

NATURAL RESOURCES AND ENVIRONMENTAL CONTROL
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Project Summary Chart

Project Name	STATE CAPITAL FUNDS					
	FY 2010	FY 2011	FY 2012 Request	FY 2012 Recommended	FY 2013 Request	FY 2014 Request
1. Critical Facility Needs			\$ 2,000,000		\$ 10,300,000	\$ 6,500,000
2. Water Quality Management	\$ 2,648,700	\$ 2,648,700	12,600,000	\$ 3,648,700	24,000,000	24,000,000
3. Redevelopment of Strategic Sites			2,500,000	2,500,000	3,000,000	3,000,000
4. Recreational Enhancement/Maintenance			2,600,000		5,000,000	5,000,000
5. Storm Protection	2,150,000	1,000,000	2,543,000		6,500,000	6,500,000
6. Minor Capital Improvement and Equipment	600,000	600,000	2,000,000	1,200,000	3,000,000	3,000,000
7. Planning and Design to Upgrade and Expand the R & R Building for L.E.E.D.					500,000	19,500,000
8. Fenwick Island State Park Parking Expansion					200,000	900,000
9. Cape Henlopen Fishing Pier Design and Implementation					2,000,000	12,000,000
TOTALS	\$ 5,398,700	\$ 4,248,700	\$ 24,243,000	\$ 7,348,700	\$ 54,500,000	\$ 80,400,000

1. Critical Facility Needs

PROJECT DESCRIPTION

Funding is requested to address critical needs for repair/replacement of facilities within various wildlife areas and parks maintained by the Department of Natural Resources and Environmental Control. Appropriated funds will be assigned based upon priority need and adequacy of funding to accomplish the project.

Fish and Wildlife Rehabilitation

Funding is requested for energy efficient upgrades to agency facilities, critical rehabilitation needs to commercial fishing areas, environmental management and improvements to agency facilities and accessibility additions for disabled public using facilities managed by the department. These managed sites or proposed activities are not eligible to receive federal Wildlife or Sport Fish Restoration funding. They include:

- Bowers Beach Wharf;

- Coast Guard Auxiliary Station Bulkhead and Mooring Facility;
- Shorebird Observation Platforms on the Mispillion Harbor;
- The Boat Hole Commercial Harbor at Love Creek;
- The Ringgold Pier and Wharf at Port Mahon, Ommelanden Range; and
- The Ralph Kellam Center at the Norman G. Wilder Wildlife Area.

Park Rehabilitation

Funding is requested to rehabilitate the state's park system, which currently contains over 450 buildings in 16 parks. Funding will be targeted to deferred maintenance projects and upgrades of buildings, as well as the demolition of unsafe and unneeded structures. Projects include:

- Improvements to the equipment landing area and dock at Fort Delaware;
- Renovation of the dorms, campground and shower buildings at Cape Henlopen;

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- Installation of new heating and air conditioning systems at the Judge Morris Estate and Bellevue office;
- Improvements to the Killens Pond Water Park;
- Renovation of the Bellevue School House and Sarah Brooks House; and
- Painting of numerous barns and residences at Brandywine Creek and White Clay Creek.

Critical Roofing

Funding is requested for the repair and replacement of several roofs on buildings in the state park system, most notably Fort Delaware. Additional projects include:

- The Fenton Barn at Brandywine Creek;
- Duplexes at Fort DuPont;
- Barns at Bellevue and White Clay Creek;
- Dorms and youth camps at Cape Henlopen; and
- Residences statewide.

Road Rehabilitation

Funding is requested to begin repair of the 40-plus miles of roads within the park system, which are not eligible for the state Department of Transportation or Federal Highway Administration funds. Inventory and assessment reports have been completed for Cape Henlopen and Killens Pond, and other park road systems will be investigated in the coming years. Annual funding at the \$500,000 - \$1,000,000 level will help improve deteriorated conditions and potentially delay major capital expenditure for total replacements. Projects include:

- Statewide roadway paving at several parks, including Cape Henlopen, Killens Pond, Lums Pond and White Clay Creek;
- Driveway and parking lot projects at Brandywine Creek; and
- A parking lot renovation at Baynard Stadium.

