Addendum to the
DELAWARE INLAND BAYS COMPREHENSIVE CONSERVATION and MANAGEMENT PLAN

September 28, 2012

DEAR

Dedication

This addendum to the Comprehensive Conservation and Management Plan for Delaware's Inland Bays is dedicated to the late Dr. Kent Price. Kent was a member of the Implementation Committee for the original CCMP which was released in 1995. Kent also served as the first Chairman of the Inland Bays Scientific and Statistical Committee and was a valued member of this body since its inception in 1989 until the time of his passing in 2012. Throughout his long career of serving on the faculty at the University of Delaware's College of Marine Studies (now the College of Earth, Ocean, and the Environment), Kent and his more than 30 graduate students made enormous contributions to the body of scientific knowledge about Delaware's Inland Bays. These contributions will live onward and his wisdom, knowledge, and enthusiasm will be long remembered and appreciated by all who were privileged to know him.

DEAR PARTNERS,

Since the original CCMP was published in 1995, our watershed has undergone extraordinary changes. Its resident population has nearly doubled, and its seasonal population has soared. The quiet streets of lonely winter beach towns are almost gone, and around the Bays miles of fields and forests have become memories. But even as pressures have increased on the watershed and Bays, our collective actions over the past 17 years have produced quantifiable improvements that will continue to be realized over time.

Together, we have removed nearly all of the direct wastewater discharges that once entered the Bays. We have transformed the way nutrients are handled on and between farms. We have sacrificed to end the decades old fish kill at our power plant. And we have forged partnerships with towns and communities to work together to improve the Bays.

We must continue to act together—decisively and more efficiently.

Agricultural systems must continue to become more efficient in their use of nutrients. The management of the watershed's network of streams and ditches must be improved to better filter nutrients. Shoreline development must accommodate the migration of the estuary as sea levels rise so that beaches and marshes are protected for future generations. And we must continue efforts to restore the shellfish, fin-fish, and meadows of bay grass that are the hallmark of a healthy estuary.

The length of this update should be evidence enough that the Inland Bays have a long way to go before they are healthy again. And we certainly have our challenges in getting them there. The fact is that the low-lying lands around the Bays continue to urbanize while at the same time sea level rise accelerates. And our tidal tributaries continue to have some of the highest concentrations of nutrients among similar rivers in the region.

As the partners responsible for implementing the CCMP, success is up to us. Healthy Inland Bays are a win for us all who have a stake here…for their beauty, their resources, their recreation opportunities and for the economic engine they are for our region. It will take the will and determination of the many to make the choices required for the greater good. The unique waters of the Inland Bays sustain us. By working together we can sustain them.

Chris Bason
Executive Director

Signatories to the CCMP Implementation Agreement

CIB Citizens Advisory Committee

DE Department of Agriculture

DE Department of Natural Resources and Environmental Control

CIB Scientific and Technical Advisory Committee

Sussex Conservation District

Sussex County Association of Towns

Sussex County Council

The Inland Bays include three interconnected bodies of water; Rehoboth Bay, Indian River Bay and Little Assawoman Bay. The Bays and their tributaries cover about 32 square miles and drain a watershed of about 320 square miles.

The mission of the Center for the Inland Bays (CIB) is to oversee the implementation of the Inland Bays Comprehensive Conservation and Management Plan and to promote the wide use and enhancement of the Inland Bays and their watershed…

- To support and sponsor education activities, restoration efforts, demonstration projects and applied research…
- To foster partnerships with all stakeholders to restore and protect our resources…
- To serve as a neutral forum for consideration of Inland Bays issues; where informed decisions can lead to sound public policy regarding the protection and restoration of the Inland Bays watershed.

In 1988, the Delaware Inland Bays was declared 'an estuary of national importance,' by the U.S. Congress and become one of the 28 National Estuary Programs. The Delaware Center for the Inland Bays was established as a nonprofit organization in 1994 under the Inland Bays Watershed Enhancement Act (Chapter 76 of 7 Del. C. §7603).

TABLE OF CONTENTS

INTRODUCTION

1969 — Delaware **Governor Russell Peterson** commissioned an environmental study of the Inland Bays, Rehoboth Bay, Indian River and Bay, and Little Assawoman Bay, in recognition of their uniqueness and importance to the citizens of Delaware and the region (Delaware State Game and Fish Commission et al. 1969).

1985 — **The Delaware Department of Natural Resources and Environmental Control** (DNREC) recognized the Inland Bays as waters of Exceptional Recreational or Ecological Significance (ERES), its most protective designation.

1987 — Delaware **Governor Michael Castle** authorized a proposal to the U.S. Environmental Protection Agency (EPA) to develop an estuarine conservation and management plan for Delaware's Inland Bays.

1988 — **The Delaware Inland Bays were recognized by an Act of U.S. Congress as "an estuary of national significance,"** and thereby became one of the 28 National Estuary Programs (NEP). The National Estuary Program was established under Section 320 of the 1987 Clean Water Act (CWA) Amendments as an EPA program to protect and restore the water quality and the ecological integrity of estuaries of national significance. The state was charged with developing and implementing a CCMP for its new NEP. The CCMP is a long-term plan that contains specific targeted actions to improve water quality and protect and restore habitat and living resources in the estuarine watershed.

1994 — **The Delaware General Assembly passed enabling legislation that established the Delaware Center for the Inland Bays** to develop and oversee the implementation of the CCMP and determine future actions to preserve the watershed.

1995 — **The original Comprehensive Conservation and Management Plan was completed;** the result of six years of meetings and collaboration between government managers, scientists, technical resource experts, and concerned citizens about the problems in the Inland Bays and potential remedial actions to address them. It was a blueprint for actions that should be undertaken by all levels of government, industrial and business sectors, private and public organizations and institutions and the general public to restore and protect the Inland Bays.

Two general categories of priority problems were identified: eutrophication and habitat loss.

The original CCMP targeted five general areas or action plans:

- Education and Outreach
- Agricultural Sources
- Industrial, Municipal, and Septic System Sources
- Land Use
- Habitat Protection

The CCMP included 64 goals and objectives that have guided the work of the partners and cooperators signatory to the CCMP. The volume of studies conducted since 1995 that were responsive to the priorities listed in the CCMP has been impressive, but much work remains to be done, and it was recognized that the approaches selected in 1995 needed to be revisited. Great progress has been made, for example, in the agriculture sector in the reduction of nutrient releases to the Inland Bays. But significant challenges remain in regard to the overall condition of the watershed, especially water quality.

Of fundamental importance to the CCMP is the development and implementation of the Total Maximum Daily Loads (TMDL) regulations. TMDLs are designed to return waterbodies from a polluted state to a desirable state so that they meet their water quality standards. TMDLs for nitrogen and phosphorus were established for Indian River, Indian River Bay and Rehoboth Bay in 1998, and for Little Assawoman Bay and the major tributaries of the Inland Bays in 2005.

In 2008 the Inland Bays Pollution Control Strategy was promulgated with the intention to implement the TMDLs. The Inland Bays Pollution Control Strategy was developed through a collaborative public process involving multiple interests in the watershed. The Inland Bays Tributary Action Team, comprised of local government representatives, business people, environmentalists, farmers, and residents, gathered public input during seven public forums eliciting comments from 130 residents on which they based their recommended Strategy to DNREC. Individual meetings between DNREC and development interests also informed the final version of the PCS. The PCS has sections on point sources, agriculture, urban land use, wastewater, stormwater, and concurrence. The majority of the actions in the PCS are voluntary. In 2011, the water quality buffer section of the regulation was declared void and unenforceable by the Delaware Supreme Court, significantly weakening the Strategy.

While the goal of the PCS was to implement the TMDL in a timely fashion, its largely voluntary actions, lack of designated funding sources, and the loss of its buffer regulations make it highly unlikely to accomplish this goal. The TMDL and PCS continue to be fundamental to this addendum to the CCMP and many CCMP actions address the need to update both the TMDLs and PCS to ensure that the waters of the Inland Bays will meet water quality standards that are based on the best available science.

Since 1995, new challenges have emerged like pharmaceuticals in our waterways and evolving concerns over climate change and sea level rise. Emerging issues, changes in population and land use, new knowledge and understanding gleaned from research, and the development of new technologies to address problems will require us to revisit and reconsider our plan and update the CCMP every five years.

STATE OF THE INLAND BAYS

Assessments of the condition of the Inland Bays were published in 1995 and 2004. In 2011, the CIB published the most comprehensive report of the State of the Delaware Inland Bays ever produced. The report included assessment of 31 environmental indicators; specific species and conditions that were measured over time to determine how the Bays are changing, and how much progress has been made towards their restoration. **The 2011 State of the Delaware Inland Bays report characterized the trends in bay health as mixed;** with watershed condition and climate effects being negative; and nutrient loading and management, water quality, and living resources showing some positive trends.

The 2011 report characterized water quality in the Inland Bays as fair to poor, with the best conditions occurring in waters closest to the flushing effects of Indian River Inlet and the worst conditions in those areas farthest from the beneficial effects of tidal exchange through the Inlet. The report noted that Indian River Bay continues to show evidence of an overall decline in water quality.

- In 2011, continued growth in human populations in the watershed and the accompanying deforestation again were cited as major problems, as they were in 2004.
- The percentage of developed/developing land in the Inland Bays watershed has increased from 14% in 1992 to 22% in 2007.
- Although there were significant declines in nutrient loads to the Inland Bays cited in the 2011 report, these have yet to result in significant changes in the nutrient concentrations in the estuary, and it is not clear why.
- Seaweed blooms have abated in recent years.
- Low dissolved oxygen concentrations continue to be a problem for aquatic life, particularly close to shorelines and in tributaries.
- Percentages of impervious surfaces in the Inland Bays watershed are approaching levels determined to be problematic for healthy water quality and fish populations (Uphoff et al. 2011).
- Nutrient management plans have been implemented for nearly all of the farms in the watershed under the auspices of the Delaware Nutrient Management Law of 2004.
- Considerable progress has been made since 1993 in the conversion of septic systems to central sewer as a means to reduce nutrient input to the Inland Bays.
- Thousands of acres of natural habitat have been brought under protection in the Inland Bays watershed since 2003.

The responses of migratory living resources in the Inland Bays to pollution abatement efforts and habitat restoration have proven more difficult to discern, especially for those species whose normal migratory range includes vast coastal areas to the north and/or south of the Inland Bays.

- Fishing pressure as measured by the number of recreational fishing trips per year has gone up steadily since 1988 in the Inland Bays, but this may be both a reflection of increasing human populations, as well as a resurgence of some key fish populations like striped bass and summer flounder.
- The practice of once-through cooling is scheduled to end at Indian River Power Plant by 2014, although it remains to be seen whether this will result in positive benefits to fish populations.

Finally, our climate is changing as influenced by greenhouse gases, and this change has resulted in an accelerated warming pattern. Associated sea level rise is likely to have profound effects on the marshes and shoreline properties in the Inland Bays as the estuary migrates landward.

THE 2012 CCMP UPDATE

The Steering Committee

In 2011, the CIB formed a Steering Committee to guide the update of the CCMP. Some who contributed to the original CCMP were asked to lend their experience and historical context to the deliberations. Joining them on the committee were representatives from the State Departments of Agriculture and Natural Resources and Environmental Control, the Sussex Conservation District, the USDA Natural Resource Conservation Service, the USEPA, the Southern Delaware Tourism Office, Sussex County, and committees of the CIB Board of Directors who provide guidance to the CIB: the Inland Bays Scientific and Technical Advisory Committee (STAC) and the Citizens Advisory Committee (CAC), and the Water Use Plan Implementation Committee (WUPIC). The names of Steering Committee members are listed in the acknowledgements section.

The Process

With input from the EPA, it was decided not to replace the CCMP of 1995 because much of it remains relevant, but, to produce an addendum. It is planned that this addendum will be updated every five years.

The Steering Committee reviewed the original 64 goals and objectives from the 1995 CCMP to consider what might be added, deleted or changed. This deliberation resulted in 10 goals and 81 objectives to be considered and prioritized by vote of the membership of the Steering Committee.

The Objectives were organized under eight focus areas: Nutrient Management, Wastewater Management, Stormwater Management, Water Quality Management, Managing Living Resources and Their Habitat, Planning for Climate Change, Coordinating Land and Water Use Decisions, and Outreach and Education. Actions that would be required to accomplish the goals and objectives were written, as were Performance Measures (PM) that could be used to track progress.

In addition to the citizen representation on the Steering Committee, the general public was invited to comment on our website and at a public meeting, on the focus areas, objectives, proposed actions, and performance measures.

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NUTRIENT MANAGEMENT

Nutrient Management

Wastewater Management

Stormwater Management

Water Quality Management

Managing Living Resources and their Habitat

Planning for Climate Change

Coordinating Land and Water Use Decisions

Outreach and Education

NUTRIENT MANAGEMENT

In the original CCMP, the overall goal of the Agricultural Source Action Plan was to continue to reduce surface and groundwater nutrient inputs to the Inland Bays from agricultural operations.

