

Virginia Coastal Zone Management Program

Section 309 Needs Assessment & Strategy

*Submitted to
NOAA Office of Ocean and Coastal Resource Management
February 2011*

Approved April 2011

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I. Introduction

The Virginia Coastal Zone Management Program was established in 1986. The Department of Environmental Quality (DEQ) serves as the lead agency of a network of state agencies that administer state regulations and policies to protect and enhance coastal resources. Other agencies in the network include the Virginia Marine Resources Commission (VMRC), the Department of Conservation and Recreation (DCR), the Department of Game and Inland Fisheries (DGIF), the Department of Health (VDH), the Department of Forestry (DOF), the Department of Agriculture and Consumer Services (VDACS), and the Department of Historic Resources (DHR), Virginia Institute of Marine Science (VIMS), Virginia Department of Transportation (VDOT), Virginia Department of Mine Minerals and Energy (DMME) and eight Coastal Virginia Planning District Commissions (PDCs).

Section 309 of the Coastal Zone Management Act (CZMA) is known as the Coastal Zone Enhancement Program. Established with reauthorization of the CZMA in 1990, Section 309 is a voluntary grant program in which federal funds are made available to coastal states with federally approved coastal management programs. To receive funds, the programs must assess nine specified areas of coastal zone management as they relate to the state and identify which are of highest priority. The nine areas are: public access, coastal hazards, ocean resources, wetlands, marine debris, cumulative and secondary impacts, special area management planning, energy and government facility siting, and aquaculture.

In 1997, Virginia developed a three-year Assessment and Strategy that addressed each enhancement area of Section 309 and identified five high priority areas (public access, hazards, cumulative and secondary impacts, SAMPs, and aquaculture). These areas were selected based on the recognized need for regulatory or program changes. Based on the highest priority of need and high likelihood for success, three strategies were developed for the FY'97-FY'99 period: SAMPs for Northampton and Southern Watershed Areas, and Aquaculture.

In 2000, Virginia developed a five-year Assessment and Strategy that identified five high priority areas with seven proposed strategies: 1. Wetlands: Wetlands Regulatory Programs Strategy; 2. Coastal Hazards: Dune Management Strategy; 3. Cumulative and Secondary Impacts: Shoreline Management Strategy and Clean Marina Program Strategy; 4. SAMP: Southern Watershed Area Strategy, and Dragon Run Area Strategy; and 5. Aquaculture: Aquaculture Management Strategy.

In 2005, Virginia developed a five-year Assessment and Strategy that identified six high priority areas including: 1. Wetlands; 2. Public Access; 3. SAMPs; 4. Aquaculture; 5. Coastal Hazards; and 6. Cumulative and Secondary Impacts. To address these priorities, the Coastal Program developed these six key strategies: A. Intergovernmental Decision-Making (CSI); B. Shoreline Management (CSI, wetlands, public access); C. Prioritizing Conservation Corridors (CSI, wetlands); D. Dragon Run SAMP Implementation (SAMP); E. Seaside of Virginia's Eastern Shore (SAMP); F. Management Initiatives for Shellfish Aquaculture (Aquaculture); and G. Administrative Actions: Data Collection, Indicator Development, Program Changes and the 2010 Coastal Needs Assessment and Strategy (Public Access and other areas).

This report presents Virginia's 2010 Assessment of the nine enhancement areas. The analysis and strategy preparation was completed using the National Oceanic and Atmospheric Administration's (NOAA) final Section 309 Guidance (February, 2009). Assessment questions prepared by NOAA helped to update and determine the current status of each enhancement area. Upon completion of the draft assessment, the Coastal Policy Team, comprised of the agencies noted above, met on February 17, 2010 to review and prioritize the nine assessment areas for the next five years of work through 2015.

The Coastal Policy Team used the criteria listed below to determine the priority for each area. Team members individually ranked each area on scoring sheets, considering each area on its own merits. Individual scores were combined and the overall ranking of the areas posted for reflection and discussion by Team members. The Team discussed whether arguments could or should be made to increase or lower the priority of any area, and then by consensus decided on the priority assigned to each area.

1. Feasibility: Could progress be made within the time and financial constraints? Is successful development of enforceable policies likely? Is adoption of enforceable policies likely?
2. Importance: Is there a significant threat in this enhancement area? How valuable (economically or ecologically) is the coastal resource?
3. Appropriateness for the Coastal Program: Is this an issue that other agencies are not addressing? Is there a need for coordination of efforts within Virginia?

With each criterion valued at up to 5 points, the assessment issues were ranked on a total scale of 1 to 15. Final ranking for all issues resulted in point scores of 9.22 to 12.2 and therefore eight issues technically ranked as "High" and one issue (Marine Debris) ranked as "Medium." Therefore all nine issues were eligible for strategy development. However, based on needs identified in the 309 assessment process and Coastal Policy Team discussion, the Virginia Coastal Zone Management Program was able to prioritize the issues further by taking into account the following things:

- The two highest ranking issues (CSI and SAMPs) would have strategies developed
- The 3rd ranked issue (Hazards) and the 5th ranked issue (Wetlands) would be considered through a CSI strategy on shoreline management.
- The 4th ranked issue (Aquaculture), while highly important, has had continuous 309 strategies since 1996. At this point, one of the most important policy development needs may be the appropriate allocation of submerged lands for shellfish aquaculture in light of other potential uses. In other words, coastal/marine spatial planning, which is being dealt with through the Seaside Special Area Management Plan as a pilot CMSP project for Virginia. The CSI strategy on working waterfronts should also help support aquaculture by preserving the necessary infrastructure.
- The 6th ranked issue (Energy & Government Facility Siting) would be absorbed in the Ocean Resources strategy through a marine spatial planning effort.
- The 7th ranked issue (Public Access) is not addressed but is under consideration for a 3 year Section 306 "Focal Area" because the needs are more in public access acquisition and construction rather than policy development.

- The 9th ranked issue (Marine Debris) would also be absorbed into the Ocean Resources Strategy because it is one of the issues that the Mid-Atlantic Regional Council on the Ocean, of which Virginia is a member, is addressing. The Ocean Resources strategy would complement and support MARCO efforts.

In summary, the Virginia CZM Program will focus its attention and efforts on the following three issues over the next five years:

1. Cumulative and Secondary Impacts of Growth and Development
2. Special Area Management Plans
3. Ocean Resources

The Virginia Coastal Zone Management Program has solicited input from its partners and constituencies to develop strategies to address specific issues in each of these high priority areas that are deemed appropriate for Virginia CZM action. Focus groups were convened for each category, Ocean Resources (Marine Spatial Planning and Marine Debris) on March 24, 2010 and Coastal Resources (CSI, SAMPS) on March 31, 2010. These meetings led to additional strategy work group meetings: MSP and Marine Debris as part of Ocean Resources on June 2, 2010; Working Waterfronts as part of CSI on June 30, 2010; Land and Water Quality Protection as part of CSI on July 1, 2010; and Seaside SAMP on June 17, 2010. From these meetings, potential strategies have been developed and are included immediately following the assessments in this document.

The Virginia CZM Program also conducted a public review and comment period from December 1, 2010 through January 3, 2011. During this time an announcement of the opportunity to review and comment on the draft Section 309 Assessment and Strategy document was made in the Virginia Regulatory Town Hall web site as well as on the Virginia CZM web site. A pdf version of the draft Section 309 Assessment and Strategy document was made available for review from the Virginia CZM web site. Written comments that were received during this time frame are included in an appendix at the end of this document.

II. SUMMARY OF COMPLETED 309 EFFORTS (2006-2010)

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
	FY 06	FY 07	FY 08	FY 09	FY10	
Program Implementation (Administrative Actions)	\$20,000	\$67,898	\$70,000	\$62,344	\$30,000	\$250,242
CSI: Intergovernmental Decision-Making	\$158,000	\$70,000	\$50,000	\$38,350	\$98,000	\$414,350
CSI: Shoreline Management	\$150,000	\$150,000	\$150,000	\$191,590	\$150,000	\$791,590
CSI: Conservation Corridors			\$71,000	\$93,716	\$153,000	\$317,716
SAMP: Dragon Run	\$69,000	\$56,000	\$50,000	\$14,000	\$25,000	\$214,000
SAMP Seaside		\$52,102	\$75,000	\$80,000	\$80,000	\$287,102
Aquaculture & BMPs	\$139,000	\$140,000	\$70,000	\$56,000		\$405,000
TOTAL	\$536,000	\$536,000	\$536,000	\$536,000	\$536,000	\$2,680,000

Program Implementation

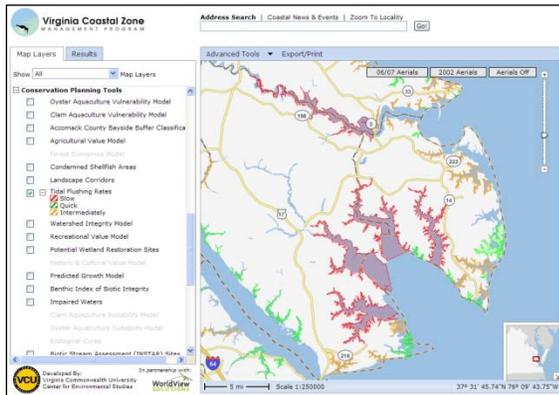
This portion of Section 309 funds, although not a separate strategy, was used to support administrative actions related to Virginia's Section 309 Needs Assessment and Strategy. A portion of the funds were used for contractual services from the Environmental Law Institute (ELI) to analyze past routine program changes regarding fisheries, sand dunes and beaches, wetlands, and state implementation of Clean Water Act and Clean Air Act provisions, and to prepare program change packages for submission to NOAA. NOAA approved Virginia's submission in June, 2010. Other funds were used for additional contractual services from ELI for a special study of potential impacts to Virginia's coastal environment from offshore energy development activities and the possible need for program changes related to these activities. In addition, funding was provided in years two and three to support one half of a Virginia CZM program staff position to manage the shoreline and conservation corridor portions of the Section 309 Strategy. In year four, funds were allocated to the Institute for Environmental Negotiation at the University of Virginia to assist in developing the 2010 Section 309 Needs Assessment.

Cumulative and Secondary Impacts

STRATEGY: Intergovernmental Decision-making

This strategy focused on identifying and minimizing coastal resource use conflicts, and creating stronger linkages between local land use plans and state and federal water use policies by exploring intergovernmental agreements to proactively consult the Coastal Geospatial and Educational Mapping System (Coastal GEMS), a tool-based Web resource, to view and analyze the state of Virginia's coastal resources in the face of increasing coastal development. Additionally, by providing the most up-to-date data to all stakeholders in the coastal zone through Coastal GEMS, all interested parties could help identify additional information (i.e. gaps) needed to better manage our coastal resources which could lead to modifications of the current regulatory structure.

During this 309 funding cycle the following actions toward Coastal GEMS expansion enhancement and promotion were undertaken:



The Coastal GIS Coordinator met with VCU and WorldView Solutions to facilitate workflow involved in maintaining, enhancing, and marketing Coastal GEMS. Over 20 data layers were either updated or added to Coastal GEMS during FY2007-2008. These data include: *Conservation Lands, Important Bird Areas, Essential Wildlife Habitat, Condemned Shellfish Areas, Private Oyster Leases, Constructed Oyster Reefs, Clam Aquaculture Vulnerability Model, Oyster Aquaculture Vulnerability Model, Tidal Flushing Rates and*

layers associated with the VCLNA (Recreational Value Model, Watershed Integrity Model, Agricultural Value Model, Forest Economics Model). Data layers were processed for effective display on Coastal GEMS and then uploaded to a test IMS site where CZM staff could review symbology before they were added to the Coastal GEMS application.

Instead of developing a separate Coastal GEMS Advisory Committee, it was decided that the Coastal GIS Coordinator would utilize the existing coastal policy team and other ad-hoc advisors to identify and prioritize geospatial projects.

Additionally, a Coastal GEMS training program was created and implemented. This program included a presentation about Coastal GEMS and why/how it was created, a live demonstration of the Coastal GEMS site tailored to the specific needs of the audience, and a handout with information about Coastal GEMS and available data layers. Information regarding GEMS training was posted to the GEMS website and publicized to CZM partners. Nine formal GEMS training sessions were also conducted during FY2007-2008.

Finally for Coastal GEMS, the development of MOU's and official data sharing agreements was explored, but ultimately deemed unnecessary due to existing willingness and support of partners to provide data and promote Coastal GEMS. The Coastal GIS Coordinator produced coastal resource maps and made GIS based calculations for CZM staff to utilize in meetings and presentations and for articles in the CZM magazine and produced maps as requested for CZM partners.

In addition to the enhancements to Coastal GEMS, this strategy included a two-year pilot project (FY06 & FY07) with the Middle Peninsula Planning District Commission (MPPDC) for applying GEMS as a tool to manage use conflicts. From this, the York River Use Conflict Roundtable was established among a cross section of representatives of varying, and often conflicting, uses of the York River. The Committee worked in small groups to analyze a York River study reach that consisted of comprehensive maps of the existing uses, demographics, and designations of the York River waterfront. This resulted in creation of a matrix of all identified use conflicts in preparation for the next phase of the project to frame the public policy question "Who should manage use conflict?" A York River Use Conflict Policy Recommendation

Committee was established, comprised of Roundtable members as well as state agency representatives to develop appropriate tools and policies. The Committee addressed known issues and conflicts affecting the study area to ensure that a comprehensive analysis of the issues had been achieved. The Committee arrived at seven recommendations for consideration by the Gloucester County Board of Supervisors:

Recommendation 1 –Develop and adopt a Coastal Living Policy to educate and inform County residents.

Recommendation 2 –Denote the County’s Land, Air and Water territorial boundaries in the County’s Comprehensive Plan and supporting maps.

Recommendation 3 –Take no action for now regarding aquaculture within the County’s jurisdiction.

Recommendation 4 –Develop and adopt a policy for the protection of working waterfronts.

Recommendation 5 –Develop and adopt a Waterfront Outdoor Lighting Ordinance.

Recommendation 6 –Develop and adopt a policy restricting floating homes within the County.

Recommendation 7 –Develop and implement a master plan for public access infrastructure to ensure safe and equal water access for all user groups to the waterways within the County.

All recommendations were adopted by Gloucester’s Board of Supervisors, and the county has established a “Coastal Community Committee” to address implementation. Currently, the Board is considering adoption of a draft Coastal Living Policy to pave the way for further action. Technical work and other products from the York River Use Conflict Committee are being incorporated in the comprehensive plan as it is updated. Examples include denotation of county’s land, air and water territorial boundary.

STRATEGY: Shoreline Management

Waterfront development has altered Virginia's shoreline, often in ways that can be detrimental to habitats and water quality. In particular, many low energy shorelines have been hardened with revetments and bulkheads where less damaging techniques for managing shoreline erosion could have been employed. In many of these cases shoreline erosion could have been managed through a "living shoreline" approach that maintains, or even expands, the habitat and water quality protection benefits of natural shorelines.



