

# School of Marine and Atmospheric Sciences (SoMAS)

## Strategic Plan -- 2008

The mission of the School of Marine and Atmospheric Sciences (SoMAS) is to increase fundamental understanding, through research and education, of the oceans and atmosphere, their interactions, and the life systems they support.

We also develop and communicate innovative solutions to the environmental problems of society at local, regional, national, and global scales.

We strive to develop academic excellence in students, to allow them to become society's future leaders.

### Overview

Few institutions have the diversity of research in oceanography and atmospheric science, with substantial programs in marine biogeochemistry, fisheries and sustainability, coastal oceanography, marine ecology and atmospheric chemistry/climate/weather as SoMAS. In addition, SoMAS is uniquely positioned in Stony Brook to forge strong interdisciplinary programs with the engineering, medical, natural and social science communities, along with access to powerful and unusual instrumentation, to provide exceptional opportunities in making quantum leaps in addressing important, complex, and cutting-edge problems. SoMAS has many distinguishing aspects which, taken in aggregate, provide faculty and students with unparalleled and exceptional opportunities to pursue oceanographic and atmospheric sciences along traditional as well as innovative approaches to complex problems. These aspects include:

- **No Internal Boundaries:** SoMAS does not have traditional divisions or departments within the school, allowing collaboration across multiple disciplines.
- **Location on a major research university campus:** SoMAS also has access to multiple departments with Stony Brook including highly ranked departments in physics, biological sciences, chemistry, geosciences, engineering, and medicine.
- **Brookhaven Laboratory:** SoMAS is located near and has active collaborations with the Brookhaven National Laboratory (BNL) including the National Synchrotron Light Source, the Blue Gene Computer.
- **Cold Spring Harbor Laboratory:** This world-famous genomics laboratory remains relatively untapped by oceanographers, but remains a promising resource for in-depth microbial and genetic research.
- **National Weather Service:** SoMAS has active cross-research collaboration with the regional forecasting services of the National Weather Service, thereby facilitating the transition from research to operational application.

- **Marine Animal Disease Laboratory:** SoMAS offers a unique focus on marine animal diseases that benefits from an active collaboration with the Cornell Veterinary School, one of the world's top veterinary schools.
- **Cooperative Collaborative Institutions:** SoMAS houses several research institutions including the New York Sea Grant Institute, the Blue Ocean Institute, the Waste Reduction and Management Institute, the Living Marine Resources Institute, and the Institute for Ocean Conservation Science, and we collaborate closely with the New York State Department of Environmental Conservation on numerous projects.
- **New York City:** SoMAS has access to unique institutions in New York City, such as the United Nations, American Museum of Natural History, Goddard Institute for Space Studies, and other NYC universities.
- **Multiple On-Water facilities:** SoMAS offers access to a diversity of marine environments through our labs at Flax Pond, Southampton, and our varied fleet of coastal research vessels.
- **Linkage to Southampton School of Sustainability:** SoMAS ties to the Southampton facility provides a unique location on the Atlantic coast and is the only marine program within SUNY.
- **Stony Brook's geographic location:** SoMAS is well situated to take advantage of its "natural laboratory" to assess human influences on coastal and open waters, including impact on commercially important species.

By applying these attributes, SoMAS is well positioned to address several potential strategic objectives:

- **Evaluate the influence of, and adaptation to, climate change in coastal ecosystems**

This effort could be facilitated by leading scientists and cutting edge tools available to SoMAS. Specifically, our ready access to a BNL and its unique instrumentation (e.g., Blue Gene supercomputer), coupled with Stony Brook's oceanographic, geochemical, and molecular instrumentation provide SoMAS with the tools required to address these complex research questions from multiple and unique perspectives.

These are critical problems that will affect decision-making by government and non-government agencies throughout this century. This initiative will make SoMAS uniquely positioned to inform policy and conservation decisions at the federal, state, and local levels. This will be specifically facilitated by our strong working relationships with organizations such as the National Research Council advisory committees and boards, the US EPA, the Intergovernmental Panel on Climate Change, and the NY State Department of Environmental Conservation.

