

Special Area Management Planning

Section 309 Enhancement Objective

Preparing and implementing special area management plans for important coastal areas

The Coastal Zone Management Act (CZMA) defines a Special Area Management Plan (SAMP) as “a comprehensive plan providing for natural resource protection and reasonable coastal-dependent economic growth containing a detailed and comprehensive statement of policies; standards and criteria to guide public and private uses of lands and waters; and mechanisms for timely implementation in specific geographic areas within the coastal zone. In addition, SAMPs provide for increased specificity in protecting natural resources, reasonable coastal-dependent economic growth, improved protection of life and property in hazardous areas, including those areas likely to be affected by land subsidence, sea level rise, or fluctuating water levels of the Great Lakes, and improved predictability in governmental decision making.”

Resource Characterization

Purpose: To determine the extent to which problems and opportunities exist with regard to the enhancement objective.

- 1. Identify geographic areas in the coastal zone subject to use conflicts that can be addressed through a special area management plan (SAMP). Also include areas where SAMPs have already been developed, but new issues or conflicts have developed that are not addressed through the current plan. If necessary, additional narrative can be provided below.**

Geographic Area	Major conflicts	Is this an emerging or a long-standing conflict?
Seaside of Virginia’s Eastern Shore	Conflicts arise among shellfish cultivation, wild fisheries harvest, recreation, habitat restoration and conservation.	Both emerging and long-standing
Lower Rappahannock	Shellfish cultivation; wild fisheries; recreation; conservation; habitat restoration; navigation	Emerging issue due to inability of shellfish farmers to secure more growing areas and continued decline in wild fisheries harvests.
Dragon Run	Growth pressures	Long-standing
Richmond/Crater	Growth pressures on preservation of green infrastructure	Emerging

Seaside

Virginia's Seaside SAMP addresses the challenges facing the vast system of barrier islands, bays, and salt marshes found in Northampton and Accomack Counties on Virginia's Eastern Shore. Use conflicts on the Seaside include commercial shellfish cultivation, wild shellfish harvesting, recreation, habitat restoration and conservation. The area is also a hemispherically important area for many migratory shorebirds, wading birds, waterfowl and beach nesting birds. Among other threats, waterfront development and sea level rise present threats to ecologically important waters. The current system for managing the various uses of habitat relies upon leasing of submerged lands not included in maps created in the 1890's (Baylor Grounds), which were set aside for public oystering. Under the current system, the only underwater lands available for expansion of shellfish cultivation are the "unassigned lands." The dynamic nature of this barrier island lagoon system (with its shifting islands, marshes and seafloor) is not conducive to the current static leasing system. Furthermore, much of the public Baylor Grounds are bereft of oysters.

Because these use conflicts are shared across political boundaries, they will likely require a regional solution with integrated efforts by local communities, non-profit organizations and other private stakeholders. Sea level rise is also threatening many of these resources and is expected to only intensify the use conflicts. To resolve use conflicts, anticipate the full impact of sea level rise and develop adaptive solutions, continued work is needed to develop a flexible, dynamic management plan. In other words what is needed is a "marine spatial planning" approach. Some additional mapping may be required and ultimately the management plan needs to include enforceable policies that will reduce use conflicts preserve the sustainability of this system – both ecologically and economically.

Good progress has been made on mapping since 2008 and work is continuing through FY 09 and FY 10 grants but more will need to be done during the 2011 -16 309 Strategy time frame to involve the public and finalize a true marine spatial plan for the Seaside.

Lower Rappahannock

The lower Rappahannock River has been the site of major oyster restoration efforts since 1999. As those efforts continued over the past decade it has become clear that oyster cultivation may be the best way to increase oyster biomass in this system. Doing so may create conflicts with traditional wild harvest areas, recreational use and other uses of the area. The best approach to ensuring the lower Rappahannock achieves its maximum utility and sustainability for all uses may be development of a "marine spatial plan" as is underway for the seaside. In other words, a SAMP for the waters of the lower Rappahannock may be helpful.

Dragon Run

The Dragon Run SAMP focuses on Essex, King and Queen, Middlesex, and Gloucester Counties, which are situated in Virginia's Middle Peninsula. While some of the challenges that prompted the creation of the Dragon Run SAMP have been alleviated, other challenges still exist today. Though the SAMP has provided significant attention to the traditional lifestyle supported

by the watershed, it is apparent that ongoing education of decision-makers because of election turnovers is an essential task and challenge of the future. Additionally, the Dragon Run area continues to search for the appropriate balance between long-term planning for the watershed and the protection of private property rights.