1995 CCMP Goals and Objectives

G1. Establish and implement a comprehensive nonpoint source pollution control program.

G1A. Manage urban and rural applications and handling of fertilizers, pesticides, herbicides, manure, sediment, animal carcasses, and other contaminants.

G1B. Examine existing pesticide regulations and strengthen enforcement.

G1E. Adopt the most effective Best Management Practices (BMP's) to provide maximum ground and surface water protection.

G5B. Promote water conservation.

G5D. Address nitrates and other contaminants.

Status of 1995 CCMP Goals and Objectives

Since adoption of the 1995 CCMP, considerable progress was made in monitoring, inspection, and enforcement of the release of agricultural nutrients to the environment. Major accomplishments include:

- Passage of a Nutrient Management Law by the General Assembly in 1999. Provisions of this legislation created a certification program for persons involved in the generation or application of nutrients, promoted the development and implementation of BMP's to improve water quality and optimize nutrient use, and established educational programs.
- Formation of a Delaware Nutrient Management Commission with representation from the farm, agribusiness, and environmental community to develop, review, approve and enforce regulations on certification of individuals, and the development of nutrient management plans and reporting requirements.
- Each entity that tills in excess of 10 acres or has an animal feeding operation of at least 8 animal units, where an animal unit is approximately 1,000 lbs. average body weight, has a nutrient management plan filed with the Delaware Department of Agriculture and the nutrient Management Commission.
- Development and implementation of agricultural BMP's that are reducing nutrient loading including: conservation tillage, use of cover crops to bind nutrients, increasing irrigation to improve nutrient uptake, improvements in the genetics of chickens and in their housing, feeding practices, and their environment that increase growth efficiency; and manure relocation.

In spite of this considerable progress, there are key actions that should be addressed in the next five years:

2012 UPDATE: OBJECTIVES, ACTIONS AND PERFORMANCE MEASURES (PM)

Objective 1: Monitor the effectiveness of the nutrient management program and Concentrated Animal Feeding Operations (CAFO) regulations, and suggest and implement revisions as needed.

Action A. Annually report on watershed agricultural BMP implementation including PCS goals for cover crop acreage, manure storage sheds, and manure relocated or put into alternative use.

PM A. Publish annual reports on agricultural BMP implementation.

Action B. Target and prioritize BMP implementation to areas of the watershed where they will be most efficient and effective.

Sub-Action B1. Use GIS and BMP performance data to determine the locations of BMPs in the watershed by BMP type resulting in the most cost effective nutrient reductions.

PM B1.1 A workgroup produces a report targeting BMPs by type and location.

Sub-Action B2. Cost share providers prioritize assistance for targeted BMPs and track implementation.

PM B2.1 Amount spent on targeted practices relative to non-targeted practices.

Action C. Secure and leverage funding for BMPs.

Sub-Action C1. Conduct a workshop to examine and enhance BMP financing strategies.

PM C1.1 Recommendations for improving BMP financing strategies developed.

Sub-Action C2. Utilize DNREC's Water Quality Improvement Project Sponsorship Program (WQIPSP) to leverage funding for BMPs.

PM C2.1 WQIPSP dollars spent on BMP implementation.

Action D. Promote and reward those in the agriculture sector who are good stewards of the environment.

PM D. Members of the agricultural sector are recognized publicly for their innovation and BMP implementation.

Action E. Improve nutrient management of developed lands through research and education to better quantify and reduce nutrient loads.

Sub-Action E1. Conduct watershed specific analysis to determine nutrient loading to the Bays from developed lands under different management practices.

PM E1.1 A report is produced on nutrient loading from developed lands including education and management recommendations.

Action F. Develop a program to educate the general public and landscapers on the benefits of reducing fertilization and improving fertilization practices.*

PM F. Number of individuals and landscapers educated on the benefits of improving fertilization practices.

*Public comment recommendation

WASTEWATER
Management

Nutrient Management

Wastewater Management

Stormwater Management

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Outreach and Education

WASTEWATER MANAGEMENT

Most goals and objectives regarding wastewater management were included in the Industrial, Municipal, and Septic System Action Plan in the original CCMP.

1995 CCMP Goals and Objectives

G4. Establish and implement a comprehensive wastewater management program.

G4A. Establish wastewater management priorities.

G4B. Encourage centralized sewer systems, public and/or private.

G4C. Strive to reduce point source discharges to zero.

G4D. Address soaps, detergents, petroleum products, and household chemicals.

G4E. Explore financing alternatives for implementation.

G5C. Protect groundwater recharge areas.

G8D. Replace all leaking underground storage tanks and ensure that all new installations meet criteria.

G8F. Remove all household hazardous wastes from the municipal waste stream.

Status of 1995 CCMP Goals and Objectives

- The Inland Bays still need reductions of nitrogen and phosphorus from 40 to 85% respectively from the baseline period of 1988-1990 in order to meet their TMDLs.
- In 1990 there were 13 point sources discharging into the Inland Bays; of these only three significant discharges remain (the towns of Millsboro, Rehoboth Beach and Lewes). Rehoboth Beach plans to convert its wastewater discharge to an ocean outfall by 2015. Millsboro plans to remove its discharge and land-apply its treated wastewater. Lewes will continue its modest discharge to the Lewes and Rehoboth Canal and compensate by funding nutrient management projects elsewhere in the watershed.
- Since 1995, emphasis has been placed on conversion of individual septic systems to centralized sewage treatment. Since 2004, Ocean View, Cedar Neck, Millville, and Angola Neck have all replaced individual septic systems with tie-ins to central sewers. A key strategy of the PCS of 2008 was the systematic elimination of all point sources of nitrogen and phosphorus to the Inland Bays. The PCS called for the voluntary conversion of 2,359 individual onsite systems to central sewer.
- Revisions to the DNREC regulations regarding design, installation and operation of on-site wastewater treatment and disposal systems have been modified periodically since 1995 with the most recent revisions implemented in June 2012.
- There are concerns about contaminants that were either relatively unknown in 1995 or those that have more recently emerged as potential problems, like the presence of pharmaceuticals in our waterways.

The following objectives should be addressed in the next five years and actions undertaken to address these objectives:

2012 UPDATE: OBJECTIVES, ACTIONS AND PERFORMANCE MEASURES (PM)

Objective 1: Examine, improve and update existing on-site wastewater treatment and disposal regulations and their enforcement.

Action A. Annually assess and update information on regulatory initiatives in the onsite wastewater sector.

Sub-Action A1. Continue and report on DNREC holding tank inspection program.

PM A1.1 Regular reports on the holding tank inspection program are publicly available.

Sub-Action A2. Report compliance with DNREC pump-out and inspection requirements for septic systems on properties that are sold.

PM A2.1 Regular compliance reports are publicly available.

Sub-Action A3. Verify that all new and replacement septic systems in the Inland Bays watershed are required to meet all regulatory performance standards.

PM A3.1 Regular reports on replacement septic systems are publicly available.

Action B. Promulgate and enforce revisions to DNREC's onsite wastewater treatment and disposal regulations.

PM B. Regulations are promulgated and enforced.

Action C. Ban permanent holding tanks in the watershed.

PM C. A ban is in place and remains as such.

(continued)

Objective 2: Examine emerging contaminants entering the Inland Bays and engage the regulatory community and general public in education and source reduction.

Action A. Conduct a symposium that identifies emerging contaminants, their sources, and their potential effects.

PM A. Emerging contaminant symposium held and findings conveyed.

Action B. For emerging contaminants with the highest potential for significant environmental impact, prepare reports to define the problem and promote source control.

PM B. Number of emerging contaminants reported upon.

Action C. Determine the need for regulations to reduce the threat of identified emerging contaminants.

PM C. Position on regulations provided by regulatory agencies.

Action D. Inform the public about the potential threats, challenges, and solutions to identified emerging contaminants.

PM D. A public education campaign on emerging contaminants is developed and implemented.

Objective 3: Promote the use of regional wastewater treatment and disposal systems within designated growth zones over multiple small systems outside of growth zones. Ensure permitting of proposed systems will help to meet TMDLs for receiving waters.

Action A. Develop a wastewater planning committee comprised of DNREC, Sussex County, utility industry representatives, and other stakeholders to coordinate the treatment and disposal of wastewater from new and existing developments based on the TMDLs of receiving waters.

PM A. The wastewater planning committee is formed and meets regularly.

Action B. Conduct workshop to share new technology and incentives for increasing the beneficial reuse of wastewater.

PM B. Workshop results in an increase in the number of beneficial re-use projects.

Action C. Require surface water assessments that clearly demonstrate how all proposed wastewater treatment and disposal systems will help to meet TMDLs for receiving waters.

PM C. Regulations or permit requirements are implemented that require consistency with TMDLs.

Action D. Enforce the waters of Exceptional Recreational and Ecological Significance (ERES) provisions of the State Water Quality Standards requiring the least environmentally damaging disposal alternatives for wastewater.

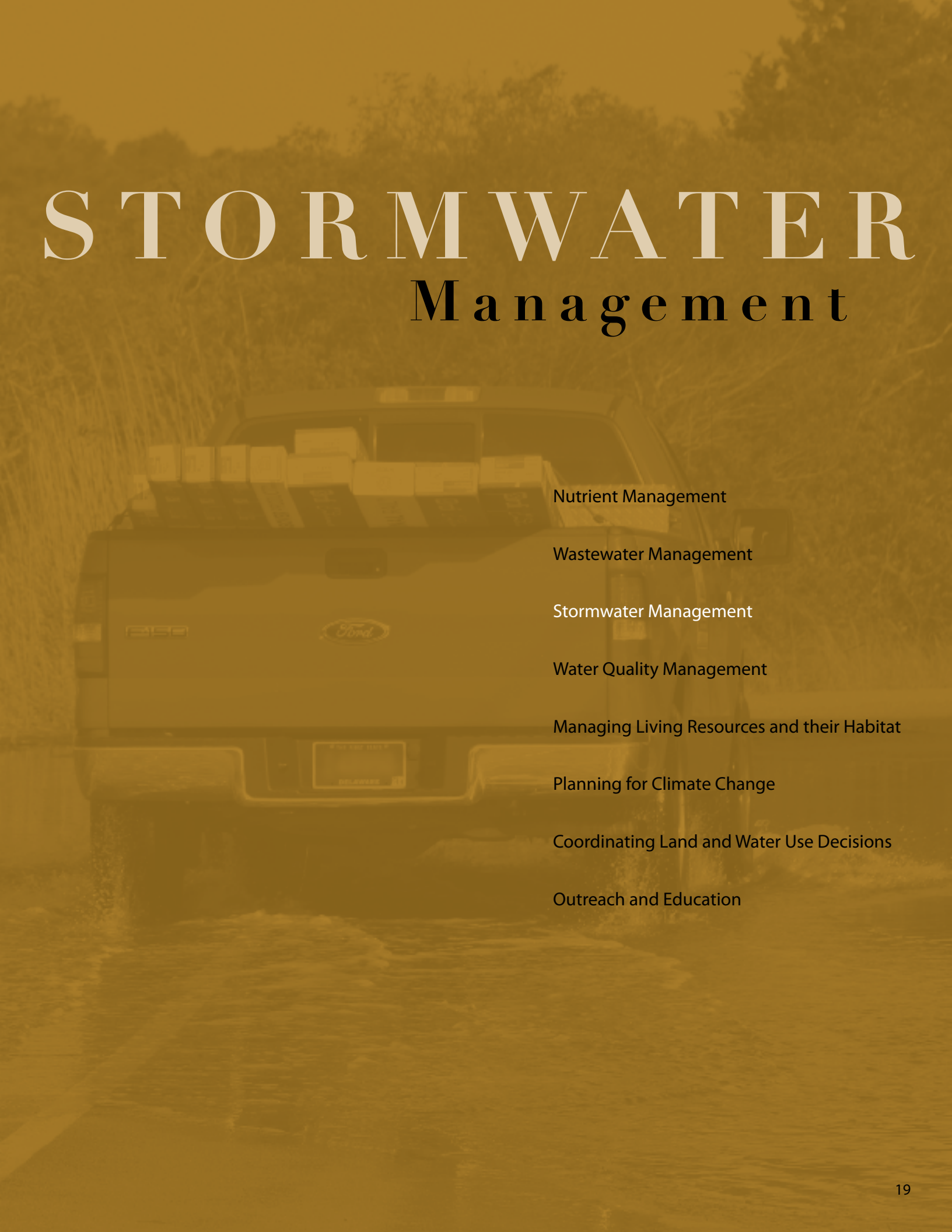
PM D. ERES provisions are enforced for wastewater disposal.

Action E. Develop a nutrient budget for wastewater to determine existing and projected total wastewater loads to receiving waters.

