



DELAWARE CENTER FOR THE
INLAND BAYS
Research. Educate. Restore.

2018 FINANCIAL PLAN

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The Delaware Center for the Inland Bays is a nonprofit 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.

Introduction

The Center for the Inland Bays is a private non-profit organization established in 1994 to oversee and facilitate the implementation of a long-term approach for the wise use and enhancement of the Inland Bays' Watershed. The Center is one of 28 National Estuary Programs working to improve the environmental health of the nation's estuaries.

The Inland Bays are waters of exceptional recreational and ecological significance. More than 30 square miles of open water fringed by over 7,000 acres of saltmarsh, the Bays are home to more than 112 species of finfish and 40 species of shellfish. They support more than 200,000 recreational fishing trips each year and are nursery grounds for commercially important fish and shellfish alike. An important stopover on the Atlantic flyway, the Inland Bays provide for the needs of scores of migratory and resident species of birds. The estuary also supports a vital horseshoe crab spawning population on its sandy beaches each spring. A mecca for nature lovers and eco-tourists, the Bays provide a significant contribution to Delaware's nearly \$7 billion coastal economy.

Decades ago, the Bays were thought to be healthy: clear waters with plentiful bay grass meadows, productive oyster reefs, and healthy oxygen levels that supported diverse fish populations. But years of accumulated nutrient pollution and habitat loss have changed the Bays to generally murky waters that are dominated by algae, have very few bay grasses or oysters and do not support healthy oxygen levels in many areas. Thanks to over two decades of hard work and sacrifices of farmers, homeowners, businesses, boaters, elected officials, resource managers, and scientists, some indicators of environmental quality show that the Bays are moving back in a healthy direction.

The Center is responsible for facilitating the implementation of the Inland Bays Comprehensive Conservation and Management Plan (CCMP). This stakeholder-developed plan was produced in 1995 and updated with an addendum in 2012. The CCMP lays out the actions necessary to restore and protect the Inland Bays and has a wide focus covering everything from educating school aged children to implementing stormwater retrofits for water quality to ensuring safe and environmentally friendly boating. The signatories to the CCMP include the Citizens Advisory Committee, the Delaware Depts. of Agriculture and Natural Resources & Environmental Control, the Scientific & Technical Advisory Committee, the Sussex Conservation District, the Sussex County Association of Towns, and Sussex County Council.

The USEPA oversees the NEP and, as part of its management, encourage NEPs to establish long-term financial sustainability to implement the CCMP through diverse resources and partners. EPA guidance calls for NEP Finance Plans to: **1) Identify Organizational and Program Priorities for Funding (short and long-term needs), 2) Identify Current Funding Options, 3) Evaluate Existing and New Funding Opportunities, and 4) Develop Actions or a Plan to Pursue the Most Promising Funding Options with an Indicated Timeframe.**

The financial resources necessary to implement the CCMP have come from a variety of sources. The Center's strategic partnerships with the EPA, the State of Delaware, and Sussex County have resulted in the majority of implementation funding. The scope of the restoration effort blueprinted in the CCMP is so large that significant additional funding is needed to realize success. The purpose of a finance plan is to identify priority CCMP programs and actions for

funding and evaluate existing and potential new funding options, then strategically prioritize pursuit of those short and long term funding options.

Financial needs exist for both the Center for the Inland Bays as an organization and the full implementation of the CCMP and its associated monitoring. Though the Center as an organization is critical in developing resources to implement the CCMP, its partner organizations must be equally or more so involved. Financing is a political process and the Center must be closely involved in developing funding mechanisms that may be regional or statewide through coordination and advocacy. Building political coalitions in this regard will be essential for success.

Current Funding Approaches, Status and Trends

The Center prepares an annual operating budget for its fiscal year ending September 30th that funds CCMP implementation projects under its control. The FY2018 operating budget totaling \$1.4 million is presented below by funding sources (Figure 1). Certain projects under the Center’s control may be fully or partially funded by monies that are not handled by the Center. Examples of this for 2018 include Sussex County’s capital contribution to Phase I Implementation of the James Farm Master Plan (\$120,000) and the Delaware Department of Transportation’s sponsorship of the Anchorage Canal Drainage Area Wetland-Wetpond Retrofit Project (\$30,641).

FY2018 Center Operating Budget: \$1,422,012

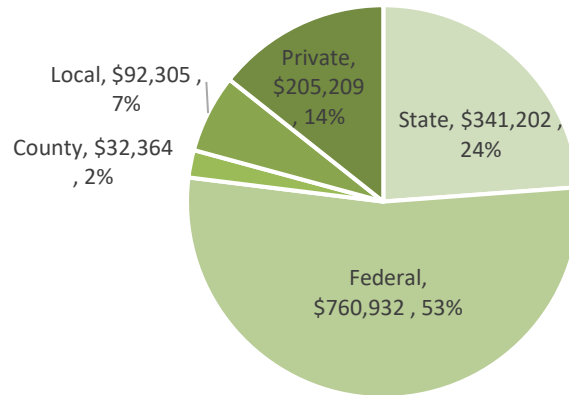
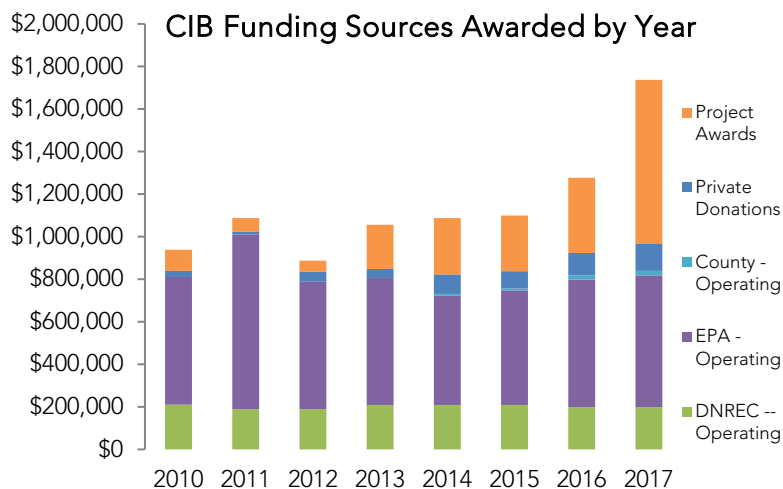


Figure 1

In April of 2015, the Center completed its first three-year strategic plan. A primary priority of the plan was to “Increase and diversify funding to implement the Inland Bays Comprehensive Conservation and Management Plan (CCMP).” The text box below lists the actions to implement this priority and their status at the time of writing.

The Center has achieved most actions to implement its most-important Strategic Priority. In 2015, the Delaware General Assembly amended the Center’s enabling legislation to expand the membership of the Board to include five new Board-Elected Directors intended to assist in fulfilling the private fundraising responsibilities of the Board. Currently, three of those seats have been filled. A general case statement for development and project specific case statement for the James Farm Master Plan were created. The Center is cultivating a culture of fundraising through increased focus on private revenue generation and has formed of a Development Committee of the Board in support. A part-time administrative specialist position was created largely to serve the Development Program in 2015 and has been successful in increasing Program efficiency especially with the constituent tracking database. Revenue goals have been exceeded and the Center is beginning its third year of an advocacy campaign to support a new dedicated funding source for clean water. A bill that would realize this source through creation of a Clean Water Trust Fund and associated Clean Water Fee was filed with the Delaware General Assembly in December of 2017.

Success in focusing on this strategic priority has contributed to the increase in revenue to the Center over time (Figure 2).



Includes funds for projects controlled by but not booked by CIB.

