the Coastal Coordination Council should accommodate the developing relationship.

Approach 2: Expand the Sea Grant staff by adding positions in the Marine Advisory Service and Marine Information Service.

The most pressing MIS need is for a graphic designer who is trained in both print and web design. Experienced computer-literate graphic designers are neither readily available nor inexpensive so this position remains in the "wish list" category. Should the opportunity arise to expand the staff even further, MIS could use an additional editorial staff member and should consider adding a fulltime distribution person. Distribution functions are now handled by a student worker. In recent history, the MAS staff has efficiently expanded both its coastal coverage by the renewal of an extension agent position covering marine and natural resources matters in Aransas County, as well as expanding the topical expertise into the ports and harbors arena by success in the national competition for a specialist. In conjunction with the other positions in the MAS, coverage along the coastal area of Texas has become almost complete.

In the next five years it is anticipated that the MAS will be losing a significant institutional history, experience and talent through retirements. This change will place an emphasis on training for younger MAS staff to ensure their ability to assume greater leadership roles within the MAS. Possible assistance in this situation would be the development of a MAS agent-at-large position that would basically serve as a "training opportunity." The initial view is that this would be a position totally funded by Sea Grant and focused on working with other MAS staff. Efforts to better communicate in an increasingly sophisticated world continues to be a challenge to the MAS staff. Greater attention will be given to development of robust and user friendly electronic media for extending the

resources of the MAS.

Approach 3: Place increased emphasis on technology transfer and sustainability.

Many Sea Grant research projects develop new technology that can have broad application for other researchers and stakeholders. Researchers learn of new technology through the literature in many instances, but dissemination to other users is often less structured and may not be straightforward. Researchers are not the only ones who develop technology. Many technical advances that can be made available to user groups quickly and easily result from research demonstration projects conducted by outreach personnel. There is also the middle ground wherein technology developed as a part of a research project to address one problem can be modified through a research demonstration project to resolve problems for other, quite different groups of stakeholders. Texas Sea Grant administration will work more closely with researchers and outreach personnel to identify ways in which technology can be developed and disseminated as quickly and broadly as possible.

Sustainability is a buzz word that means different things to different people. Perhaps the simplest definition with respect to marine natural resources is to support and promote conditions conducive to the maintenance of those resources for future generations. We must acknowledge that ecosystems and the resources within them are constantly changing and that those changes result from both natural and anthropomorphic influences. Texas Sea Grant is dedicated to the goal of conservation and wise utilization of marine resources and will continue to work to find ways in which that objective can be fulfilled.

The attempt to achieve these goals sometimes brings elements of the Sea Grant Program in conflict with interest groups, regulators or decision makers. It is essential that the Program maintain its position as a credible broker of sound data and applied research. This again points out the usefulness of a firm relationship between the Sea Grant researchers and MAS, as well as MIS, staff. In addition, through activities in the Coastal Coordination Council, the Sea Grant Program is well positioned to adapt information needs of the Council decision

makers into applied research and outreach activities. Having a strong and active advisory committee should also assist the program in meeting the opportunities as well as the challenges in the coastal region.

Subgoal 3: Serve as a primary link between government and higher education with respect to marine issues

Texas Sea Grant is the logical place to establish linkages between higher education and state government with respect to marine issues since Sea Grant interacts with the best marine researchers and educators within the state as well as with a broad array of stakeholders, both within and outside government who have interests/activities associated with the marine environment. In the past, Sea Grant has been responsive to requests that help link educators with governmental agencies and other entities, but the program has not been proactive in establishing these linkages before a crisis demands them.

Performance will be measured by examining how and if state agencies and legislators increasingly look toward Texas Sea Grant as a primary contact with the marine science community in the states' institutions of higher education. Part of the success will be based upon the ability of the effort to increase the level of base funding from the state legislature. A strong Texas State Fellowship program puts some of the best and brightest students into state agency and legislative offices. Evaluation of the success of the program will be in terms of increased interest by the agencies and legislative offices, the willingness of the state to begin supporting additional fellows through their own funding mechanisms and the ability of the fellows to obtain jobs upon completion of their tenure.

Approach 1: Establish a strong linkage between marine science administrators at institutions of higher education and the Coastal Coordination Council (CCC).

Many university administrators across the state have established relationships with state natural resources agencies similar to those formed by Sea Grant in the past. The fact that Sea Grant now has a nonvoting chair on the state's CCC provides an opportunity to formalize these activities. Texas Sea Grant administration

plans to approach the CCC with the idea of establishing a subcommittee of university marine science administrators who will serve as a continuous point of contact for the CCC with the marine science community. When the CCC or one of its member agencies needs input from the academic community on an issue, the subcommittee can serve as an information resource.

Approach 2: Work to increase the utilization of Sea Grant's resources by legislators and other decision makers.

At both the state and national levels, Texas Sea Grant has initiated contacts with legislative staff members by providing information on the program and demonstrating that Sea Grant is an excellent point of contact for information and expertise on marine issues. That approach will be intensified in the future as Sea Grant recognizes that the program has more to offer, particularly at the state level than legislators realize. While Sea Grant cannot address all issues raised by lawmakers, the program can identify the best people within the state (and across the nation through the Sea Grant network) to provide information or advice and, when necessary, to conduct studies that address a particular issue.

Approach 3: Expand the Texas Sea Grant Fellows program to encourage future leaders to become involved in state and federal government.

While the Texas Sea Grant Fellows program has been suspended for fiscal 2003 (beginning September 2002) because of fiscal exigencies, Sea Grant intends to expand the program to two Fellows in fiscal 2004 (funds permitting) and will continue to encourage the state agencies to provide their own funds to augment the program. In addition, Sea Grant will continue to urge the Texas Natural Resources Conservation Commission, the only one of the state's four major natural resource agencies not now involved, to participate in the process. Once the program is re-established in fiscal 2004, additional effort will be put forth to advertise it so that the number of applicants can be increased.

APPENDIX A

Texas Sea Grant College Program Blue Ribbon Panel

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