PM E. Nutrient budget for wastewater is developed and used for planning and permitting.

Action F. Research the attenuation of nutrients and contaminants released from different types of on-site wastewater systems along flowpaths to receiving waters.

PM F. Information on attenuation developed and used to guide permitting.



STORMWATER Management

Nutrient Management

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Water Quality Management

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STORMWATER MANAGEMENT

Stormwater management was included within the Land-Use Action Plan of the 1995 CCMP. Previous inattention to the impacts of stormwater resulted in excessive levels of sediments and nutrients entering the waterways of the Inland Bays. The CCMP recommended that the Inland Bays be designated as a priority watershed for the EPA National Pollution Discharge Elimination System (NPDES) program with regulation of stormwater discharges as point sources that require NPDES permits.

1995 CCMP Goals and Objectives

G1C. Develop and implement a comprehensive stormwater management program.

G3. Develop and implement comprehensive zoning ordinances, laws, and regulations at all levels of government which promote environmentally sound landuse.

G5C. Protect groundwater recharge areas.

Status of 1995 CCMP Goals and Objectives

- DNREC's sediment and stormwater program is managed by the Sussex Conservation District and a revision of DNREC's sediment and stormwater regulation is underway.
- A few municipalities have developed ordinances limiting new impervious surfaces. The County has no such ordinance, and levels of impervious surfaces in new developments are high.
- A PCS goal for nutrient reductions from stormwater retrofits was set. Demonstration projects in communities built-out prior to current stormwater regulations such as the Anchorage Canal Drainage Area Stormwater Retrofit Project in the Little Assawoman Bay watershed and the 1,000 Rain Gardens for the Inland Bays project are educating about stormwater and helping to reach the PCS goal.
- Stormwater discharges are not managed under the NPDES program.

The amount of land development that has occurred in the watershed since the adoption of the original CCMP has elevated the importance of effective stormwater management and education. To decrease the nutrient loading resulting from stormwater, the following objectives should be addressed:

2012 UPDATE: OBJECTIVES, ACTIONS AND PERFORMANCE MEASURES (PM)

Objective 1: Reduce nutrient contributions from stormwater to help achieve TMDLs.

Action A. Complete the revision and implementation of sediment and stormwater regulations.

PM A. Revised sediment and stormwater regulations are promulgated.

Action B. Create stormwater management facilities and source reduction strategies for 4,500 acres of urban and residential lands developed pre-1990.

PM B. Acres developed pre-1990 treated by stormwater retrofits.

Action C. Provide assistance to local governments and HOAs to draft ordinances that minimize new and reduce existing impervious surfaces.

PM C. The number of governments and HOAs assisted with impervious surfaces ordinances.

Action D. Engage corporate partners to include Green Infrastructure practices in new and redevelopment projects.

PM D. Number of corporate partners adopting Green Infrastructure practices.

Action E. Encourage Sussex County and/or municipalities to create a stormwater utility to fund maintenance and retrofits.

PM E. Stormwater utility(ies) created.

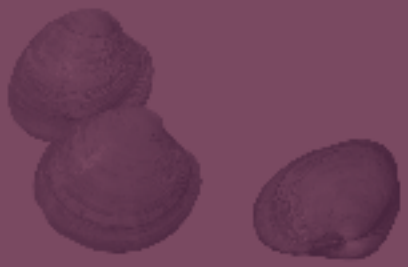
Action F. Develop and implement a lines and grades/drainage code for Sussex County.

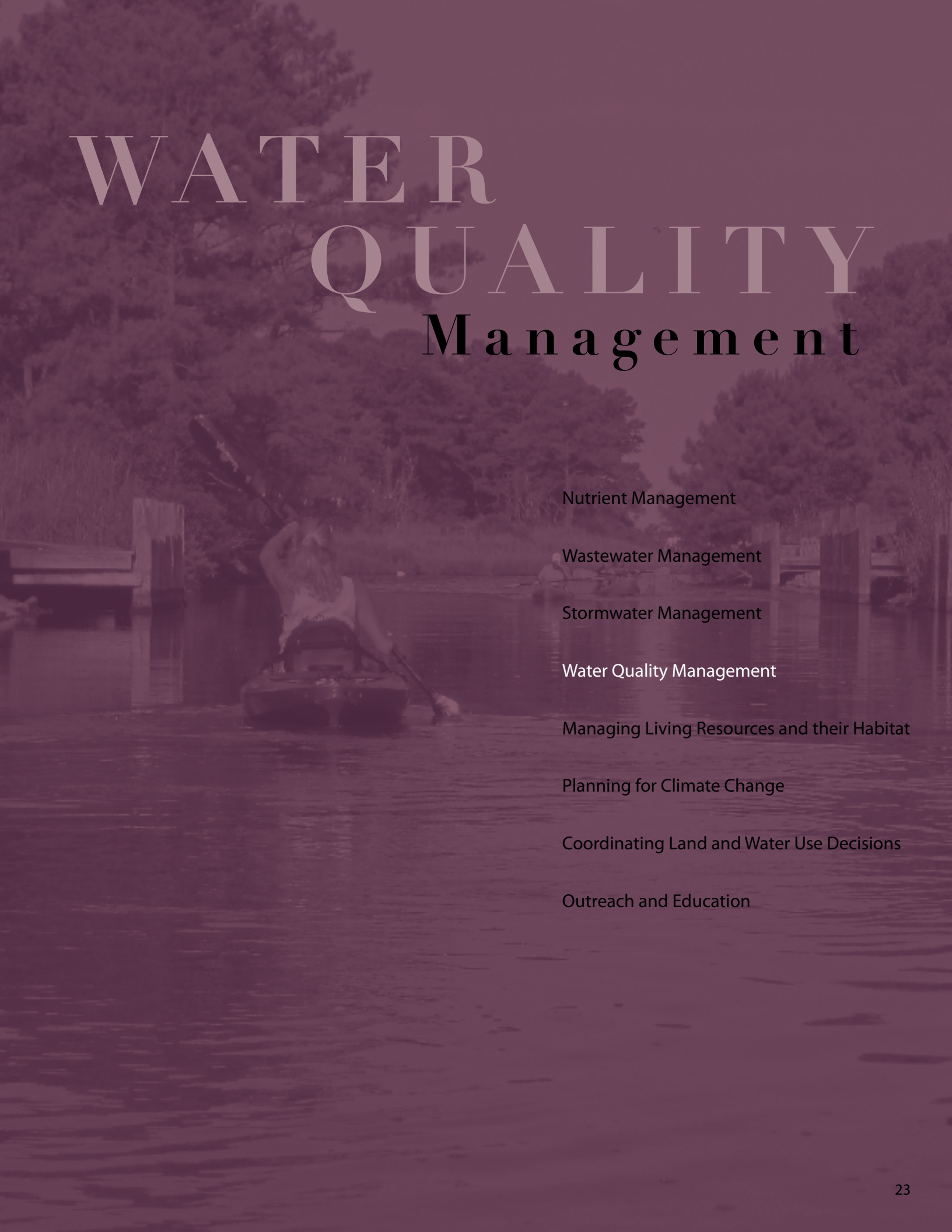
PM F. Sussex County adopts a lines and grades/drainage code.

Action G. Develop maximum impervious surface coverage targets to protect aquatic life and urge their inclusion into county and municipal comprehensive plans.

PM G1. Maximum impervious surface coverage targets developed.

PM G2. Number of comprehensive plans including maximum impervious surface coverage targets.





WATER QUALITY Management

Nutrient Management

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Stormwater Management

Water Quality Management

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WATER QUALITY MANAGEMENT

Although aspects of water quality management were included in all of the five action plans in the 1995 CCMP, the Industrial, Municipal, and Septic System Sources Action Plan contained most of the objectives related to water quality management.

1995 CCMP Goals and Objectives

G8. Coordinate Inland Bays management with existing solid waste, air pollution, and toxics programs.

G4C. Strive to reduce point source discharges to zero.

G4D. Address soaps, detergents, petroleum products and household chemicals.

G5B. Promote water conservation.

G5D. Address nitrates and other contaminants.

G8G. Provide for the safe disposal of infectious wastes.

Status of 1995 CCMP Goals and Objectives

- The Inland Bays PCS called for elimination of all point source discharges of nutrients. From 13 point source discharges in 1990 to three point source discharges today, progress towards eliminating point source discharges has been considerable, but is still incomplete. The City of Millsboro plans to eliminate its discharge to the waters of Indian River in the near future and the City of Rehoboth plans to divert its discharge from the Lewes and Rehoboth Canal to an ocean outfall by 2015.

- The PCS called for 85% reduction in nonpoint sources of nitrogen and 65% of nonpoint sources of phosphorus for Upper Indian River and 40 % reductions in both nitrogen and phosphorus from nonpoint sources in the remaining water bodies of the Inland Bays. Non-point phosphorus loads have decreased to all Bays since the period of 1998-2000. For the period 1998 to 2008, 68% of bay waters met the water quality standard for nitrogen but only 15% met the standard for phosphorus.

- The TMDL requires a 20% reduction in nitrogen loads directly entering the surface of the Bays from the atmosphere. This reduction now appears to be achieved.

- The typical manifestation of elevated nutrients is excessive numbers of primary producers like microscopic algae or phytoplankton. Using cholorphyll *a* concentrations as an indicator of the amount of algae in the water, 79% of the Bay waters met the standard of 15 micrograms or less per liter of water.

- Another indicator of water quality is the clarity of the water as measured with a black and white disk (Secchi disk) that is lowered in the water until it is no longer visible. In order for submerged species of bay grasses to flourish, Secchi disk readings should be at least 2.2 ft. Although it was estimated that 73% of bay waters met this standard at least part of the year, the upper ends of Indian River, most of Little Assawoman Bay, and nearly all of the tributaries to the Inland Bays did not meet this standard.

- The Inland Bays are designated as waters of Exceptional Recreational and Ecological Significance (ERES) which are accorded a level of protection and monitoring in excess of that provided most other waters of the State. Affording all of the protection intended within the designation of ERES waters remains a goal to be achieved.

- The Inland Bays Citizen's Monitoring Program was developed and expanded to nearly thirty sites. The Program was expanded to include bacteriological water quality and harmful algae monitoring.

(continued)

Although significant reductions in nutrient loads to the Bays have been documented from all sources, the nutrient concentrations of the Bays have not decreased and it is uncertain why. With these continuing challenges, much remains to be accomplished in regard to managing water quality, and the following objectives have been singled out for attention in the next five years:

2012 UPDATE: OBJECTIVES, ACTIONS AND PERFORMANCE MEASURES (PM)

Objective 1: Update the Inland Bays estuarine and watershed models with the latest scientific understanding and best available data, and make the updated models publicly available.

Action A. Update the Inland Bays estuarine water quality and hydrodynamic model.

PM A. An updated model populated with the best available data is available for use.

Action B. Update the Inland Bays watershed nutrient loading model.

PM B. An updated model with the best available data is available for use.

Action C. Utilize updated estuarine and watershed models to evaluate if existing TMDLs are adequate to achieve water quality standards for nitrogen and phosphorus.

PM C1. A report is produced.

PM C2. TMDL regulations are updated as needed.

Objective 2: Report on the implementation of the PCS, revise and prioritize remaining actions, and devise an implementation plan to meet the TMDLs within a given time period.

Action A. Produce initial report on PCS implementation and identify barriers to implementation.

PM A. Initial report on PCS implementation is published.

Action B. Revise PCS goals as needed, incorporating any revisions to the TMDLs.

PM B. PCS goals revised as needed incorporating any revisions to the TMDLs.

Action C. Develop an implementation plan for remaining PCS actions that includes a time frame for completion, interim goals, identified implementation funding sources.

PM C. A revised PCS with implementation plan is published.

Action D. Produce annual PCS progress reports [including a yearly determination of the nutrient loads to the Bays and their tributaries relative to their TMDLs.]*

*PM D. Annual PCS progress reports are generated.**

*Public comment recommendation

Objective 3: Review and revise State and local standards for ground and surface water protection.

Action A. DNREC reviews their technical standards for ground and surface water protection at five-year intervals.

PM A. Review is publicly available.

Action B. Obtain and review County standards for ground and surface water protection.

PM B. Such a review is publicly available.

Objective 4: Quantify the transport of contaminants from Indian River Power Plant (IRPP) coal ash landfills to receptors in the aquatic environment and examine the effects of sea level rise and severe storms on this transport.

Action A. Study the transport of contaminants to aquatic life near the IRPP to inform the Voluntary Cleanup and the Natural Resources Damage Assessment Processes for the Burton Island coal ash landfill.

PM A. Final reports made available to the public.

Action B. Model transport scenarios of contaminants from the IRPP coal ash landfills to environmental receptors based on various levels of sea level rise and severe storm impacts.

PM B. A report on this scientific research is made available to the public.

