Sustainable Coastal Communities
Strategic Planning

January 28, 2010

Name of Program:

Original name of program was Coastal Community Development (CCD); subsequently changed to Coastal Community Enhancement Initiative (CCEI). Does the name of the program give us the recognition we need and want? The national Sea Grant focus team is called "Sustainable Coastal Development. Adding the word "sustainable" to the program title makes us coincident with national initiatives and more clearly articulates the mandate dating back to the original funding request. The word "development" has a lot of connotations. These are not all negative (e.g. economic development, community development), but it does send a mixed message.

> - **ACTION:** Change the name of the program to **Sustainable Coastal Communities**.

Overall Mission:

We never agreed on a mission statement when the original program started. See mission statement below.

> - **ACTION:** Adopt a mission statement
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>   The mission of the UD Sustainable Coastal Communities Initiative is to coalesce expertise from across the university, and elsewhere, to provide science-based information, through applied research, outreach and training to help analyze and offer solutions to the issues and challenges facing coastal communities in the state of DE to help them achieve their sustainable development goals.

Coastal Community Issues:

Population Growth. The state of Delaware is undergoing a period of unprecedented population growth and development, especially along its coastal zone and associated watersheds. Population growth in the already saturated coastal area grew by more than 50 percent between 1990 and 2000. Certain areas along the coastal fringe more than doubled their population since the 1990 census estimates. Sussex County, Delaware's southernmost county, with its access to Delaware Bay, the Atlantic Ocean, and the Inland Bays, is the fastest growing county in the state. Because of its proximity to four major metropolitan areas (Washington, D.C., Baltimore, Philadelphia, and New York City), eastern Sussex County is rapidly transitioning into a major mid-Atlantic tourism and retirement destination.

Hazard Resilience. The rapid development and urbanization of the coastal zone has resulted in an explosion in the number of residents, visitors, homes, and infrastructure exposed to coastal processes,

beach erosion, and storm hazards. Delaware coastal communities are at risk from a variety of natural hazards such as winds, waves, and floods generated by coastal storms. Additional threats to coastal development result from the dynamic nature of the land/sea interface — the constant impact of waves, longshore currents, and sea-level rise on sediment transport resulting in short- and long-term shoreline change. Climate change will further exacerbate these impacts on coastal communities. Delaware, like many other coastal states, must deal with the problem of eroding beaches. As the need for beach nourishment increases each year, and the cost of keeping sand in front of coastal communities rises, the ability to build beaches to last as long as possible and best serve those who pay for it becomes increasingly imperative.

Sustainable Coastal Development. In addition to the physical changes along the shoreline and potential for storm hazards, the growing population has caused congested highways and greater impacts on the state's natural resources. Coastal communities need sustainable development policies. Insightful planning requires awareness of a community's natural capital and a commitment to sustainability. Many small towns and communities throughout Sussex County, in particular, do not have professional, experienced land-use planners on their staffs to meet the challenges presented to them as the county experiences severe growing pains. Although state law requires local communities and the county to develop comprehensive land-use plans that address sprawl, balance growth, and protect the environment, results have been slow to materialize. Preserving open space and conserving agricultural land is also becoming a major concern. Places we assumed were open space — working farms, coastal areas with panoramic vistas of our bays and coastline, quiet country roads — are being converted to residential developments, retail outlets, schools, and workplaces. As growth continues, protecting water quality and preserving natural resources in the coastal region has become increasingly difficult.

Healthy Coastal Ecosystems. State resource managers are faced with an array of environmental problems and issues related to point and non-point source pollution from municipal, industrial, and agricultural sources. Current issues of concern include reduced water quality, anoxia and hypoxia, macroalgal and toxic algal blooms, declining fishery stocks, habitat loss, reduced biodiversity, and non-native species introductions. These environmental problems and trends pose a serious long-term threat to Delaware's coastal ecosystems and, if left unchecked, will impact public health, economic stability, and overall quality of life in Delaware's coastal communities.

Balancing Public Access to Multi-Use Resources. Like many coastal communities across the nation, Delaware resource managers seek to balance stakeholder access to multi-use resources. This means managing conflicting goals to ensure sustainable environmental and economic benefit. Coastal tourism is an economic force in the state, with more than 5 million visitors contributing more than $665 million to Delaware's economy. The majority of this tourism occurs in Sussex County, but significant activity occurs in smaller communities adjacent to Delaware Bay, which supports thousands of full-time and seasonal jobs. Sportfishing and recreational boating are examples of activities that have considerable economic impact, with nearly 50,000 boats registered and about 100 marinas situated throughout the state. The charter boat industry and recreational fisheries contribute millions of dollars to Delaware's tourism economy. Delaware saltwater anglers spent in excess of $97 million pursuing their sport in 2006. Nature-based tourism is emerging as an "environmentally-friendly" form of tourism and creating significant interest from many entrepreneurs.