This strategy built on progress made during the previous 309 Strategy to integrate riparian and near-shore management objectives and improve shoreline management practices. As a result of this strategy, the various agencies involved in shoreline management are now better able to promote living shoreline techniques and reduce the cumulative and secondary environmental impacts of waterfront development on shorelines. The strategy included a number of components:

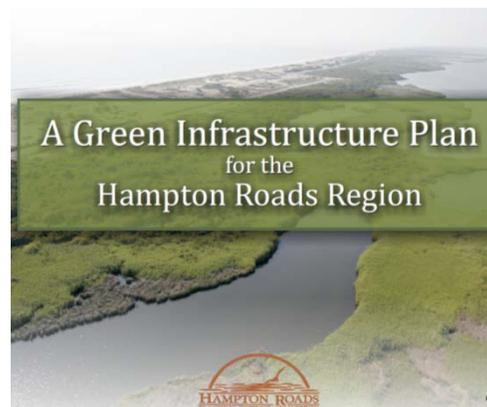
- A "Living Shoreline Summit," (held December, 2006) with peer reviewed proceedings, to advance the use of this management technique
- Revised "Wetlands Guidelines" to be used by the Virginia Marine Resources Commission, the Virginia Institute of Marine Science, local wetlands boards and others to guide decisions about shoreline and tidal wetlands management.

- Improved data in the form of local shoreline inventories and evolution reports to support more informed shoreline management decisions and provide background for local shoreline plans to be developed in the future
- Research to document the habitat value of living shorelines and to improve their design
- Guidance for local governments to use in shoreline management planning
- Outreach materials for land use decision-makers, landowners and contractors on living shoreline advantages and design principles
- A training program for contractors and local government staff on living shoreline practices
- A report on improving management of Virginia's dune and beach resources, including proposed revisions to the Coastal Primary Sand Dunes and Beaches Act
- Changes to the Coastal Primary Sand Dunes and Beaches Act by the Virginia General Assembly to expand the legislation to cover the entire coastal zone (submitted to and approved by NOAA as a Routine Program Change)
- Revisions to the Coastal Primary Sand Dunes and Beaches Guidelines
- A peer-reviewed manuscript *Using Science to Create Dune and Beach Protection Policy in Virginia* published in the Journal of Coastal Research.

STRATEGY: Conservation Corridors

Population growth and development in many urban and suburban areas of Virginia's coastal zone has resulted in significant habitat fragmentation and the loss of many wetlands and riparian buffers that help protect water quality. For this reason, the Virginia CZM Program has invested in the development of conservation corridors throughout the coastal zone beginning with a model system created in the Hampton Roads planning district which prioritizes areas for preservation and restoration based on a number of data layers and local input.

During this 309 funding cycle additional work was conducted to update the Hampton Roads conservation corridor network. The original green infrastructure network (FY2004 Task 51) was updated by incorporating more current data into the geographic information systems (GIS) model. There were also several discussions with a diverse group of stakeholders that led to improvements in the green infrastructure plan. The change between the original green infrastructure network and the update that was finalized in this project was also analyzed. A *Vulnerability to Development* model was also created in order to predict where future growth will occur in the region and how the green infrastructure network will be impacted. This gives planners a tool to prioritize land acquisitions in the face of limited funding. The project also analyzed the potential impact of sea level rise on the green infrastructure network. Additionally, an updated parks and recreation database was created in GIS.



To expand this system to a network of identified and locally accepted conservation corridors for Virginia's entire coastal zone, additional 309 projects were contracted for FY2009 and FY2010. Focused in Northern Virginia (Task 97.02) and Middle Peninsula (Task 97.01), these projects are

designed to identify green infrastructure and develop public policy recommendations. Anticipated outcomes for these grants include: mapped conservation corridors, analysis on the benefits of corridors for pollutant removal and carbon sequestration, an educational fact sheet on the practical uses and benefits of green infrastructure, public policy recommendations and their endorsement, an analysis on the economic impacts of conservation easements, and possible routes for the Potomac Heritage National Scenic Trail.

Finally, in FY08, the Middle Peninsula Planning District Commission conducted a project to analyze the effects that a change in Virginia Department of Health (VDH) Sewage Handling and Disposal Regulations in 2000 has had on development patterns within many Virginia localities. The regulations allowed new engineered onsite sewage disposal system (OSDS) technologies to be installed on “marginal lands,” or land that that would not normally support a traditional gravity fed septic systems. This change has resulted in erratic development patterns inconsistent with comprehensive planning goals of the affected localities.

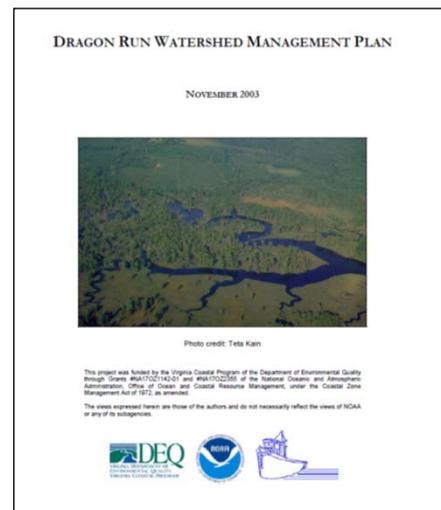
To inform local elected officials and local planning staff of various consequences of existing land use planning and to encourage the need for additional or amended public policy as it relates to land development and OSDS, this project inventoried and mapped permitted engineered OSDS across the Middle Peninsula. MPPDC staff worked closely with VDH to collect spatial data of engineered OSDS permitted from 2004-2008. This project was a continuation of a previous CZMA grant (NA17OZ2335 Task 84), where OSDS installed and permitted from 2000-2004 were inventoried and mapped. Therefore, data from the previous project was combined with data collected in this year’s project in order to generate both county and town maps of OSDS proliferation from 2000-2008 within the Middle Peninsula.

Through an assessment of the maps, MPPDC staff found that within the Middle Peninsula [from 2000-2008] there were 1,208 installed OSDS and 2,006 permitted OSDS awaiting installation; this infrastructure equates to approximately \$57,852,000.00 in total private sector investments. From this analysis MPPDC staff can work with local elected official and local planning staff to convey the implications of these land use development issues and policies.

Special Area Management Plans (SAMPs)

STRATEGY: Dragon Run

The Virginia CZM program has been investing in the Dragon Run watershed through a Special Area Management Plan (SAMP) since 2001. The Dragon Run SAMP mission has been to support and promote community-based efforts to preserve the cultural, historic and natural character of the Dragon Run, while preserving property rights and the traditional uses within the watershed. The Dragon Run Watershed Management Plan developed through this effort was originally adopted in 2003 by Essex, Gloucester and King and Queen Counties.



During the 2006-2010 grant cycle, the SAMP focused on three areas of implementation: 1) new zoning and comprehensive plans, 2) public access/conservation lands management and 3) sustainable economic development practices.

Land-use planning has been an instrumental component of the Dragon Run SAMP. Assisting the watershed localities with developing tools to facilitate the long-term protection of the watershed through compatible and consistent comprehensive plan and zoning ordinance language has been integral to SAMP goals. During this grant cycle, the SAMP has focused on working with county planning staff, planning commissions, boards of supervisors and comprehensive plan steering committees to integrate language recommendations into planning tools. Based on Dragon Run SAMP recommendations, King and Queen County adopted revised zoning ordinance language to reconfirm its commitment to recognize the Dragon Run as a significant area. Gloucester County has included a substantial section on the Dragon Run in its draft comprehensive plan based on the SAMP recommendations and is hoping for plan adoption in the summer 2011. Essex County has included Dragon Run recommendations in the working draft of their update to the comprehensive plan and hopes to adopt the plan in Spring 2011. Middlesex County adopted a comprehensive plan that includes some of the Dragon Run land-use recommendations, and has recognized the importance of other land-use tools recommended by the SAMP, including Agricultural and Forestal Districts, Purchase of Development Rights (PDR), Transfer of Development Rights and the use of conservation easements by private landowners.

As public access opportunities have increased throughout the Dragon Run watershed, understanding public and private rights for access and reducing the potential for conflict between public resource users and private landowners is becoming increasingly important. MPPDC staff developed a code of conduct that is based on the Public Trust Doctrine as it pertains to the public's right for ingress and egress of waterways such as the Dragon Run. This guidance was integrated into a brochure and its principles were conveyed to public access entities, such as the Middle Peninsula Chesapeake Bay Public Access Authority. Additionally, these entities were asked to apply the code of conduct to their holdings in the watershed. Specifically, four of these entities adopted site specific management plans that included the code of conduct in 2008 and early 2009 (see next section).

Public and non-governmental organizations (NGOs) acquiring conservation lands in the Dragon Run Watershed have become increasingly successful. It has since become a priority to assure that these entities are managing their acquired lands in such a way that is consistent and compatible with the Dragon Run watershed management plan. Therefore, the SAMP, via coordination with managing entities and related partners, developed four management plans (Dragon Bridge – CBNERRs and Dragon Flats – TNC) utilizing Dragon Run Steering Committee conservation holding management recommendations both of which were accepted. MPPDC also drafted management plans for the Middle Peninsula Chesapeake Bay Public Access Authority (PAA) and the Friends of Dragon Run. The Friends of Dragon Run adopted its plan in early October 2008 and the PAA adopted in February 2009.

To promote the sustainability of traditional industries, such as farming and forestry, the Dragon Run SAMP identified a biodiesel partnership as a feasible watershed program. This partnership includes the role of portions of the biodiesel chain, including the soybean farmers, fuel distributors, biodiesel refinery, private fleets and school bus fleets to support the mission of sustainability of agriculture. Substantial work has been completed on the partnership, particularly gaining the commitment of the watershed school boards in using biodiesel in their fleets. The multiple prongs of the program include: 1) a purchase program for the schools and private industry, 2) education regarding utilizing blend levels to manage cost and 3) watershed education and market to expand the market. All of these aspects combined are aimed to provide both direct and indirect economic benefit to the watershed farming community.

The SAMP also initiated development of the Dragon Run Estate Planning Network Initiative (DREPNI). The purpose of the initiative is to provide collaboration between estate planning stakeholders to create a conservation hub in the Dragon Run watershed. Currently, 20,645 acres (or 23% of the Dragon Run Watershed) have been protected during this initiative. The majority of that acreage has been protected since the DRSC/SAMP started focusing on conservation planning in early 2006.

Finally, research through the Dragon Run SAMP, focused on gaining a quantitative understanding of conservation easements and their current fiscal impacts on Middle Peninsula localities, has clarified information on potential benefits that conservation easements provide to localities through their local composite index. In clarifying composite index calculations, the SAMP has identified a path for increased state funding for local schools based on the total value of land held within a county, less the easement value. This establishes quantitative proof that the locality is not as wealthy as it would be without the easement designation on land values, thus making the locality eligible for additional support for local schools. This information will supplement upcoming discussions among stakeholders in the Dragon Run watershed as well as within the Middle Peninsula region aimed at development of policy options and recommendations to address land conservation and its local fiscal impacts.

To date, all six Middle Peninsula commissioners of revenue have significantly increased their comprehension of the impact of conservation easements to their local tax base and its impact on the aid received from the state via the Composite Index. At least five have updated their valuation process to adequately and consistently account for the impact of the conservation easements. At least one of the commissioners of revenue has already had a dialog with the firm preparing the county's reassessment to discuss the assessment of conservation easements. At least one has changed administrative policies to better coordinate between the clerk's office and the commissioner's office due to this project.

Essentially, as a result of the SAMP governances have changed to be more efficient.

Additionally, interest in the model is being observed statewide. Lead conservation entities, like Piedmont Environmental Council, are starting to try to implement some of the recommendations from this project in other parts of the state. MPPDC staff has been invited to regional and statewide events to make presentations on the findings and recommendations.

STRATEGY: Seaside Special Area Management Plan

The Seaside SAMP strategy began in Year 2 (FY 2007) with two land-based projects and one water-based project. In the first land-based project Accomack County (Task 96.03) took the bold step of developing and adopting an Atlantic Preservation Area Ordinance that mirrors the protections afforded by the Chesapeake Bay Preservation Act. This protection now extends down the entire Seaside length of the Eastern Shore. The second project was establishment of CommunityViz software in both counties (Accomack and Northampton) that allowed them to project build-out of all lots give current zoning conditions. Results showed that current zoning would allow for nearly a tripling of current population – a concept that shocked many county planners however the Boards of Supervisors have still not acted on this information. The first water-based project was a grant to the Virginia Institute of Marine Science (VIMS) (Task 96.01) to assess high priority estuarine areas (blue infrastructure) on the Seaside where multiple resources (e.g. oysters, SAV) were co-located or closely grouped.

In Year 3 (FY 2008), the Seaside SAMP Project Team was established consisting of the CZM Manager, The Nature Conservancy (TNC), VIMS, the Marine Resources Commission

(MRC), representatives of the shellfish cultivation industry, and the Eastern ShoreKeeper. The overriding goal of the team is to design a management strategy that will maximize ecological and economic productivity of this extremely dynamic barrier island lagoon system. As barrier islands roll over on themselves and each new storm changes the bathymetry of this shallow area, conditions for bird nesting and foraging, shellfish and SAV growth change. Through grants to TNC, VIMS, and the ShoreKeeper (Tasks 96.01, 96.02 and 93.04 respectively), the Seaside SAMP Team is reviewing and analyzing existing spatial data to map current and potential future conditions as well as possible. Spatial analyses were conducted for bird nesting, foraging and resting areas; current and potential shellfish grounds and SAV beds; and heavily used recreation areas. Important bird habitats were widely distributed across the barrier island lagoon system with highest concentrations on edges of barrier islands and marshes. Maps are available in the final report. For shellfish and SAV, current distributions were mapped in relation to public (Baylor) shellfish grounds. Map analysis revealed that only 63 percent of the public grounds on the seaside are appropriate for wild clams and oysters and only 32 percent is appropriate for SAV restoration. It also revealed that while the current extent of SAV is only 20 km², the potential area is 131 km². Recreational use was more difficult to determine scientifically and to map definitively. However, results did reveal a pattern of use on the barrier island beaches, especially those places where beaches have washed over the islands completely or where they wrap around the tips of the islands to provide easy boat access from the western side of the island. Most boaters stayed close to channels near major launch sites. On the southern end of the system, there was a slight trend toward more divergent use of the marshes as boaters have less defined options for getting out to the inlets. Rather clear patterns were noted for fisherman departing from the E. Shore National Wildlife Refuge and Wachapreague and recreational boaters departing from Chincoteague tended to remain within that Bay.