Objective 5: Reduce nutrient input to residential canals and lagoons.

Action A. Treat or remove graywater discharges into tributaries, canals, and lagoons.

PM A. Number of graywater discharges treated or removed.

Action B. Filter runoff from roofs, driveways, and other impervious surfaces.

PM B. Number of projects implemented.

Action C. Provide and disseminate educational material for homeowners on reducing fertilizer inputs to tributaries, canals, and lagoons.

PM C. Materials are distributed.

Action D. Examine dead-end canals to determine if any could benefit from low-cost solutions to increase flushing.

PM D. Candidate sites for additional tidal flushing are identified.

Objective 6: Re-assess water quality monitoring efforts for their representativeness and capacity to detect trends, then develop recommendations for improvement.

Action A. Aggregate historic and contemporary water quality monitoring data and metadata into one publicly accessible database.

PM A. Database is available and updated annually.

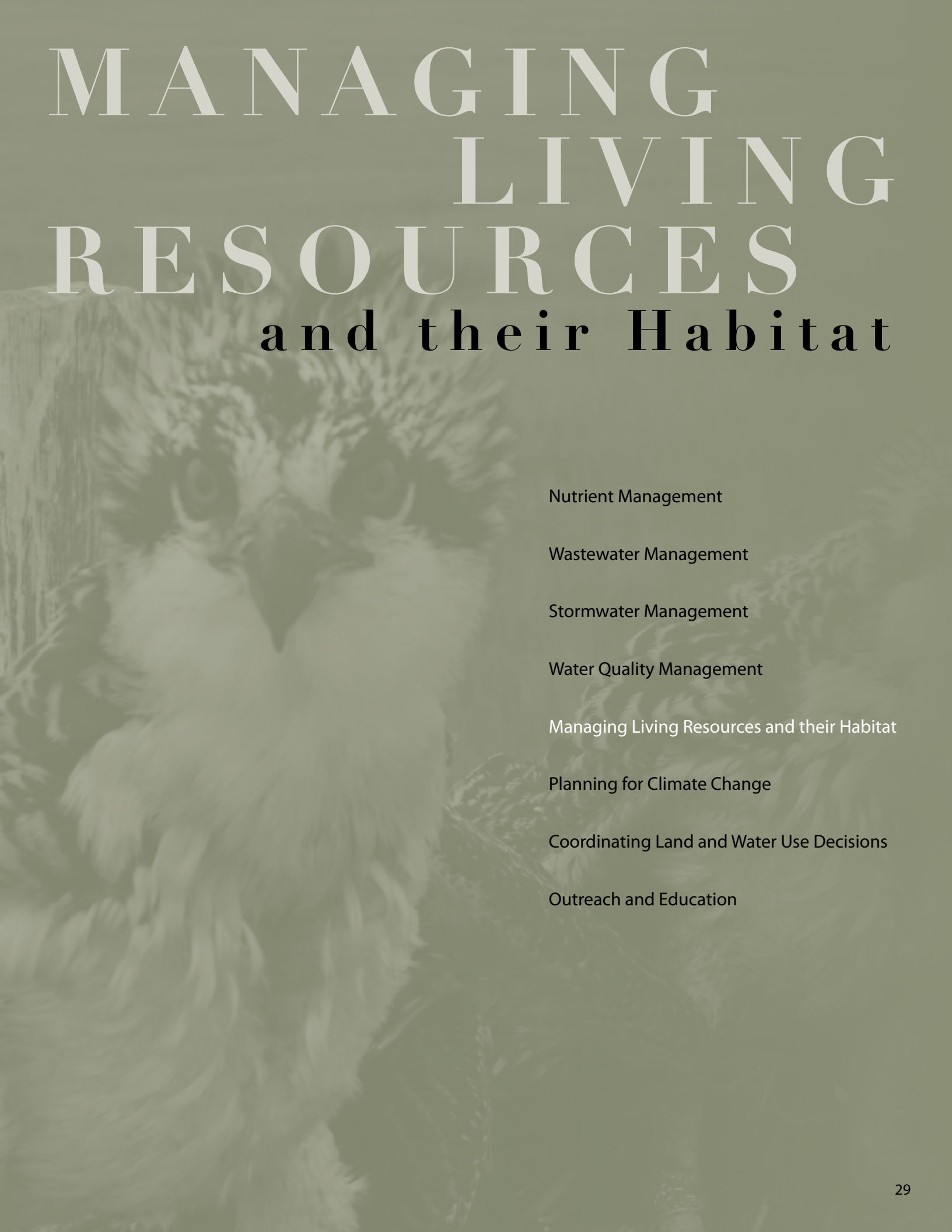
Action B. Conduct a long-term trend analysis of water quality parameters.

PM B. The trend analysis is completed and published.

Action C. Develop recommendations to improve efficacy of monitoring efforts to detect trends.

PM C. Recommendations report is published.

MANAGING LIVING RESOURCES and their Habitat



Nutrient Management

Wastewater Management

Stormwater Management

Water Quality Management

Managing Living Resources and their Habitat

Planning for Climate Change

Coordinating Land and Water Use Decisions

Outreach and Education

MANAGING LIVING RESOURCES AND THEIR HABITAT

The original CCMP contained a Habitat Protection Action Plan, the goal of which was to protect, restore, and enhance living resources by improving water quality, controlling land use, and reducing habitat loss.

1995 CCMP Goals and Objectives

G2. Protect, restore, and enhance living resources by improving water quality and protecting and enhancing habitat.

G2A. Promote recurrence of submerged aquatic vegetation.

G2B. Restore finfish and shellfish populations.

G2C. Decrease potential for fish kills.

G2D. Examine feasibility of assembling a biological resources atlas to be used in management decisions.

G2E. Enhance monitoring and response strategies.

G2F. Enhance and restore impacted shallow and nearshore habitats.

G7. Establish and implement a shoreline protection program which addresses both natural processes and human activities.

G7A. Develop and implement a no net loss of wetlands policy.

G7B. Attain maximum wetlands preservation by providing adequate setbacks and buffer zones.

G7C. Develop regulations to protect non-tidal wetlands

G7D. Strengthen enforcement of existing wetland protection regulations.

G7F. Develop criteria to implement policy for use of rip-rap and vegetation for shoreline protection.

Status of 1995 CCMP Goals and Objectives

None of the above goals and objectives were completed, and many are still on-going.

- No Resource Protection Area management plan was crafted, but a Coastal and Estuarine Land Conservation Program Plan was drafted by the DNREC Delaware Coastal Program in 2007.
- There is no codified Inland Bays Dredge Plan, although a progressive sediment management plan for Rehoboth Bay was developed in 2007.
- There is no codified shoreline building-setback line beyond Sussex County's 50 ft. buffer zone from the mean high water line of tidal waters and tidal wetlands.
- Sussex County did not develop additional habitat protection ordinances.
- No state regulations were developed to protect non-tidal wetlands, federal regulatory jurisdiction of non-tidal wetlands decreased, and non-tidal wetland loss increased.
- No biological resource atlas was known to be produced.
- DNREC has been promoting natural alternatives to bulkheading during its permit reviews. DNREC's policy is to deny requests for new bulkheads in favor of rip-rap or preferably living shorelines.
- Additional lands were acquired by public entities or placed into conservation easement since 1995, including 3,000 acres since 2003 when tracking began.
- The James Farm Ecological Preserve was established to protect habitat and educate residents and visitors about the Bays.
- Efforts to restore eelgrass populations have resumed after many years with mixed success.
- The Oyster Gardening program has demonstrated the success of oyster growth in the Inland Bays and shellfish planting efforts have shown good success.
- Reduced nutrient loading has presumably decreased seaweed abundance, improving nearshore habitats.

As a result of the deliberations of the CCMP Revision Steering Committee, the Habitat Protection Action Plan in the 1995 CCMP was broadened to include both managing living resources and their habitat.

2012 UPDATE: OBJECTIVES, ACTIONS AND PERFORMANCE MEASURES (PM)

Objective 1: Promote recurrence of submerged bay grasses.

Action A. Conduct an education initiative on the benefits and importance of re-establishing submerged bay grasses.

PM A. Number of individuals educated about bay grasses and their restoration.

Action B. Map areas of the Bays that have habitat characteristics supportive of the re-establishment of bay grass species that have been identified as suitable candidates for restoration.

PM B. A report including data layers and maps is produced.

(continued)

Action C. Convene a bay grass restoration workgroup to develop a bay grass restoration, protection, and monitoring plan.

PM C1. Baygrass restoration workgroup is active.

PM C2. A plan is developed.

Action D. Implement the bay grass restoration, protection, and monitoring plan.

PM D1. Number of acres successfully restored.

PM D2. Annual restoration and monitoring reports are produced.

Objective 2: Halt the continued loss of wetlands and reverse these loss trends by promoting projects to mitigate for previously lost wetlands.

Action A. Bring regulation of freshwater wetlands, including isolated wetlands, under State jurisdiction and permitting.

PM A. State legislation is passed and regulations are adopted.

Action B. Identify candidate sites for the creation and restoration of wetlands.

PM B. Numbers and acreages of sites identified.

Action C. In accordance with the Inland Bays Pollution Control Strategy (PCS), create or restore wetlands on areas previously converted to cropland.

PM C. The PCS goal of restoring 4,147 acres is met.

Action D. Protect and enhance/restore additional wetland acreage.

PM D1. Number of acres protected.

PM D2. Number of acres enhanced/restored/created per year.

Action E. Encourage the planting of trees and other plants adjacent to all wetlands.

PM E. Number or acres of planted next to wetlands.

Action F. Revise the existing Sussex County Ordinance on water quality buffers to be in line with the CIB's Recommendations for a Water Quality Buffer System.

PM F. A revised ordinance is adopted.

Action G. Engage the state Natural Areas Advisory Council to help identify freshwater wetlands that should be purchased as preserves.

*PM G. A prioritized list of properties to be purchased is produced.**

Action H. Develop a living shoreline initiative to maximize the amount of natural Bay shorelines.

Sub-Action H1. Assess and report on the condition of shorelines in the Inland Bays.

PM H1.1 Shoreline assessment reports are produced.

Sub-Action H2. Conduct an education and outreach program on shoreline function and management alternatives for shoreline property owners.

PM H2.1 Number of shoreline property owners informed.

Sub-Action H3. Conduct living shoreline demonstration projects to train installation and maintenance contractors.

PM H3.1 Length of living shoreline enhancements or stabilizations installed.

PM H3.2 Number of contractors trained.

Sub-Action H4. Demonstrate innovative living shoreline stabilization techniques utilizing bay grasses, shellfish, and other native biota where feasible.

PM H4.1 Number of demonstration projects completed.

Sub-Action H5. Support legislative and/or regulatory changes needed to require that living shoreline techniques be employed wherever feasible for shoreline stabilization.

PM H5.1 Legislation is passed or regulations are updated.

Objective 3: Provide access for native migratory fish to upstream areas for use as spawning and/or nursery sites.

Action A. Conduct a migratory fish passage restoration feasibility and planning study.

PM A. The study is completed .

Action B. Implement fish passage restoration projects.

PM B1. Number of passage projects completed.

PM B2. Number of miles of fish habitat restored.

Action C. Monitor fish passage restoration success.

PM C. Annual reports are produced that document the number or percentage of target migratory fishes utilizing the passages.

Action D. Conduct education and outreach efforts on the importance of migratory fishes and the benefits of fish passage restoration.

PM D. Number of people informed.

Objective 4: Eliminate once through cooling at the Indian River Power Plant (IRPP).

Action A. Track progress of IRPP compliance with DNREC agreements for removal of Unit 3 water withdrawals by January 1, 2014.

PM A. The only water being withdrawn at IRPP is to compensate for evaporative loss at the cooling tower.

*Public comment recommendation

(continued)

Objective 5: Increase the economic and environmental benefits of shellfish.

Action A. Increase the acreage of approved shellfishing waters.

Sub-Action A1. Examine water quality data for the past 5 years to determine if areas of the Bays could be re-opened to shellfish harvest.

PM A1.1 Number of acres reclassified from closed to approved or seasonally approved.

Sub-Action A2. Determine the sources of contamination that presently constrain the opening of additional shellfishing areas.

PM A2.1 A listing of the sources of contamination is available for public scrutiny.

Sub-Action A3. Develop and implement a strategy to address contaminant source reduction so that additional shellfishing waters may be opened.

PM A3.1 The strategy is completed and implementation is underway .

Action B. Enhance populations of eastern oysters.

Sub-Action B1. Create additional hard bottom areas suitable for oyster recruitment or planting of oyster spat.

PM B1.1 Acres of suitable hard bottom areas created.

Action C. Promote and encourage shellfish aquaculture in the Inland Bays.

Sub-Action C1. Convene a team of state and federal regulatory representatives and stakeholders to produce the scientific, educational, and policy groundwork necessary to develop legislation and regulations that govern shellfish aquaculture in the Inland Bays.