Figure 2

CIB Priority #1 from 2015 Strategic Plan: Increase and diversify funding to implement the CCMP

1. Executive Director, Development Coordinator, and at least two Board Members will study the possibility of expanding the Board membership to include a Member or Members who would focus on increasing community support for the work of the Center. A recommendation will be brought to the full board in June 2015. *Complete.*
2. Develop case statements for financial support. General Statement and schedule for project-specific statements by APR 2015. *Ongoing.*
3. Improve capability of current Board Members for fundraising through training and increased requests for participation in fundraising activities. Initiate APR 2015. *Ongoing.*
4. Maintain a part-time assistant position to serve Development and Administrative needs. Hire by APR 2015. *Complete.*
5. Utilize Board, staff, and volunteer leadership to raise an annual minimum of \$100,000 in revenue from private sources by 2016/2017. *Complete.*
6. Support strategies to develop dedicated sources of public funding to implement clean water actions of the CCMP. *Ongoing.*
7. Achieve an annual average of \$500,000 in project grant revenue by 2018 as supported by the hire of a Watershed Coordinator with grant writing responsibilities in 2015. *Complete.*

All funding source categories have increased since 2014 save for the operating grant from the State of Delaware Department of Natural Resources and Environmental Control (DNREC) which has decreased due to shrinking state budgets overall.

Most of the increase is from individual project awards from multiple sources of funding. These grants or contracts to the Center are for the accomplishment of a discreet individual project over one or more years by the Center. Awards have increased in number and in overall value. A detail of the project awards is presented in the chart below (Figure 3).

Some actions under this strategic priority remain ongoing or incomplete. These will be carried over into the next three-year strategic planning period and into actions of this finance plan.

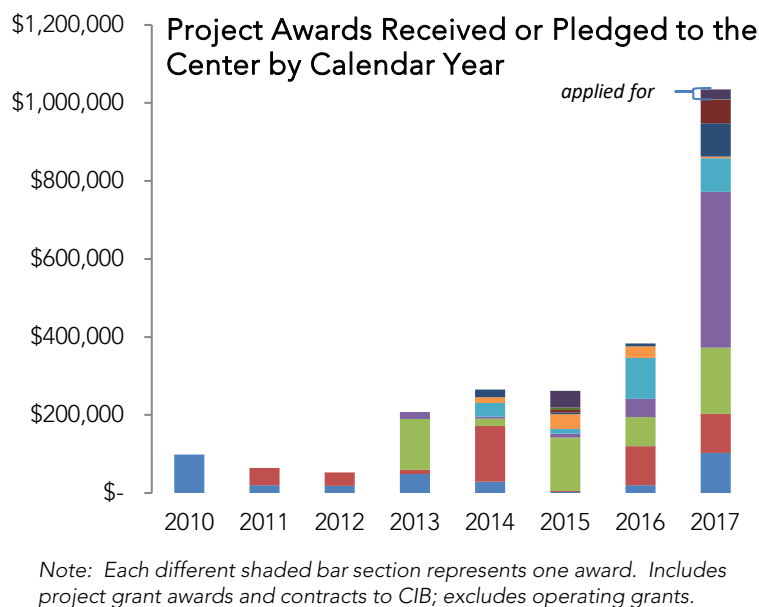


Figure 3

Organizational and Program Priority Needs for Funding

The financial needs of the Center can be broken down into two types. The first are the largely internal needs to achieve the financial sustainability of the non-profit organization as the CCMP coordinating entity and partial implementation entity. The second are the CCMP implementation needs that are largely accomplished external to the organization itself through partner organizations, many of which are represented on the Center’s Board. There is some overlap between these two types of needs. Naturally, Center staff are involved with CCMP implementation projects but the vast majority of expenditures to implement the CCMP are external to the Center through partners. For example, removal of the City of Rehoboth Beach’s point source discharge to Rehoboth Bay is estimated at \$52 million.

Ultimately, the Board of Directors with the support of the Center’s staff, is responsible for receiving funds to coordinate implementation of the CCMP and for raising additional monies to

support implementation. Stakeholder/partner organizations represented on the Board also have responsibilities, through their signatory status to the CCMP, to support the CCMP and implement, to the extent practicable, those tactics for which they play a role.

These organizational and program funding needs are not inclusive of all the actions within the CCMP, but represent the priority funding needs of the CCMP and the coordinating entity. The funding needs were selected based upon the Center's Board-developed Strategic Plan, are reflected in the annual workplan that includes an ongoing assessment and selection by CIB staff of CCMP objectives and actions most critical to restoring the habitat and water quality of the estuary. Relation to CCMP focus areas, objectives, and actions are indicated using footnotes as appropriate.

These priorities are classified as short-term needs, within 5 years, and long-term needs, 5 or more years, within their description. The classification is based upon the overall priority of the need and the current feasibility of developing the funds over the time periods.

Internal Financial Priorities

Develop cash reserves to cover 3 months of general operating expenses

This amount is recommended in the nonprofit financial management literature as the minimum liquid reserve available for emergencies, reimbursable grants, and other contingencies. For FY2018, this amount was \$356,303, or one quarter of the Center's annual operating budget for the year. At the beginning of FY2018, the Center had \$193,645 in liquid cash reserves and needed to increase its reserves by \$162,658. An operating reserve policy updated annually based on budget was adopted by the Board in 2016. The goal policy seeks to increase the reserve utilizing private donations and other sources of eligible income (independent of EPA CWA Section 320 grant funds) over 3 to 5 years.

Maintain cash reserves to cover facility maintenance and replacement expenses

The Center maintains a 5,000-square foot office building located in the Delaware Seashore State Park on the Indian River Inlet. In 2006, the Center finished its approximately \$800,000 renovation of the facility and moved its offices to this location. Maintenance and systems replacement of the facility is a significant near and long-term cost for the organization.

In 2015, the Center contracted with Studio JAED to produce a systems replacement plan for the facility. Table 1 summarizes the most inclusive and worst-case replacement costs by priority by fiscal year. Significant replacement costs are planned over the long-term and will be realized beginning in 2021. Averaged across the plan's 20-year horizon the high-end costs are ~\$60,000 per year. Revenues for these expenses should be detailed in annual budgets, breaking out any significant one-time costs into separate capital budgets as needed. Revenue sources could include endowment fund payouts, private donations, foundation grants, and potential bond bill allocations from the Delaware Legislature. The latter was used to fund the majority of the renovation of the facility completed in 2006. An endowment fund of \$1.2 million earning at 5% interest would be needed to allow a sustainable \$60,000 annual payout.

Table 1. Indian River Inlet Facility Systems Replacement Plan Costs by Numbered Priority

Priority	FYE	Range	
2 Deferred Maintenance	2017	\$ 140,862.58	\$ 166,217.84
2 Capital Renewal	2017	\$ 16,700.99	\$ 19,707.17
3	2021	\$ 148,748.87	\$ 175,523.67
4	2026	\$ 303,876.58	\$ 358,574.37
5	2031	\$ 43,938.05	\$ 51,846.90
6	2036	\$ 456,151.48	\$ 538,258.75

Build Endowment to Support Facilities Maintenance through Interest

The Center began its endowment fund with unspent revenues granted by the Delaware Legislature for the renovation of the Indian River Inlet Facility. The endowment, invested with the Delaware Community Foundation, stood at approximately \$127,104 at the beginning of FY2018. Investment with the Foundation has generated fewer returns over time than anticipated due to fees. However, the Foundation serves the Center's development interests by matching potential donors with the Center. After reaching the liquid cash operating reserves, the next highest priority goal is to build the endowment fund. Achieving a \$60,000 annual endowment payout to fully cover facilities system replacement costs would require an additional \$1,070,000 that can be raised from private revenue sources over the long term.

Grow the Center's Government Operating Funds

The Center maintains its base operations including staff and facilities largely from two major government grants: the USEPA NEP cooperative grant and the State of Delaware Department of Natural Resources and Environmental Control (DNREC) pass-through grant. The EPA grant is an amount based upon Congressional 5-year reauthorization of the National Estuary Program in 2016 as appropriated annually by Congress. For the past decade, the amount annually allocated to each NEP has fluctuated around \$600,000. The 2016 reauthorization language directed greater portions of authorized funding to be directed towards the NEPs. This presents an opportunity to increase the annual appropriations to the NEPs and allocation to the Center in the short-term. The 2016 reauthorization also called for a competition to address urgent and challenging issues that threaten the ecological and economic well-being of coastal areas. If this competitive grant program is offered it may be available for in the short-term to implement CCMP actions.