In Year 4 (FY 2009), which was not underway until June 2010, the Seaside SAMP Team is targeting three representative areas for more in-depth spatial analyses of bird, shellfish and SAV data. The three areas are Central Hog Island Bay, South & Magothy Bays and Chincoteague Bay. The team will develop spatially explicit draft conservation and restoration objectives for oyster and eelgrass habitats. VIMS will conduct a statistical comparison between current use designations and those suggested by habitat suitability assessments with tin the three target study areas.

As the spatial data emerges, it has become clear that a large proportion of the public Baylor grounds (37%) are no longer productive for public shell fishing and that, at times, shellfish growers may be underutilizing their leased areas and would benefit from leasing other areas if we had a more nimble, flexible leasing system. What is needed is a dynamic management system that matches the dynamics of this ecological system. The Seaside SAMP has evolved into a complex “marine spatial planning” effort that could serve as a pilot for larger geographic areas.

In Year 5 (FY 2010) which will begin in winter 2010/11, the Project Team will seek to broaden its representation and begin to bring information to the public and solicit public response to various management options as they are developed.. The Seaside SAMP will extend for two additional years into FY 2011 and 2012.

Aquaculture

Strategy #1: Aquaculture BMP Provisions in Permits

This strategy was originally planned as a two-year, \$50,000 effort in years 3 and 4 (FY 08 and 09). Instead it was a two-year \$28,000 effort in years 1 and 2 (FY 06 Task 92.03 and 07 Task 92.03). Through grants to the Virginia Institute of Marine Science, this strategy completed development of a set of Best Management Practices for shellfish farming (including clams, oysters and any other shellfish that are likely to be cultivated in Virginia in the near future) for all of Virginia's waters. The shellfish aquaculture industry in Virginia continues to grow and shellfish farmers recognize their responsibilities to be good stewards of the environmental resources upon which their industry depends. At the same time, increasing coastal development and water-related activities contribute to user conflicts and misunderstandings surrounding the industry. In an effort to reduce these conflicts and better explain the shellfish cultivation process, an environmental code of practices (ECP) and best management practices (BMP) for the industry were developed by VIMS staff with input from industry and other interested individuals.

After two years in development, with public input sessions and draft documents mailed to industry participants, two separate documents were created. The first, "Environmental Code of Practices for the Virginia Shellfish Culture Industry," lays out the basic principles upon which all shellfish aquaculture should be based. It also served as the base from which the second document was developed. The second document is the "Best Management Practices for the Virginia Shellfish Culture Industry." This document identifies area of concern and offers suggested best management practices designed to minimize environmental or societal impacts by the culture industry. In addition, both the ECP and BMP received official endorsements from the Virginia Department of Agriculture and Consumer Services (VDACS), the VDACS governor-appointed Aquaculture Advisory Board, and the Virginia Farm Bureau Federation Aquaculture Advisory Committee. Both of these final documents were mailed to over 125 shellfish growers, along with a cover letter encouraging the voluntary adoption of the ECP and BMP principles. The industry and legislators were not receptive to including these BMPs as permit or lease conditions. Since these BMPs were developed and distributed to industry, they have been generally well-followed. In addition, on the Eastern Shore where shellfish cultivation is most extensive, the Eastern ShoreKeeper continues to monitor cultivation practices and work with growers to ensure the BMPs are followed.

Strategy #2: Re-evaluation of Public Use of Baylor Grounds & Creation of Aquaculture Enterprise Zones

This strategy sought to identify and develop options to ensure adequate space for shellfish aquaculture and continue the development of information necessary to manage aquaculture activities in order to avoid conflicts with other permissible uses of state waters and State-owned submerged lands. This included re-enactment of the water column leasing legislation (which had lapsed due to the failure of the General Assembly to appropriate funds for its implementation) and the consideration of opportunities for the public use of Baylor Grounds and "unassigned grounds" for aquaculture activities. Unfortunately, given the current economic recession the GA has never funded the water column leasing program. Finally it sought to develop options for

local ordinances designed to manage land use adjacent to areas designated for aquaculture and stimulate the creation of aquaculture enterprise zones.

The first step, taken in Year 1 (FY 2006 Task 92.01), was for VIMS to make adjustments to the “Aquaculture Use Suitability Model” developed under the previous Section 309 strategy. VIMS used GIS software to map high medium and low risk areas for shellfish aquaculture in Gloucester, Accomack and Northampton Counties. The original model considered basic physical and biological conditions necessary for aquaculture such as water depth, salinity, shellfish condemnation areas, and the presence of submerged aquatic vegetation. This new model includes the potential impacts from current land use by incorporating the local zoning that is adjacent to growing areas. Final products included a set of easy to understand maps and GIS shape files now available on the Virginia CZM Program’s “Coastal GEMS” site. Also in Year 1, VIMS developed a report summarizing potential management options for promoting shellfish aquaculture. Key among them was the concept of developing “aquaculture enterprise zones.”

With pervasive difficulty in the restoration of wild oysters, it became important to provide adequate opportunity for the production of cultivated shellfish. In response to the VIMS options report and the dire situation of wild shellfish, Delegate Albert Pollard (D – Lively) introduced legislation authorizing the Marine Resources Commission to establish aquaculture enterprise zones for the propagation of commercial shellfish. This law was fully enacted in March 2010. Under this law the Commission may set a single fee for the application and use of the zones.

In addition to the work above, the Virginia CZM Program reconvened the Oyster Heritage Program partners to resolve shellfish conflict issues on the lower Rappahannock River. Since the Baylor Grounds were surveyed and established in the late 1800’s the management of these areas has historically included harvest restrictions and the transplantation of shell and seed. Recent management efforts under the Oyster Heritage Program included the establishment of brood stock reefs and designation of adjacent harvest areas. Watermen began to argue arduously for the opening of those sanctuary areas to harvest. In response, the OHP partners developed a new management plan that incorporates a 3-year rotational harvest of 3 areas below the Route 3 bridge and 3 areas above the bridge. It also created a 4 inch maximum size limit on oysters and a buy-back program for those larger oysters so that they could be placed back on sanctuary reefs. The plan was adopted by the Marine Resources Commission and remains in effect. Part of the rationale for this plan was derived from the work completed in FY 2001 Task 92.04, Economic Analysis of Rappahannock Oyster Plan



Although this Section 309 strategy proposed identification of suitable areas within the Baylor grounds (as well as in “unassigned” subaqueous bottom), the conversion of public Baylor grounds to any other uses coastal zone-wide was deemed too politically charged. Thus the decision was made to test this concept in a smaller geographic area where support for shellfish cultivation was strong. The chosen area was the Seaside of Virginia’s Eastern Shore. So this

strategy was essentially moved to the Seaside Special Area Management Plan (Seaside SAMP). This will allow for a slower, more incremental approach to test the concept in Virginia.

Finally, to address impacts to the local aquaculture industry based on a myriad of factors including disease, predation, water quality and the transition of many coastal communities toward increased development of their waterfront areas, the Middle Peninsula Planning District Commission working with Mathews County (FY 2008 Task 92), created an Aquaculture Working Waterfront Steering Committee consisting of commercial and hobby oyster and clam farmers, county planners, and the maritime foundation within Mathews County. This committee identified current challenges within the industry, shared business models, and discussed how the industry could be supported or enhanced by the county. Along with the information gathered from committee members, MPPDC staff researched how other coastal communities in the United States had dealt with similar issues and organized a matrix of public policy options that may be feasible in Mathews County. MPPDC staff also conducted an economic assessment of the current seafood and aquaculture industry in the Middle Peninsula. Finally MPPDC staff worked to create an educational DVD, titled *Mathews Working Waterfront for the 21st Century*, which focused on the economic and cultural tradeoffs of community scenarios and the public policy options that may enhance working waterfront industries. After careful review of the matrix, economic assessment and education DVD by committee members, MPPDC staff updated the Mathews Board of Supervisors at their monthly meeting. Though supportive of the direction the project was going the Board asked for costs associated with the public policy options before actually considering the options.

In addition to suggesting public policy options to strengthen aquaculture-working waterfront infrastructure to enhance sustainability, MPPDC staff worked with County Planners and their consultants to develop model comprehensive plan language that reinforces the County's commitment to its working waterfronts.

IV. STRATEGY

Cumulative and Secondary Impacts

Working Waterfronts

I. Issue Area(s)

The proposed strategy or implementation activities will support the following priority (high or medium) enhancement area(s) (*check all that apply*):

- | | |
|--|--|
| <input checked="" type="checkbox"/> Aquaculture | <input checked="" type="checkbox"/> Cumulative and Secondary Impacts |
| <input type="checkbox"/> Energy & Government Facility Siting | <input type="checkbox"/> Wetlands |
| <input type="checkbox"/> Coastal Hazards | <input type="checkbox"/> Marine Debris |
| <input type="checkbox"/> Ocean/Great Lakes Resources | <input checked="" type="checkbox"/> Public Access |
| <input type="checkbox"/> Special Area Management Planning | |

II. Program Change Description

A. The proposed strategy will result in, or implement, the following type(s) of program changes (*check all that apply*):

- A change to coastal zone boundaries;
- New or revised authorities, including statutes, regulations, enforceable policies, administrative decisions, executive orders, and memoranda of agreement/understanding;
- New or revised local coastal programs and implementing ordinances;
- New or revised coastal land acquisition, management, and restoration programs;
- New or revised Special Area Management Plans (SAMP) or plans for Areas of Particular Concern (APC) including enforceable policies and other necessary implementation mechanisms or criteria and procedures for designating and managing APCs; and,
- New or revised guidelines, procedures and policy documents which are formally adopted by a state or territory and provide specific interpretations of enforceable CZM program policies to applicants, local government and other agencies that will result in meaningful improvements in coastal resource management.

B. Describe the proposed program change.

The proposed program change will establish a coastal zone-wide Working Waterfronts plan for Virginia that will serve to guide communities in protecting, restoring and enhancing their water-dependent commercial and recreational activities. The strategy to develop this program change is designed to help communities with existing water-dependent commercial infrastructure understand the long-term costs associated with the loss of working waterfronts, develop new policy tools to help them manage the increasing growth pressures, and build capacity to develop working waterfronts as a thriving component of local economic development.

III. Need(s) and Gap(s) Addressed

Identify what priority need the strategy addresses, and explain why the proposed program change or implementation activities are the most appropriate means to address the priority need. This discussion should reference the key findings of the Assessment and explain how the strategy addresses those findings.

Coastal areas are experiencing dramatically increased demand for residential development. This demand often results in the need for services and resources that are not compatible with the nature and character of the community that attracted the development in the first place. As a result, historic industries that support the functionality of many waterfront communities become disadvantaged by impacts of new development. Localities with working waterfronts often lack sufficient information and/or organizational capacity to effectively respond to the changes presented by increased growth and development.

By providing initial grant funds to VIMS/Sea Grant, the strategy draws upon expertise in comparative economic analyses to identify the long-term economic impacts of incoming development versus the maintenance and enhancement of existing water dependent commercial activities. This first step will lay the foundation for development of a working waterfront plan for Virginia's Coastal Zone, to guide communities in decision making and policy development to retain the water-driven elements of their economic structure and cultural heritage.

IV. Benefit(s) to Coastal Management

Discuss the anticipated effect of the program change or implementation activities including a clear articulation of the scope and value in improved coastal management and resource protection.

The desired benefit of this strategy is to arrive at a coastal zone-wide plan for Virginia that will serve to guide communities in protecting, restoring and enhancing their water-dependent commercial and recreational activities. The planning process will help derive a clear consensus definition of water dependent commercial activities and working waterfronts. It will inventory existing working waterfront infrastructure throughout the coastal zone and identify threats and opportunities for preservation. The plan will include examples of policy tools for local government adoption that will allow for restoration, enhancement and retention of working waterfront areas. One or more community demonstration projects included in the strategy will exhibit both victories and challenges to development of a working waterfronts plan and approaches to implementation.

V. Likelihood of Success

Discuss the likelihood of attaining the proposed program change and implementation activities. The state or territory should address: 1) the nature and degree of support for pursuing the strategy and the proposed change; and, 2) the specific actions the state or territory will undertake to maintain or build future support for achieving and implementing the program change, including education and outreach activities.

The working waterfronts issue received a high level of support from the Virginia Coastal Zone Management Program Coastal Policy Team as demonstrated in the group's high ranking of the need for strategy development in this area. Eight coastal Planning District Commissions (PDCs) are represented on the team with four PDCs participating in the working waterfronts strategy planning group: Accomack-Northampton, Hampton Roads PDC, Middle Peninsula PDC and Northern Neck PDC. These PDCs have significant working waterfront infrastructure and have confirmed their support through direct participation in developing a working waterfront strategy and planning process.

Support from the Coastal Policy Team has been fostered by more than a decade of investment in working waterfronts-related issues by NOAA and the Virginia CZM Program. This investment spans from shellfish and habitat restoration to policy development and local government capacity building.

From 1999-2001, the Oyster Heritage Program has constructed over 80 sanctuary reefs and 1000 acres of harvest area in Virginia's coastal waters. From 2002-2008 the Seaside Heritage Program has restored approximately 1400 acres of seagrass beds on Virginia's seaside, approximately 4.9 acres of oyster reefs have been constructed on public oyster beds in Accomack County, and just under 5 acres of oyster reef have been constructed in Northampton County.

In 2002, the Virginia CZM Program funded the onset of continued staff support for implementation of the Middle Peninsula Chesapeake Bay Public Access Authority Act. The act establishes a Public Access Authority for the Middle Peninsula region to set aside access sites for economically viable recreational activities and public access sites. To date the MPCB Public Access Authority holds title to approximately 850 acres of public access sites in the region, including Gloucester, Essex and King and Queen Counties.

In 2006, the Northern Neck Chesapeake Bay Public Access Authority was formed and is currently working to increase public access to the Chesapeake Bay through the Northern Neck region. The NNCB Public Access Authority entered into a contract in June 2010 with the Norfolk Army Corps of Engineers to create a Shallow Draft Dredging and Sediment Plan that will be completed by September 30th of this year. This plan will estimate dredging costs for all federal designated navigation channels in the three member counties of the NNCBPAA (Lancaster, Northumberland and Westmoreland), attempt to pair creeks with similar dredge cycles to reduce mobilization and de-mobilization costs, and investigate local options on how to create a funding mechanism to be able to have resources available to dredge the channels and keep the creeks open so local watermen can continue their work.

In 2006, the Virginia CZM Program supported the York River Use Conflicts project which served to frame existing and emergent issues and identify policy needs surrounding conflicts affecting local government ability to maximize use of their waterfront. To help address this, the York River Use Conflict Committee developed seven recommendations to help Gloucester County preserve the coastal identity that makes its waterfront community unique. In February 2009, the Gloucester County Board of Supervisors unanimously approved the recommendations and the county is now working to implement them.