One particular challenge that has arisen is the need to balance the benefits of conserving private property watershed lands with the fiscal loss to localities of property tax revenues from those lands. Conservation of private watershed lands occurs through the placement of perpetual easements on the land, or through assumption of ownership of the land by tax exempt entities. While localities may perceive this conservation as a net loss, due to lost property tax revenues, this is not necessarily the case in each locality. Dragon Run SAMP research has discovered that total tax benefit or loss related to number of conservation easements is determined on a case-by-case basis in each locality. Depending on the locality's approach to calculating its composite index, it may receive greater benefit through state funds for education or experience a net loss. As a result, the importance of continuing education for local decision-makers about the long-term benefits provided by land conservation tools is even more emphasized. This is particularly so in regard to consistency in interpretation of tax laws.

Implementation of Green Infrastructure Inventories

Several Planning District Commissions (PDCs) in the Coastal Zone have developed inventories of green infrastructure. The value of this work for developing actionable policy can be greatly improved by building local government capacity to involve green infrastructure inventories in local regulation. In the Richmond-Crater PDCs, where such an inventory was jointly developed, a SAMP has been suggested as a means of administering a capacity building program for local governments in the region. Incorporation of the green infrastructure inventory in local Comprehensive Planning efforts and zoning ordinances could provide assistance to local governments responding to continued growth pressures anticipated for the region.

Marine Spatial Planning

Marine spatial planning represents a significant opportunity for managing regional and inter-jurisdictional resources and potential use conflicts. SAMPs have been suggested as a mechanism for involving stakeholders and policy makers from multiple levels of government in a planning process that would leverage marine spatial data to create regional planning. Integrated blue crab management policy between Maryland and Virginia have been discussed as one specific challenge for which a SAMP may be useful in implementing marine spatial planning. Please see the "Ocean Resources" section of this Assessment for more on Marine Spatial Planning.

Management Characterization

Purpose: To determine the effectiveness of management efforts to address those problems described in the above section for the enhancement objective.

- 1. Identify below any special management areas in the coastal zone for which a SAMP is under development or a SAMP has been completed or revised since the last Assessment:**

SAMP title	Status (new, revised, or in progress)	Date approved or revised
Seaside	New	Began in FY 08
Dragon Run	Completed	

- 2. For management categories with significant changes since the last assessment provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference rather than duplicate the information.**
 - a) Characterize significant changes since the last assessment (area covered, issues addressed and major partners);**
 - b) Specify if it was a 309 or other CZM-driven change (specify funding source) or if it was driven by non-CZM efforts; and**
 - c) Characterize the outcomes and effectiveness of the changes.**

Dragon Run

The Middle Peninsula Planning District Commission (MPPDC) received grant funding for the development of the Dragon Run Special Area Management Plan in FY 2005 and FY 2006. Anticipating future growth pressures and conflicts involving the development of privately owned land and the watershed's cultural, historic, and natural character, the Dragon Run SAMP seeks to balance demands by improving the tools available to manage the environmental, social, and economic resources of the watershed. To achieve these goals, the MPPDC worked to publicize the adoption of the Dragon Run Steering Committee's Watershed Management Plan by Essex, Gloucester, and King and Queen Counties. The MPPDC also worked to address the concerns of landowners opposing the adoption of the Watershed Management Plan in Middlesex County.

The plan's recommendations include land use and resource preservation, education and landowner stewardship, sustainable economic development, and implementation monitoring. The SAMP's stakeholder-based approach increases the likelihood that localities and stakeholders will implement the plan's recommendations. The SAMP has been instrumental in providing more collaboration and consistency across jurisdictions, as well as awareness and opportunities for cooperation within the watershed community and local stakeholder groups.