PM C1.1 Legislation favorable to aquaculture is passed.

PM C1.2 Regulations governing aquaculture are promulgated. .

Sub-Action C2. Provide financial incentives for new aquaculturists.

PM C2.1 Financial incentives are competitive with other states.

Sub-Action C3. Provide technical support and education to aquaculturists.

PM C3.1 Technical guidance specific to the Inland Bays is published.

Objective 6. Monitor and control the spread of invasive species within the Bays and their watershed.

Action A. Map the known distributions of invasive species of concern in the watershed.

PM A. A map is created and publicized.

Action B. If needed, support implementation of policy designed to curb the spread of invasive species.

PM B. The legislative/and/or regulatory process is engaged to limit the spread of invasive species.

PLANNING
for Climate Change

Nutrient Management

Wastewater Management

Stormwater Management

Water Quality Management

Managing Living Resources and their Habitat

Planning for Climate Change

Coordinating Land and Water Use Decisions

Outreach and Education

PLANNING FOR CLIMATE CHANGE

There were two objectives in the 1995 CCMP that addressed the general topics of sea level rise and/or saltwater intrusion:

1995 CCMP Goals and Objectives

G5A. Address saltwater intrusion.

G7E. Integrate projected sea level rise into shoreline planning and activities.

Status of 1995 CCMP Goals and Objectives

- Since 1995, climate change and accompanying sea level rise have become much higher-priority topics for coastal states in general and Delaware in particular, leading to the formation of a Delaware Sea Level Rise Advisory Committee in 2011 .
- The Sea Level Rise Advisory Committee has determined that there is a need to predict the effects of sea level rise on the Inland Bays, and then to plan for and accommodate that projected sea level rise.

The following objectives are proposed to accommodate and plan for climate change and sea level rise:

2012 UPDATE: OBJECTIVES, ACTIONS AND PERFORMANCE MEASURES (PM)

Objective 1: Integrate projected sea level rise into land use planning and proposed development to protect shore zone ecosystems and bay water quality.

Action A. Work with the County and municipalities to incorporate sea level rise into comprehensive plans.

PM A.1 The County includes sea level rise in its comprehensive plan.

PM A.2 Percentage of bayside municipalities that include the projected impacts of sea level rise in their comprehensive plans.

Action B. Conduct a sea level rise vulnerability analysis specific to the Inland Bays watershed that includes potential impacts to both green and gray infrastructure.

PM B. Report of analysis is publicly available.

Action C. Implement the recommendations of the state Sea Level Rise Advisory Committee relative to the Inland Bays when they become available.

PM C. Percentage of total recommendations implemented.

Action D. Model the distribution of tidal wetlands under different sea level rise scenarios to guide land use and protection decisions that maximize future tidal wetland extent.

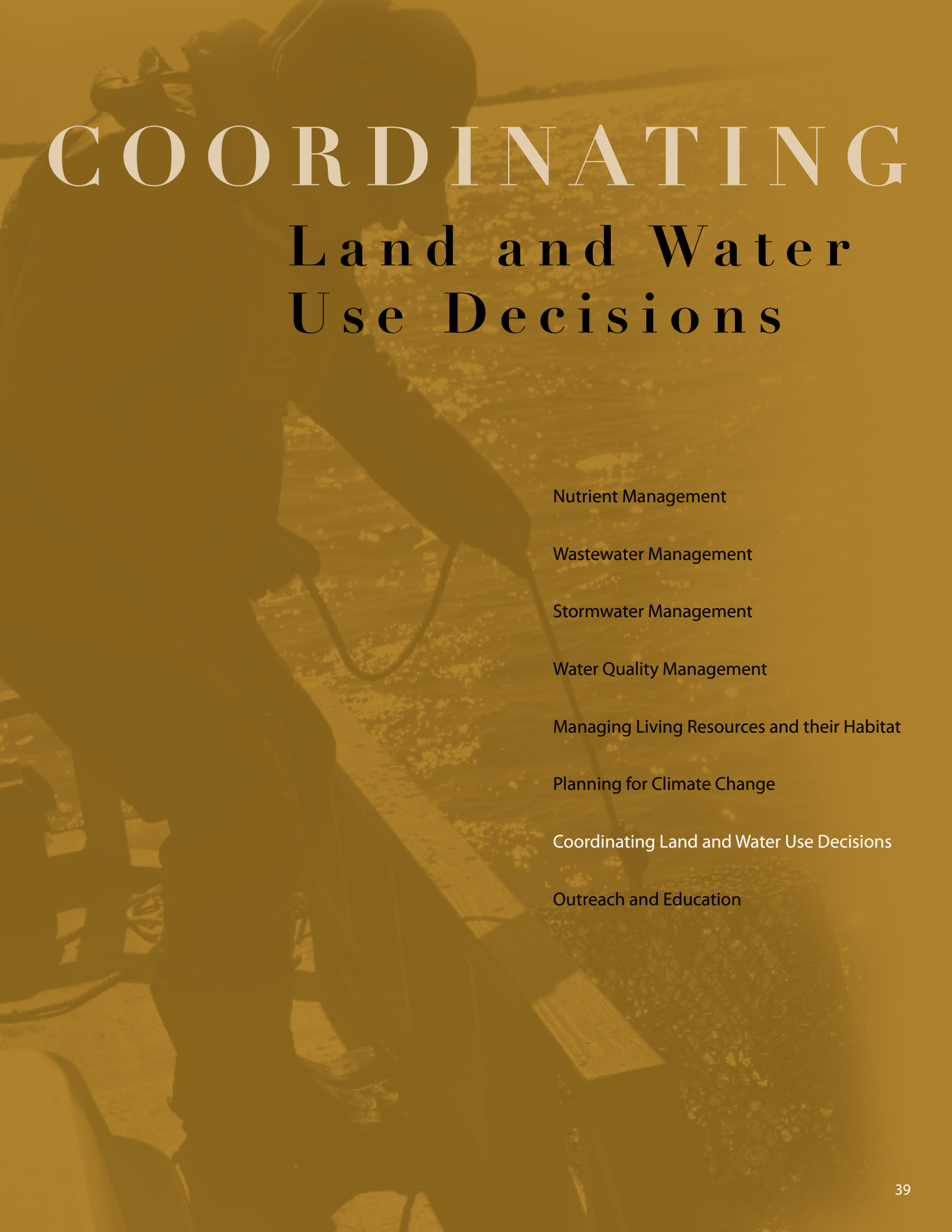
PM D. Number of additional acres that would need to be acquired or protected.

Action E. Track shifts of dominant aquatic species potentially caused by climate change through the use of previous and recent surveys.

PM E. Generation of a list of species affected that is regularly updated.

Action F. Include climate change and sea level rise information in public outreach and education efforts.

PM F. Number of individuals informed about climate change and sea level rise.



COORDINATING
Land and Water Use Decisions

Nutrient Management

Wastewater Management

Stormwater Management

Water Quality Management

Managing Living Resources and their Habitat

Planning for Climate Change

Coordinating Land and Water Use Decisions

Outreach and Education

COORDINATING LAND AND WATER USE DECISIONS

In the original CCMP the goal of the land-use action plan was to prevent additional loss of habitat and nutrient over-enrichment by developing sound land-use plans, passing supportive regulations and zoning ordinances, and providing for trained staff to implement the plan. The premise has been that land-use decisions will remain largely at the local level with planning assistance provided by the State.

1995 CCMP Goals and Objectives

G3. Develop and implement comprehensive zoning ordinances, laws, and regulations at all levels of government which promote environmentally sound land use.

G3A. Form a checklist of critical environmental factors for any change in land use to be used in the decision-making process.

G3B. Provide maximum protection of waterways, groundwater, natural areas, open space, and tidal and non-tidal wetlands.

G3C. Coordinate management decisions among all levels of government.

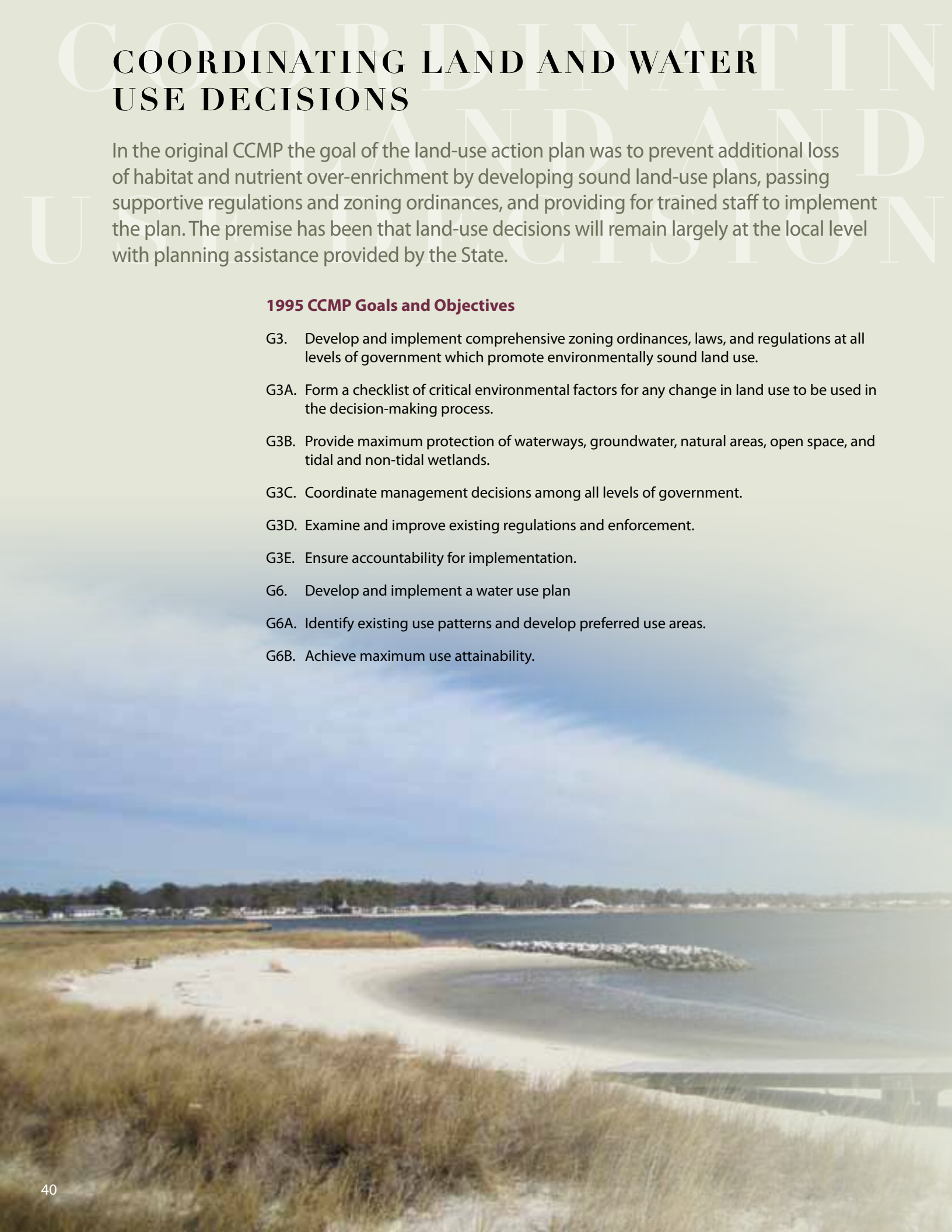
G3D. Examine and improve existing regulations and enforcement.

G3E. Ensure accountability for implementation.

G6. Develop and implement a water use plan

G6A. Identify existing use patterns and develop preferred use areas.

G6B. Achieve maximum use attainability.



G6C. Coordinate land uses with marine-related activities.

G6D. Determine use capacities based on public safety and environmental concerns.

G6E. Strengthen marine-related activity enforcement.

G6F. Develop and implement marina design criteria to minimize environmental impacts; promote dry stack storage and boat ramps as potential alternatives.

G6G. Implement an aggressive program to acquire public access lands.

G6H. Explore financing management strategies with user fees and other innovative methods.

G8. Identify, evaluate, and consolidate emergency contingency response capabilities and plans for the Inland Bays region.

Status of 1995 CCMP Goals and Objectives

The Coastal Sussex Land-Use Plan of 1988 that was referenced in the original CCMP has been replaced by the Sussex County Comprehensive Plan of 2002 which was updated in 2008.

- This plan characterizes the areas around the Inland Bays as "environmentally sensitive growth areas" where two individual family dwelling units will continue to be permitted per acre, with an option of up to four units per acre using its Density Bonus/Open Space program wherein a developer pays fees that fund permanent land preservation elsewhere in the County.
- This plan also calls for establishing a maximum allowable impervious surface regulation and deleting wetlands from site acreage calculations used to determine density, among other provisions.
- The buffer widths in the Sussex County Comprehensive Plan have yet to be modified from the existing 50 ft. buffer (with exclusions) for separating man-made encroachment and disturbance from the mean high water line of tidal waters and tidal tributary streams.