In 2007, the Virginia CZM Program funded the Middle Peninsula Shallow Water Dredging Master Plan Framework to provide a comprehensive and sustainable approach to the on-going dredging needs for access to waterways of the Middle Peninsula.

Also that year, the Virginia CZM Program supported the “Working Waterways and Waterfronts 2007” national symposium in Norfolk to share local, state and national-level initiatives that address water access. A key outcome of the symposium was development of a structure for communicating among the diverse constituencies involved in working waterfront issues.

In 2008, the Virginia CZM Program funded the Middle Peninsula Aquaculture and Local Policy Development project to identify public policy needs for aquaculture-working waterfront sustainability (economic effectiveness of uses including jobs, business sales, and fiscal revenue). Through dialogue with local elected officials the project also explores other economic tradeoffs or competing economic interests of existing local public policy.

Through this level of continued interest and investment in protecting the necessary aquatic infrastructure as well as fostering initial decision-making capacity, the Virginia CZM Program and its partners have laid the groundwork to successfully address working waterfront-related issues in Virginia.

In addition, an approved working waterfronts plan would position Virginia to receive funding for acquisition of commercial waterfront sites and plan implementation if the currently proposed legislation HR 2548, *The Keep America’s Waterfronts Working Act* is passed and funds are appropriated.

VI. Strategy Work Plan

Using the template below, provide a general work plan that includes the major steps necessary for achieving the program change and/or implementing a previously achieved program change. The plan should identify significant projected milestones/outcomes, a schedule for completing the strategy, and budget estimates. If an activity will span two or more years, it can be combined into one entry (i.e., Years 2-3 rather than Year 2 and then Year 3). While the annual outcomes are a useful guide to ensure the strategy remains on track, OCRM recognizes that these benchmarks may change some over the course of the five-year strategy due to unforeseen circumstances. The same holds true for the annual budget estimates. If the state intends to fund implementation activities for the proposed program change, describe those in the plan as well. Further detailing of annual tasks, budgets, benchmarks, and work products will be determined through the annual award negotiation process.

Total Years:	Five Years
Total Budget:	\$250,000
Final Outcome(s) and Products:	Virginia Working Waterfronts Plan including examples of policy tools for local adoption

Years One and Two: FY 2011-2012

Description of activities: Develop a clear consensus definition among planning district commissions (PDCs) of water-dependent commercial activities and working waterfronts. Given the significant economic and demographic variability between the regional planning districts, localized public and stakeholder engagement is warranted and envisioned. It should be noted that, based upon community engagement to-date, it is likely that regional variations will emerge in defining what working waterfronts means in diverse communities. The community visioning and development effort will therefore be a central component of this strategy from inception to completion. As part of the strategy coordination, Virginia Sea Grant Extension Programs will facilitate overall outreach and consensus building among and between regions. In addition, the necessary infrastructure for working waterfronts will also be defined and critical working waterfront infrastructure throughout the coastal zone by PDC identified. Existing public access data will be queried and used to identify and differentiate those public access sites that may serve a dual function as working waterfront infrastructure from those public access sites not suitable for this extended use. One or more areas where a county Board of Supervisors or Town Council supports the working waterfront concept with a resolution and is willing to conduct a demonstration project will be selected. A comparative valuation between new development and retention, restoration and enhancement of existing water-dependent enterprises will be conducted as well as an assessment of methods and opportunities to integrate public access and working waters in appropriate venues.

Outcome(s): Establish foundation for working waterfront plan development and planning process.

Budget: \$100,000

Year Three FY 2013

Description of activities: Develop policy tools via research of successful working waterfront policies in neighboring states and workgroup assessment to enable localities to address retention of working waterfronts. Policy examples include but are not limited to public financing, comprehensive plan changes, ordinances and overlay zones, zoning and taxation. A one-day workshop will be conducted to provide a forum for information exchange and query among stakeholders in water-dependent industries.

Outcome(s): Continued development of the components of a working waterfronts plan for Virginia.

Budget: \$50,000

Description of activities: Completion of Virginia Working Waterfront Plan

Outcome(s): A Coastal Zone-wide plan to guide Virginia communities in retaining the working waterfront as a viable means of locally sustainable economic development will be finalized. An approved plan would also position Virginia to receive funding for acquisition of working waterfront sites if proposed legislation (HR 2548, *The Keep America's Waterfronts Working Act*) is passed and funds are appropriated.

Budget: \$100,000

VII. Fiscal and Technical Needs

- A. Fiscal Needs:** *If 309 funding is not sufficient to carry out the proposed strategy, identify additional funding needs. Provide a brief description of what efforts the applying agency has made, if any, to secure additional state funds from the legislature and/or other sources to support this strategy.*

Partnering with the VIMS/ Sea Grant Extension program will bring additional resources to the strategy, both financial and technical. The program's coastal community development program is one possible source of additional financial support to assist in implementing the strategy.

- B. Technical Needs:** *If the state does not possess the technical knowledge, skills, or equipment to carry out the proposed strategy, identify these needs. Provide a brief description of what efforts the applying agency has made, if any, to obtain the trained personnel or equipment needed (for example, through agreements with other state agencies).*

The VIMS/Sea Grant Extension program's marine business and coastal community development program has personnel experienced in financing and evaluating working waterfront feasibility.

VIII. Projects of Special Merit (Optional)

If desired, briefly indicate what PSMs the CMP may wish to pursue to augment this strategy. Any activities that are necessary to achieve the program change or that the state intends to support with baseline funding should be included in the strategy above. The information in this section will not be used to evaluate or rank PSMs and is simply meant to provide the CMPs the option to provide additional information if they choose. PSM descriptions should be kept very brief (e.g., undertake benthic mapping to provide additional data for ocean management planning). Do not do provide detailed project descriptions that would be needed for the PSM competition.

Shoreline Management

I. Issue Area(s)

The proposed strategy or implementation activities will support the following priority (high or medium) enhancement area(s) (*check all that apply*):

- | | |
|--|--|
| <input type="checkbox"/> Aquaculture | <input checked="" type="checkbox"/> Cumulative and Secondary Impacts |
| <input type="checkbox"/> Energy & Government Facility Siting | <input checked="" type="checkbox"/> Wetlands |
| <input checked="" type="checkbox"/> Coastal Hazards | <input type="checkbox"/> Marine Debris |
| <input type="checkbox"/> Ocean/Great Lakes Resources | <input type="checkbox"/> Public Access |
| <input type="checkbox"/> Special Area Management Planning | |

II. Program Change Description

A. The proposed strategy will result in, or implement, the following type(s) of program changes (*check all that apply*):

- A change to coastal zone boundaries;
- New or revised authorities, including statutes, regulations, enforceable policies, administrative decisions, executive orders, and memoranda of agreement/understanding;
- New or revised local coastal programs and implementing ordinances;
- New or revised coastal land acquisition, management, and restoration programs;
- New or revised Special Area Management Plans (SAMP) or plans for Areas of Particular Concern (APC) including enforceable policies and other necessary implementation mechanisms or criteria and procedures for designating and managing APCs; and,
- New or revised guidelines, procedures and policy documents which are formally adopted by a state or territory and provide specific interpretations of enforceable CZM program policies to applicants, local government and other agencies that will result in meaningful improvements in coastal resource management.

B. *Describe the proposed program change.*

The previous Section 309 Shoreline Management Strategy provided \$791,590 for various initiatives to promote the use of living shorelines. Outcomes included changes to policy documents, state legislation, education of government officials, contractors and waterfront property-owners, and new living shoreline design guidance. Support was also provided for data acquisition to help improve local decision making. This strategy will build on these successes by providing support for development of local shoreline management plans. These plans are widely recognized as the most effective policy to promote living shorelines. In addition, funds in year 1 will be targeted at implementing the recommendations of a study mandated by the Virginia General Assembly to find ways to streamline the regulatory process for living shorelines and promote this method of shoreline management. As a result, the anticipated outcomes of this strategy will be both new policies (in the form of locally adopted plans and changes to state regulations) and implementation of previous program changes from the last strategy.

III. Need(s) and Gap(s) Addressed

Identify what priority need the strategy addresses, and explain why the proposed program change or implementation activities are the most appropriate means to address the priority need. This discussion should reference the key findings of the Assessment and explain how the strategy addresses those findings.

The Assessment identifies the loss of the water quality protection and habitat values of wetlands as a key cumulative and secondary impact of waterfront development. Fringe marshes are often impacted by traditional shoreline erosion management techniques (bulkheads and rock revetments), either during construction or as a result of sea level rise and wave scouring after construction. Previous Section 309 efforts to improve shoreline management and promote the use of living shorelines have been successful, but more work remains. The promotion of living shorelines through the development and use of local shoreline management plans is shown as a high priority need in the Assessment. Previous policy changes have provided a framework for encouraging the use of living shorelines over traditional techniques, but local shoreline management plans are needed in order to advance implementation of these policies. Additional resources are needed in order to take full advantage of the progress made during the last strategy and to adopt to shoreline management policies at both the state and local levels.

IV. Benefit(s) to Coastal Management

Discuss the anticipated effect of the program change or implementation activities including a clear articulation of the scope and value in improved coastal management and resource protection.

In Virginia, shoreline management decisions affecting important coastal resources such as riparian buffers, tidal wetlands, beaches, and nearshore habitats are made by local wetland boards, with oversight by the Virginia Marine Resources Commission (VMRC) and with technical assistance from the Virginia Institute of Marine Science (VIMS). Wetlands boards react to projects proposed by individual property-owners, who often request shoreline erosion control projects that are not the most appropriate for their given shoreline situation and may negatively impact coastal resources. During the Assessment period, VIMS was forced to scale back its project review function and while still providing an alternative analysis for proposed projects, conducts site visits on only about 15 percent of those projects. This shifts more of the responsibility of recommending appropriate shoreline management techniques to local wetland boards and their staff. Reliance on local citizen boards and staff with multiple local government responsibilities often results in a lower level of expertise than was available through the scientific staff at VIMS. Local shoreline management plans provide a means for the shoreline management experts at VIMS to recommend management techniques for each reach of local shoreline in advance of project proposals. They provide not only a tool for localities to review the appropriateness of proposals, but up-front guidance to waterfront property-owners and contractors as to the preferred management technique for specific shorelines. The result should be better project proposals from project proponents and a more informed decision process for those responsible for project review.

V. Likelihood of Success

Discuss the likelihood of attaining the proposed program change and implementation activities. The state or territory should address: 1) the nature and degree of support for pursuing the strategy and the proposed change; and, 2) the specific actions the state or territory will undertake to maintain or build future support for achieving and implementing the program change, including education and outreach activities.

During the past Section 309 Strategy significant effort and resources were dedicated to promoting the use of living shorelines. In addition to policy changes, research, and training/outreach initiatives, improved data on shoreline conditions was acquired to support more informed shoreline management decisions. State-level shoreline managers and scientists are in agreement that developing local shoreline management plans based on this data are a priority for improving shoreline management and that their use is the next logical step in promoting living shorelines. The reduction in proposal reviews and site visits by VIMS scientists has highlighted the need for technical advice on a reach basis. Local governments are now more receptive to plans because of this change in technical support from VIMS.

Interest in developing and adopting local shoreline management plans is also heightened by the requirements of the Chesapeake Bay Preservation Act (CBPA). The CBPA Regulations require that a shoreline management plan be adopted as a component of each local comprehensive plan. The regulations also only allow alteration of the Resource Protection Area buffer for shoreline management if the technique employed is based on “best available technical advice”. There is general agreement from the Department of Conservation and Recreation’s Division of Chesapeake Bay Local Assistance that the shoreline management plans funded through this strategy would help meet both of these needs.

The 2010 session of the Virginia General Assembly passed Senate Joint Resolution 35, which requested that VIMS study tidal shoreline management in the Commonwealth. In completing the study VIMS was directed to identify regulatory innovations that would increase the use of living shorelines and make recommendations to achieve the sustained protection of tidal shoreline resources. Funding is included in the first year of the Section 309 Shoreline Strategy to advance the recommendations from VIMS, which will be presented to the 2011 session of the General Assembly.

VI. Strategy Work Plan

Using the template below, provide a general work plan that includes the major steps necessary for achieving the program change and/or implementing a previously achieved program change. The plan should identify significant projected milestones/outcomes, a schedule for completing the strategy, and budget estimates. If an activity will span two or more years, it can be combined into one entry (i.e., Years 2-3 rather than Year 2 and then Year 3). While the annual outcomes are a useful guide to ensure the strategy remains on track, OCRM recognizes that these benchmarks may change some over the course of the five-year strategy due to unforeseen circumstances. The same holds true for the annual budget estimates. If the state intends to fund implementation activities for the proposed program

change, describe those in the plan as well. Further detailing of annual tasks, budgets, benchmarks, and work products will be determined through the annual award negotiation process.

Total Years:	Five Years
Total Budget:	\$720,000
Final Outcomes and Products:	Streamlined permitting process, local shoreline management plans, inventories, and evolution reports.

Year One: FY 2011

Description of activities: Living Shorelines State Policy Development - The strategy will provide support the Virginia Institute of Marine Science (VIMS) to implement the recommendations of Senate Joint Resolution 35 (2010 Virginia General Assembly), which requested that VIMS identify regulatory innovations that would increase adoption of living shorelines. The VIMS study recommended development of a streamlined general permit for living shorelines, guidance on integrated shoreline management, and a policy preference for living shorelines. As of January, 2011 the Virginia General Assembly was considering legislation that would address each of these study recommendations, plus require all coastal zone localities to adopt the shoreline management guidance from VIMS into their comprehensive plans. Regardless of the outcome of this proposed legislation, this strategy will advance shoreline management policy in Virginia.

Outcome(s): It is anticipated that VMRC will adopt a streamlined permitting process to encourage the use of living shorelines and to encourage integrated shoreline management practices.

Budget: \$30,000

Years One – Five: FY 2011-2015

Description of activities: Local Shoreline Plan Development - The majority of this strategy will focus on supporting development of local shoreline management plans, which will promote the use of living shorelines where appropriate. Shoreline Management Plans comprise 5 major elements: a shoreline inventory, a shoreline evolution study, recommendations for shoreline management options using cost effective geospatial decision tools, a general cost estimate and schematics for specific types of shoreline treatments, and background review on the state of the shoreline including general geology and characteristics of the coastal land use. The content of these plans have been selected based on a needs assessment conducted by VIMS with local and state agency participation, as well as in consideration on current and new legislation under consideration in the Virginia General Assembly. The plans will be intended for inclusion in local comprehensive plans and will be used for shoreline management decisions. In order to develop these plans, baseline data in form of local

shoreline inventories and shoreline evolutions reports is necessary. This information was collected for some localities during the previous Section 309 Shoreline Strategy, and is available for 24 of the 36 counties. Additional reports are necessary in order to provide broader coverage of Virginia's coastal zone.