- **Consider the public health consequences of changes to the coastal ocean.**

Through direct human activity and possibly as a consequence of climate change patterns, the coastal ocean is undergoing numerous changes that can have deleterious effects on resident organisms and on human consumers of marine resources. SoMAS could coordinate research programs that would involve (1) an assessment of the geochemical cycling, fate, and transport of chemical contaminants in marine systems that can influence human health, (2) an assessment of the occurrence and fate of pathogenic microorganisms that are increasingly introduced into coastal systems; and (3) an evaluation of the frequencies, impacts, causes, and controls of harmful algal blooms in coastal systems.

SoMAS would join forces with scientists elsewhere on the Stony Brook campus, including the Geosciences Department, the School of Biological Sciences, the Chemistry Department, and Stony Brook's School of Medicine. SoMAS personnel would also collaborate with scientists at BNL and Cold Spring Harbor laboratories for this initiative. In all, these collaborations should help forge a new approach to evaluating the significance of these problems and in designing means for mitigating their impacts on human health.

- **Provide the science to support ecosystem-based management**

Both the Pew Oceans report and the U.S. Oceans Commission Report strongly recommended that marine environments should be managed through an ecosystem-based approach to management. Ecosystem-based management (EBM) is a shift from the single sector approach in which each benefit that society derives from the ocean is managed as if independent from all others. EBM recognizes the interconnections between the various components of the marine realm and includes humans as part of the ecosystem. Our fundamental understanding of ecosystem structure and function must improve, however, if EBM is to be successful.

With the passage of the New York Oceans and Great Lakes Ecosystem Conservation Act, New York State recently became the first state on the east coast of the U.S. to adopt an ecosystem-based approach to management. This law creates a council which will oversee the implementation of EBM in New York and anticipates new funding to support scientific studies to improve our understanding of New York's marine ecosystems. The Dean of SoMAS is a member of the steering committee of the Council. As the only designated SUNY center for research and education in the marine sciences, SoMAS has an opportunity to play a major role in assisting the state in its bold new mission to adopt EBM.

It is expected that SoMAS will re-configure itself over the next 5-10 years to take advantage of the unique aspects of our situation, as outlined above, and to exploit these three strategic objectives. We will specifically consider these objectives in developing

new courses and programs, in considering areas for hiring new faculty, and in seeking research funding.

## **The Strategic Planning Process**

This plan was developed over the spring semester, 2008 and involved faculty, students and staff of SoMAS. An initial retreat in January, 2008 defined task forces (see Appendix 1) that met over the next few months to consider objectives and action steps to achieve them. The task forces reported on their efforts at a second retreat in May, and input from the attendees served to refine and expand on the individual reports. The task force documents were synthesized into the present document over the summer. This report thus forms the basis for a strategic plan that will guide SoMAS over the next five years. Each action step in the document has identified an individual or individuals who will take the lead in carrying out the specific task. However, all members of SoMAS share collective responsibility for making the plan successful.

## **Strategies and Objectives**

**Strategy 1:** To enhance educational programs within SoMAS in order to provide a coordinated curriculum emphasizing practical problem solving skills, research opportunities, and mentoring necessary to prepare our graduates for a wide range of careers.

*Objective 1:* Provide a curriculum that best meets the needs of students at SoMAS.

*Objective 2:* Obtain and develop tools to provide the support needed for effective instruction and learning.

*Objective 3:* Continue to develop more effective means to recruit top undergraduate and graduate students.

**Strategy 2:** To improve the SoMAS experience for faculty, students and staff

*Objective 1:* Increase the level of student participation and their sense of ownership in SoMAS.

*Objective 2:* Provide opportunities for better community interactions and personal growth.

*Objective 3:* Enhance both our self-image as well as the image we present to visitors.

*Objective 4:* Improve communication among the larger SoMAS community.

**Strategy 3:** To improve SoMAS infrastructural capabilities over the next five years to provide the basis for the strengthening and growth of programs

*Objective 1:* Develop first-class buildings at Stony Brook and Southampton to house educational and research facilities in support of SoMAS.

*Objective 2:* Enhance network communications and instrumentation infrastructure within SoMAS

*Objective 3:* Enhance staffing capabilities within SoMAS to better enable us to fulfill the educational and research missions of the School.