The State of Delaware pass-through grant is a line item within DNREC in the Delaware General Assembly's annual operating budget. The Partnership for the Delaware Estuary National Estuary Program and the UD Water Resources Center also receive pass-through grants. From 2006 to 2008 the amount of the grant to the Center was \$270,000 and this has decreased to \$178,000 (-34%) in 2017. The decrease is driven by the overall decrease in the State's budget due to increasing education and health care costs and decreasing revenue. Advocating to restore previous funding levels could be undertaken, particularly if the State's budget outlook improves in the short and/or long term.

Implement Living Shoreline Demonstration Projects

A key element of the Center's initiative to maximize the length of natural shorelines in the Inland Bays is the public demonstration of innovative living shoreline management techniques¹. A goal of constructing six living shoreline demonstration projects by the end of 2018 has been set. In 2016, the Center completed a study that evaluated potential living shoreline demonstration sites around the Bays and prioritized six sites for which concept level design and costs were completed (Table 2). Two demonstration projects have been completed in the watershed (Indian River Inlet Marina and the Bethany Loop Canal) and one more, the Read Ave Living Shoreline, has been designed and funded. A total of three to five more projects are intended to be constructed in the short term.

Table 2. Inland Bays Living Shoreline Demonstration Concepts with Costs

Living Shoreline Demo Project Name	Estimated Cost
VFW at Quillen's Point	\$215,100
Angola by the Bay	\$43,182
Shell Landing Cove	\$225,819
Dewey Beach Sunset Park	\$346,197
TOTAL	\$830,298

Maintain Existing Shellfish Programs and Implement the Shellfish Enhancement Plan

An important objective of the CCMP is to increase the economic and environmental benefits of shellfish in the Inland Bays². The Center has three ongoing programs and projects to advance this effort. The first two programs are the Oyster Gardening Program, which engages Bayfront property owners in the culture of oysters for use in enhancement projects, and the Oyster Shell Recycling Program, which collects spent shell from local restaurants to use in shellfish enhancement projects such as living shorelines and oyster reefs. The third project is a shellfish enhancement plan to locate and conceptualize priority enhancement projects such as creation of wild oyster reefs and living shorelines; the plan is under development. Currently, the Oyster Gardening Program and Oyster Shell Recycling Program have annual operating budgets of \$20,571 and \$22,079, respectively. The Oyster Gardening Program operates under its own financial sustainability plan for 2018 and has further plans to increase its participant support, secure long term recurring contributions, and reduce expenses for 2019. The Shell Recycling Program is funded by a combination of NEP, State of Delaware, and privately donated funds. The program is likely to grow; no financial sustainability plan has been developed. The shellfish enhancement plan development is funded, and the estimated costs of projects included within will be detailed at its completion. Enhancement of shellfish populations in the Inland Bays will be an on-going, long-term endeavor for at least 10 to 20 years.

James Farm Ecological Preserve

Implement the James Farm Master Plan. The James Farm Ecological Preserve was donated to Sussex County in 1992 to remain in a natural condition for outdoor recreation and environmental education. It has been managed by the Center since 1998. When originally developed for public recreation and environmental education, no overall plan was in place. As such, facilities were not thoughtfully planned to maximize their functions and little thought was made to the extraordinary growth in visitation to the Preserve as driven by the increase in local

¹ Managing Living Resources and their Habitat Focus Area, Obj. 2, Actn. H.

² Managing Living Resources and their Habitat Focus Area, Obj. 5.

resident and tourist populations. In 2014, a Master Plan was developed for the Preserve that will replace and improve its facilities to accommodate increased visitation, support increased education programming, and protect its ecosystems. A funding strategy of developing one third of needed revenue from the Delaware Outdoor Recreation and Trail Program, one third of the revenue from Sussex County Council, and one third from private sources such as individuals and foundations was devised and is being followed. The plan will be implemented in two phases, each involving an engineering and design component and a construction component. Phase one design is complete and over \$200,000 of the \$1.2 million total has been raised. \$500,000 was requested from the Longwood Foundation and \$85,000 was requested from the ORPT in September of 2017. Full implementation of the plan is intended within the short-term.

James Farm Education Program. Initiated in 2003, this program has provided curriculum-aligned education to over 17,000 students, mostly focused on the 7th and 8th grade classes of the Indian River School District³. This partnership with the District has allowed the Center to provide environmental education to a largely underserved Hispanic population in the western side of the Inland Bays Watershed. In recent years, revenue to support busing of the students to the Preserve has been borne by the Center's State Operating grant, where in the past this was contributed by the School District. Increased costs for the district driven by population growth, cuts to State of Delaware funding for education, and little community support for tax increases have contributed to the shortfall. The 2018 annual budget is \$38,793. Plans exist to increase the number of students educated at the Farm.

Management of the James Farm Ecological Preserve. The ongoing management of the Preserve to provide recreational and passive educational experiences to an increasing number of visitors has received essentially stable funding to cover its cash expenses (\$20,000 in FY18) from Sussex County Council⁴. Significant portions of the management are covered by in-kind volunteer labor.

Migratory Fish Passage

In 2014, an assessment and recommendations report for creating migratory fish passages over dams that are located on streams flowing to the Inland Bays was completed⁵. Three eel ways have been installed to date and the Center is considering by-pass channels for other finfish on certain dams. The costs for additional eel ways would be low, while by-pass channel projects could be in the realm of millions of dollars and take 5 to 10 years to complete.

Fill Gaps of Inland Bays Environmental Monitoring Plan

The Inland Bays 2017 Environmental Monitoring Plan is purposed to track the status and trends in the key environmental indicators of eutrophication and habitat loss/modification that affect the Delaware Inland Bays, and to evaluate the overall effectiveness of the Comprehensive Conservation and Management Plan (CCMP)⁶. The Plan recommended new monitoring programs, or enhancement of existing programs that can be achieved over the short and long term. Recommendations were made based upon data gaps (including emerging issues),

³ Outreach and Education Focus Area, Obj. 2. Actn. A.

⁴ Coordinating Land and Water Use Decisions Focus Area. Obj. 2. Actn. B.

⁵ Managing Living Resources and their Habitat Focus Area, Obj. 3.

⁶ Nutrient Management Focus Area, Obj. 1.; Wastewater Management Focus Area, Obj. 2; Water Quality Management Focus Area, Obj. 1; Planning for Climate Change Focus Area, Obj. 1.

availability of new methods or technologies, and/or changes needed to make monitoring programs sustainable over the long term. They are listed with their estimated costs in Table 3.

Table 3. 2017 Inland Bays Environmental Monitoring Plan Recommendations with Costs

Recommendation	Estimated Cost
Development of a new hydrodynamic/watershed model for the Inland Bays	To be determined in 2018 based upon STAC workgroup formed to develop implementation plan.
Upgrade of the University of Delaware's Citizen Monitoring Program database to a format that is sustainable long-term and can serve data to the public through STORET and/or the state's Water Quality Portal	\$50,000 total; \$35,000 currently allocated, \$15,000 needed.
Long-term, continuous monitoring of dissolved oxygen and chlorophyll at key stations	\$50,000 per sensor professionally installed plus \$14,285 per sensor per year professionally maintained. (estimate 3 sensors)
Monitoring of submerged aquatic vegetation in tidal regions of the Inland Bays	Undetermined.
Monitoring of local indicators of sea level rise	\$15,000 annually.
Continued monitoring of the tidal prism at the Indian River Inlet	\$40,000 every 10 years.
Long-term monitoring of oyster recruitment and growth in the Bays	\$30,000 annually.
Shoreline condition and modification monitoring to evaluate the effectiveness of living shoreline initiatives	\$125,000 every 10 years.
Continued analyses of tidal marsh acreage and condition using GIS methodology	\$37,000 every 5 years.
Monitoring of estuary acidification	\$50,000 annually
Monitoring of recreational Blue Crab and Hard Clam harvests	\$46,000 annually
Build and maintain a list of research and monitoring activities focused on emerging contaminants in the Inland Bays	In-kind agency staff time.
TOTAL	\$2,242,550 over 10 years.