In recognition that much remains to be done with regard to regulating land use in the environmentally sensitive Inland Bays drainage system, the following objectives were targeted for the next five years:

2012 UPDATE: OBJECTIVES, ACTIONS AND PERFORMANCE MEASURES (PM)

Objective 1: Involve all levels of government to obtain commitments for coordination of land use decisions that minimize environmental impact, allow attainment of Total Maximum Daily Load (TMDL), and maximize protection of existing aquatic natural resources in the watershed.

Action A. Designate the Inland Bays watershed as a 'Critical Environmental Area' and manage the watershed for nutrient reductions consistent with TMDL load reductions or reductions attributed to best available technologies.

PM A. Designation of the Inland Bays watershed as a 'Critical Environmental Area'.

Action B. Request that representatives of all levels of government sign a letter of understanding that their land use decisions will minimize environmental impact to existing aquatic resources in the watershed.

PM B. Such a letter is drafted and signed by appropriate agencies represented on the CIB Board of Directors.

(continued)

Objective 2: Provide maximum protection of waterways, forested stream corridors, groundwater, natural areas, open space, tidal and non-tidal wetlands, and encourage additional acquisitions or conservation set-asides and protection.

Action A. Water quality buffers shall be clearly demarcated, designated, and recorded on final site plans or final major subdivision plats and demarcated on the ground with signs or other kinds of markers.

PM A. This requirement is included in a revised Sussex County ordinance.

Action B. Maintain land presently classified as open space under County or municipal ordinances or codes to minimize nutrient loading to the Inland Bays estuary.

PM B. County and municipal officials are educated on the need for such maintenance.

Action C. Update and implement the Inland Bays Habitat Protection Plan.

PM C. Number of acres protected through acquisition or easement.

Action D. Use the Delaware Ecological Network and other appropriate information sources to prioritize the preservation of key habitat in the Inland Bays drainage system.*

PM D. Number of acres protected.

Objective 3: Update and implement the Inland Bays Water Use Plan.

Action A. Assess implementation progress of the Water Use Plan and revise remaining and new actions.

PM A. A Water Use Plan Update is published.

Action B. Focus outreach on increasing waterway safety and channel marking.

PM B. Waterway maintenance improves.

Action C. Focus on low impact water use activities.

PM C. The public is informed about the availability of low impact water use activities.

Action D. Continue marine spatial planning efforts to maximize aquatic resources and minimize water use conflicts.

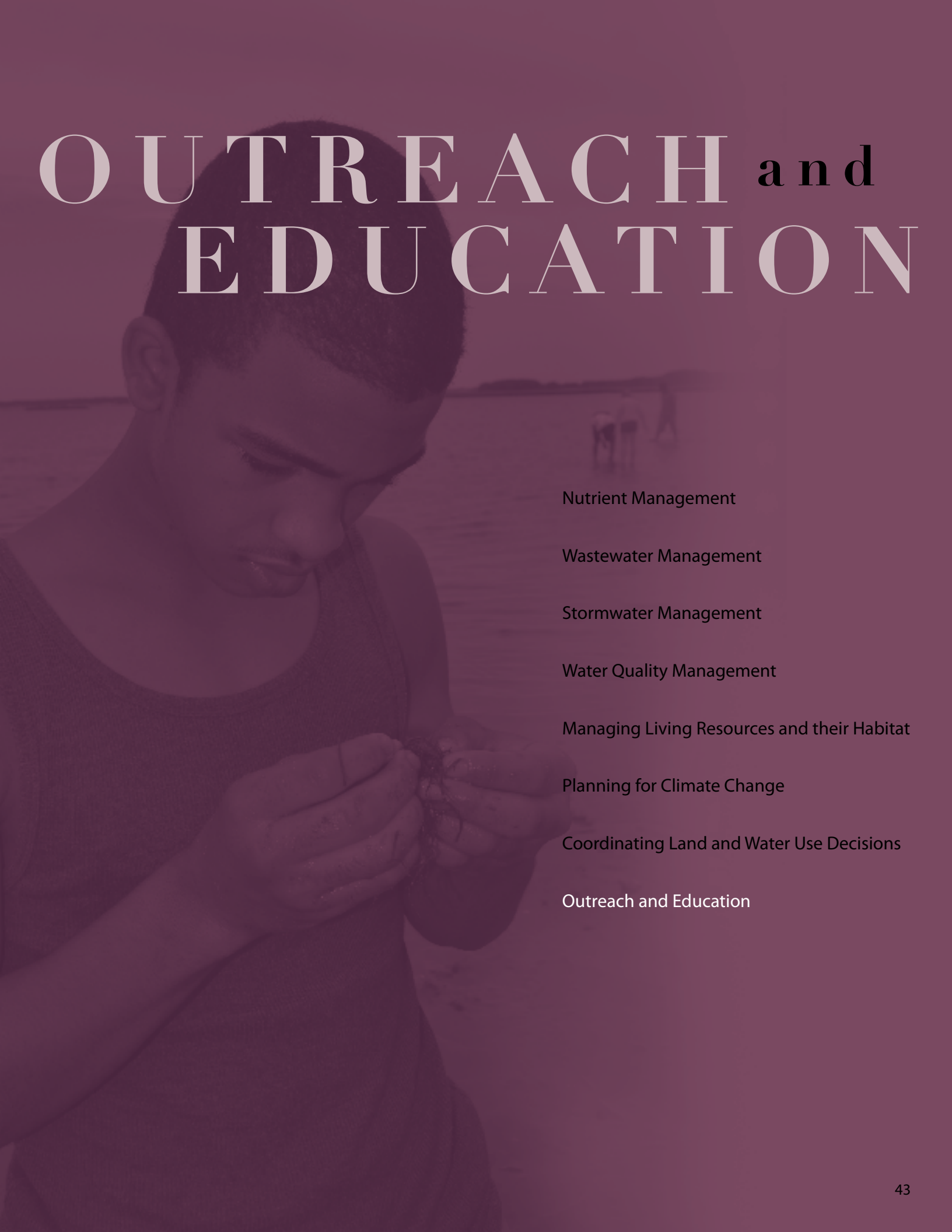
Sub-Action D1. Develop a publicly accessible marine spatial planning database.

PM D1.1 A database is publicly available.

Sub-Action D2. Provide educational and planning forums on spatial aspects of water uses.

PM D2.1 Number of individuals attending forums.

*Public comment recommendation



OUTREACH and EDUCATION

Nutrient Management

Wastewater Management

Stormwater Management

Water Quality Management

Managing Living Resources and their Habitat

Planning for Climate Change

Coordinating Land and Water Use Decisions

Outreach and Education

OUTREACH AND EDUCATION

Education and Outreach was one of the five original action plans in the original CCMP; recognized as integral to the development and implementation of the CCMP to inform, educate and engage the stakeholders in the watershed in support of the mission.

1995 CCMP Goals and Objectives

G8B. Encourage recycling.

G8C. Educate the public and industry regarding the need for waste minimization and pollution prevention.

G9. Ensure, to the maximum extent possible, all planning and management activities related to the Inland Bays involve public participation, information and education.

G9A. Establish a speaker's bureau.

G9B. Identify user groups and their leadership.

G9C. Develop programs involving senior citizens and other special interest groups.

G9D. Provide education programs statewide.

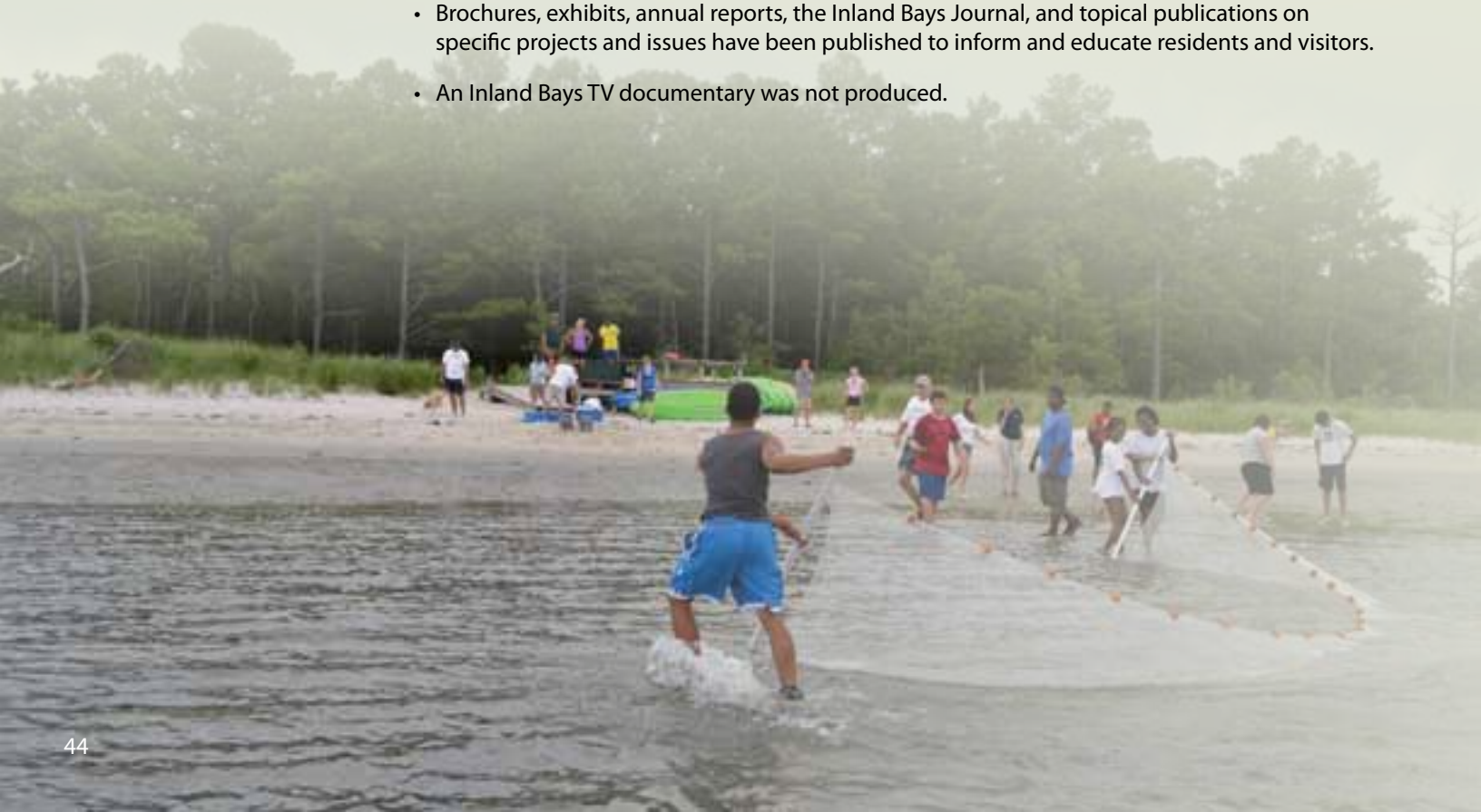
G9E. Emphasize programs in the public schools.

G9F. Promote education of out-of-state users and visitors.

G9G. Utilize and build on Monitoring Committee (citizens advisory) strategies.

Status of 1995 CCMP Goals and Objectives

- A Strategic Plan for Education and Outreach was developed and is reviewed annually and revised biannually.
- Brochures, exhibits, annual reports, the Inland Bays Journal, and topical publications on specific projects and issues have been published to inform and educate residents and visitors.
- An Inland Bays TV documentary was not produced.



- A website and social media outlets were established to provide both in-depth information and the capacity to quickly notify and solicit feedback from citizens about issues and projects.
- Partnerships were created to provide watershed education and experiences at two locations in addition to the CIB facility; the James Farm Ecological Preserve and the Bethany Beach Nature Center.
- Two partnerships with Indian River School District were established to provide on-going watershed education to students: the watershed education program for middle school students at James Farm Ecological Preserve, and the Schoolyard Habitat Program established at eleven schools.
- A Volunteers for the Bays program was established to offer residents and visitors the opportunity to participate in all areas of CIB's mission.
- A Speakers Bureau was established to educate and inform citizens through their civic, community and professional organizations.

The following objectives are priorities for education and outreach for the next five years:

2012 UPDATE: OBJECTIVES, ACTIONS AND PERFORMANCE MEASURES (PM)

Objective 1: Increase the visibility of the CIB and its mission.

Action A. Assess the CIB brand and communications strategy to determine effectiveness.

Sub-Action A1. Conduct surveys to gather data on citizen perceptions and understanding of issues of concern in the watershed.

PM A1.1 Surveys are developed and implemented.