Outcomes: VIMS will use the budgeted funds to develop both baseline data (shoreline inventories and shoreline evolution reports), as well as complete several shoreline management plans. Summary of major coastal management milestones to be accomplished under this activity include the completion of the first cycle of state-wide Shoreline Inventory Reports for Virginia and the completion of the state-wide Shoreline Evolution Report Series. Specific products include 5 updated Shoreline Evolution Reports that expand existing efforts to include small tributaries beyond primary shoreline, 8 new Shoreline Evolution Reports that will include all primary and secondary shoreline, and 9 new Shoreline Inventories. Ten (10) Shoreline Management Plans will be developed using these and/or prior completed baseline reports. Selection of target localities for specific activities was based on funds available, product demands, currency of existing data and products, and county size and location.

Benefits: Legislation currently being considered by the Virginia General Assembly would require incorporation of shoreline management guidance into local comprehensive plans. These plans are expected to be adopted by local governments in compliance with new legislation

Budget: \$690,000

VII. Fiscal and Technical Needs

A. Fiscal Needs: *If 309 funding is not sufficient to carry out the proposed strategy, identify additional funding needs. Provide a brief description of what efforts the applying agency has made, if any, to secure additional state funds from the legislature and/or other sources to support this strategy.*

It is anticipated that this strategy, at the recommended funding level, will result in new state level policy to encourage living shorelines, new local shoreline management plans and background information for future shoreline management plans. By itself, however, it will not provide adequate funding to provide data and plans for all of Virginia's coastal localities. In order to prepare as many plans as possible, the Virginia CZM Program and VIMS will encourage localities to provide some level of matching funds.

B. Technical Needs: *If the state does not possess the technical knowledge, skills, or equipment to carry out the proposed strategy, identify these needs. Provide a brief description of what efforts the applying agency has made, if any, to obtain the trained personnel or equipment needed (for example, through agreements with other state agencies). N/A*

VIII. Projects of Special Merit (Optional) *If desired, briefly indicate what PSMs the CMP may wish to pursue to augment this strategy. Any activities that are necessary to achieve the program change or that the state intends to support with baseline funding should be included in the strategy above. The information in this section will not be used to evaluate or rank PSMs and is simply meant to provide the CMPs the option to provide additional information if they choose. PSM descriptions should be kept very brief (e.g., undertake benthic mapping to provide additional data for ocean management planning). Do not do provide detailed project descriptions that would be needed for the PSM competition.*

- Develop a database and reporting process for tracking wetlands in Virginia (a proposal was submitted, but not selected, for NOAA’s “Modernizing and Improving State CZM Information Systems Grant”)
- Develop a Virginia Erosion Vulnerability Assessment (VIMS would develop an EVA tool for Virginia similar to the one they developed for Maryland)
- Develop additional local shoreline management plans

Land & Water Quality Protection

I. Issue Area(s)

The proposed strategy or implementation activities will support the following priority (high or medium) enhancement area(s) *(check all that apply)*:

- | | |
|--|--|
| <input type="checkbox"/> Aquaculture | <input checked="" type="checkbox"/> Cumulative and Secondary Impacts |
| <input type="checkbox"/> Energy & Government Facility Siting | <input type="checkbox"/> Wetlands |
| <input type="checkbox"/> Coastal Hazards | <input type="checkbox"/> Marine Debris |
| <input type="checkbox"/> Ocean/Great Lakes Resources | <input type="checkbox"/> Public Access |
| <input type="checkbox"/> Special Area Management Planning | |

II. Program Change Description

A. The proposed strategy will result in, or implement, the following type(s) of program changes *(check all that apply)*:

- A change to coastal zone boundaries;
- New or revised authorities, including statutes, regulations, enforceable policies, administrative decisions, executive orders, and memoranda of agreement/understanding;
- New or revised local coastal programs and implementing ordinances;
- New or revised coastal land acquisition, management, and restoration programs;
- New or revised Special Area Management Plans (SAMP) or plans for Areas of Particular Concern (APC) including enforceable policies and other necessary implementation mechanisms or criteria and procedures for designating and managing APCs; and,
- New or revised guidelines, procedures and policy documents which are formally adopted by a state or territory and provide specific interpretations of enforceable CZM program policies to applicants, local government and other agencies that will result in meaningful improvements in coastal resource management.

B. Describe the proposed program change.

The anticipated program change resulting from this strategy aims toward improved land use approaches and development policies that are consistent with increased nutrient reduction goals proposed by the Chesapeake Bay TMDL, Virginia's WIP, and revised Virginia storm water management regulations. The strategy will analyze the local consequences of these storm water control requirements across three regional types (urban, transitional and rural) and develop tools to enable localities to meet these requirements while avoiding natural resource impacts or unforeseen adverse consequences.

In light of changing Federal and State regulations associated with nutrient loading, local nutrient goals, storm water management and TMDLs, initial grant funds will be offered to two coastal PDCs representing the geographies of urban, suburban and rural areas to evaluate and recommend new policy approaches and solutions for specifically identified local issues relating to water quality. This opportunity offers (as a pilot project) a comprehensive review of the impacts of new legislation and the identification of new policy changes that may be needed to advance sustainable community development in a new regulatory environment. Identifying and addressing these issues at the regional and local level is the most appropriate way to arrive at locally successful approaches to effective water quality improvements. Also, by initiating the project through a pilot program, one or two coastal regions serve as research and testing grounds, thus allowing other coastal regions and localities to implement resulting policies in later years of the 309 funding cycle.

In addition, the strategy will address other regionally specific issues related to land use and water quality as identified by each participating planning district. For example, the Hampton Roads Planning District Commission has identified interest in exploring the need for legislation to enable localities to require replacement or preservation of trees beyond the existing limits of 10-20 percent tree canopy in order to protect or restore water quality.

III. Need(s) and Gap(s) Addressed

Identify what priority need the strategy addresses, and explain why the proposed program change or implementation activities are the most appropriate means to address the priority need. This discussion should reference the key findings of the Assessment and explain how the strategy addresses those findings.

Growth and development in Virginia's coastal zone continues to increase at a rate that is disproportionate with the rest of the Commonwealth. Water quality impacts associated with urban growth are further magnified by development trends characterized by increasing impervious cover. Rural land use patterns have also been impacted by recent changes in state regulations. These changes now allow placement of alternative septic systems in sensitive areas (with high water tables) enabling.

Virginia's water quality goals set forth in the *Chesapeake 2000* Agreement will not be met by 2010 because impaired segments of the Chesapeake Bay remain identified in Virginia's Clean Water Act section 303(d). Therefore, EPA has established the development of a federal Total Maximum Daily Load to address nutrients (N and P) and sediment for the

Chesapeake Bay and its tidal tributaries to achieve restoration. Virginia is working toward meeting these goals. However, many Virginia localities lack sufficient information and/or organizational capacity to effectively respond to the cumulative and secondary impacts associated with proposed Chesapeake Bay clean up requirements.

IV. Benefit(s) to Coastal Management

Discuss the anticipated effect of the program change or implementation activities including a clear articulation of the scope and value in improved coastal management and resource protection.

The desired benefit of this strategy is to arrive at a coastal zone-wide approach (Urban, Suburban and Rural) for sustainable community development recognizing a new federal, state and local regulatory environment. Facilitating pilot projects with three representative government frameworks allows the remaining Virginia Coastal Zone localities to have tools to achieve their local goals. The pilot approach will include examples of policy tools, research approaches and enabling authority clarification, for local government to consider as part of the cumulative and secondary impacts solutions associated with proposed Chesapeake Bay TMDLs and Watershed Implementation Plans (WIPs) correlated with clean up requirements. The strategy will also entail regular meetings of all 8 Coastal PDCs at which information on the pilot projects is shared so that all coastal localities can benefit from this strategy.

V. Likelihood of Success

Discuss the likelihood of attaining the proposed program change and implementation activities. The state or territory should address: 1) the nature and degree of support for pursuing the strategy and the proposed change; and, 2) the specific actions the state or territory will undertake to maintain or build future support for achieving and implementing the program change, including education and outreach activities.

The Virginia CZM Program's involvement in addressing this issue began nearly 20 years ago. In 1992, the Southern Watershed Area Management Plan (SWAMP) was ranked as a high priority in CZM's Coastal Needs Assessment and Strategy, and first received funding under Section 306 that same fiscal year. Through this project a set of conservation corridors was identified in the Southern Watershed Area (SWA) which has proven to be a valuable planning tool for the Cities of Chesapeake and Virginia Beach as well as a principal model for conservation corridor development throughout Virginia's coastal zone. With Virginia CZM program support, the entire coastal zone will soon have a comprehensive network of conservation corridors developed throughout the Commonwealth, upon completion of the final two regions in fiscal year 2010 (see section of past efforts in Assessment for details).

Furthermore, the program began supporting research and data collection for onsite sewage disposal systems (OSDS) in the Middle Peninsula region in fiscal year 2008. The current strategy builds upon that work by identifying key concerns with the proliferation of OSDS and focusing on policy based solutions.

Now, as Virginia positions to respond to the Chesapeake Bay cleanup requirements, draft legislative proposals are being prepared to address clean up issues within the coastal zone. This draft legislation becomes the first salvo of a new regulatory paradigm facing local and state government in Virginia. Municipal governments and Soil and Water Conservation Districts will develop and implement program changes for centralized municipal waste water issues, agriculture, onsite wastewater disposal, and storm water. Virginia local governments are administrative arms of the state government and will respond to Bay related mandates. As long as localities are directed to address water quality issues, there will be program changes and implementation activities.

VI. Strategy Work Plan

Using the template below, provide a general work plan that includes the major steps necessary for achieving the program change and/or implementing a previously achieved program change. The plan should identify significant projected milestones/outcomes, a schedule for completing the strategy, and budget estimates. If an activity will span two or more years, it can be combined into one entry (i.e., Years 2-3 rather than Year 2 and then Year 3). While the annual outcomes are a useful guide to ensure the strategy remains on track, OCRM recognizes that these benchmarks may change some over the course of the five-year strategy due to unforeseen circumstances. The same holds true for the annual budget estimates. If the state intends to fund implementation activities for the proposed program change, describe those in the plan as well. Further detailing of annual tasks, budgets, benchmarks, and work products will be determined through the annual award negotiation process.

Total Years:	Three Years (MPPDC Pilot)
Total Budget:	\$150,000
Final Outcome(s) and Products:	Issue identification, analysis and policy development.

Years One - Three:	FY 2011 – 2013 Pilot Studies Rural
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Description of activities: In light of changing Federal and State regulations associated with Bay clean up-nutrient loading, nutrient goals, clean water, OSDS management, storm water management, TMDLs, etc, staff from the Middle Peninsula Planning District Commission (MPPDC) will develop a rural pilot project which aims to identify pressing coastal issue(s) of local concern related to Bay clean up and new federal and state legislation which ultimately will necessitate local action and local policy development. Achieving the local nutrient loading goals will be a priority, therefore, MPPDC staff will focus on developing, assessing, and articulating the development the enforceable policy tools necessary to assist localities with the reduction of nutrient loadings by evaluating and assessing a series of environmental factors anticipated to support, clarify, prepare, and maximize locality or regional participation proposed in the Chesapeake Bay TMDL Phase II Watershed Implementation Plan. MPPDC anticipates, among other enforceable policy changes, local land use program changes necessary to address the expansion of the nutrient credit exchange program for on-site water treatment systems. Chesapeake Bay clean

up will have a very strong nexus to local land use policy, water quality protection, and fiscal concerns associated with the proliferation of new engineered septic systems. Staff has identified many cumulative and secondary impacts that have not been researched or discussed within a local public policy venue. Year 1-3 will include the identification of key concerns related to coastal land use management/water quality and Onsite Sewage Disposal System (OSDS) and community system deployment. Staff will focus on solution based approaches, such as the establishment of a regional sanitary sewer district to manage the temporal deployment of nutrient replacement technology for installed OSDS systems, assessment of land use classifications and taxation implications associated with new state regulations which make all coastal lands developable regardless of environmental conditions; use of aquaculture and other innovative approaches such as nutrient loading offset strategies and economic development drivers.

It is anticipated that the services of VNEMO will be required to address stormwater and nutrient loading issues as another condition identified within Chesapeake Bay TMDL Phase 1 Watershed Implementation Plan. New storm water regulations will be needed, nutrient management plans for municipal and or county owned lands are anticipated as well. These issues, among others will ultimately require new local tools and enforceable policy. Staff will partner with VNEMO to facilitate collaborative public decision processes to evaluate the successes of the identified approaches.

Budget: \$150,000

Total Years:	Three Years (HRPDC Pilot)
Total Budget:	\$270,000
Final Outcome(s) and Products:	Comprehensive plan evaluation and applicable policy development

Year One: FY 2011 Pilot Studies Suburban

Description of activities: During year 1, the Hampton Roads Planning District Commission will select one or two transitional localities experiencing high suburban growth such as Isle of Wight County or Suffolk. HRPDC will work with this locality to evaluate the effects that the Chesapeake Bay TMDL and Virginia’s Storm water Regulations will have on development. HRPDC staff will evaluate the existing Comprehensive Plan of the selected locality for compatibility with the regulatory requirements and develop policy recommendations as needed. Staff will partner with VNEMO to facilitate development of policy recommendations.

Outcome(s): Evaluation of local Comprehensive Plan and impacts of regulations. Identification of tools to evaluate the impacts of alternative development scenarios and development of policy to resolve identified conflicting issues.

Budget: \$40,000

Year One:

FY 2011 Pilot Studies – Urban

Description of activities: During year 1, the Hampton Roads Planning District Commission will select one urban locality faced with the challenge of encouraging sustainable redevelopment and an increasing need for stormwater retrofits. HRPDC will work with this locality to evaluate the effects that the Chesapeake Bay TMDL and Virginia’s Stormwater Regulations will have on redevelopment and the need for stormwater treatment retrofits. HRPDC staff will evaluate the existing Comprehensive Plan of the selected locality for compatibility with the regulatory requirements. HRPDC staff will assist the locality in identifying retrofit and redevelopment opportunities that maximize the protection of existing green infrastructure and identify any potential for restoration opportunities. Staff will partner with VNEMO to evaluate impacts of regulations and identify policy recommendations.

Outcome(s): Evaluation of local Comprehensive Plan and impacts of regulations. Identification of tools to evaluate the impacts of alternative development scenarios and develop policy recommendations as applicable. Identification of retrofit opportunities that enhance green infrastructure.

Budget: \$50,000

Years Two – Three:

FY 2012 – 2013 Continued Pilot Studies

Description of activities: HRPDC will continue to provide technical support to the selected localities. During years 2 and 3, currently available land management tools will be evaluated for their potential to affect land use patterns in accordance with locally identified priorities. Tools to be evaluated might include development of comprehensive storm water management plan, authority to require greater tree canopy, no discharge marine zone designation, use-value taxation, transfer of development rights, and conservation subdivision design.