Policy outcomes from the Dragon Run SAMP include land-use regulation, conservation acquisition management programs, partnerships for clean energy, and a network for conservation

estate planning, and public access regulation. Specifically, the Dragon Run SAMP has generated the following outcomes:

- Model comprehensive plan and zoning amendments for each of the four watershed counties has lead to revision of the zoning ordinance in King and Queen County and the inclusion of a significant section on the Dragon Run in the Gloucester County Comprehensive Plan. Essex and Middlesex Counties have also indicated that model language will be included in their Comprehensive Plans, both currently in the process of being revised.
- Between 2006 and 2008, land management plans drafted by MPPDC for conservation land were adopted by several NGO's holding significant amounts of land in the Dragon Run watershed, including The Nature Conservancy, Chesapeake Bay National Estuarine Research Reserve of Virginia and Friends of the Dragon Run. The Middle Peninsula Chesapeake Bay Public Access Authority (MPCBPAA) is expected to adopt a final plan as an enforceable policy.
- A report funded by the Dragon Run SAMP lead to the formation of the Biodiesel Partnership, comprised of local farmers, school superintendents, representatives from municipal school bus fleet management and the biodiesel supply chain. Resolutions implementing increased use and production of biodiesel by county school bus fleets were adopted by each of the four Dragon Run watershed counties.
- Increased collaboration and education efforts through the Dragon Run Estate Planning Network Initiative have lead to the creation of a number of conservation easements in the watershed, each with its own enforceable policy. Most recently, approximately 11,000 acres in the Dragon Run watershed were acquired by The Nature Conservancy and subsequently sold to "The Forestland Group" subject to a conservation easement limiting development to 40 home sites and protecting 100-foot buffers on all of the streams and wetlands on the property.
- Information and research regarding the rights permitted by the Public Trust for riparian areas, such as the Dragon Run developed by MPPDC staff and presented to Middle Peninsula Public Access Authority was adopted as an appendix to each of the four Conservation Acquisition Management Plans.

Seaside

The Seaside Special Area Management Plan grants (FY 07 – 10) commenced in fall of 2009. They are focusing on the collection and synthesis of GIS data layers. Eventually the SAMP will focus on developing a management plan and enforceable policies for use of the submerged lands of the seaside bays. This effort is building upon the prior work of Virginia CZM's Seaside Heritage Program and the current American Recovery & Reinvestment Act grants to The Nature Conservancy, the Virginia Institute of Marine Science and the Virginia Marine Resources Commission that continues those oyster, SAV and bay scallop restoration efforts. The SAMP is being coordinated by the Virginia CZM Program with help from staff of The Nature

Conservancy. Primary partners in the SAMP to date include VIMS, VMRC, Eastern ShoreKeeper and local shellfish aquaculturists.

Five CZM grants were funded in support of this effort. First, the “Estuarine Blue Infrastructure: Priority Conservation Areas for the Seaside of Virginia’s Eastern Shore” project, conducted by VIMS from September 2009 through March 2010, examined various data sources to develop a combined assessment for Seaside resource sensitivity. Using GIS and a range of data sources, the project identified areas of particular ecological importance as well as great significance to the aquaculture industry, restoration of the scallop population, and the continued need for sustainable natural heritage resources. The data is intended to encourage local governments to plan for long-term preservation of ecologically rich waters threatened by development and climate change pressures.

Second, “An Investigation of a Hemispherically Important Migratory Staging Area for Whimbrel Along the Seaside of the Delmarva Peninsula” project, undertaken by the Center for Conservation Biology from August 2009 to March 2010, investigated the significance of the lower Delmarva Peninsula as a Fall staging area for migrating whimbrel. Synthesizing information from satellite transmitter tracking and other existing data, the study provides context for the lower Delmarva Peninsula as potentially one of the most significant staging areas for whimbrel in the western hemisphere. The study has produced an inventory of known concentration areas and recommendations for local policy affecting those areas.

Third, “The Seaside Special Area Management Plan: Project Team Administration and Avian Distribution Evaluation” project, conducted by The Nature Conservancy (TNC) from September 2009 to March 2010, manages several tasks for Phase I (October 2009 to March 2010) of an overall three-phase SAMP Strategy. As the CZM’s primary administrative contact, TNC schedules, coordinates and expedites communications, meetings and other activities involving SAMP project participants and stakeholders. Additionally, TNC serves as bird conservation specialist, analyzing and interpreting appropriate existing public data regarding waterbird nesting, foraging and migratory distributions on the seaside. TNC provides the Project Team with recommendations for which areas are most sensitive to what types of disturbances and at what times of year.