Mosquito Control

Funding is requested to begin the design and engineering phase for construction of a new facility to serve as the headquarters for Mosquito Control operations in Kent and Sussex counties. The current headquarters are located along the rapidly developing Airport Road in Milford. The estimated construction cost of \$3,800,000 is based on current conventional construction to include site preparation, an office/lab, shop/garage, pesticide storage building, equipment pole sheds with a wash down pad and wastewater containments. It is proposed the facility would be on a property already owned by the State that could accommodate such new land use in southern Kent County or northern Sussex County. The estimated cost of professional design/engineering is \$380,000.

Utility Infrastructure

Funding is requested to replace aging utility infrastructure throughout the department's properties. These utility upgrades could be wholesale replacement, major maintenance, efficiency measures or installation of renewable energy systems not previously found on the property.

Projects include:

- Upgrade of electrical utility at Lum's Pond;
- Sewer and water infrastructure at Cape Henlopen;
- Technology infrastructure at Cape Henlopen and Bellevue State Park;
- Upgrades to the energy system at the McKay Office Building; and
- Heating, ventilating and air-conditioning (HVAC) at the Little Creek enforcement shop where maintenance is performed and evidence and equipment are stored.

CAPITAL REQUEST

FUNDING

	STATE	FEDERAL	OTHER
FY 2012	\$2,000,000	\$0	\$0
FY 2013	10,300,000	0	0
FY 2014	6,500,000	0	0
TOTALS	\$18,800,000	\$0	\$0

2. Water Quality Management

PROJECT DESCRIPTION

Clean Water Grant/Wastewater Management

Funding is requested to provide state matching funds for the federal Clean Water State Revolving Fund capitalization grant. It is anticipated Congress will re-authorize Title VI of the Clean Water Act that provides assistance for the Clean Water State Revolving Fund program. Annual federal funding for the Delaware Water Pollution Control Revolving Fund is expected to be approximately \$10,000,000 each year over the next four years. Each federal grant is required to be matched with 20 percent state funds. This will provide \$12,000,000 to make low interest loans to communities for wastewater facility improvements and expansions. This funding request will be recommended by the Clean Water Advisory Council in its 2012 Long-Term Wastewater Facilities Funding Plan.

Funding is requested for the Wastewater Management Account to provide revolving loans and grants to enhance and supplement public and private wastewater facilities

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financing. The federally capitalized Water Pollution Control Revolving Fund has sufficient funds to provide low interest loans for wastewater projects in the near term. The high cost of wastewater infrastructure projects are becoming increasingly unaffordable for middle- and low-income families. Existing sources of grant funds are insufficient to offset the high costs of new sewer projects or to enhance existing wastewater treatment facilities to meet new water quality standards. Funding is also needed to help communities plan for their wastewater utility needs to ensure facilities remain in compliance with water quality standards and necessary sewer rehabilitation projects remain on schedule. This funding will be recommended by the Clean Water Advisory Council in its 2012 Long-Term Wastewater Facilities Funding Plan.

New Castle County Ground Water Monitoring Network

Funding is requested to construct and operate an expanded ground water monitoring network in selected locations of southern New Castle County and northernmost Kent County. This area is undergoing significant population growth and attendant rapid increase in ground water withdrawals to meet water demands. This network will augment several existing monitoring wells, which have been determined to be insufficient for monitoring purposes. Up to 13 new monitoring wells will be needed. The Delaware Geological Survey will be the lead agency in the design and installation of the network, in cooperation with DNREC, two water purveyors, Artesian Water Company and Tidewater Utilities. Work will be divided into three phases. Phase one will consist of incorporating several existing wells into the current monitoring network. Phase two will be construction of up to eight new wells. Phase three will be construction of up to five new wells. This funding will also be used for operation of the network. With this data, the agencies will, on an ongoing basis, monitor water quality, define areas of acceptable and unacceptable water quality and assess water availability.

Conservation Cost Share

Funding is requested to sustain the Conservation Cost Share program. This program is the State's principal financial support mechanism for the design and installation costs of practices that protect human health, natural resources and water supplies by preventing urban and agricultural non-point source pollutants from reaching surface and subsurface waters, protect Delaware's farmland soils from excessive erosion and provide wildlife habitat. The program provides funds as incentives to landowners or users for the public benefit. Both urban and agricultural landowners that receive benefits must pay their share of the cost of the practice. Appropriated monies will pay or assist in paying all costs

required to locate, design, install and maintain conservation practices and systems. Of the amount needed for this program, 50 percent will be divided equally among the three counties to expand their programs. The remaining balance will be directed towards nutrient management efforts statewide.