External Financial Priorities

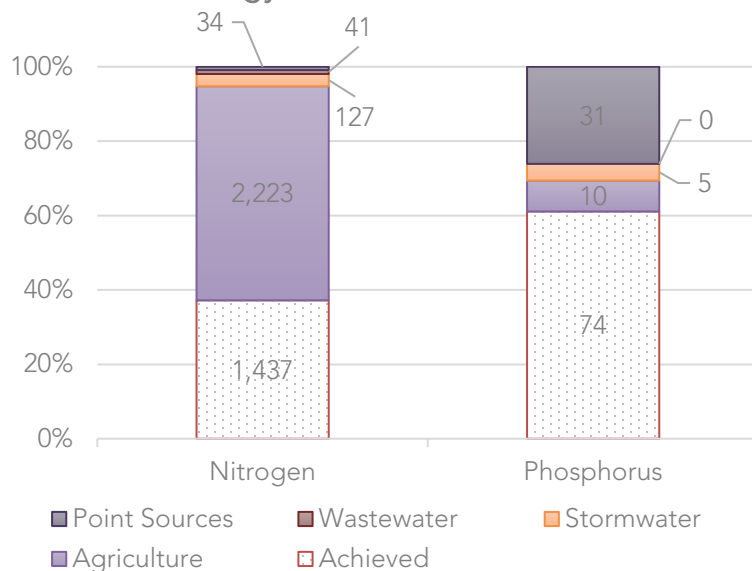
Agricultural Nutrient Management

The 2008 Inland Bays Pollution Control Strategy (PCS) details costs of actions necessary to restore water quality by achieving the Total Maximum Daily Loads of nitrogen and phosphorus to the Bays, a primary objective of the CCMP⁷. The Center's 2016 assessment of PCS implementation progress found that reductions for nitrogen and phosphorus were 36% and 75% of their goals, respectively (Figure 4). Another 33% of phosphorus reductions will result from the removal of the point source discharges of Allen Harim (likely in 2018) and the City of

⁷ Original 1995 CCMP and 2012 CCMP Focus Areas Inclusive.

Rehoboth Beach (scheduled for 2018). The total cost in 2016 dollars to achieve the remaining reductions, excluding point source discharges, is \$27,439,631 per the estimates of the 2008 PCS (Table 4). The costs do not include maintenance for existing achievements. They focus on one-time construction/installation costs of new actions, although some costs, such as for agricultural cover crops, are recurring annual costs. Agricultural and stormwater management costs provided are mostly public dollars while remaining costs for wastewater that could be estimated are mostly born by the private sector.

Progress on Pollution Reduction Goals of the 2008 Inland Bays Pollution Control Strategy



Amounts are in lbs./day. Evaluated in 2016.

Figure 4

The reader can quickly determine that the costs per pound of nutrient reduced vary greatly and that a great deal of costs were allocated to less efficient actions. By investing public monies in voluntary agricultural practices most of the remaining reductions can be achieved while maximizing cost efficiency. Agricultural actions require at least \$4,056,573 to implement, \$1,406,365 of which is for annual recurring costs of cover crops and manure relocation. Investments in less cost-effective actions such as stormwater retrofits are essential in areas of the estuary where stormwater pollution is primary stressor and multiple needed benefits (such as flood control) can be achieved. Due to the financial challenges in achieving voluntary compliance thus far, the need for this goal is

on-going and long term; although significant short-term progress is a priority.

Watershed Reforestation

The Center is currently preparing a watershed reforestation plan that identifies, prioritizes, and conceptualizes cropland reforestation projects to maximize nutrient reductions to the Bays and the restoration of wildlife habitat on the watershed⁸. The projects sometimes meet the specific actions of the Pollution Control Strategy, but also recognize that cost effective restoration opportunities in the agricultural landscape are not always in the wetlands or buffer areas focused on by the Strategy. Once completed, the plan will provide project concepts with costs available to receive funding from a variety of sources over the short and long term.

⁸ Nutrient Management Focus Area, Obj. 1; Coordinating Land and Water Use Decisions Focus Area, Obj. 2, Actn. D.

Table 4. Inland Bays Pollution Control Strategy Completion and Cost Summary 2015

Practice	% Complete	Completion Cost (2016 dollars)
AGRICULTURE		
Nutrient management plans	100	\$0
Cover crops	19	\$1,272,449
Manure shed/composter	56	\$137,809
Forested buffer	<1	\$687,139
Grassed buffer	<1	\$353,509
Establish wetlands	<1	\$1,406,105
Maintain habitat, buffers, etc.	100	\$14,825
Water control structure	12	\$24,418
Phytase	100	\$0
Manure relocation	59	\$133,916
<i>Subtotal</i>		<u>\$4,056,573</u>
ONSITE WASTEWATER TREATMENT		
Conversion to central sewer	463%	0
Maintain holding tank program	100%	\$917,633
Performance standards-small system	Unknown	\$13,364,770
Performance standards-medium system	Unknown	Unknown
Performance standards-large system	Unknown	Unknown
<i>Subtotal</i>		<u>\$14,282,403</u>
STORMWATER MANAGEMENT		
Retrofits pre-1990 construction	2	\$8,281,245
Stormwater plan consistent with TMDLs	Unknown	\$819,410
<i>Subtotal</i>		<u>\$9,100,655</u>
GRAND TOTAL COST		<u>\$27,439,631</u>

Coastal Corridor Stormwater Retrofits

Beginning in 2008 with planning for the Anchorage Canal Drainage Area Stormwater Retrofit Demonstration Project, the Center has led the way in working with communities in the watershed to clean up stormwater runoff⁹. This project is near completion and has successfully demonstrated innovative coastal practices in dozens of locations. The practices have become admired and desired by other coastal communities. The project has partially resulted in the Town of Dewey Beach completing a stormwater master plan in 2017 that identified and prioritized green infrastructure practices that will mitigate nuisance flooding in the Town and reduce nutrient pollution in the Inland Bays. The final plan includes 40+ stormwater treatment and living shoreline practices, cost estimates, concept designs, and policy and ordinance recommendations. The total cost of these projects is \$13.2 million to be realized over the short and long term. Two projects have already been funded at a total of \$258,869.

A lesson learned from the Anchorage Canal project is that stormwater retrofits have low cost efficiency for pollution reduction relative to other pollution control actions. Efforts to increase their efficiency can be improved through the addition of low-cost soil amendments such as biochar and by integrating construction into other municipal construction activities. However, cost savings do little to impact the relative cost effectiveness. Therefore, stormwater retrofits should not be viewed as focus of pollution reduction in the Inland Bays Watershed and should

⁹ Stormwater Management Focus Area. Obj 1; Actn. B & C.

be reserved for the specific areas where stormwater pollution is an acute and primary water quality stressor and multiple needed benefits (such as flood control) can be achieved.

Waterways and Sediment Management

Providing safe and environmentally sensitive opportunities for water use is the focus of the Inland Bays Water Use Plan, a part of the CCMP¹⁰. Delaware has over 60,000 registered boaters that center their activity on the Inland Bays. The Bays support over 60 marinas and over 200,000 recreational fishing trips per year. Non-motorized water use is also an important and growing activity on the Bays that requires financial consideration.

The Bays have 11 individual waterways that require channel marking and regular maintenance. Four of these fall under the maintenance responsibility of the US Army Corps of Engineers. However, these channels do not meet current funding criteria and are no longer maintained by the federal government. Therefore, the maintenance responsibility largely falls to the State. Such channel dredging is best addressed holistically with a regional sediment management approach favored by DNREC. This approach includes long term planning, consideration of sediment dynamics, and the beneficial reuse of dredged sediments to restore shorelines and saltmarshes.