Outcome(s): Propose changes to comprehensive plan and develop comprehensive storm water management plan

Budget: \$180,000

Total Years: Two Years
Total Budget: \$277,400
Final Outcome(s) and Products: Implementation Projects

Years Four and Five

FY 2014 - 2015

Description of activities: All coastal PDCs, and localities that have worked with their PDCs on issues related to the pilot studies, will have an opportunity to receive funds for implementation projects based on tools and policies developed in years 1-3. Results from previous strategy years will be disseminated to the other PDCs and localities

throughout the coastal zone through reports, web products and presentations at coastal zone-wide events such as the 2012 and 2014 Virginia CZM Coastal Partners Workshop.

Budget: \$ 277,400

VII. Fiscal and Technical Needs

- A. Fiscal Needs:** *If 309 funding is not sufficient to carry out the proposed strategy, identify additional funding needs. Provide a brief description of what efforts the applying agency has made, if any, to secure additional state funds from the legislature and/or other sources to support this strategy.*
- B. Technical Needs:** *If the state does not possess the technical knowledge, skills, or equipment to carry out the proposed strategy, identify these needs. Provide a brief description of what efforts the applying agency has made, if any, to obtain the trained personnel or equipment needed (for example, through agreements with other state agencies).*

VIII. Projects of Special Merit (Optional)

If desired, briefly indicate what PSMs the CMP may wish to pursue to augment this strategy. Any activities that are necessary to achieve the program change or that the state intends to support with baseline funding should be included in the strategy above. The information in this section will not be used to evaluate or rank PSMs and is simply meant to provide the CMPs the option to provide additional information if they choose. PSM descriptions should be kept very brief (e.g., undertake benthic mapping to provide additional data for ocean management planning). Do not do provide detailed project descriptions that would be needed for the PSM competition.

Special Area Management Planning

Seaside SAMP

I. Issue Area(s)

The proposed strategy or implementation activities will support the following priority (high or medium) enhancement area(s) (*check all that apply*):

- | | |
|--|---|
| <input checked="" type="checkbox"/> Aquaculture | <input type="checkbox"/> Cumulative and Secondary Impacts |
| <input type="checkbox"/> Energy & Government Facility Siting | <input type="checkbox"/> Wetlands |
| <input type="checkbox"/> Coastal Hazards | <input type="checkbox"/> Marine Debris |
| <input type="checkbox"/> Ocean/Great Lakes Resources | <input checked="" type="checkbox"/> Public Access |
| <input checked="" type="checkbox"/> Special Area Management Planning | |

II. Program Change Description

A. *The proposed strategy will result in, or implement, the following type(s) of program changes (check all that apply):*

- A change to coastal zone boundaries;
- New or revised authorities, including statutes, regulations, enforceable policies, administrative decisions, executive orders, and memoranda of agreement/understanding;
- New or revised local coastal programs and implementing ordinances;
- New or revised coastal land acquisition, management, and restoration programs;
- New or revised Special Area Management Plans (SAMP) or plans for Areas of Particular Concern (APC) including enforceable policies and other necessary implementation mechanisms or criteria and procedures for designating and managing APCs; and,
- New or revised guidelines, procedures and policy documents which are formally adopted by a state or territory and provide specific interpretations of enforceable CZM program policies to applicants, local government and other agencies that will result in meaningful improvements in coastal resource management.

B. *Describe the proposed program change.*

The Seaside SAMP Strategy proposes to develop, in essence, a Marine Spatial Plan for the Seaside's barrier island lagoon system. This is an 80 mile long, 1-5 mile wide swath of shallow water that abounds with birds, finfish, shellfish and once again, underwater grasses. The area is renowned for its clam growing industry which is now valued at about \$50 million per year. It's also increasingly recognized for its ecotourism value due to the vast number of birds and other fascinating sights as well as its allure for kayakers.

The program change will require adoption by the Marine Resources Commission of a new approach to leasing state-owned bottom for shellfish cultivation, for providing more suitable areas for public shell fishing and for preserving areas for habitat protection and recreational uses. The current system of hard, immovable boundaries has been in place since

the late 1800's and now that new uses have emerged and suitability of areas for various uses has shifted, we need to adopt a more dynamic, flexible system that can allow use boundaries to shift as the environment changes and human needs and uses change.

III. Need(s) and Gap(s) Addressed

Identify what priority need the strategy addresses, and explain why the proposed program change or implementation activities are the most appropriate means to address the priority need. This discussion should reference the key findings of the Assessment and explain how the strategy addresses those findings.

The Seaside SAMP will address the need for some further GIS analysis, stakeholder engagement, locality preparedness, outreach and new spatial management regulations or policies as described in the Assessment.

IV. Benefit(s) to Coastal Management

Discuss the anticipated effect of the program change or implementation activities including a clear articulation of the scope and value in improved coastal management and resource protection.

Benefits of the Seaside Special Area Management Plan are similar to those described for the Ocean Resources Strategy. Both are expected to yield the same type of benefits derived from marine spatial planning:

1. **Economic benefits:** A Seaside SAMP could facilitate sustainable economic growth on the Eastern Shore by providing transparency and predictability for economic investments in coastal, and marine industries and related businesses. A Seaside SAMP could promote objectives such as economic incentives (e.g., cost savings and more predictable and faster use approvals).
2. **Ecological Benefits:** A Seaside SAMP could improve ecosystem health and services by planning human uses in concert with the conservation of important ecological areas, such as areas of high productivity and biological diversity; areas and key species that are critical to ecosystem function and resiliency; areas of spawning, breeding, and feeding; areas of rare or functionally vulnerable marine resources; and migratory corridors. Enhanced ecosystem services and benefits can be attained through the SAMP because they are centrally incorporated as desired outcomes of the process and not just evaluated in the context of individual Federal or State agency action. A Seaside SAMP would allow for a comprehensive look at multiple sector demands which would provide a more complete evaluation of cumulative effects. This ultimately is intended to result in protection of areas that are essential for the resiliency and maintenance of healthy ecosystem services and biological diversity, and to maximize the ability of marine resources to continue to support a wide variety of human uses.
3. **Social Benefits:** A Seaside SAMP would improve opportunities for community and citizen participation in an open planning process that would determine the future of the Seaside. For example, the process would recognize the social, economic, public health,

and conservation benefits of sustainable recreational use of the Seaside (e.g., fishing, boating, swimming, wildlife watching), by providing improved coordination with recreational users to ensure consideration of continued access and opportunities to experience and enjoy these activities consistent with safety and conservation goals.

V. Likelihood of Success

Discuss the likelihood of attaining the proposed program change and implementation activities.

1) Nature and degree of support for pursuing the strategy and the proposed change.

Virginia CZM's Coastal Policy Team (comprised of state agency division and program directors as well as regional planning district representatives) ranked this issue as a high priority. The CPT has been very supportive of efforts to restore and improve the ecological and economic conditions of the Seaside of Virginia's Eastern Shore. Locally, there is strong support from the shellfish cultivation industry and conservationists. The Marine Resources Commission has supported the effort and recognizes the need for a change in how we manage this dynamic system. MRC particularly supports the concept of attempting a change in a smaller geographic area first before attempting to change the underwater lands management system coastal zone-wide. It is anticipated that there will be some "push back" from watermen harvesting wild shellfish unless they can be convinced that they too gain from a change in the management system. General public support for the concept is unknown at this time but care must be taken in ensuring that information is presented to the public accurately and with sufficient time to allow for a thorough public discussion.

2) Specific actions the state will undertake to maintain or build future support for achieving and implementing the program change, including education and outreach activities.

The Seaside SAMP Project Team will attempt to build support for this effort by employing some or all of the following techniques:

- Conducting stakeholder workshops
- Posting public notices
- Publishing articles in our *Virginia Coastal Management* magazine and other publications such as the Citizens for a Better Eastern Shore newsletter
- Creating and staffing exhibits at public events such as the Eastern Shore Birding & Wildlife Festival and the Eastern Shore Watershed Walk
- Giving presentations on the Seaside SAMP through the VIMS and UVA Seminar Series
- Participating in the meetings of related groups such as the Marine Resources Commission's Habitat Advisory Committee

VI. Strategy Work Plan

Using the template below, provide a general work plan that includes the major steps necessary for achieving the program change and/or implementing a previously achieved program change. The plan should identify significant projected milestones/outcomes, a schedule for completing the strategy, and budget estimates. If an activity will span two or more years, it can be combined into one entry (i.e., Years 2-3 rather than Year 2 and then Year 3). While the annual outcomes are a useful guide to ensure the strategy remains on

track, OCRM recognizes that these benchmarks may change some over the course of the five-year strategy due to unforeseen circumstances. The same holds true for the annual budget estimates. If the state intends to fund implementation activities for the proposed program change, describe those in the plan as well. Further detailing of annual tasks, budgets, benchmarks, and work products will be determined through the annual award negotiation process.

Total Years: Two Years
Total Budget: \$120,000
Final Outcome(s) and Products: A Seaside Spatial Management Plan that maximizes spatial allocations for human uses and conservation objectives

Year One: FY 2011

Description of activities: In FY 2011, the Seaside SAMP Project Team will use the results of the habitat assessments generated in FY 09 and 10 to identify a range of alternative future spatial management scenarios. Comparative analyses will be conducted to assess and forecast the tradeoffs and cumulative effects and benefits among multiple human use alternatives. The alternatives and supporting analyses will provide the basis for a draft Seaside Spatial Plan. However, unlike the Ocean Marine Spatial Plan, this plan will likely incorporate mechanisms for adjusting the boundaries of human uses on relatively short time scales, adding another layer of complexity. Key to the Seaside Spatial Plan will be the identification of a process and regulatory bodies that will have day to day authority to make changes to this plan in order to maximize ecological services as well as economic benefits that can be derived from the Seaside. Funds for this task will be used for decision support tool development and or expert facilitators. The Accomack-Northampton Planning District Commission's Environmental Planner will likely provide project management and some facilitation services.

Outcome(s):

1. Comparative Analysis of Human Use Alternatives for the Seaside
2. Draft Seaside Spatial Plan incorporating compliance, monitoring, enforcement and dispute resolution mechanisms.

Budget: \$60,000

Year Two: FY 2012

Description of activities: In FY 2012, the Seaside SAMP Project Team will present the draft plan for public review, solicit and review public comments on the draft plan, and develop a final plan for adoption by the Marine Resources Commission and/or other local regulatory bodies.

Outcome(s):

1. Final Seaside Spatial Management Plan

Budget: \$60,000

VII. Fiscal and Technical Needs

A. Fiscal Needs: *If 309 funding is not sufficient to carry out the proposed strategy, identify additional funding needs. Provide a brief description of what efforts the applying agency has made, if any, to secure additional state funds from the legislature and/or other sources to support this strategy.*

No additional funding need is anticipated at this time.

B. Technical Needs: *If the state does not possess the technical knowledge, skills, or equipment to carry out the proposed strategy, identify these needs. Provide a brief description of what efforts the applying agency has made, if any, to obtain the trained personnel or equipment needed (for example, through agreements with other state agencies).*

A major technical need for the Seaside SAMP is the identification of a facilitator who possesses in depth knowledge of Virginia's Eastern Shore, is neutral in their perspective and trusted by the local population, who understands the concepts of marine spatial planning and who can devote considerable time to communicating with local stakeholders about the value of creating a new spatial management approach for the Seaside.

The Seaside SAMP project team is currently searching for a facilitator. A few suggestions have been offered, but one who meets all of the above criteria has not yet been identified.

VIII. Projects of Special Merit (Optional)

If desired, briefly indicate what PSMs the CMP may wish to pursue to augment this strategy. Any activities that are necessary to achieve the program change or that the state intends to support with baseline funding should be included in the strategy above. The information in this section will not be used to evaluate or rank PSMs and is simply meant to provide the CMPs the option to provide additional information if they choose. PSM descriptions should be kept very brief (e.g., undertake benthic mapping to provide additional data for ocean management planning). Do not do provide detailed project descriptions that would be needed for the PSM competition.

Ocean Resources

Virginia Marine Spatial Plan

I. Issue Area(s)

The proposed strategy or implementation activities will support the following priority (high or medium) enhancement area(s) (*check all that apply*):

- | | |
|---|---|
| <input type="checkbox"/> Aquaculture | <input type="checkbox"/> Cumulative and Secondary Impacts |
| <input checked="" type="checkbox"/> Energy & Government Facility Siting | <input type="checkbox"/> Wetlands |
| <input type="checkbox"/> Coastal Hazards | <input checked="" type="checkbox"/> Marine Debris |
| <input checked="" type="checkbox"/> Ocean/Great Lakes Resources | <input type="checkbox"/> Public Access |
| <input type="checkbox"/> Special Area Management Planning | |

II. Program Change Description

A. The proposed strategy will result in, or implement, the following type(s) of program changes (*check all that apply*):

- A change to coastal zone boundaries;
- New or revised authorities, including statutes, regulations, enforceable policies, administrative decisions, executive orders, and memoranda of agreement/understanding;
- New or revised local coastal programs and implementing ordinances;
- New or revised coastal land acquisition, management, and restoration programs;
- New or revised Special Area Management Plans (SAMP) or plans for Areas of Particular Concern (APC) including enforceable policies and other necessary implementation mechanisms or criteria and procedures for designating and managing APCs; and,
- New or revised guidelines, procedures and policy documents which are formally adopted by a state or territory and provide specific interpretations of enforceable CZM program policies to applicants, local government and other agencies that will result in meaningful improvements in coastal resource management.

B. *Describe the proposed program change(s) or activities to implement a previously achieved program change. If the strategy will only involve implementation activities, briefly describe the program change that has already been adopted, and how the proposed activities will further that program change. (Note that implementation strategies are not to exceed two years.)*

The Virginia CZM Program will develop a **Virginia Marine Spatial Plan (MSP)** for the waters off Virginia’s coast in concert with the Mid-Atlantic Regional Council on the Ocean (MARCO) and the “regional planning body” called for in the July 19, 2010 Final Recommendations of the Interagency Ocean Policy Task Force (IOPTF). The IOPTF’s recommendations and the accompanying Presidential Executive Order can be viewed at http://www.whitehouse.gov/files/documents/OPTF_FinalRecs.pdf As the path forward becomes clear, Virginia will determine critical specifics such as what geographic area will be covered by the plan and exactly what form the “enforceable policy” will need to take. At a

minimum, Virginia’s Marine Spatial Plan will cover the area from mean low water along Virginia’s Atlantic coast out to the 200 mile Exclusive Economic Zone. If time and funding allow, or should it become required, the Virginia portion of Chesapeake Bay will also be included.

In addition this Ocean Resources Strategy will include creation of a **Virginia Marine Debris Plan**, with an analysis of key marine debris issues and prioritization of these issues. The Plan will be presented to the Virginia Coastal Policy Team and MARCO for adoption. Decreasing marine debris is one of the goals within MARCO’s set of “Water Quality” goals.