Water Management Projects

Funding is requested for water management projects (formerly 21st Century Funds). These cost share programs are supplemented by U.S. Department of Agriculture and the Natural Resource Conservation Service (NRCS) programs and the Non-Point Source 319 grant program. These programs are also supported by the Delaware Department of Agriculture in the continued effort to reach the nutrient management and water quality goals for the State. This request will fund projects in all three counties.

Tax/Public Ditches

Funding is requested to fund the technical resources for the reconstruction and improvement of deteriorated drainage infrastructure, channels and related water management projects. Constructing environmentally sensitive projects requires minimizing temporary and permanent disturbances to all natural resources in the project area. A portion of these funds is used to investigate watershed and drainage resources to provide information for the completion of water management improvement projects and related construction. The drainage program will continue to use these funds for technical assistance necessary in planning, surveying, engineering, permitting and managing drainage and water management projects throughout the state. This funding also allows the drainage program to provide technical assistance to over 215 tax ditch organizations, private landowners and public agencies statewide. The cost of technical resources for planning, surveying, engineering, permitting and construction inspection has increased significantly since the last increase in funding was requested. Recent tax ditch legislation increases the role DNREC has in providing technical assistance to the real estate and land development industries and supporting the tax ditch organizations.

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CAPITAL REQUEST

FUNDING

	STATE	FEDERAL	OTHER*
FY 2010†	\$2,648,700	\$2,100,000	\$1,420,000
FY 2011†	2,648,700	2,100,000	1,420,000
FY 2012	12,600,000	10,000,000**	1,100,000
FY 2013	24,000,000	10,000,000**	1,100,000
FY 2014	24,000,000	10,000,000**	1,100,000
TOTALS	\$65,897,400	\$34,200,000	\$6,140,000

For Fiscal Year 2011, required match of \$2,000,000 was allocated from the Non-Fed Admin Account for the Clean Water Revolving Loan Fund.

*The sources of Other funds are State Rehabilitation Fund loans and private funds.

**Estimated average federal funds received.

†Appropriated for Conservation Cost Share and Tax/Public Ditches.

3. Redevelopment of Strategic Sites

PROJECT DESCRIPTION

NVF Site

Funding is requested for the remediation and redevelopment of the former NVF Facility in Yorklyn, along the Red Clay Creek. The department entered into a series of contracts for the property that will allow the remediation of the site, while providing open space, flood mitigation, wetland creation and economic development. Funding in Fiscal Year 2012 will focus on the remediation and demolishing of portions of the facility that are located on the future open space area and rebuilding the failing infrastructure on the site. The new open space will have several acres of flood retention capacity and will serve as the center of a trail system connecting several existing parcels of state property. Future phases will include the development of a six-mile loop trail.

Fort DuPont

Funding is requested to analyze the redesign and redevelopment of the Fort DuPont complex in Delaware City. The department, along with several other state agencies, owns the former military site with its numerous underutilized historic structures. The goal is to develop a plan for the site that would encourage economic redevelopment and remains compatible with the current historic structures and maintain the current use of the site for recreational purposes.

CAPITAL REQUEST

FUNDING

	STATE	FEDERAL	OTHER
FY 2012	\$2,500,000	\$0	\$0
FY 2013	3,000,000	0	0
FY 2014	3,000,000	0	0
TOTALS	\$8,500,000	\$0	\$0

4. Recreational Enhancement/Maintenance

PROJECT DESCRIPTION

Recreational Facilities

Funding is requested to analyze the redesign and reconstruction of the Baynard Stadium complex in Wilmington State Park. This study and concept planning will address several issues with the facility, including structural, necessary facilities, pedestrian and vehicular traffic flow and parking. The study will also review the possibility of converting the field to artificial turf. This will allow more events on the field over a longer season, which would increase revenue. Events are currently limited by the ability of the current turf to sustain the repeated use of the field.