Overall Goals of the Coastal Community Initiative:

The primary goal is to deliver science-based information to aid in decision making that aid in fostering:
- o Healthy coastal economies that include a diversity of economic possibilities, an abundance of recreation and tourism opportunities, and coastal access for all citizens;
- o Coastal communities that make efficient use of land, energy and water resources and protect the resources needed to sustain coastal ecosystems and quality of life;
- o Coastal citizens, community leaders, and industries that recognize the complex interrelationships between social, economic and environmental values in coastal areas and work together to balance multiple uses and optimize environmental sustainability.

Proposed Focus Areas:

To address these issues the coastal community initiative will focus on two main areas: Sustainable Coastal Development and Coastal Hazard Resiliency. Specific foci within these areas include:

- *Sustainable Coastal Development.* Research and outreach that provide information and techniques that enhance waterfront-related economic activities. This includes engagement of coastal communities in planning processes that support the efforts of community leaders to identify and pursue sustainable economic development and recognition of the need to balance the multiple uses of these resources. Specific areas of interest to the Sustainable Coastal Communities Initiative include:
  - o Research and outreach activities that provide local communities with information and techniques to enhance waterfront-related economic activities in a sustainable way (e.g., climate prosperity).
  - o Research and outreach activities that help coastal communities address issues related to natural resource planning from a multi-user perspective.
  - o Innovative research (science/engineering/policy) that quantifies and translates opportunities for coastal-ocean renewable energy technologies and promotes sustainable land-use practices.
  - o Partnerships with federal, state, and local agencies and others to enhance development of and support for best practices to foster sustainable economic development in coastal communities.

- *Hazard Resilience in Coastal Communities.* Science and policy research and outreach that provide an informed basis for assessing the risks associated with living and working in coastal communities. This includes the development of strategies that will help us mitigate and adapt to climate change. Specific areas of interest to the Coastal Communities Initiative include:
  - o Research aimed at improving forecasting of coastal hazards (e.g., storm flooding and inundation, sea-level rise) for decision makers and the coastal communities they serve.
  - o Partnerships to develop education and literacy programs focused on the impacts of climate-related changes on coastal communities.
  - o Programs that help decision makers adopt policies that will reduce risks, manage catastrophic events, and speed recovery.
  - o Developing and/or making accessible state/regional databases that support hazard-related planning.

Stakeholders/Target Audiences:

The CCEI efforts should be directed to many different stakeholders and audiences, from the general public (residents of towns and the county) to elected and appointed officials within towns/county to the business community and state agency officials. There may be many opportunities to work in partnership with many stakeholder groups, other times we need to direct services and programs to targeted audiences.

- **ACTION:** CCEI should take advantage of stakeholder representation on advisory infrastructures that are already in place (e.g., SGAC).

  Feeling is that coastal community stakeholders are varied and current advisory infrastructures already in place don't adequately represent the diverse set of stakeholders that we are currently working with; where possible, current advisory structures will be consulted.

Geographic Focus:

The focus of the original document was clear. The coastal community efforts would focus on Sussex County, DE. There may also be opportunities to work regionally with colleagues in MD and VA on the Delmarva Peninsula on similar, regional issues. There is also potential to develop opportunities to work on coastal community issues in Kent and New Castle County (e.g. focus on DE Estuary and partnering with the Partnership for the DE Estuary).

- **ACTION:** Clearly focus activities on Sussex County coastal communities and take advantage of opportunities to initiate regional actions around commonalities.

Identifying Priority Actions:

Initially we need to be aligned with coastal community priorities as articulated by the state and by Delaware Sea Grant. At some point a formal needs assessment should be conducted. Currently the 3 partnering college representatives (Falk, McGowan and Dworsky) are driving this in a manner that meets individual unit needs but is not integrated into a larger picture for the state's coastal communities.

- **ACTION:** Develop a strategic plan and logic model.

  See attached Sustainable Coastal Communities Strategic Plan Logic Model (2009 – 2014).

Program Leadership/Building Program Capacity:

To move the program forward we need a director and a part-time communicator.

- **ACTION:** Initiate a search for a Director.

  Still may be somewhat risky until we find out the fate of the program's budget in the next fiscal year. Need to discuss further.

Internal (UD) Advisory Board:

There is a need for an internal board that is aware of UD's intellectual assets and can help to focus them in an integrated way according to the coastal community initiative's strategic plan.

> - **ACTION:** With the assistance of the deans, create an internal UD advisory board (possibly up to 5 individuals) to help harness the assets of the university to strengthen the program's research and public service mission.

Program Advisory Committee:

We should identify external advisors who work with sustainable coastal communities at the national level to give feedback and ideas for the program and to evaluate progress.

> - **ACTION:** Put together a team of three to five external advisors from nationally recognized coastal community programs.
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>   There are two parts to this action: (1) develop a local advisory committee of stakeholders to help provide guidance and feedback on programmatic goals and objectives on an annual basis; (2) Select 3-5 individuals working in coastal community programs nationally to review the program every 5 years and provide a critical, thorough review of the program to insure it remains vibrant and effective.

Competitive Funding Awards:

Competitive funding of projects aligned with the programs strategic initiatives ensures that the work is broadly integrated and has been vetted through a proposal process. It assures broad University participation and selection of merit-based proposals.

> - **ACTION:** Go back to the original competitive funding process that the coastal community program used. Generate and widely disseminate an RFP that describes program and articulates specific focus areas. There is not adequate time to follow through with this approach in 2009-2010 cycle, but we plan to re-institute when next budget cycle begins.