III. Need(s) and Gap(s) Addressed

Identify what priority need the strategy addresses, and explain why the proposed program change or implementation activities are the most appropriate means to address the priority need. This discussion should reference the key findings of the Assessment and explain how the strategy addresses those findings.

The Ocean Resources Assessment identifies six needs:

1. Habitat spatial data, particularly for canyons, corals, sand shoals and migration corridors for marine mammals, sea turtles and birds as well as what human uses negatively impact these habitats.
2. Human use spatial data such as favored fishing locations and traffic patterns are and to what degree these uses are compatible with habitat protection and energy development
3. Development of a marine spatial plan
4. Staff assistance for the marine spatial plan
5. Comprehensive assessment of extractable sand resources
6. Improved understanding of climate change impacts on ocean resources

Section 309 funds are insufficient to fill all of our data needs. So while those needs are an extremely high priority, we cannot hope to meet them all through this funding vehicle and will have to rely on other sources to fill most of those data gaps over time. Therefore the need that this strategy will focus on primarily is the development of a marine spatial plan (items 3 and 4 above) for the Atlantic ocean waters offshore of Virginia in concert with the development of a Mid-Atlantic regional plan by MARCO (the Mid-Atlantic Regional Council on the Ocean – see: <http://midatlanticocean.org/>) and the National Ocean Council’s soon to be formed “regional planning body” for the Mid-Atlantic (see: http://www.whitehouse.gov/files/documents/OPTF_FinalRecs.pdf). Some funds (about \$142,200 over the 5 year period) will be kept available for small data collection and analysis projects.

The Marine Debris Assessment notes that this issue is one of medium importance in Virginia, but one that has received little attention. Given the significant impact marine debris can have on ocean resources, we propose to include it in this Ocean Strategy. Problems associated with marine debris in Virginia’s waters and federal waters offshore of Virginia include resource damage, threats to wildlife and habitat, aesthetic impacts, economic impacts, threats to human health and safety, user conflicts, and boating safety.

Although a number of nongovernmental organizations are involved in marine debris management, efforts often lack coordination and there is a need to prioritize actions. During the 309 Assessment process, the need for a Virginia Marine Debris Plan was identified as a means of providing better coordination and prioritization. The three high priority needs

The Marine Debris Assessment identifies three high priority needs

1. Continued education and outreach for general litter prevention and recycling, as well as specific concerns
2. Increased state involvement in and coordination of marine debris issues
3. Continued funding for removal of derelict fishing gear

According to data from the International Coastal Cleanup program conducted annually by Clean Virginia Waterways, land-based activities (mostly attributable to littering) accounted for approximately 95% of the marine debris items collected on Virginia's beaches, inland rivers and tributaries. Balloon litter and discarded fishing line both present a risk of wildlife entanglement. While mass releases of balloons are illegal in Virginia, balloon debris is found more frequently on beaches than in or around other state waterways. Since balloons can resemble jellyfish, they present a potential ingestion hazard for wildlife. Cigarette litter, often resulting from roadway, sidewalk, and parking lot litter washing into waterways, presents a unique ingestion hazard to wildlife because it is floatable and toxic.

Unmarked "ghost" crab pots are also a major marine debris issue in Virginia. A winter 2008-2009 removal program, the largest of its kind in the nation covering over 1500 square kilometers, resulted in the recovery of more than 8,600 derelict crab pots in the Chesapeake Bay. Blue crabs, turtles and various fish species that are entrapped and die in derelict traps can act as an attractant to crabs resulting in a self-baiting effect.

Finally, given that the Energy and Government Facility Siting issue was also ranked as highly important by the Coastal Policy Team, through development of a Virginia Marine Spatial Plan, this Ocean Resources strategy will address many of the needs identified in that assessment. Chief among them will be the appropriate siting of offshore wind energy facilities. This is Item #1 in the Needs and Gaps chart for that issue.

IV. Benefit(s) to Coastal Management

Discuss the anticipated effect of the program change or implementation activities including a clear articulation of the scope and value in improved coastal management and resource protection.

The anticipated value of having a Virginia Marine Spatial Plan (MSP) is three-fold:

4. Economic benefits: A Virginia MSP could facilitate sustainable economic growth in coastal communities by providing transparency and predictability for economic investments in coastal and marine industries, transportation, public infrastructure, and related businesses. A Virginia MSP could promote objectives such as enhanced energy

security and trade and provide specific economic incentives (e.g., cost savings and more predictable and faster project implementation) for commercial users.

5. **Ecological Benefits:** A Virginia MSP could improve ecosystem health and services by planning human uses in concert with the conservation of important ecological areas, such as areas of high productivity and biological diversity; areas and key species that are critical to ecosystem function and resiliency; areas of spawning, breeding, and feeding; areas of rare or functionally vulnerable marine resources; and migratory corridors. Enhanced ecosystem services and benefits can be attained through MSP because they are centrally incorporated into a Virginia MSP as desired outcomes of the process and not just evaluated in the context of individual Federal or State agency action. A Virginia MSP would allow for a comprehensive look at multiple sector demands which would provide a more complete evaluation of cumulative effects. This ultimately is intended to result in protection of areas that are essential for the resiliency and maintenance of healthy ecosystem services and biological diversity, and to maximize the ability of marine resources to continue to support a wide variety of human uses.
6. **Social Benefits:** A Virginia MSP would improve opportunities for community and citizen participation in open planning processes that would determine the future of Virginia's coast. For example, the process would recognize the social, economic, public health, and conservation benefits of sustainable recreational use of ocean and coastal resources (e.g., fishing, boating, swimming, and diving), by providing improved coordination with recreational users to ensure consideration of continued access and opportunities to experience and enjoy these activities consistent with safety and conservation goals. Integrated engagement and coordination should result in stronger and more diverse ocean and coastal stewardship, economies, and communities. Moreover, a Virginia MSP could assist managers in planning activities to sustain cultural and recreational uses, human health and safety, and the continued security of Virginia's coast. For instance, an MSP would help to ensure that planning areas identified as important for public use and recreation are not subject to increased risk of harmful algal blooms, infectious disease agents, chemical pollution, or unsustainable growth of industrial uses.

The anticipated value of having a Virginia Marine Debris Plan is four-fold:

1. It will increase the visibility of marine debris issues and management efforts in Virginia and the Mid-Atlantic region
2. It will increase coordination among the organizations currently involved in preventing and removing marine debris
3. It will set measureable goals and objectives for future management efforts.
4. It will develop source reduction strategies for certain items of special concern including balloons, tobacco products, plastic bags, fishing line and derelict crab pots.

V. Likelihood of Success

Discuss the likelihood of attaining the proposed program change and implementation activities.

1) Nature and degree of support for pursuing the strategy and the proposed change.

Virginia CZM's Coastal Policy Team (comprised of state agency division and program directors as well as regional planning district representatives) ranked ocean resources as high and marine debris as medium priorities. Although it is difficult for state agencies and local governments to assume a sense of responsibility for waters far off Virginia's coast, they do recognize the fact that regional, state and local input is critical to ensuring that our Virginia needs are heard and met by federal government authorities and that, in the case of marine debris, that waste generated in Virginia ends up in federal waters. The Marine Spatial Plan is, in fact, an unprecedented opportunity for Virginians to shape how the Virginian coast and even the Mid-Atlantic coast is used in the future. So while there remain many other pressing needs for these funds within local and state waters, the Coastal Policy Team agrees that these efforts are necessary, worthwhile and overdue.

The likelihood of success is further bolstered by the MARCO Governors' Ocean Conservation Agreement which calls for the development of a marine spatial plan for the Mid-Atlantic. This agreement was signed by Governor Kaine in 2009 and participation under Virginia's new Governor, Bob McDonnell is still pending review. The President's July 19 2010 Executive Order requires the development of regional Coastal and Marine Spatial Plans over the next five years. Until and unless Congress appropriates funds for CMSP, the CZM Section 309 funding may be one of the only sources of funding for CMSP efforts. Regardless of whether Virginia continues to participate in MARCO, making headway on this strategy will be a useful endeavor.

The likelihood of success for the Marine Debris Plan may also be bolstered by EPA, through the TMDL process, which may eventually include floatables as a stormwater issue that localities are required to address.

2) Specific actions Virginia will undertake to maintain or build future support for achieving and implementing the program change, including education and outreach activities.

The Virginia CZM Program will attempt to build support for these efforts by employing some or all of the following techniques:

- Conducting stakeholder workshops
- Posting public notices
- Publishing articles in our *Virginia Coastal Management* magazine and other publications
- Creating and staffing exhibits at conferences and public events such as the Urbanna Oyster Festival, the State Fair, the Birding & Wildlife Festival, the Virginia Conservation Network Annual Meeting, etc.
- Conducting press events
- Participating in the meetings of related groups such as the MARCO Management

Board (the Virginia CZM Manager currently sits on that Board), the Department of Interior's Bureau of Ocean Energy Management, Reclamation & Enforcement Task Forces on offshore renewable energy, Clean Virginia Waterways meetings and the Mid-Atlantic Fishery Management Council quarterly meetings

VI. Strategy Work Plan

Using the template below, provide a general work plan that includes the major steps necessary for achieving the program change and/or implementing a previously achieved program change. The plan should identify significant projected milestones/outcomes, a schedule for completing the strategy, and budget estimates. If an activity will span two or more years, it can be combined into one entry (i.e., Years 2-3 rather than Year 2 and then Year 3). While the annual outcomes are a useful guide to ensure the strategy remains on track, OCRM recognizes that these benchmarks may change some over the course of the five-year strategy due to unforeseen circumstances. The same holds true for the annual budget estimates. If the state intends to fund implementation activities for the proposed program change, describe those in the plan as well. Further detailing of annual tasks, budgets, benchmarks, and work products will be determined through the annual award negotiation process.

Total Years:	Five Years
Total Budget:	\$588,200
Final Outcome(s) and Products:	A Virginia Marine Spatial Plan and a Virginia Marine Debris Plan each adopted by appropriate entities able to enforce them.

Year One: FY 2011

Description of activities: In the first year, A Marine Spatial Plan/Marine Debris Plan Coordinator will be hired as a Virginia Institute of Marine Science contractor for the Virginia CZM Program. The Coordinator will maintain an office in Richmond, Virginia within the CZM Program Office.

During the first year, for the MSP, the Coordinator will expand the list of Virginia offshore marine stakeholders/users developed for the December 2009 MARCO Stakeholder Workshop which was held in NYC and communicate with them through surveys or convene them in order to refine the offshore ocean management objectives for the various uses such as fishing, energy development, conservation, sand mining, transportation and whatever other objectives may be identified. The Coordinator will also create an inventory of existing efforts (building on any work MARCO may have accomplished by October 2011) in the offshore Virginia area that may inform the appropriate management of Virginia's ocean resources. The Coordinator will work with the CZM Manager and Virginia ocean stakeholders to develop a Virginia perspective on management objectives that will feed into the National Ocean Council's "Regional Planning Body."

that is a persistent state of affairs and policy making almost always is forced to proceed with imperfect information. The only antidote to that is adaptive management where policies are implemented and then adjusted when we see that they do not have the desired effect.

B. Technical Needs: *If the state does not possess the technical knowledge, skills, or equipment to carry out the proposed strategy, identify these needs. Provide a brief description of what efforts the applying agency has made, if any, to obtain the trained personnel or equipment needed (for example, through agreements with other state agencies).*

This strategy will provide funds for the hiring of a Virginia MSP and MDP Coordinator which will vastly increase the Virginia CZM Program's technical capabilities. We anticipate hiring a professional well versed in ocean management and marine debris issues and with excellent facilitation and writing skills. We already have excellent in-house GIS capabilities through our GIS Coordinator. We anticipate collaboration in this effort with MARCO (should Governor McDonnell choose to continue to participate) and the soon to be created Mid-Atlantic "regional planning body." These groups will likely have strong technical support from relevant federal agencies.

VIII. Projects of Special Merit (Optional)

If desired, briefly indicate what PSMs the CMP may wish to pursue to augment this strategy. Any activities that are necessary to achieve the program change or that the state intends to support with baseline funding should be included in the strategy above. The information in this section will not be used to evaluate or rank PSMs and is simply meant to provide the CMPs the option to provide additional information if they choose. PSM descriptions should be kept very brief (e.g., undertake benthic mapping to provide additional data for ocean management planning). Do not do provide detailed project descriptions that would be needed for the PSM competition.

Projects of Special Merit envisioned for this Ocean Resources Strategy may include:

- **Data collection:** As regional MSPs are being developed, certain data gaps may pose insurmountable barriers to drafting the plan. Virginia anticipates participation in regional projects and may submit a proposal on behalf of the region or to fill a Virginia-specific data gap that is hampering the region.
- **Data analysis:** Data may be available but not yet synthesized into a readily accessible format that can be fed into decision support tools. Virginia CZM may submit projects of this type for Virginia specific or regional data. An example for the Marine Debris Plan may be synthesis and analysis of recreational and commercial boating data and commercial crabbing data.
- **Decision support tools:** A need may arise for the development of software that allows a user to input data to a model and then calculate the costs/benefits of a particular human use or natural hazard scenario. Virginia CZM may submit projects of this type for Virginia specific or regional data.
- **Facilitation services:** Depending on the skill level of existing staff within Virginia (or the Mid-Atlantic region) a PSM for highly skilled facilitators(s) may be submitted to assist

with stakeholder and public workshops. An ability to negotiate agreements among passionate stakeholders and to synthesize an extremely large volume of information will be essential. The goal of such facilitation will be to reduce conflicts among users; eg. Between wind farms and migration corridors or recreational boaters and crab pots.

- Educational or social marketing materials: To promote awareness of impacts on the ocean and ways to avoid them; e.g Bay/Ocean-Safe packaging using fully degradable components.