**Strategy 4:** To enhance SoMAS's visibility among its major stakeholder groups including the general public, resource managers and government officials.

*Objective 1:* Maximize the visibility of SoMAS with the general public.

*Objective 2:* Use SoMAS alumni to develop student fellowship support and provide funding opportunities for SoMAS graduates.

*Objective 3:* Familiarize government officials, environmental resource managers and NGO's with the work and relevance of SoMAS.

*Objective 4:* Continue to grow SoMAS endowment accounts.

## **Action Plans for Achieving Strategic Objectives**

### **Strategy 1: Enhancing education programs**

Education should be a primary focus of SoMAS, which has evolved significantly since the founding of MSRC over 30 years ago. SoMAS educational programs have tended to evolve slowly through time, based on traditional models of atmospheric or oceanographic research. They also have been driven by external forces such as the acquisition of undergraduate programs at Southampton College. The composition of the faculty has changed over the years, and the focus of research being conducted at SoMAS as well as the career aspirations of our graduates have changed. This strategy aims to propose actions aimed at creating a comprehensive education plan for both graduate and undergraduate students. Curriculum enhancement, and the types of support and activities offered to students are critical, as is the need to recruit and support the highest quality students.

**Objective 1.1: Provide a curriculum that best meets the needs of SoMAS students.**

*Action Step 1.1.1 Establish undergraduate and graduate SoMAS curriculum committees to oversee curriculum changes, course offerings and the schedule.*

SoMAS has experienced exponential growth in its undergraduate programs in recent years. We now need to examine the content of these majors and how best to deliver them in light of increasing enrollments and operations at Stony Brook Southampton. An Undergraduate Curriculum Committee is needed to consider whether the majors we offer are appropriate and sustainable, there is too much redundancy in material presented in required courses and other issues. In terms of graduate programs, a Graduate Curriculum Committee should consider building a real link between oceanic and atmospheric sciences into the graduate curricula for all students and ensuring a minimum expertise in quantitative skills for all SoMAS students. There is also a need to consider a revised curriculum structure providing more flexibility in required courses taken in different sub-discipline areas.

Lead: Dean, GPD, UPD, Chair GPC

**Objective 1.2: Obtain/develop tools to provide the support needed for effective instruction and learning.**

*Action Step 1.2.1 Provide more effective/efficient counseling/mentoring to students and postdoctoral investigators.*

Increasing numbers of undergraduate majors will require expansion of student advising capacity. Further, a tiered approach where more advanced students become part of the advising team will both expand capacity and provide additional valuable

perspectives not currently available in our current system. A team approach will also help share the burden and avoid students falling through the cracks if their advisor is not available or otherwise distracted. For graduate students, in addition to a faculty advisor, incoming students can be assigned a senior student provide guidance.

Lead: GPD, UPD

***Action Step 1.2.2 Help provide institutional financial support necessary for optimal student progress.***

Funding for graduate and undergraduate research has fallen primarily on the shoulders of individual faculty. Although this is unlikely to change, programmatic efforts to obtain block grants and fellowships to provide student support would lessen the pressure on individual faculty, provide at least a limited stable source of student support, and allow us to provide more competitive stipends. In addition, such funds could be used to enhance student education by providing flexible funding for special courses and travel that may not be accommodated by research grants. Private endowments to provide fellowship support should be sought as well.

Lead: Associate Deans, GPD, UPD

***Action Step 1.2.3 Involve students in the financial support process***

Having an open, common understanding of student financial support mechanisms and expectations will help graduate students better understand issues related to financial support. Stipend levels should be assessed each year in relation to levels at peer institutions and adjusted as needed. Changes should be communicated to administrators, faculty and students. Students can also be directly involved in the proposal-writing process.

Lead: GPD

***Action Step 1.2.4 Promote and assist graduate students in seeking external funding***

Students should be informed of available funding opportunities on an ongoing basis.