In November of 2014, the Delaware Waterways Management and Financing Advisory Committee estimated 3 to 5 million dollars annually is needed to adequately manage the State's waterways over the next five years. In 2016, boater registration fees were doubled to generate \$1.3 million for management annually beginning in 2017. The remaining need is best generated at a statewide level. The Committee recommended additional dedicated funding sources in its final report. Although the report does not address it specifically, improved opportunities for public low-impact (non-motorized) watercraft access to the Bays are also needed.

Identification & Evaluation of New/Expanded Funding Opportunities

Reflective of the funding priorities in the last section, funding options can be categorized into those that are largely internal and those external to the Center organization. Naturally, there exists some overlap between the categories.

Mostly Internal Funding Options

Volunteer Labor

Volunteer contributions of time and associated management costs are generally not included in organizational financial planning, although they are often necessary for an organization's programs to succeed. Contributions of volunteer time are essential to many Center activities including horseshoe crab monitoring, fish and blue crab monitoring, management of the James Farm Ecological Preserve, Oyster Gardening and multiple Committees of the Board¹¹. Volunteer time is also used to provide necessary match for cash grants to the Center. Individuals and organizations that volunteer with the Center often are donors to the Center, and volunteerism has been identified as an important tool for private donor cultivation.

¹⁰ Coordinating Land and Water Use Decisions Focus Area, Obj. 3.

¹¹ Outreach and Education Focus Area. Obj 4.

To support the overall maintenance and growth of volunteer efforts, the Center runs a volunteer program led by the Communications Specialist. Program activities includes intake, pairing volunteers with projects, communication and tracking and reporting. The Center’s volunteer program should be maintained and expanded to continue these contributions. Expansion of volunteer opportunities that support donor identification and cultivation must be strategically planned to result in the highest numbers of new volunteers entering a sequence of organizational engagement while efficiently fulfilling the most important areas of mission. Volunteer activities must be aligned with CCMP priorities and initially result in an additional management effort that can be accommodated within existing resources. As the population of the watershed swells with new retirees, new working families, and part time residents, so does the opportunity for the Center to engage with individuals eager to meaningfully contribute to the preservation of the environment that supports their new or second home. Potential projects for strategic expansion of volunteer activities include:

- Increased oyster shell bagging events for corporations and community groups.
- Increased tree planting events for reforestation projects.
- Addition of a high-volunteer volume citizen science project such as terrapin monitoring.
- Formation of adopt a shoreline teams.
- Increased number of Bay cleanups.

The total number of volunteer hours contributed to the Center has averaged around 3,488 hours over the past 4 years with an average value of about \$84,263 (Table 5). A 20% increase in the number of volunteer hours would result in an additional \$16,852 in-kind annually towards the Center’s mission. Further, new volunteers could result in much greater long-term donations of funds through individual and corporate giving.

Table 5. Value of Center Volunteer Hours

Year	Hours	Value*
2014	3,424	\$82,723
2015	3,401	\$82,168
2016	3,374	\$81,515
2017	3,755	\$90,646

**2016 estimated rate of \$24.16*

Donations from Private Individuals and Organizations

A primary purpose of the Center’s Development Program is to generate sustained support from the local community over the long term. The Center’s 2015 Strategic Plan included as a priority the expansion of the Board of Directors to support this effort. That year, the Center’s enabling legislation was amended to add 5 additional Board-Elected Members from the community; currently three of those seats are filled. In 2017, the Board formed a Development Committee to support fundraising actions. Turnover in both the Development Program Staff and on the Board have contributed to a slower than anticipated growth in private revenues. An ambitious goal to nearly double the revenue from 2017 to 2018 has been set. The success of reaching this goal will be dependent upon 1) strong leadership at the staff and board level, 2) a significant increase in Center outreach, and 3) a significant increase in the number of successful

solicitations for support. A summary of revenue by source is provided followed by descriptions of each.

Table 6. Revenue from Private Individuals and Organizations by Fiscal Year

Revenue Source	2012	2013	2014	2015	2016	2017	2018 Goal
Annual Fund Donations (<\$1,000)	██████	██████	██████	██████	██████	██████	██████
Major Gifts (≥\$1,000)	██████	██████	██████	██████	██████	██████	██████
CIB Events	██████	██████	██████	██████	██████	██████	██████
Community Sponsored Events	██████	██████	██████	██████	██████	██████	██████
Total	██████	██████	██████	██████	██████	██████	██████

Annual Fund

The foundation of any robust comprehensive development program is the annual fund, which provides ample opportunities for the general public to support the organization financially. Typically, gifts to the annual fund are relatively small, but come from a large number of donors.

At the core of the annual fund is the annual appeal. Historically, the Center’s annual appeal has been conducted in the last quarter of the calendar year and consisted of sending letters to existing donors and other constituents who have shown an interest in the Center’s work. In 2015, the Center sent out 572 appeal letters and raised ██████ from 108 donors. In 2016, a total of 692 appeal letters were mailed. The result was ██████ received from 164 donors, an increase of nearly 76% in total donations. One reason for this increase was that we sent two different letters, segmented by previous donors and constituents (primarily volunteers) who had never given before. This resulted in 32 first-time donors in 2016 vs. 6 in 2015. This tactic was repeated again in 2017 with two different letters mailed to 871 recipients with a goal of ██████; a 21% increase over 2016. To date, the 2017 goal has been exceeded.

Major Gifts

Major gifts to the Center are currently considered amounts equal to or exceeding \$1,000. A majority of these gifts are made by individual donors, some of whom have given for a number of years and most of them give during the annual appeal. Additional major gifts are provided by businesses, government entities and local community groups. An increase in major gifts donations to ██████ from at least 35 donors in FY2018 or a 107% increase from an average over the last three years is targeted. Successive years should increase steadily as the major gift strategies are implemented.

Events

Historically, events have been tracked in two separate categories; CIB-executed events and community (not organized by CIB) events. Community events include those conducted by organizations and businesses with proceeds donated to the Center. These include the annual Dewey Beach Brewfest conducted by Gary’s Dewey Beach Grill (2015-2017), various other restaurant sponsored events, and community organized events. The one and only fundraising event organized and executed by the Center over the past few years has been known as “Decked Out.” This is a food and beverage tasting event held at the Center. Our event based fundraising strategy is to increase the CIB organized event revenue by exploring the addition of

another fundraising event in 2018, potentially to support the James Farm, or by expanding the revenue goals for Decked Out.

Foundation Grants

Foundation grants have been identified as an important area of financial growth for the Center. A number of local, regional, and national foundations could support CCMP implementation. The Center has been recently successful in receiving small grants or donations from a number of foundations including The Rock Harbor Foundation, The Carl M. Freeman Foundation, and the Pegasus Foundation. The Center recently applied to the Longwood Foundation and accepted a \$100,000 challenge grant for full implementation of the James Farm Master Plan dependent on raising an additional \$800,000. An organized grant writing and relationship building campaign is anticipated to result in increased revenue from small to large local and national foundations. Table 7 presents a sample of foundations that may support the Center.

Government Grants

EPA National Estuary Program

In 2016, the US Congress reauthorized the National Estuary Program in a showing of bipartisan support. The reauthorization language included that annual appropriations to the EPA Administrator were to be \$27 million for the period 2016-2020. Expenses relating to the administration of awards are not to exceed 5% per fiscal year, not less than 80% of appropriations are to go towards development, implementation, and monitoring of CCMPs, and not less than 15% of appropriations are for awards under a newly added competitive program. The competitive program if available may be open to a variety of entities to make project proposals in NEP study areas that best address urgent and challenging issues that threaten the ecological and economic well-being of coastal areas. Assuming a full \$27 million fiscal appropriation by Congress under this formula, \$1.4 million may be available to go to administration, \$4 million may be available to go to a competitive program, and \$21.6 million may be available for CCMPs split evenly at \$771,428 among 28 NEPs. For the past three fiscal years, the NEPs have received \$600,000 per NEP from the EPA. Therefore, the reauthorization of the NEP could allow for a maximum additional \$171,428 annual allocation to the Center and the opportunity to compete for significant grant funds appropriated for CCMP implementation. The Center, through its relationships with its Congressional Delegation and membership with Association of National Estuary Programs (ANEP) should advocate for the full annual appropriations following the formula specified in Congressional authorization of the Program. Please note that while the word advocacy is used in this document, the Center does ensure that it complies with the conditions of the grant.