V. 5-YEAR BUDGET SUMMARY BY STRATEGY

	Oct 11 - Sep 12	Oct 12 - Sep 13	Oct 13 - Sep 14	Oct 14 - Sep 15	Oct 15 - Sep 16	
	Year 1	Year 2	Year 3	Year 4	Year 5	
	FY 11	FY 12	FY 13	FY 14	FY 15	Total
Program Implementation: RPC's and 2015 Assessment & Strategy	\$0	\$0	\$30,000	\$30,000	\$30,000	\$90,000
Cumulative and Secondary Impacts						
Working Waterfront	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$250,000
Shoreline Management						
Living Shoreline: State Policies	\$30,000	\$0	\$0	\$0	\$0	\$30,000
Local Shoreline Management Plans	\$150,000	\$135,000	\$135,000	\$135,000	\$135,000	\$690,000
Land & Water Quality Protection						
HR PDC: Urban & Transitional	\$90,000	\$90,000	\$90,000	\$0	\$0	\$270,000
MP PDC: Rural	\$50,000	\$50,000	\$50,000	\$0	\$0	\$150,000
Implementation of Pilot Projects				\$137,400	\$140,000	\$277,400
Special Area Management Planning						
Seaside SAMP	\$60,000	\$60,000	\$0	\$0	\$0	\$120,000
Ocean Resources						
Marine Spatial Plan						
Coordinator	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$400,000
Data Collection & Analysis	\$20,000	\$17,400	\$47,400	\$30,000	\$27,400	\$142,200
Marine Debris Plan	\$6,000	\$0	\$0	\$20,000	\$20,000	\$46,000
TOTAL	\$536,000	\$482,400	\$482,400	\$482,400	\$482,400	\$2,465,600

VI. ACRONYMS

ARRA – American Recovery and Reinvestment Act of 2009 (“Recovery Act”)
ASMFC – Atlantic States Marine Fisheries Commission
BBNWR – Back Bay National Wildlife Refuge
BLM – Bureau of Land Management
BMP – Best Management Practices
CBF – Chesapeake Bay Foundation
CBGN – Chesapeake Bay Gateways Network
CBLB – Chesapeake Bay Local Assistance Board
CBPADMR – Chesapeake Bay Preservation Area Designation and Management Regulations
CCB – Center for Conservation Biology
CCI – Comprehensive Coastal Inventory Program
CELCP – Coastal and Estuarine Land Conservation Program
CESCF – Cooperative Endangered Species Conservation Fund
CINWR – Chincoteague Island National Wildlife Refuge
CNHT – Chesapeake National Historic Trail
CVW – Clean Virginia Waterways
CWP – Center for Watershed Protection
CZM – (Virginia) Coastal Zone Management (Program)
CZMA – Coastal Zone Management Act
DCR – Department of Conservation and Recreation (Virginia)
DEQ – Virginia Department of Environmental Quality
DFGP – Derelict Fishing Gear Program
DGIF – Department of Game and Inland Fisheries
DMA – Disaster Mitigation Act
DMME – Department of Mines, Minerals and Energy
DOI – Department of the Interior
ECM – Ecological Core Model
EIS – Environmental Impact Statement
FEMA – Federal Emergency Management Agency
FIRM – Flood Insurance Rate Maps
GCCC – Governor’s Commission on Climate Change
GEMS – Geospatial and Educational Mapping System
GIS – Geographic Information Systems
GWRC – George Washington Regional Commission
HIRA – Hazard Identification and Risk Assessment
HRPDC – Hampton Roads Planning District Commission
ICC – International Coastal Cleanup
INSTAR – Interactive Stream Assessment Resource Healthy Waters Initiative
JLARC – Joint Legislative Audit and Review Commission
JST – John Smith Trail
KVB – Keep Virginia Beautiful
LAL – Limulus Amoebocyte Lysate
LIDAR – Light Detection And Ranging
LIDATF – Low Impact Development Assessment Task Force

LNG – Liquefied Natural Gas
 LWCF – Land and Water Conservation Fund
 MAFMC - Mid-Atlantic Fishery Management Council
 MAPP – Mid-Atlantic Power Pathway
 MARAD – Federal Maritime Administration
 MARCO – Mid-Atlantic Regional Council for the Ocean
 MAWW – Mid-Atlantic Wetlands Workgroup
 MDNR – Maryland Department of Natural Resources
 MIBI – Modified Index of Biotic Integrity
 MMS – Minerals Management Service
 MPCBPAA – Middle Peninsula Chesapeake Bay Public Access Authority
 MPPDC – Middle Peninsula Planning District Commission
 MSRA – Magnusson-Stevens Reauthorization Act of 2006
 NASS – National Agricultural Statistics Service
 NEAMAP – Northeast Monitoring and Assessment Program
 NFWF – National Fish and Wildlife Foundation
 NIMBY – “Not In My Backyard”
 NNCBPAA – Northern Neck Chesapeake Bay Public Access Authority
 NOAA – National Oceanic and Atmospheric Administration
 NPDS – National Pollutant Discharge System
 NRC – Nuclear Regulatory Commission
 NVRC – Northern Virginia Regional Commission
 NWI – National Wetlands Inventory
 OCS – Outer Continental Shelf
 OCSLA – Outer Continental Shelf Land Act
 ODEC – Old Dominion Electricity Cooperative
 OSDS – Onsite Sewage Disposal System
 OTEC – Ocean Thermal Energy Conversion
 PAA – Public Access Authority
 PCA – Priority Conservation Areas
 PDC – Planning District Commission
 PWDCA – Priority Wildlife Diversity Conservation Areas
 QTP – Quality’s Waste Tire Program
 RPA – Resource Protection Area
 SAFETEA-LU - Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for
 Users
 SAMP – Special Area Management Plan
 SAV – Submerged Aquatic Vegetation
 SCC – State Corporate Commission
 SELC - Southern Environmental Law Center
 SMP – Shoreline Management Plan
 SWCD – Soil and Water Conservation District
 TMDL – Total Maximum Daily Load
 TMI – Tidal Marsh Inventory
 TNC – The Nature Conservancy
 TOGA – Tidewater Oyster Gardeners Association

USDOJ – U.S. Department of Justice
USDOH – U.S. Department of Health and Human Services
USDOE – U.S. Department of Energy
USDOA – U.S. Department of Agriculture
USDOHHS – U.S. Department of Health and Human Services
USDOJ – U.S. Department of Justice
USEPA – U.S. Environmental Protection Agency
USFDA – U.S. Food and Drug Administration
USACE – U.S. Army Corps of Engineers
USFWS – U.S. Fish and Wildlife Service
VaNLA – Virginia Natural Landscape Assessment
VASS – Virginia Agricultural Statistics Service
VCERC – Virginia Coastal Energy Research Consortium
VDACS – Virginia Department of Agriculture and Consumer Services
VDEM – Virginia Department of Energy Management
VDH – Virginia Department of Health
VDOT – Virginia Department of Transportation
VIMS – Virginia Institute of Marine Science
VLCNA – Virginia Lands Conservation Needs Assessment
VLPP – Virginia’s Litter Prevention Program
VMRC – Virginia Marine Resources Commission
VNEMO – Virginia Network for Education of Municipal Officials
VOP – Virginia Outdoor Plan
VRS3 – Virginia Renewables Siting Scoring Systems
VRSFF – Virginia Recreation Saltwater Fishing Fund
VSP – Virginia State Parks
VTC – Virginia Tourism Corporation
VWEC – Virginia Wind Energy Collaborative
WW – Working Waterfront

VII. Appendix

Letters received during public comment period conducted
December 1, 2010 – January 3, 2011



TOWN OF CHINCOTEAGUE, INC.

January 3, 2011

Beth Polak
Virginia CZM Program
623 East Main Street
Richmond, VA 23219

RE: Section 309 Coastal Zone Enhancement Program 2011-2016

Dear Ms. Polak:

Please accept the following public comment in response to the Draft Needs Assessment and Strategy that your office submitted to NOAA under the Section 309 Program on September 20, 2010.

As a professional land use planner, working for the Town of Chincoteague in Virginia, I am trying to stay informed on the programs and policies that will affect our community. The CZM Program has accomplished significant long range planning projects on the Eastern Shore in the past and we look forward to working with you in the future.

The following ideas and observations are my own and do not reflect an official response by our local government.

- ❖ Continue to support coastal community planning under a Coastal Hazards strategy
 - The ESVA Adaptation Working Group, sponsored by The Nature Conservancy, has established a priority for the processing and application of LiDAR elevation data. We will need your continued assistance at the local community level through the Coastal GEMS program to prepare map products and analysis
 - The priority that NOAA has placed on climate adaptation, weather resilience and sustainable coastal communities/economies should be supported by the Virginia 309 plan as a high priority with strategies developed to support a program similar to Maryland's 'Coast-Smart Communities'

- ❖ Prepare the Working Waterfronts Plan as a Project of Special Merit – not under the CSI strategy
 - Considering this topic under the Cumulative and Secondary Impacts strategy rather than a more comprehensive strategy creates a bias against existing coastal communities
 - Shoreline management strategies for 'living shorelines', migration of wetlands, and blue/green infrastructure separation of human use from all water edges will conflict with the Working Waterfront strategy and will require special consideration

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- ❖ Include coastal communities in the 309 document planning scope or consider an exclusion for 'human use' habitats from the enforceable policies that are proposed
 - Coastal communities, like Chincoteague, are not recognized as a habitat type for consideration under the proposed Seaside SAMP or the Working Waterfronts strategies
 - The Virginia 309 Plan excludes existing 'human use' communities from consideration except as an 'impact' on natural resources

The proposed Marine Spatial Plan process along with a continued Seaside SAMP will encourage needed long range planning for the Eastern Shore. I look forward to your efforts and hope to participate as an advocate for balancing 'natural resource protection and reasonable coastal-dependent economic growth' in our coastal communities.

Sincerely,



William W. Neville, AICP
Director of Planning

cc. Elaine K. N. Meil, A-NPDC



VCAN
Virginia Coastal Access Now

Helping provide public access to Virginia's coast!

VCAN Home Office
1356 Pamlico Blvd.
Chesapeake VA 23322
757-410-3180
vcnaccess@verizon.net

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January 3, 2011

Ms. Beth Polak/DEQ

VA CZM Program

Beth.polak@deq.virginia.gov

VCAN public comments on the Virginia Coastal Zone Management Program's Draft Section 309 Needs Assessment & Strategy (the strategy) September 20, 2010

Virginia Coastal Access Now (VCAN) supports the strategy with the following comment. VCAN believes that public access as a coastal management or "enhancement" area under the CZMA Section 309 is a top priority area that should have been listed by the Virginia CZM Program. This can be found in the strategy's own assessment of public access wherein the continuing trend of the loss of public access via the "privatization of the shoreline" is identified in the face of a stated increase in demand for public access in the Virginia Outdoor Plan. The Middle Peninsula Survey data conducted by the MPCPPAA also expressed that no survey respondents thought that public access to the coast was adequate or better. This response is shared throughout Virginia's coastal zone based on many examples where public access to the water's of the Chesapeake Bay have been lost over the last 40 plus years that continue to this vary day. Hence, our non-profit agrees with the public access component of the strategy with increased priority.

The strategy, specifically the Cumulative and Secondary Impacts (CSI) of Coastal Growth & Development enhancement are, is a potential vehicle to help stop and even reverse this trend by including planned actions to restore public access while developing Working Waterfronts. Under the CSI, a goal to expanding public access needs to include the creation of new public access opportunities, precluding the closure of existing public access locations, and the restoration of sites where public access has been lost.

Virginia Coastal Access Now (VCAN) is a nonprofit 501c3 organization established September 18, 2006
To maintain and enhance the public's access to Virginia's beaches and waterways within the Commonwealth of Virginia's Coastal Zone
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The VA CZM Program Strategy should dovetail with the President's Executive Order (EO) and draft Chesapeake Bay Strategy Goals Framework (March 19, 2010) including it's public access component for public access to the waters of the Chesapeake Bay.

Enhancements by both these strategies and the proposed Working Water front Preservation Act of 2009 could ensure and restore waterfront and public access. Under the proposed Act, the EO, and draft strategies, restoration of public access could range from re-acquisition of public property from private control to lifting restrictions on parking to removing barriers at public access sites. The lack of public parking or "access to the access" is the great façade of public access. How and where possible in the strategy, the Virginia CZM Program must address the need, issue, and requirement for public parking to provide real public access.

The Coastal GEMS website is an excellent resource for mapping public access. This GIS based resource could include a data layer under recreational features that clearly identifies the availability of public parking.

The Virginia Recreation Saltwater Fishing Fund that are generate from fishing license fees for increasing public access for fishing in saltwater areas should be utilized to improve public access in the saltwater of Virginia's coastal zone when the funds are made available.

VCAN endorses the Coastal Policy Team's stated recommendation that "The issue of public access will be addressed through the CSI, Working Waterfronts strategy by coupling efforts to retain or enhance public access to regionally identified coastal areas for recreational as well as commercial water-dependent activities."

Virginia Coastal Access Now expresses our gratitude for VA CZM Program's efforts on behalf of public access and thanks the DEQ for the opportunity to comment.

Respectfully submitted,



Mark Feltner, President



January 3, 2011

Ms. Beth Polak
Virginia Coastal Zone Management Program
Department of Environmental Quality
629 East Main Street
Richmond, VA 23219

Re: Section 309 Coastal Zone Enhancement Program – Draft Assessment and Strategy
Public Comments

Dear Ms. Polak:

The staff of the Hampton Roads Planning District Commission has received and reviewed the Section 309 Coastal Zone Enhancement Program Draft Assessment and Strategy. Based on this review, we believe that the strategy adequately identifies critical issues facing coastal zone localities in Hampton Roads. This strategy addresses a key need in the region for consideration of issues facing the coastal zone.

Specifically, we believe that the section addressing Cumulative and Secondary Impacts of Coastal Growth and Development provides an important opportunity for the development of effective policies that address imminent regulatory issues, including the Chesapeake Bay TMDL and changes to Virginia's stormwater regulations. HRPDC is capable of performing the tasks laid out in the strategy for October 2011 to September 2014.

We appreciate the opportunity to review this draft strategy. If you have any questions, please do not hesitate to call.

Sincerely,

Dwight Farmer
Executive Director/Secretary

BJM/kg

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January 3, 2011

Beth Polak
Virginia CZM Program
629 East Main Street
Richmond, VA 23219

Re: TNC Comments on the Virginia Coastal Zone Management Program's
Draft Section 309 Needs Assessment and Strategy

Dear Ms. Polak:

I am writing to provide The Nature Conservancy's comments on the Virginia Coastal Zone Management Program's Draft Section 309 Needs Assessment and Strategy ("the document"). In general, the Conservancy wishes to convey its strong support for the three priority areas identified in the document: ocean resources, cumulative and secondary impacts of growth and development, and special area management planning.

Several of the strategies outlined within the three priority areas are closely aligned with The Nature Conservancy's objectives in Virginia and the Mid-Atlantic region. We are particularly pleased with the strategies outlined in the document to:

- Develop a Marine Spatial Plan for the Seaside's barrier island lagoon system as part of the Seaside Special Area Management Plan,
- Develop a Virginia Marine Spatial Plan for the waters off Virginia's coast in concert with the Mid-Atlantic Regional Council on the Ocean and the "regional planning body" called for in the July 19, 2010 Final Recommendations of the Interagency Ocean Policy Task Force, and
- Continue work to promote the use of living shorelines.

The Nature Conservancy will do whatever we can to assist in these efforts.

We place tremendous value on our partnership with the Virginia Coastal Zone Management program. Thank you for the opportunity to provide these comments.

Sincerely,



Nicole M. Rovner
Director of State Government Relations