Student Support (Graduate/Undergraduate):

Student support is an important component of program funding. Students funded under the program should be on projects that relate to the strategic plan and are part of projects funded under the RFP. A separate summer internship for undergraduates would be a great way to highlight the program. Students accepted under this rubric should be assigned to work with project PI funded through the coastal community program. They should have clear goals and integrate, where appropriate with other summer interns to enhance their experience (e.g., with NSF REU summer interns).

- **ACTION:** Identify specific dollar amounts needed for a summer intern program. Make it clear that graduate student support is built into the research projects. Set explicit guidelines to note this is how graduate funding should occur.

- There are two specific components to this action item. (1) Graduate Students – We have typically allocated funding for graduate student support in IPA and CEOE. Dworsky and Falk have selected students and oversee their assignments. They are not assigned to funded research, but rather are assigned individual projects to undertake during a semester. This has had mixed results depending on the amount of time mentors can provide to students. (2) Undergraduate Summer Internship – This program worked well the first time it was offered in summer of 2009. Three undergraduate students were selected from different institutions and did a fine job carrying out a team assignment. It is a worthwhile effort that still needs some work, and we plan to offer the program again during the summer 2010.

Budget Distribution and Other Budgeting Issues:

When we prepared the first year work plan and budget, we attempted to identify specific allocations for various budget lines. See Year 1 budget below. We never adhered to this budget primarily because we failed to hire a full-time director for the program. We should identify those line items where we can set fixed allotments.

3-College Coastal Community Initiative Proposed Budget Year 1 (2006 – 2007)	
Budget Item	**$ Amount**
Coastal Community Development Specialist (CCDS)*	$70,000 (estimated)
Fringe Benefits (based on 30%)*	$21,000 (estimated)
Graphic Designer for Web site Design and Maintenance	$15,000
Graduate Students (3 @ $15,000)	$45,000
S & E Support for Graduate Students (Travel, etc)	$3,000
Coastal Fellow Summer Interns (3 @ $5,000)	$15,000
S & E Support for Interns (Travel, etc)	$3,000
Support for Applied Research/Outreach Projects	$35,000
Program Oversight/Management (20% of Total)	$60,000
Workshops/Seminars	$15,000
Travel For CCDS	$5,000
S & E for CCDS	$4,000
Miscellaneous.	$9,000
TOTAL	**$300,000**
* Surplus Year 1 funds if CCDS isn't hired until January 1. 2007 (assume ½ of Salary and benefits)	$45,500

- **ACTION:** Develop a current budget plan on an annual basis.

Web site:

Website is currently under development. There is a lot of content and the expectation is that it will be a vibrant, dynamic working web site by the end of the year. The next step is to keep it current and develop a process to let interested audiences know it is available.

> - **ACTION:** Hire a part-time communicator to help with content maintenance for the website (among other duties).
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>   We support the idea of hiring a part-time communicator to work 20-25 hours/week. A major challenge to moving the program forward is finding time to "get our story" out about the good things the program has been doing during the past three years. We would need to find someone with web skills as well as traditional communication skills (e.g. writer, editor, etc.). We will plan to pursue this with H.R. and determine the best approach. In the interim, we plan to hire an individual to get our web site in good fashion. The basic shell has been developed, and now we need to upload much content that we have developed.

Linking to other Coastal Community Initiatives:

There are numerous regional and national efforts that are addressing coastal community issues. We need to be better linked into them for the following reasons: (1) Visibility; (2) Funding opportunities; and (3) Best management practices. Climate change adaptation for coastal communities seems to be a major focus area in NOAA and other federal agencies. We should definitely be able to leverage our state line funds (no indirect costs) to secure additional funding from federal sources.

> - **ACTION:** Hire a director who can pursue external funding to leverage the state's dollar commitment.
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>   Plans to hire a full-time director are still on hold until we see what the budget situation looks like for FY 2011. Currently, Falk, McGowan and Dworsky are searching for opportunities to leverage state coastal community funds with federal grant dollars.

Accountability/Reporting:

It is critical to prepare annual reports that account for our activities and to highlight the activities throughout the year to coastal community stakeholders.

> - **ACTION:** Hire part time communicator. See response to Web site action item.

Measuring Results:

We can never know our impact unless we have metrics to evaluate our success as a program. Short-term and long-term goals should be accompanied by metrics that assess whether the goals have been met.

> - **ACTION:** Include assessment metrics in the strategic plan.
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>   Strategic plan logic model includes outcomes and performance measures (see attached plan).

Other Thoughts/Ideas to Explore:

Another possible project idea is to develop a grant program with municipalities. For example, reserve $75,000 to use as cost-share funds with municipalities that want to engage in a project to enhance their coastal community. This could include working with DE Sea Grant, Cooperative Extension, and/or IPA staff (or other UD researchers) on improving stormwater management systems, drafting new community land use ordinances, conducting community visioning projects, or investigate renewable energy options. The possibilities are numerous, but the key would be that the community would need to work with DE Sea Grant staff members, or other university researchers.