Table 7. Sample of Delaware Focused and National Foundations with CCMP Related Priorities

Foundation	Funding Priorities	Geographic Focus	Grant Cycle	Targeted Amount
Longwood	Environment (Capital & Operating), Education	DE and southern PA	March 1 and Sept. 1	\$500,000 - \$750,000
Crystal Trust	Conservation (Capital Campaigns, Building/Renovation, land acquisition, Equipment)	DE and PA	Sept. 30	\$50,000 - \$100,000
DE Community	Collaborative Grant (two or more nonprofits in a single County) affecting quality of life	DE (one grant per County)	Sept. 30	\$25,000 - \$100,000 max.
Welfare	Environment (Capital), Education	DE and southern PA	April 15 and Oct. 15	\$50,000 - \$75,000
Chichester duPont, Inc. - The Clark Fund	Preference for new initiatives, special projects, the expansion of current programs, and capital improvement emphasizing the environment, education, healthcare, and social services.	National, emphasis on DE	LOI: Aug. 1, Invited Proposals: Sept. 1	< \$50,000
Nancy Sayles Day	Elementary Education, Secondary Education, Environment			\$2,500 to \$200,000
Bucks Creek	Education, Secondary Education		N/A	TBD
Fair Play	Water Resources, Wildlife Biodiversity	N/A	N/A	Previous grants range from \$1,000 - \$75,000
The Marmot	environmental organizations, including natural resource conservation and protection	Delaware and Florida	DE: Apr 30 and Oct 31,	\$2,000 - \$75,000
Crestlea	education, environment	Primarily the Wilmington Area (50 Mile Radius)	November 1 annually	\$5,000-\$20,000
American Honda	Youth education with a specific focus on the STEM and environment	National	FEB 1, AUG 1 for new; MAY 1 for returning.	\$20,000 - \$75,000
Abelard East	Progressive local change activities that expand and protect civil liberties and civil human rights	States east of the Mississippi	3/15 and 9/15, annually	\$10,000
Franklin P. & Aurthur W. Perdue Foundation	Provided \$1.7 million in grants in 2015; 11.3% of which went to environmental and agricultural programs	CA, DE, GA, IN, KY, MD, NY, NC, PA, SC, TN, VA, and WA with preference to communities near facilities	under \$1,000 monthly, over \$1,000 quarterly	TBD

NOAA Coastal and Marine Habitat Restoration

NOAA's Restoration Center manages two large national grant programs that could support CCMP implementation related to fisheries, recovery and conservation of protected resources, and promotion of healthy ecosystems and resilient communities. The Coastal and Marine Habitat Restoration Grant awards from \$100,000 to \$4,000,000 over three years in support of projects that promote productive and sustainable fisheries, improve the recovery and conservation of protected resources, and promote healthy ecosystems and resilient communities through the restoration of coastal habitat. The Coastal Ecosystem Resiliency Grants Program awards from \$100,000 to \$2,000,000 for projects lasting up to three years that build resilience, including activities that protect life and property, safeguard people and infrastructure, strengthen the economy, and/or conserve and restore coastal and marine resources.

Over the past two years, the Center submitted two unsuccessful proposals to the Coastal Ecosystem Resiliency Program for a living shoreline project in the Town of Dewey Beach. The proposals require an extraordinary amount of time to prepare and are submitted to a highly competitive program (over 160 applications nationwide for the last round). The Center is at a competitive disadvantage for these programs due to the relative importance of its fisheries resources compared to other areas of the nation's coasts. Further, National Estuary Programs as a whole have a poor success record with grant proposals to NOAA. In the future, large ecosystem restoration projects, perhaps fish passage or wetlands restoration, could be submitted for funding after careful consideration for success.

Water Infrastructure Advisory Council Grants

DNREC's Water Infrastructure Advisory Council maintains two competitive matching grant programs that have provided revenue for a variety of CCMP implementation projects. These programs are funded with the State of Delaware's 20% match to the EPA's State Revolving Fund capitalization grant.

The Surface Water Matching Planning Grant requires a 50/50 match to fund both feasibility study and concept design for water quality improvement projects and watershed-level planning work. The Center has received awards to produce a living shorelines siting and concept design study, a municipal storm water retrofit masterplan, and a watershed reforestation plan. Future proposals could focus on wider watershed pollution control project plans to implement the Inland Bays Pollution Control Strategy, additional municipal stormwater plans, and assistance in developing municipal ordinances for water quality improvement.

The Community Water Quality Improvement Grant (CWQIG) requires a 25% match to fund implementation and some design for water quality improvement projects within communities. The Center has received or partnered with recipients of a dozen awards from this program for projects totaling over \$1 million. Projects have ranged from installing stormwater retrofits to testing the efficacy of floating oyster cages to improve water quality in residential canals.

The Center has achieved a nearly 100% success rate for its proposals to these programs. The Center has begun exploring changes to its implementation projects involving community partners. The changes would achieve a necessary reduction in the Center's liability, but at the same time would alter financial arrangements. It is intended that communities would be the primary grant recipient and fiscal agent while the Center would work as a project management

contractor to the community. This should maintain the amount of funding for Center staff for grant writing and project management but will greatly reduce the amount of the awards booked by the Center. Both grant programs will continue to be an important revenue source for CCMP implementation.

DNREC Non-Point Source Pollution Program

The EPA's non-point source pollution program is authorized under section 319 of the federal Clean Water Act and its implementation in Delaware has been designated to DNREC. In the past, as funding has been available, DNREC has offered grants for projects that reduce non-point source pollution. The Center has been successful in securing 319 grants for CCMP implementation projects, including stream restoration and reforestation. This is an important grant program because it focuses on work in the agricultural landscape where nutrient pollution reduction is most cost effective. However, over the years federal funding for the program has declined. Additional political effort should be made to increase the amount of funds from this program for CCMP funding and encouraging the Inland Bays to be a focus for funding.

Community & Supplemental Environmental Projects (Penalty Funds).

Requests for proposals for projects utilizing fines for environmental violations are released in August by the State of Delaware Community Environmental Project Program. The funds must be expended in the watershed where the violations originated. In the last two years approximately \$14,000 and \$5,000 were available for the Inland Bays Watershed, and \$7,403 and \$4,496 were awarded to Center proposals for reforestation projects. Though relatively small and dependent upon the frequency of unfortunate events, these funds were combined with other grants to implement successful projects. Occasionally, inquiries are made to the Center from firms representing clients required to complete CEPs, or supplemental environmental projects as they are known in other jurisdictions, as mitigation outside of the Delaware Program. The Center could approach the EPA and USACE to discuss the availability of Center projects that could receive these funds.

Existing & Potential Fee-Based Revenue Sources

License Plate Fund

Since 1995, the Center and the Partnership for the Delaware Estuary have been the beneficiaries of proceeds from the Delaware Department of Motor Vehicle's sale of two special environmental license plates. Over the past few years unrestricted income to the Center from the sales have been between \$8,000 to \$10,000. Currently, about 800 plates are sold each year. Each plate costs \$35 less a \$15 admin fee, yielding \$20 a plate, split between the two programs at \$10 a plate. Increasing the fee for the plates to \$50 (less than increase from \$35 in 1995 due to inflation) less a \$15 admin fee yields \$35 a plate, split between the two programs at \$17.50 per plate or \$14,000 per program per year; an additional \$6,000 per program per year. The addition of a new environmental license plate reflective of the increasingly popular beaches is anticipated to increase sales of the plates for additional revenue to the programs by another \$1,000 each for a total of \$7,000 in new unrestricted income.