Action B. Identify and implement high priority Work Plan/CCMP actions and develop outreach and education campaigns.

PM B1.1 Campaign(s) are developed and implemented.

Objective 2: Educate stakeholders in the watershed about their impacts on water quality in the Bays and how they can help.

Action A. Develop and deliver watershed education programs for children.

Sub-Action A1. Programs for school age children are offered at the James Farm Ecological Preserve.

PM A1.1 Number of students attending programs.

Sub-Action A2. Offer community outreach and education to children, families, and visitors at the Bethany Beach Nature Center (BBNC).

PM A2.1 Programs offered at BBNC.

Sub-Action A3. Continue to offer watershed education at schools through the Schoolyard Habitats Program.

PM A3.1 Number of students reached annually at their schools.

Action B. Administer a Speakers Bureau.

PM B. Number of speaking engagements annually.

(continued)

Action C. Continue to promote the 1000 Rain Gardens for the Inland Bays program.

PM C.1 A demonstration rain garden is established in every incorporated town in the watershed.

PM C.2 Rain Garden booklets are distributed at demonstration sites.

Objective 3: Communicate with stakeholders through a variety of media; to promote public involvement and influence behaviors, attitudes and actions to foster stewardship.

Action A. Continue to develop and administer a website as a primary vehicle for disseminating information.

PM A. Comprehensive website is maintained.

Action B. Incorporate social marketing and enhanced use of media into CIB's communication strategy.

PM B. Social media is used to maintain regular communication with Board and Board Committees, volunteers, Friends of the Bays, and elected and public officials.

Action C. Edit and disseminate a newsletter and annual report.

PM C. The Inland Bays Journal is published and distributed three times each year and an annual report is published annually.

Action D. Create and disseminate printed marketing materials such as brochures, postcards, flyer exhibits and signage to address specific education/outreach needs to target audiences.

PM D. Printed materials and exhibits are produced each year for priority issues and projects.

Action E. Maintain relationships with local media outlets and reporters and disseminate press releases and photos for their use.

PM E. Press releases are issued for events and selected projects.

Objective 4: Encourage more stakeholder support through volunteerism.

Action A. Direct a volunteer program that provides citizens a formal track to partner with the CIB.

PM A. Volunteer opportunities are developed and volunteers receive regular invitations to assist.

Action B. Involve volunteers and stakeholders in demonstration projects that model desired changes in practices and citizen science research to increase their knowledge about the bays.

PM B. Number of volunteer hours worked each year.

Objective 5: Communicate environmental results to inform legislators and raise citizen awareness about the state of the Inland Bays and its watershed.

Action A. Results of Inland Bays environmental studies or projects are published.

PM A1. A "State of the Inland Bays Report" is published and disseminated every five years.

PM A2. Press releases are issued to provide new information to the media.

Action B. Communicate the benefits to economic development, tourism, recreation and quality of life of achieving water quality goals as well as the risks of failure to achieve these goals.*

PM B. Increase in participation from the business community.

*Public comment recommendation

SUMMARY OF PUBLIC COMMENT on the Draft Addendum to the CCMP

At the public listening session held at the Rehoboth Beach DE Civic Center the evening of May 15, 2012, 28 members of the public exclusive of Center staff registered their attendance. It was announced that the Center would accept additional written or emailed comments for several weeks following the public meeting. Comments received are summarized as follows:

General Listening Session:

- Two commenters questioned how much Sussex County government participated in the CCMP addendum process. (Sussex County had been invited to participate in each of the four Steering Committee meetings, but no County representative attended). Center Director Chris Bason and Policy Coordinator Roy Miller visited with a representative from Sussex County government to receive one-on-one input following the 4th Steering Committee meeting.
- Too much emphasis has been placed on Inland Bay's hydrodynamics and not enough on atmospheric pollution including aerosols.
- Concerns were expressed about sea level rise and how coastal communities will deal with it. Will it cause pollutants to be released at a greater frequency?
- New homeowners in the Inland Bays drainage system need additional information about their responsibilities now that they have moved into the drainage basin. Realtors can be given fliers to give to new and prospective homeowners.

Comments Provided at Specific Focus Area Listening Sessions:

Nutrient Management: There should be more regulation of urban nutrient contributions. Nutrient products like fertilizers available to homeowners should include more advice on environmentally responsible application. Blackwater Creek has experienced an increase in phosphorus.

Wastewater Management: A brochure should be prepared to provide guidance on the proper disposal of medications. Residents should be better educated about the proper care of septic systems. Regional waste water disposal systems should be promoted over individual systems. There should be a "flush tax" supported by the legislature to provide funding for upgrading wastewater treatment systems.

Stormwater Management: Questions were raised about who is involved in stormwater management and how does technology transfer occur and who will address the objectives suggested in the CCMP addendum and implement the actions? How is it determined where retrofits will occur? The lines and grades/drainage code should be moved forward and enforced. The suggestion was made that there should be an agency person to enforce the objectives in stormwater management.

Water Quality Management:- Written comments were referenced regarding tracking the progress in implementing the DNREC Inland Bays Pollution Control Strategy provisions. The agreement between DNREC and the owners of Indian River Power Plant needs further clarification as to how the process of once-through cooling will change under the consent decree to eliminate three of the four sources of heated water discharges by January 1, 2014.

Managing Living Resources and Their Habitat: An inquiry was made as to exactly what is meant by once-through cooling water at the Indian River Power Plant. There is a pre-existing study to map eelgrass beds in the Inland Bays conducted by a researcher now deceased, and the Center should try to locate a copy. More concerns were expressed about how to further engage Sussex County government on issues of importance in the Inland Bays.

(continued)

Planning for Climate Change: In order to restore wetlands, one must be able to deal with expected sea level rise. The Inland Bays do not have enough fringing wetlands. The County is not incorporating State Resource Areas into their comprehensive planning effort.

No specific comments were offered relative to **Coordinating Land and Water Use Decisions or Outreach and Education** at the focus area session.

Other Comments received via email or the Center's website

Objective 3 actions under Wastewater Objective 3 and Water Quality Management Objective 1 lack specificity. A progress report on reducing nutrient contributions should include an annual determination of the percentage of nitrogen, phosphorous, and sediment reductions already received and reductions still needed to attain TMDLs in each stream. The CCMP needs to include a concerted effort to preserve remaining forested stream corridors. The state Natural Areas Advisory Council should be engaged to identify land to be purchased by the State as preserves. How will the additional 38,130 acres of State Resource Areas in the County by afforded additional protection? (Note, DE DNREC was sued over the proposed designation of specific properties as SRAs and the Court of Chancery ruled in 2008 that SRAs are null and void).

GLOSSARY OF TERMS AND ACRONYMS

BMPs: Best management practices. A procedure or system that has been shown to be effective in preventing or reducing non-point sources of pollution.

Bio-logs: Logs made of compressed coconut fiber and/or other biodegradable materials that are staked along shorelines to diminish erosion and promote plant growth through the log structure in order to protect shorelines.

CAFO: Concentrated animal feedlot operations. Regulations for combined animal feedlot operations are administered by the Delaware Department of Agriculture and the Delaware Department of Natural Resources and Environmental Control.

CCMP: Comprehensive Conservation and Management Plan.

Diadromous Fish: Fish who migrate from fresh to saltwater or saltwater to fresh as part of their life history. Examples includes American shad, river herring, striped bass, and American eel, among others.

DDA: Delaware Department of Agriculture.

DNREC: Delaware Department of Natural Resources and Environmental Control.

EPA: United States Environmental Protection Agency.

ERES: Exceptional Recreational or Ecological Significance. A DNREC designation for waters that shall be accorded a level of protection and monitoring in excess of that provided most other waters of the State.

GIS: Geographical information system. It is a computerized system designed to capture, store, manipulate, analyze, manage, and present all types of geographical data.

Graywater Discharges: Wastewater from domestic activities like laundry or dishwashing that can be recycled and does not contain human waste.

Gray Infrastructure: Systems like sewers and storm drains that take wastewater or stormwater away from streets, parking lots and businesses.

Green Infrastructure: A network of natural areas, parks, conservation areas, and working lands all with conservation value.

Green Streets Projects: Landscaped streetside planted areas or swales that capture stormwater runoff and allow it to soak into the ground as soil and vegetation filter pollutants. Green infrastructure in transportation right-of-ways.

Natural Areas Advisory Council: The Council advises DNREC's Secretary on the administration of nature preserves and the preservation of natural areas.

Non-point Source Discharges: Discharges originating from areas having no well-defined source. Examples include street and farm runoff.

NPDES: National Pollution Discharge Elimination System. It is a national permit program administered by the EPA through appropriate state agencies like DNREC.

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NRG: The owners of the Indian River Power Plant in Millsboro, DE.

OWTDS: Onsite wastewater treatment and disposal system. It is a wastewater treatment system installed directly on the property owner's land.

PCS: Inland Bays Pollution Control Strategy. A document produced in 2008 by DE DNREC through a collaborative public process that contains strategies for cleaning up Delaware's Inland Bays.

Point Source Discharges: Discharges from a defined source like an outfall pipe from a sewage treatment plant or industrial waste discharge.

SAV: Submerged aquatic vegetation. In the Inland Bays, it refers to rooted aquatic vegetation like eel grass that remains submerged through most of its lifecycle.

Schoolyard Habitat Program: A program promoted by the Center for the Inland Bays to rehabilitate a portion of schoolyard property so that it regains its function as a small natural area that uses native vegetation to filter runoff.

Secchi Disk: A white and black disk that is lowered into the water until it can no longer be seen. The depth at the point of disappearance is a rough measure of the transparency of the water.

TN: Total nitrogen. TN includes dissolved inorganic nitrogen and organic nitrogen in water.

TP: Total phosphorus. TP includes all forms of phosphorus in water, including dissolved inorganic and organically-bound forms.

TMDL: Total maximum daily load. It is the amount of a given pollutant that may be discharged to a water body from point or non-point or background sources that still allows attainment of the applicable water quality standards.

Action	PM1 Status	PM1 Metric	PM2 Status	PM2 Metric
NUTRIENT MANAGEMENT				
Objective 1. Monitor the effectiveness of the nutrient management program and CAFO regulations, and suggest and implement revisions as needed.				
A. Annually report on watershed agricultural BMP implementation including PCS goals for cover crop acreage, manure storage sheds, and manure relocated or put into alternative use.				
B. Target and prioritize BMP implementation to areas of the watershed where they will be most efficient and effective.				
B1. Use GIS and BMP performance data to determine the locations of BMPs in the watershed by BMP type resulting in the most cost effective nutrient reductions.				
B2. Cost share providers prioritize assistance for targeted BMPs and track implementation				
C. Secure and leverage funding for BMPs.				
C1. Conduct a workshop to examine and enhance BMP financing strategies.				
C2. Utilize DNREC's Water Quality Improvement Project Sponsorship Program (WQIPSP) to leverage funding for BMPs.				
D. Promote and reward those in the agriculture sector who are good stewards of the environment.				
E. Improve nutrient management of developed lands through research and education to better quantify and reduce nutrient loads.				
E1. Conduct watershed specific analysis to determine nutrient loading to the Bays from developed lands under different management practices.				
F. Develop program to educate the general public and landscapers on the benefits of reducing fertilization and improving fertilization practices.				
WASTEWATER MANAGEMENT				
Objective 1. Examine, improve and update existing on-site wastewater treatment and disposal regulations and their enforcement.				
A. Annually assess and update information on regulatory initiatives in the onsite wastewater sector.				
A1. Continue and report on DNREC holding tank inspection program.				
A2. Report compliance with DNREC pump-out and inspection requirements for septic systems on properties that are sold.				
A3. Verify that all new and replacement septic systems in the Inland Bays watershed are required to meet all regulatory performance standards.				
B. Promulgate and enforce revisions to DNREC's onsite wastewater treatment and disposal regulations.				
C. Ban permanent holding tanks in the watershed.				
Objective 2. Examine emerging contaminants entering the Inland Bays and engage the regulatory community and general public in education and source reduction.				
A. Conduct a symposium that identifies emerging contaminants, their sources, and their potential effects.				
B. For emerging contaminants with the highest potential for significant environmental impact, prepare reports to define the problem and promote source control.				
C. Determine the need for regulations to reduce the threat of identified emerging contaminants.				
D. Inform the public about the potential threats, challenges, and solutions to identified emerging contaminants.				