Lead: Dean, Faculty Advisors, GPC, the OVPR

***Action Step 1.2.3 Help students develop professional skills outside the class room.***

Although focusing more on problem solving skills in our curriculum will enhance the value of course work, much of the education students receive at SoMAS occurs outside the class room. We should encourage faculty to provide training to graduate students and postdocs in proposal writing and securing employment. We should also

conduct an annual or semiannual symposium or symposia for graduate students to present the results of their research.

Lead: Faculty Advisors, GPD

***Action Step 1.2.5 Provide opportunities for graduate students to attend meetings and conferences and to engage in field work***

Faculty should be encouraged to help their students attend a professional meeting while in the program. Support can be provided through research grants or through application to other organizations (e.g. Sigma Xi, GSO) that provide funds for such a purpose.

Lead: Faculty Advisors, Awards Committee

***Action Step 1.2.6 Re-establish the SoMAS Awards Committee***

An Awards Committee that administers special funds for students should be re-established, with student participation to the extent possible.

Lead: Dean, GPD, UPD

**Objective 1.3: Continue to develop more effective means to recruit top undergraduate and graduate students.**

***Action Step 1.3.1 Complete re-design of SoMAS web site and maintain it as a vibrant reflection of opportunities, resources, and accomplishments at SoMAS***

Lead: Web Design Committee, Faculty

***Action Step 1.3.2 Strengthen inter-institutional relationships with other colleges and universities through which prospective graduate students become familiar with SoMAS, including active student/faculty exchange programs, supporting faculty travel for seminars, etc.***

Lead: Dean

## **Strategy 2: Improving the SoMAS Experience**

SoMAS should be a community with broad-based student, faculty and staff engagement and co-ownership of the School's activities in the pursuit of its mission. We must: 1) enrich the intellectual and social experiences of SoMAS students so that they have the confidence and skills for the fulfillment of their potentials, 2) provide opportunities for better interactions among the SoMAS community on a day-to-day basis, and 3) improve internal communication.

**Objective 2.1: Increase the level of student participation and sense of ownership in SoMAS.**

***Action Step 2.1.1 Provide mechanisms for open communication and problem-solving between students and administration/faculty***

The exact mechanisms for accomplishing this shall be determined by the Graduate and Undergraduate Program Committees, but might include separate town hall meetings for graduate and undergraduate students to solicit input, provide information on events or funding opportunities and resolve problems.

Lead: GPD, UPD, Program Committees

***Action Step 2.1.2 Facilitate and support the organization of student groups and clubs, and associated activities. Encourage all students to participate in these activities.***

Lead: Dean, GPD, UPD

**Objective 2.2: Provide opportunities for better community interactions and personal growth.**

***Action Step 2.2.1 Establish a lounge/coffee room in a central, well-traveled area.***

Lead: Dean, Associate Director, SoMAS Facilities Manager,

***Action Step 2.2.2 Support and encourage the formation of a SoMAS Graduate Student Association (Club)***

Lead: Dean, SoMAS student body, GPD

***Action Step 2.2.3 Encourage faculty, staff and students to take advantage of workshops and skill-enhancement sessions arranged by the University.***

Lead: Dean

***Action Step 2.2.4 Establish a SoMAS Celebration Day***

A SoMAS Celebration Day, in which accomplishments of students, staff, faculty, and those from the student clubs and committees are recognized and celebrated, should be established to foster a stronger sense of community

Lead: Dean, UPC and GPC Chairs, Student Clubs

**Objective 2.3: Enhance both our self-image as well as the image we present to visitors.**

*Action Step 2.3.1 Police the hallways to remove unnecessary objects.*

Lead: Dean, SoMAS Facilities Manager.

**Objective 2.4: Improve communication among the larger SoMAS community.**

*Action Step 2.4.1 Create and maintain a SoMAS wide, weekly newsletter (including our Southampton campus) and intranet on the SoMAS web site.*

Lead: Communications Manager, SoMAS Data Processing Manager, Web Design Committee.