Funding is requested to perform an assessment on possible upgrades to the shooting range at Ommelanden. The public range at Ommelanden has been in operation since 1984. This facility provides hunter education training and recreational shooting opportunities to the public. The by-product of any recreational shooting facility is the accumulation of spent lead particles. The department has been proactively managing for possible lead contamination by conforming to U.S. Environmental Protection Agency guidelines. These guidelines call for the periodic mining or removal of surface lead particles. In a recent evaluation, it became evident there are sufficient surface level lead deposits to warrant an exploratory investigation by a lead remediation company and possible removal process. The department is requesting funds to perform the needed remediation at this site.

Waterway Management Projects

Funding is requested to complete three navigational channel dredging projects in the State's Inland Bays using private contractors. Funding for dredging operations has come from annual general fund appropriations and Bond and Capital Improvements Act authorizations earmarked for specific projects. Recent budget cuts and time of year restrictions contained in federal and state permit approvals (which restrict dredging from September 1 to

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December 31 in any given year to protect fishery resources) have resulted in the dredging program not being able to meet current demands to maintain proper depths in navigational channels to ensure safe navigation for the recreational boating public. Three heavily used channels in the Inland Bays include Pepper Creek, Guinea Creek and Herring Creek. The Pepper Creek project will involve maintenance dredging approximately 68,000 cubic yards from the existing channel at a cost of \$1,000,000. The Guinea Creek project involves the removal of approximately 40,000 cubic yards to restore the previously dredged channel, and the Herring Creek project will involve the dredging of approximately 60,000 cubic yards. Estimated costs for dredging Guinea Creek are \$600,000, and Herring Creek are \$900,000. In addition, funding is requested in Fiscal Years 2012-2014 to replace operating costs for the New Castle Conservation District dredge, channel marking, macro-algae harvesting and abandoned vessel/derelict structure removal operations. Funding is critical for these operations while the department develops a more comprehensive statewide waterway management plan in the future.

Inland Bays Restoration Projects

Funding is requested to carry out two environmental restoration projects in the Inland Bays. As background, the Shoreline and Waterway Management Section received an appropriation in the Fiscal Year 2006 Bond and Capital Improvements Act to perform a variety of waterway management services to preserve, maintain and enhance the recreational use of the State's tidal waters, as well as to improve environmental conditions in these areas. The section was also directed to undertake a study of sediment sources and patterns of sediment movement. The sediment management study was completed in 2007 and included several options for the beneficial reuse of dredged material and methods to reduce dredging needs in waterways throughout Rehoboth Bay. These proposed projects are designed to implement some of the study's recommendations. One such project involves the restoration of approximately 14 acres of eroded wetlands along the southwestern portion of Thompson's Island in upper Rehoboth Bay. Funding is requested in Fiscal Year 2012 for engineering, design and permitting to carry out this project. In Fiscal Year 2013, funds are requested for construction of this project. The second environmental restoration project involves constricting flow training walls at the north and south end of Massey's Ditch. Funding for this project to engineer, design, permit and provide wetland plantings will be requested in Fiscal Year 2014.

CAPITAL REQUEST

FUNDING

	STATE	FEDERAL	OTHER*
FY 2012	\$2,600,000	\$0	\$450,000
FY 2013	5,000,000	0	450,000
FY 2014	5,000,000	0	450,000
TOTALS	\$12,600,000	\$0	\$1,350,000

*The source of Other funds is local.

5. Storm Protection

PROJECT DESCRIPTION

Beach Preservation

Funding is requested to carry out the State's Beach Preservation program along the Atlantic Ocean coast and Delaware Bay shoreline. Work typically includes beach nourishment, structural erosion control measures, public dune maintenance and emergency storm repair and cleanup. Work is only done on publicly accessible beaches and may involve cost sharing with federal and/or local governments. Under normal conditions, it is estimated the department will have to replace one-half of the fill initially placed on ocean beaches approximately every three to five years to satisfactorily maintain them until federally cost shared projects are developed, authorized and implemented. The state share of beach replenishment projects is 35 percent and comes from both the Bond and Capital Improvements Act appropriations and from the Public Accommodations Act. For Fiscal Year 2012, \$1,000,000 is requested to implement phase one of the 10-year Delaware Bay Beach Management Plan.