The broader SAMP Strategy Project Team on this effort is lead by the Virginia CZM Program and includes VIMS, VMRC, Virginia Eastern Shorekeeper and Terry Brothers Seafood. The Virginia CZM Program Manager heads the project, providing leadership, guidance and continuity of purpose with previous Seaside initiatives, especially the Seaside Heritage Program. The Phase 2 grant proposal (FY 2009) was submitted to NOAA in March 2010 and is further refining and field verifying spatial data, engaging in wider stakeholder/sector contacts and interviews, defining and mapping a matrix of preferred stakeholder/sector/resource uses, and examining alternative spatial configurations and allocations. The Phase 3 grant proposal will be submitted at a later date, after evaluation of spatial data, stakeholder/user input and collaboration with Project Team members.

Fourth, the “Recreational Use Survey & GIS Layer” project, conducted by the Virginia Eastern SHOREKEEPER®, Inc., is developing spatial data for recreational use, based on existing and

new data being collected by the Shorekeeper. Data collection techniques include written surveys of recreational users as well as aerial surveys. This project began in fall 2009 capturing recreational use of the Seaside over the Labor Day weekend and will extend through the summer 2010 season.

Fifth, the “Spatial Information Analysis and Interpretation for Shellfish Grounds and SAV Beds” project, conducted by Virginia Institute of Marine Science from October 2009 to March 2010, evaluated the current status and trends related to:

1. productivity of natural oyster beds in the seaside bays, including the effectiveness of restoration efforts over the past 15 years;
2. productivity and habitat utilization by shellfish aquaculture, including potential growth areas;
3. restoration of submerged aquatic vegetation, along with future restoration targets; and
4. loss of habitats due to erosion, subsidence, channel diversion and island movements.

These evaluations use existing geo-spatial data layers, aerial photography, field ground-truthing data and input from experts and stakeholders. VIMS is producing geo-spatially referenced data that will be used to produce draft maps reflecting current and potential use within the coastal bays for native shellfish restoration (including sanctuaries and shellfisheries enhancement), shellfish aquaculture and submerged aquatic vegetation (SAV) restoration. These maps will include demarcation of areas currently designated for uses that have now become inappropriate due to environmental change (e.g., former oyster grounds that are no longer viable as a result of 1.5 ft of sea level rise since their original survey). VIMS will also coordinate with TNC to include data related to water bird nesting, foraging and migratory distributions, and with the Shorekeeper to include recreational use data in the region. The maps resulting from this initial phase show areas of overlapping and competing projected uses by the various activities and designations in the seaside bays.

Priority Needs and Information Gaps

Using the table below, identify major gaps or needs (regulatory, policy, data, training, capacity, communication and outreach) in addressing each of the enhancement area objectives that could be addressed through the CMP and partners (not limited to those items to be addressed through the Section 309 Strategy).

Gap or need description (for Seaside SAMP only)	Type of gap or need (regulatory, policy, data, training, capacity, communication & outreach)	Level of priority (H,M,L)
Natural Resource Data Synthesis	Data	H*
Public Access and Aquaculture Data Synthesis	Data	H*
GIS Analysis	Data	H*
Stakeholder Engagement	Capacity, Policy	H*
Locality preparedness	Communication & Outreach	H*

Outreach	Communication & Outreach	H*
New spatial management policies	Regulatory, Policy	H*

* The Virginia CZM Program recognizes that all needs listed above have been assigned a high ranking. SAMP will be addressed through the Seaside SAMP strategy and will therefore receive prioritization of needs and/or information gaps through implementation of this strategy.

Enhancement Area Prioritization

1. What level of priority is the enhancement area for the coastal zone (including, but not limited to, CZMA funding)?

High ✓
Medium
Low

Briefly explain the level of priority given for this enhancement area.

The interagency Coastal Policy Team reviewed and ranked this issue at its February 17, 2010 meeting according to the following criteria: feasibility; importance and appropriateness. Up to 5 points were allotted to each of the three criteria so that a maximum score would be 15. Scores from 0-4.99 are considered low priority; 5-9.99 is medium priority and 10-15 is high priority. Special area management planning received a score of 12.11.

2. Will the CMP develop one or more strategies for this enhancement area?

Yes ✓
No

Briefly explain why a strategy will or will not be developed for this enhancement area.

A Seaside SAMP Strategy will be developed that continues the effort begun in fall 2009. The initial effort in the 2006 – 2010 5 Year Section 309 Strategy focused on data collection and analysis. The continued effort through FY 2011 and 2012 will focus on generation of management options, public input on those options and promotion of adoption of the most politically feasible and optimal option.

2000 Assessment

High ✓
Medium
Low

2005 Assessment

High ✓
Medium
Low

This Assessment (2010)

High ✓
Medium
Low