*Action Step 2.4.2 Install a Suggestion Box to encourage the communication of problems, anonymously if appropriate.*

Lead: Executive Staff, Assistant Dean

*Action Step 2.4.3 Provide a summary of the faculty meetings.*

Lead: Assistant Dean, Communications Manager

### **Strategy 3: Improving infrastructural capabilities**

Education at the undergraduate and graduate levels and field- and laboratory-based research are important parts of the mission of SoMAS. Infrastructure (computing and instrumentation, staff, buildings and vessels) is critical to the establishment of high-quality research programs and the delivery of our educational programs. Thus we propose to improve our infrastructural capabilities over the next five years to provide the basis for the strengthening and growth of programs within SoMAS.

**Objective 3.1: Develop first-class buildings at Stony Brook and Southampton to house educational and research facilities in support of SoMAS**

*Action Step 3.1.1 Renovate or construct new SoMAS facilities at Stony Brook's South Campus*

Seek funding for extensive renovation of existing facilities and/or construction of new facilities on the South Campus. Renovations of research laboratories, creation of an auditorium and other common areas, an up-to-date teaching laboratory, and expanded storage space are all needed. Renovations should make full use of energy efficient technologies.

Lead: Dean

***Action Step 3.1.1 (alternative) Construct new buildings to house SoMAS on the Stony Brook main campus using the latest “green” technologies***

Seek funding to construct new buildings that will include laboratories, classrooms, offices and common areas for SoMAS personnel. Such facilities should take advantage of “green” technology to provide for maximum efficiency in heating/cooling, water use, waste handling etc. They should include an auditorium, adequate storage and staging space, and shared research facilities.

Lead: Dean

***Action Step 3.1.2 Seek funds that establish a systematic maintenance and renovation program for existing facilities.***

Regardless of whether major new buildings or wholesale renovation of existing facilities at Stony Brook occur, a maintenance program should be established immediately to systematically renovate and maintain facilities in a regular manner rather than to allow them to steadily run down in unison. Each year at least one area should be identified for significant renovation and upgrade. Upgrades should include improvements in energy efficiency, which may partially offset the costs of renovation.

Lead: Dean, SoMAS Facilities Manager

***Action Step 3.1.3 Construct new marine facilities at Stony Brook-Southampton***

Seek funding to construct and equip a new, multi-building marine station at Southampton. Such a facility will include labs for teaching and field support, office space and flexible-use laboratory space. A high quality (i.e. uncontaminated, stable salinity) running seawater supply should be included.

Lead: Dean

***Action Step 3.1.4 Ensure access to high quality running seawater***

Develop high quality running seawater facilities to support faculty at Stony Brook and Southampton who need this resource. In the long term, this could be accomplished via construction of new facilities at Stony Brook or Southampton (see Action Step 3.1.3), but immediate action is needed to maintain this capability.

Lead: Southampton Facilities manager, Flax Pond Users Committee, in consultation with Dean and Associate Director

***Action Step 3.1.5 Improve R/V Seawolf access and dockage facilities***

Dockage arrangements should be made which facilitate loading and offloading of gear and personnel. Existing conditions are unsatisfactory for moving major gear on and off the vessel.

Lead: Associate Dean Swanson, SoMAS Fleet Manager

**Objective 3.2: Enhance network communications and instrumentation infrastructure within SoMAS**

***Action Step 3.2.1 Enhance communications infrastructure within SoMAS***

Upgrade the network within SoMAS to 100 Mbps (or faster) and develop a wireless capability. At least one classroom/conference room at Stony Brook and Southampton should be equipped with videoconferencing capabilities. Classrooms at both Stony Brook and Southampton should be equipped with the latest teaching technologies (e.g. Smartboards)

Lead: Dean, SoMAS Data Processing Manager, SoMAS Facilities Manager, Dept. of Information Technology

***Action Step 3.2.2 Acquire and upgrade ocean instrumentation.***

Develop a proposal to the NSF Ocean Instrumentation Program or other external sources that will fund the acquisition of a shared-use pool of up-to-date field instrumentation and equipment such as CTDs, current meters, ADCP, and hydrographic sensors.

Lead: SoMAS Associate Dean Swanson, in collaboration with ESHOP Manager, the ESHOP Advisory Committee and interested faculty.

***Action Step 3.2.3 Establish a systematic maintenance and acquisition program for major instrumentation.***

In addition to across-the-board replacement of grossly antiquated equipment or the acquisition of new capability through single targeted proposals, a regular program of steady equipment acquisition, replacement, or upgrade should be instituted. Each year a major instrument or equipment item should be identified for acquisition or upgrade.