Resource Management Consultation for Home Owners Associations

Homeowner associations (HOAs) often have resource management needs but lack the time and expertise to devote to these needs. Managing open space to improve habitat and water quality, reduce management costs, adapt to sea level rise, seek grants, and provide education to residents may be services that the Center is qualified to provide in exchange for reasonable fees. Currently, the Center provides occasional no-cost consultation to homeowner's associations that are interested in improving water quality and habitat. These consultations have included management of open space and shorelines and advice on grant seeking. The Center also uses these opportunities to provide education about the Bays and increase public involvement in implementing the CCMP. These actions are also used as opportunities to increase and maintain private donations to the Center. A switch to a fee for service approach could be integrated into the general education of HOAs but might reduce private donations. However, as government revenues to fund general education decline, this approach could be a reasonable alternative. An initial investment would be necessary to develop HOA fee for service program structure and materials.

Education and Planning Services to Meet MS4 Permit Requirements

Municipalities may be willing to pay for education and planning services that meet the requirements of future EPA Municipal Separate Storm Sewer System (MS4) permits. The Inland Bays Foundation has petitioned the EPA to require a permit for the Inland Bays Watershed, and the EPA has indicated this is likely to occur. DNREC would be responsible for administering the permits to the County and municipalities. DNREC officials indicated in a public forum that due to the agency's capacity, the permit development process could take 3 to 5 years.

Many municipalities generally do not have the time and expertise to devote to meeting permit requirements. Nonprofits such as the Center for Watershed Protection have developed a business model around providing low cost assistance to municipalities to plan for and meet stormwater requirements. The Center has extensive experience assisting coastal communities to implement stormwater retrofits and could provide education and planning services. The Center's expertise, relationships with municipalities, and rate structure could make them competitive with other firms.

Verification Services for a Nutrient Trading Program

Nutrient trading is a tool to help achieve clean water goals. Trading allows one source of nutrient pollution to meet its regulatory obligations by using pollutant reductions created by another source that has lower pollution control costs. Trading may not be appropriate for addressing all water quality challenges within a given watershed and should be evaluated for effectiveness. Trading can provide flexibility and opportunity for innovation.

DNREC expressed its intention to develop a nutrient trading program in early 2017. A requirement for a successful program is the verification of pollutant reduction projects or actions that generate credits or achieve offsets. Verification of such projects or actions could be accomplished for a fee by a third-party such as the Center. Currently, it is uncertain if such a program will be developed given state and federal budget uncertainties, or if DNREC would seek third-party verification services.

Contractual Environmental Monitoring for the State of Delaware

DNREC conducts regular ambient water quality monitoring in surface waters of the State including the Inland Bays to meet its EPA requirements under the federal Clean Water Act. The monitoring is accomplished partly by boat. Staff time for travel to and from the monitoring sites must incur a significant cost to their operations at a time when funding for the agency is very limited. Further, dissolved oxygen measurements (a key water quality parameter) made by DNREC are often taken during a time in the daily cycle of the parameter which is not useful because their employees cannot access the sites in the early morning, presumably due to travel time. The Center could potentially provide lower cost and lower overhead labor than DNREC and could save time due to the proximity of its facilities to the Bays. The Center could approach DNREC to discuss contractual environmental monitoring at DNREC's ambient water quality monitoring stations. It is also a possibility that DNREC could add additional sensors in the Inland Bays per the recommendations in the Inland Bays Environmental Monitoring Plan which the Center could be contracted to maintain.

CIB Facility Rentals

The Center's Inlet Facility provides a desirable location for small to mid-size events and meetings. The facility's deck, two large and open downstairs rooms and kitchen are suited to meet what is likely a growing demand for waterside meeting space from the community. Within the Delaware Seashore State Park, outdoor event space primarily for weddings is available at the Life Saving Stations where day rentals are around \$5,000. Events there may be catered by a small number of preferred businesses which also operate restaurants with seasonal outdoor event space within the park. There is potential for the Center to rent its space for meetings and events outside of normal business hours to generate unrestricted income, perhaps using the services of a preferred caterer to manage the facility during events. Type of events would include weekend retreats and meetings, small wedding associated parties, or other parties. This would require a change in the lease agreement between the Center and the Delaware Seashore State Park. Initial discussions with the Division Director and key staff resulted in verbal approval of concept in 2017. Parking for the events could pose a problem during the high season. A rough business plan is being developed to estimate potential revenue which could net \$10,000 annually.

Mostly External Funding Options

Clean Water for Delaware Act – Clean Water Trust Fund

In December of 2017, House Bill 270, the Clean Water for Delaware Act, was pre-filed with the Delaware General Assembly. The bill was an outcome of the 28-member Delaware Senate Clean Water and Flood Abatement Task Force upon which the Center served in 2015.

The Act increases the level of funding available to restore Delaware's streams, rivers, bays, and groundwater through construction of much needed wastewater, drinking water, and drainage projects and increased use of agricultural best practices. Over the next 5 years in Delaware, more than \$500 million in water and wastewater system upgrades are needed, more than \$150 million in stormwater upgrades are needed and more than \$75 million for removing toxic pollutants from waterways is needed. In addition, demand for agriculture cost-share funds used to reduce pollution from nutrients far surpasses available resources.

The Act creates a Clean Water Trust, supported by dedicating several existing revenue sources and a proposed new dedicated Clean Water Surcharge that will be levied on personal income tax payments and business license fees. The surcharge will be capped at \$40 for individual tax filers, \$80 for individuals filing a joint return, and \$45 for business licenses. The Clean Water Surcharge will be used for capital projects, not to grow government; the allowance for administrative expenses is capped at 10% after the first 2 years and companion legislation creating a constitutionally protected "lock box" is being introduced to provide permanent protection against the fee being diverted for operating expenses. Total revenues from the surcharge are estimated to be \$20 million annually and could leverage as much as \$50 million in total financing annually for investments eligible to support implementation of the CCMP.

The Center is currently entering its third year of the Clean Water: Delaware's Clear Choice education campaign dedicated to cleaning up Delaware's polluted waters by developing public financing for water quality improvement projects. The campaign is a partnership between the Delaware Nature Society, the Center, and the Partnership for the Delaware Estuary. In addition to the education campaign, the Center will continue to cultivate political support for passage of the bill.

Marine Fuel Tax for Waterway Management

The Senate Waterway Management and Financing Committee recommended that taxes collected from the sale of marine fuel be transferred from the Delaware's general use Transportation be specifically allocated to waterway management activities. The Delaware Department of Transportation's records indicate the tax paid on gallons of fuel sold to marinas from FY2011-FY2015 was \$534,794. Refunded to boaters during this period was \$209,185, leaving \$325,608 that could be reallocated to management. This amount does not include non-marina motorboat fuel sales, which are likely to be substantial given the large proportion of boats licensed in Delaware that are most likely trailered and thus purchasing fuel at gas stations. Political will to develop legislation likely needed to allow such a transfer appears to exist.

DNREC Land Conservation and Water Quality Improvement Loan Programs

An innovative financing approach exists to fund land conservation and water quality improvement projects with Delaware Water Pollution Control Revolving Fund (WPCRF) municipal loans. Municipalities that have wastewater projects on the fundable portion of the WPCRF Project Priority List can enter into contractual agreements with DNREC for natural lands conservation easements and purchases and CCMP implementation projects including riparian buffer establishment, stormwater retrofits, and wetland restoration. Loans shall have interest rates designed to ensure that municipalities will not pay any additional loan debt service payments annually or over the life of twenty-year wastewater project loans by borrowing additional funds for conservation and water quality improvement projects. The interest rate for municipal wastewater project loans shall first be determined based on the WPCRF Interest Rate Policy. The interest rate shall be lowered based on the total additional cost of the water quality improvement project to ensure that loan debt service payments for both loans are not greater than the municipal wastewater project loan separately. However, the interest rate for both the municipal wastewater project and water quality improvement project loans shall not be less than one percent.

This program has received little use statewide for both financial and political reasons. In 2017, Sussex County, in partnership with the Center for the Inland Bays and the Sussex Conservation District, was selected for the first loan from this program for a forest preservation and restoration project in the Rehoboth Beach Watershed.