Performance Measure (PM)

Status Legend:

I = Initiated
C = Completed
O = On-going

Metric Legend:

Metrics are Action-specific;

see Performance Measure description under each Action and Sub-Action

(continued)

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Action	PM1 Status	PM1 Metric	PM2 Status	PM2 Metric
Objective 3. Promote the use of regional wastewater treatment and disposal systems within designated growth zones over multiple small systems outside of growth zones. Ensure permitting of proposed systems will help to meet TMDLs for receiving waters.				
A. Develop a wastewater planning committee comprised of DNREC, Sussex County, utility industry representatives, and other stakeholders to coordinate the treatment and disposal of wastewater from new and existing develpments based on the TMDLs of receiving waters.				
B. Conduct workshop to share new technology and incentives for increasing the beneficial reuse of wastewater.				
C. Require surface water assessments that clearly demonstrate how all proposed wastewater treatment and disposal systems will help to meet TMDSs for receiving waters.				
D. Enforce the waters of Exceptional Recreational and Ecological Significance (ERES) provisions of the State Water Quality Standards requiring the least environmentally damaging disposal alternatives for wastewater.				
E. Develop a nutrient budget for wastewater to determine existing and projected total wastewater loads to receiving waters.				
F. Research the attenuation of nutrients and contaminants released from different types of on-site wastewater systems along flowpaths to receiving waters.				
STORMWATER MANAGEMENT				
Objective 1. Reduce nutrient contributions from stormwater to help achieve TMDLs.				
A. Complete the revision and implementation of sediment and stormwater regulations.				
B. Create stormwater management facilities and source reduction strategies for 4,500 acres of urban and residential lands developed pre-1990.				
C. Provide assistance to local governments and HOAs to draft ordinances that minimize new and reduce existing impervious surfaces.				
D. Engage corporate partners to include Green Infrastructure practices in new and redevelopment projects.				
E. Encourage Sussex County and/or municipalities to create a stormwater utility to fund maintenance and retrofits.				
F. Develop and implement a lines and grades/drainage code for Sussex County.				
G. Develop maximum impervious surface coverage targets to protect aquatic life and urge their inclusion into county and municipal comprehensive plans.				
WATER QUALITY MANAGEMENT				
Objective 1. Update the Inland Bays estuarine and watershed models with the latest scientific understanding and best available data, and make the updated models publicly available.				
A. Update the Inland Bays estuarine water quality and hydrodynamic model.				
B. Update the Inland Bays watershed nutrient loading model.				
C. Utilize updated estuarine and watershed models to evaluate if existing TMDLs are adequate to achieve water quality standards for nitrogen and phosphorus.				
Objective 2. Report on the implementation of the PCS, revise and prioritize remaining actions, and devise an implementation plan to meet the TMDLs within a given time period.				
A. Produce initial report on PCS implementation and identify barriers to implementation.				
B. Revise PCS goals as needed, incorporating any revisions to the TMDLs.				

Action	PM1 Status	PM1 Metric	PM2 Status	PM2 Metric
C. Develop an implementation plan for remaining PCS actions that includes a time frame for completion, interim goals, and identified implementation funding sources.				
D. Produce annual PCS progress reports including a yearly determination of the nutrient loads to the Bays and their tributaries relative to their TMDLs.				
Objective 3. Review and revise State and local standards for ground and surface water protection.				
A. DNREC reviews their technical standards for ground and surface water protection at five-year intervals.				
B. Obtain and review County standards for ground and surface water protection.				
Objective 4. Quantify the transport of contaminants from Indian River Power Plant (IRPP) coal ash landfills to receptors in the aquatic environment and examine the effects of sea level rise and severe storms on this transport.				
A. Study the transport of contaminants to aquatic life near the IRPP to inform the Voluntary Cleanup and the Natural Resources Damage Assessment Processes for the Burton Island coal ash landfill.				
B. Model transport scenarios of contaminants from the IRPP coal ash landfills to environmental receptors based on various levels of sea level rise and severe storm impacts.				
Objective 5. Reduce nutrient input to residential canals and lagoons.				
A. Treat or remove graywater discharges into tributaries, canals, and lagoons.				
B. Filter runoff from roofs, driveways, and other impervious surfaces.				
C. Provide and disseminate educational material for homeowners on reducing fertilizer inputs to tributaries, canals, and lagoons.				
D. Examine dead-end canals to determine if any could benefit from low-cost solutions to increase flushing.				
Objective 6. Re-assess water quality monitoring efforts for their representativeness and capacity to detect trends, then develop recommendations for improvement.				
A. Aggregate historic and contemporary water quality monitoring data and metadata into one publicly accessible database.				
B. Conduct a long-term trend analysis of water quality parameters.				
C. Develop recommendations to improve efficacy of monitoring efforts to detect trends.				
MANAGING LIVING RESOURCES AND THEIR HABITAT				
Objective 1. Promote recurrence of submerged bay grasses.				
A. Conduct an education initiative on the benefits and importance of re-establishing submerged bay grasses.				
B. Map areas of the Bays that have habitat characteristics supportive of the re-establishment of bay grass species that have been identified as suitable candidates for restoration.				
C. Convene a bay grass restoration workgroup to develop a bay grass restoration, protection, and monitoring plan.				
D. Implement the bay grass restoration, protection, and monitoring plan.				
Objective 2. Halt the continued loss of wetlands and reverse these loss trends by promoting projects to mitigate for previously lost wetlands.				
A. Bring regulation of freshwater wetlands, including isolated wetlands, under State jurisdiction and permitting.				
B. Identify candidate sites for the creation and restoration of wetlands.				
C. In accordance with the Inland Bays Pollution Control Strategy (PCS), create or restore wetlands on areas previously converted to cropland.				

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Action	PM1 Status	PM1 Metric	PM2 Status	PM2 Metric
D. Protect and enhance/restore additional wetland acreage.				
E. Encourage the planting of trees and other plants adjacent to all wetlands.				
F. Revise the existing Sussex County Ordinance on water quality buffers to be in line with the CIB's Recommendations for a Water Quality Buffer System.				
G. Engage the state Natural Areas Advisory Council to help identify freshwater wetlands that should be purchased as preserves.				
H. Develop a living shoreline initiative to maximize the amount of natural Bay shorelines.				
H1. Assess and report on the condition of shorelines in the Inland Bays.				
H2. Conduct an education and outreach program on shoreline function and management alternatives for shoreline property owners.				
H3. Conduct living shoreline demonstration projects to train installation and maintenance contractors.				
H4. Demonstrate innovative living shoreline stabilization techniques utilizing bay grasses, shellfish, and other native biota where feasible.				
H5. Support legislative and/or regulatory changes needed to require that living shoreline techniques be employed wherever feasible for shoreline stabilization.				
Objective 3. Provide access for native migratory fish to upstream areas for use as spawning and/or nursery sites.				
A. Conduct a migratory fish passage restoration feasibility and planning study.				
B. Implement fish passage restoration projects.				
C. Monitor fish passage restoration success.				
D. Conduct education and outreach efforts on the importance of migratory fishes and the benefits of fish passage restoration.				
Objective 4. Eliminate once through cooling at the Indian River Power Plant (IRPP).				
A. Track progress of IRPP compliance with DNREC agreements for removal of Unit 3 water withdrawals by January 1, 2014.				
Objective 5. Increase the economic and environmental benefits of shellfish.				
A. Increase the acreage of approved shellfishing waters.				
A1. Examine water quality data for the past 5 years to determine if areas of the Bays could be re-opened to shellfish harvest.				
A2. Determine the sources of contamination that presently constrain the opening of additional shellfishing areas.				
A3. Develop and implement a strategy to address contaminant source reduction so that additional shellfishing waters may be opened.				
B. Enhance populations of eastern oysters.				
B1. Create additional hard bottom areas suitable for oyster recruitment or planting of oyster spat.				
C. Promote and encourage shellfish aquaculture in the Inland Bays.				
C1. Convene a team of state and federal regulatory representatives and stakeholders to produce the scientific, educational, and policy groundwork necessary to develop legislation and regulations that govern shellfish aquaculture in the Inland Bays.				
C2. Provide financial incentives for new aquaculturists.				
C3. Provide technical support and education to aquaculturists.				

Action	PM1 Status	PM1 Metric	PM2 Status	PM2 Metric
Objective 6. Monitor and control the spread of invasive species within the Bays and their watershed.				
A. Map the known distributions of invasive species of concern in the watershed.				
B. If needed, support implementation of policy designed to curb the spread of invasive species.				
PLANNING FOR CLIMATE CHANGE				
Objective 1. Integrate projected sea level rise into land use planning and proposed development to protect shore zone ecosystems and bay water quality.				
A. Work with the County and municipalities to incorporate sea level rise into comprehensive plans.				
B. Conduct a sea level rise vulnerability analysis specific to the Inland Bays watershed that includes potential impacts to both green and gray infrastructure.				
C. Implement the recommendations of the State Sea Level Rise Advisory Committee relative to the Inland Bays when they become available.				
D. Model the distribution of tidal wetlands under different sea level rise scenarios to guide land use and protection decisions that maximize future tidal wetland extent.				
E. Track shifts of dominant aquatic species potentially caused by climate change through the use of previous and recent surveys.				
F. Include climate change and sea level rise information in public outreach and education efforts.				
COORDINATING LAND AND WATER USE DECISIONS				
Objective 1. Involve all levels of government to obtain commitments for coordination of land use decisions that minimize environmental impact, allow attainment of Total Maximum Daily Load (TMDL), and maximize protection of existing aquatic natural resources in the watershed.				
A. Designate the Inland Bays watershed as a 'Critical Environmental Area' and manage the watershed for nutrient reductions consistent with TMDL load reductions or reductions attributed to best available technologies.				
B. Request that representatives of all levels of government sign a letter of understanding that their land use decisions will minimize environmental impact to existing aquatic resources in the watershed.				
Objective 2. Provide maximum protection of waterways, forested stream corridors, groundwater, natural areas, open space, tidal and non-tidal wetlands, and encourage additional acquisitions or conservation set-asides and protection.				
A. Water quality buffers shall be clearly demarcated, designated, and recorded on final site plans or final major subdivision plats and demarcated on the ground with signs or other kinds of markers.				
B. Maintain land presently classified as open space under County or municipal ordinances or codes to minimize nutrient loading to the Inland Bays estuary.				
C. Update and implement the Inland Bays Habitat Protection Plan.				
D. Use the Delaware Ecological Network and other appropriate information sources to prioritize the preservation of key habitat in the Inland Bays drainage system.				
Objective 3. Update and implement the Inland Bays Water Use Plan.				
A. Assess implementation progress of the Water Use Plan and revise remaining and new actions.				
B. Focus outreach on increasing waterway safety and channel marking.				
C. Focus on low impact water use activities.				

(continued)

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D. Continue marine spatial planning efforts to maximize aquatic resources and minimize water use conflicts.				
D1. Develop a publicly accessible marine spatial planning database.				
D2. Provide educational and planning forums on spatial aspects of water uses.				
OUTREACH AND EDUCATION				
Objective 1. Increase the visibility of the CIB and its mission.				
A. Assess the CIB brand and communications strategy to determine effectiveness.				
A1. Conduct surveys to gather data on citizen perceptions and understanding of issues of concern in the watershed.				
B. Identify and implement high priority Work Plan/CCMP actions and develop outreach and education campaigns.				
Objective 2. Educate stakeholders in the watershed about their impacts on water quality in the Bays and how they can help.				
A. Develop and deliver watershed education programs for children.				
A1. Programs for school age children are offered at the James Farm Ecological Preserve.				
A2. Offer community outreach and education to children, families, and visitors at the Bethany Beach Nature Center.				
A3. Continue to offer watershed education at schools through the Schoolyard Habitats Program.				
B. Administer a Speakers Bureau.				
C. Continue to promote the 1000 Rain Gardens for the Inland Bays program.				
Objective 3. Communicate with stakeholders through a variety of media; to promote public involvement and influence behaviors, attitudes and actions to foster stewardship.				
A. Continue to develop and administer a website as a primary vehicle for disseminating information				
B. Incorporate social marketing and enhanced use of media into CIB's communications strategy				
C. Edit and disseminate a newsletter and annual report.				
D. Create and disseminate printed marketing materials such as brochures, postcards, flyer exhibits and signage to address specific education/outreach needs to target audiences.				
E. Maintain relationships with local media outlets and reporters and disseminate press releases and photos for their use.				
Objective 4. Encourage more stakeholder support through volunteerism.				
A. Direct a volunteer program that provides citizens a formal track to partner with the CIB.				
B. Involve volunteers and stakeholders in demonstration projects that model desired changes in practices and citizen science research.				
Objective 5. Communicate environmental results to inform legislators and raise citizen awareness about the state of the Inland Bays and its watershed.				
A. Results of Inland Bays environmental studies or projects are published.				
B. Communicate the benefits to economic development, tourism, recreation and quality of life of achieving water quality goals as well as the risks of failure to achieve these goals.				

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The Delaware Center for the Inland Bays is a non profit organization and a National Estuary Program. It was created to promote the wise use and enhancement of the Inland Bays watershed by conducting public outreach and education, developing and implementing restoration projects, encouraging scientific inquiry and sponsoring needed research, and establishing a long-term process for the protection and preservation of the inland bays watershed.

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