Lead: SoMAS Associate Deans, in consultation with faculty and staff

***Action Step 3.2.4 Acquire an industrial-strength air conditioning system to support anticipated growth in computing.***

The current cooling capability for existing minicomputers and micronode clusters is at the limit of that needed to support current needs and inadequate for growth anticipated in next five years. Funds must be sought for the installation of a modular, industrial-strength air conditioning system with at least 20 ton capacity.

Lead: Dean of SoMAS, VPR, SoMAS Data Processing Manager, SoMAS Facilities Manager

**Objective 3.3: Enhance staffing capabilities within SoMAS to better enable us to fulfill the educational and research missions of the School.**

***Action Step 3.3.1 Review the charges for support services provided to SoMAS faculty (in comparison with peer institutions) and the policy of incorporating salaries of staff with permanent appointments into cost-recovery accounts.***

The level of recharge for cost-recovery units should be reviewed in light of the cost of services provided by the unit and the need for these services by SoMAS. The basis for recharges in the context of the overall budget for SoMAS should be clearly communicated to faculty and support staff.

Lead: Dean, Assistant Dean, Associate Director

***Action Step 3.3.2 Enhance vessel support personnel at Stony Brook to enable greater flexibility in use of vessels.***

It is difficult with present staff to provide for simultaneous operation of the *Seawolf* and *Pritchard*, despite the very different (and often overlapping) demands for these vessels by faculty and students. In addition, the duties of the Field Specialist have become almost completely subsumed into vessel operations. This individual is seldom available for assisting faculty with short-term needs in research or education-based fieldwork.

Lead: Dean of SoMAS, Associate Director, Fleet Manager

***Action Step 3.3.3 Provide additional staff support to manage the increasingly large number of state-funded research projects within SoMAS.***

Over the past ~3 years, there has been a large increase in funds passed to SoMAS faculty from New York State (via a Memorandum of Understanding) for research activities. These funds are administered solely by SoMAS without involvement of the support services provided by the Research Foundation for grants from external sponsors. At the present level of effort, one full-time administrative staff person is needed to

provide for the smooth and timely processing of paperwork for the various projects supported from these funds.

Lead: Dean, Associate Director, Assistant Dean faculty involved in MOU

***Action Step 3.3.4 Provide institutional support for an Analytical Specialist within SoMAS***

SoMAS-Stony Brook maintains an analytical facility that provides analyses of water samples for dissolved organic carbon and nutrients, as well as carbon, nitrogen and sulfur analyses of sediments. Additional capabilities include metal analyses by atomic absorption spectrophotometry and inductively coupled plasma-mass spectrometry (ICP-MS). We recommend providing state support for an Analytical Specialist. Funds for this should come initially from vacant faculty lines, much as the support is currently being structured for an additional Computer Specialist.

Lead: Dean, in consultation with faculty

***Action Step 3.3.5 Actively pursue the incorporation of agencies and offices linked to SoMAS programs into the Stony Brook campus and SoMAS facilities.***

SoMAS should initiate discussions with groups such as the National Weather Service regional forecasting headquarters, the United States Geological Survey (USGS) water resources group and the marine division of the DEC, with the intention of providing a home for them on the Stony Brook campus. This initiative could provide the rationale for developing the South Campus into more of an academically-oriented focal point for the University and leverage Federal and State resources for planning and construction of new or renovated buildings for SoMAS.

Lead: Dean of SoMAS, Associate Deans, interested faculty

**Strategy 4: Promoting Public Outreach, Visibility and Support**

SoMAS has a variety of audiences including the general public; prospective students; SBU and SBU Administration; colleagues at other academic and research institutions; alumni; resource managers and government officials. These groups should be fully and continually aware of SoMAS, its work and the relevance of that work to their specific interests and/or responsibilities.