Regional Conservation Partnership Program

The Regional Conservation Partnership Program (RCPP) offers new opportunities for the federal Natural Resource Conservation Service (NRCS), conservation partners and agricultural producers to work together to harness innovation, and demonstrate the value and efficacy of voluntary, private lands conservation. The Regional Conservation Partnership Program promotes coordination between NRCS and its partners to deliver conservation assistance to agricultural and silvicultural producers and landowners. NRCS provides assistance to producers through partnership agreements and through program contracts or easement agreements. Conservation practices supported by the Program are wide ranging and many directly support implementation of the Inland Bays Pollution Control Strategy. Partnership agreements may be up to five years. Eligible funding categories for the Center for the Inland Bays to participate as a partner include national and statewide.

The Sussex Conservation District has been successful in securing assistance for practices focused on poultry agriculture including supporting poultry freezes for dead bird management. The agreements have been successful in implementing conservation practices but may not cover the costs of the coordinating partner organization.

Wetland Program Development Grants

EPA Wetland Program Development Grants (WPDGs) provide an opportunity to conduct projects that promote the coordination and acceleration of research, investigations, experiments, training, demonstrations, surveys and studies relating to the causes, effects, extent, prevention, reduction and elimination of water pollution. WPDGs assist state, tribal, local government (S/T/LG) agencies and interstate/intertribal entities in building programs to protect, manage and restore wetlands. States, tribes, local governments, interstate associations, and intertribal consortia are eligible to apply for the Regional WPDG Request for Proposals

(RFPs). Nonprofits, interstate associations and intertribal consortia are eligible to apply for the National WPDG RFPs.

DNREC's Wetland Monitoring and Assessment Program applies for and receives these EPA grants regularly. The latest award was \$345,000 in 2016 for a new statewide wetland mapping effort and for an updated wetland status and changes report covering the past 10 years. The award will augment DNREC's efforts to monitor and assess wetland conditions in the northern Chesapeake Bay Watershed while reporting on wetland conditions in the Appoquinimink River watershed in New Castle County, along with continuous monitoring of ecological success from past wetland restoration projects. The Center could collaborate with DNREC as a partner or contractor for work to implement the CCMP in the Inland Bays Watershed. Projects could include wetland restoration planning associated with the Pollution Control Strategy, living shoreline demonstration projects, or policy development work, or modeling the areal distribution of tidal wetlands under different sea level rise scenarios.

Natural Resource Damages Assessment for Indian River Power Plant

Natural Resource Damage Assessments (NRDAs) are investigations of injuries to natural resources that are held in the public trust. Injuries to natural resources may occur at hazardous substance sites or in connection with oil spills. At the federal level, NRDA authority is part of the Comprehensive Environmental Response, Compensation and Liability Act, the Oil Pollution Act and the Clean Water Act. The state also has independent authority for NRDA under the state's Hazardous Substance Cleanup Act. These laws provide for recovery from the Potentially Responsible Parties (PRPs) of damages (money or other compensation) for injuries to natural resources and the costs of assessing those damages, if those injuries are due to releases of hazardous substances, or oil.

A NRD is recoverable by the agencies having jurisdiction over those resources; these are the "Natural Resource Trustees." For State resources, the Trustee (delegated by the Governor) is the Secretary of DNREC. Currently, the Secretary has further delegated this function to staff from the Site Investigation and Restoration Section, the Division of Fish and Wildlife, and the Division of Water. State trust resources include fish, wildlife, wetlands, forests, groundwater, and recreational use. Once a damage assessment is completed, the Trustees select one or more projects designed to restore, rehabilitate, replace, or acquire the equivalent of the specific resources or services lost at the spill or release site. Projects are then carried out with funding from the PRPs by DNREC, the PRP, or a contractor.

The Center previously functioned as a partner in a NRDA restoration project on the Slough's Gut marsh at the James Farm Ecological Preserve for an oil spill at the Indian River Power Plant. Another NRDA is in process for the damages associated with the coal ash landfills of the Indian River Power Plant. The Center could engage the Trustees to determine how Center projects could receive funding associated to mitigate the determined damages.

Plan to Pursue the Most Promising Funding Options

The following is a prioritized list of objectives and accompanying most-important actions (non-prioritized) intended to secure the Center's most promising funding opportunities. Where practicable, the intended timeframe for achievement (short term, within 5 years, or long-term, 5 or more years) is indicated. This list is not inclusive of all funding actions taken by the Center and its partners and will change with developments over the course of the next five years.

Maintain and increase state and federal operating grants that support the base operations and leveraging capacity of the Center through a continued political process supported by the Board and the Association of National Estuary Programs (ANEP). (*Short-term*)

Action A. Annually advocate to DNREC to return pass-through grant to previous levels (maximum \$270,000 per 2006-2008 timeframe).

Action B. Continue outreach and advocacy to the General Assembly regarding the Center's mission, accomplishments, and pass through grant; maintain annual legislative breakfast and testimony to the Joint Finance Committee.

Action C. Continue advocacy for increased appropriations to the NEP per the 2016 Congressional Reauthorization including the development of a competitive grants program through individual and joint actions with ANEP.

Action D. Begin preparation of a joint-NEP proposal to the NEP competitive program to support the Environmental Monitoring Plan.

Increase revenue from private individuals and organizations to achieve organizational reserve and endowment goals through an accelerated program of solicitation supported by the Board's Development Committee and increased marketing and outreach. (*Short & Long-term*)

Action A. Achieve and maintain a Board culture of philanthropy through a full suite of Board Elected Directors and an active Development Committee that are fully engaged in supporting staff to achieve mutually defined fundraising goals. Utilize fundraising training as needed.

Action B. Increase engagement opportunities with the Center through the Volunteer Program to support growth of a base of potential and active donors to the Center.

Action C. Increase the community profile of the Center and its mission through a defined plan of outreach and marketing.

Action D. Assess the existing CIB Fundraising Case Statement for revision and development project and program specific case statements on an as needed basis.

Support the Clean Water for Delaware Act legislation in the Delaware General Assembly to develop a sustainable new funding source for CCMP implementation. (Short-term)

Action A. Continue, as the Center's priority education and outreach initiative, the Clean Water for Delaware advocacy campaign to build an Alliance of clean waters supporters.

Action B. Advocate for legislation with Members of the Delaware General Assembly.

Action C. Should legislation pass, will provide support for and participate as appropriate in any subsequent development of regulations or program guidance to support allocation of funding towards the most cost-effective pollution and flood control measures that implement the CCMP.

Incorporate medium to large private foundation grants as an important funding component for internal projects. (Short-term).

Action A. Continue to research foundations and pair opportunities with projects.

Action B. Achieve a target of 5 medium to large priority foundation grant applications per year.

Further explore and develop fee-based revenue sources. (Short-term).

Action A. Support legislation to increase revenue from the sale of environmental license plates.

Action B. Assess profitability for renting the Center's Indian River Inlet Facility for events.

Action C. Develop feasibility reports for contractual Education and Planning Services to meet MS4 permit requirements and for Contractual Water Quality Monitoring.

Improve coordination and solicitation for CCMP funding options. (Short-term)

Action A. In cooperation with DNREC, the Department of Agriculture, the Sussex Conservation District, and the Natural Resources Conservation Service, form and maintain an Inland Bays Pollution Control Strategy (PCS) implementation workgroup to develop additional financing for increased implementation of voluntary PCS actions focused on the agricultural sector.

Action B. Build upon the Watershed Reforestation Plan to seek funding for a Pollution Control Strategy Implementation project plan that identifies project locations, costs, and concepts.

Action C. Work with DNREC, the County, and municipalities to determine availability of existing and opportunities for future wastewater loans that could lead to conservation and water quality improvement project loans.

Action D. Integrate Center grant application planning into the annual workplan process.

Action E. Explore integration of Center participation and restoration objectives with Trustees of Indian River Power Plant NRDA.

Action F. Work with the Delaware Legislature, as appropriate, on a bill to reallocate marine fuel tax from general use in the Transportation Trust Fund to waterway management activities.