**Objective 4.1 Maximize the visibility of SoMAS with the general public.**

***Action Step 4.1.1 Issue press releases and other descriptive materials upon completion of locally/nationally significant research at SoMAS***

Lead: Communications Manager, Faculty

***Action Step 4.1.2 Resolve issues involving the organizational structure of SoMAS/ITPA/MSRC and any associated logo "branding" issues.***

Lead: Dean, Associate Director, Facilities Managers

***Action Step 4.1.3 Create opportunities to improve the skill of SoMAS personnel in writing for the general public.***

Lead: Communications Manager

**Objective 4.2 Use SoMAS alumni to develop student fellowship support and provide funding opportunities for SoMAS graduates.**

***Action Step 4.2.1 Re-establish an effective SoMAS Alumni Association***

Lead: Dean

***Action Step 4.2.2 Sustain and enhance current initiatives with SoMAS alumni (i.e., periodic communications, receptions at professional meeting, fund raising etc.)***

Lead: Dean

**Objective 4.3 Familiarize government officials, environmental resource managers and staff of environmental NGO's of the work of SoMAS and the relevance and value of that work to their environmental management programs and/or constituents.**

***Action Step 4.3.1 As events warrant, organize a state-of-the-issue workshop on an environmental issue of importance to Long Island, New York State and/or the region.***

Lead: Dean, Associate Director, Institute Directors

***Action Step 4.3.2 Develop an undergraduate/graduate student intern program involving governmental agencies and elected official offices.***

Lead: GPD, UPD

***Action Step 4.3.3 Invite members of nearby agencies and NGOs to SoMAS events as appropriate***

Lead: Dean, Assistant to the Dean, Associate Director

**Objective 4.4 Continue to grow SoMAS endowment accounts**

***Action Step 4.4.1 Use the Dean's Council to promote fundraising***

Lead: Dean

**Action Step 4.4.2 Work with University Advancement Office to attract major gifts to SoMAS**

Lead: Dean

## **Appendix 1: Composition of Task Forces**

**Mission:** Larry Swanson (Chair), Malcolm Bowman, Carl Safina, and Minghua Zhang

**Niche:** Nicholas Fisher (Chair), Marvin Geller, Mark Fast, Carl Safina, Christopher Gobler, Brad Peterson, Ellen Pikitch, John Carroll, and Marah Hardt

**Education:** Anne McElroy (Chair) Christine O'Connell, Brian Colle, Chirstina Fink, Sultan Hameed, John Murray, Mary Scranton, Mark Sokolowski, Zofia Turek, Joseph Warren, and Robert Wilson

**Student Experience and Support Task Force:** Minghua Zhang (Chair), Kar Chang, Jackie Collier, Margaret Grigonis, Sultan Hameed, Stephan Munch, Marianne McNamara, Alexander Titus, and Bingbing Wang

**Dialogue:** Henry Bokuniewicz (Chair), Carol Dovi, Eileen Goldsmith, Anne Cooper Ellefson, Yanjuan Guo, Lyndie Hice, Patricia Liggan, Darcy Lonsdale, Nuria Protopopescu, and Jindong Wang

**Infrastructure:** Kirk Cochran (Chair), Robert Aller, Fabian Batista, Bruce Brownawell, William Chamberlain, Owen Doherty, Charlie Flagg, Michael Frisk, Glenn Lopez, Richard McIntyre, and Thomas Wilson

**Visibility:** Bill Wise (Chair), Agnieszka Podlaska, Bonnie Stevens, David Black, Tom DiLiberto, Keith Dunton, Santiago Salinas, David Bowman, John Graham, and Malcolm Bowman

**Strategic Plan Steering Committee:** Kirk Cochran (Chair), David Bowman, Kar Chang, Carol Dovi, Darcy Lonsdale, Marianne McNamara, John Murray, Bradley Peterson

## **Abbreviations Used**

ESHOP: SoMAS Electronics Shop

GPC: Graduate Programs Committee

GPD: Graduate Programs Director

ITPA: Institute for Terrestrial and Planetary Atmospheres

MSRC: Marine Sciences Research Center

NGO: Non-governmental organization

OVPR: Office of the Vice President for Research

SoMAS: School of Marine and Atmospheric Sciences

UPC: Undergraduate Programs Committee

UPD: Undergraduate Programs Director

VPR: Vice President for Research (Stony Brook University)