Dam/Dike/Floodplain Emergency Planning

Funding is requested for the continued development of Dam Emergency Action Plans. This funding will seek to leverage \$500,000 federal funds from a federal water grant. The emergency planning work consists of an engineering inspection, dam break analysis, inundation map, emergency action plan and the development of an operation and maintenance plan. Funding is also requested to begin an inventory and assessment of dikes and impoundments to determine ownership, history, initial condition assessment and potential impacts for liability.

In addition, funding is sought to continue floodplain mapping and map updates in Sussex County. This mapping is critical to local planning officials to determine where land use changes are permitted and to keep homebuyers informed when building/purchasing homes

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in floodplains. The department is investigating the possibility to leverage federal funds from the Federal Emergency Management Agency.

Dam Maintenance, Repair, Monitoring and Engineering

Funding is requested to perform minor maintenance and repairs to eight DNREC owned dams and the preliminary engineering for reconstruction of Hearn's Pond spillway. Prioritization for determining infrastructure improvements is based on the dam inventory and risk analysis recently completed. A portion of these funds are targeted for small repairs and vegetative management, which are integral to the safe operation and maintenance of dams. Some funding may be utilized for emergency repairs as a result of any damage to state-owned dams that threatens the health, safety and welfare of Delaware residents.

CAPITAL REQUEST FUNDING

	STATE	FEDERAL	OTHER*
FY 2010**	\$2,150,000	\$2,000,000	\$2,149,214
FY 2011**	1,000,000	35,580,000	2,278,166
FY 2012	2,543,000	45,000,000	1,800,000
FY 2013	6,500,000	1,400,000	1,800,000
FY 2014	6,500,000	1,400,000	1,800,000
TOTALS	\$18,693,000	\$85,380,000	\$9,827,380

*The source of Other funds is Public Accommodations Tax.

**Appropriated for Beach Preservation.

6. Minor Capital Improvement and Equipment

PROJECT DESCRIPTION

Funding is requested to continue the department's Minor Capital Improvement and Equipment (MCI) program. Projects funded through the MCI program are required to maintain facilities in good to excellent condition, maintain operational efficiencies and maintain or improve the safety, security and function of buildings, building systems and grounds.

CAPITAL REQUEST FUNDING

	STATE	FEDERAL	OTHER
FY 2010	\$600,000	\$0	\$0
FY 2011	600,000	0	0
FY 2012	2,000,000	0	0
FY 2013	3,000,000	0	0
FY 2014	3,000,000	0	0
TOTALS	\$9,200,000	\$0	\$0

FISCAL YEAR 2013

1. Critical Facility Needs

\$10,300,000

See Project Description for Fiscal Year 2012.

2. Water Quality Management

\$24,000,000

See Project Description for Fiscal Year 2012.

3. Redevelopment of Strategic Sites

\$3,000,000

See Project Description for Fiscal Year 2012.

4. Recreational Enhancement/Maintenance

\$5,000,000

See Project Description for Fiscal Year 2012.

5. Storm Protection

\$6,500,000

See Project Description for Fiscal Year 2012.

6. Minor Capital Improvement and Equipment

\$3,000,000

See Project Description for Fiscal Year 2012.

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7. Planning and Design to Upgrade and Expand the R&R Building for L.E.E.D. \$500,000

PROJECT DESCRIPTION

Funding will be requested to consolidate the operations currently located in the Dover Campus Area, consisting of the Richardson and Robbins (R&R) building and nine other leased facilities. Due to growth in the department over the last 20 years, the Dover Campus Area has become functionally inadequate for the department's needs and is extremely inefficient. The R&R building is very overcrowded with corridors and public spaces being used for offices, work areas and filing.

Initial funding will be requested to commission a study to determine the optimum size and location for a 50,000 square foot addition to the department's R&R facility. This new facility would consolidate leased space operations into the R&R building from seven other leased facilities.

The 2004 Capital Space Study recommended a new DNREC building be built as part of a long-term plan to adequately meet space needs of state agencies in the Dover area. The preliminary estimate for the size of that facility was 160,000 square feet for approximately 600 employees. The proposed addition to the R&R building would bring the total office space to the same level at the current location.

The upgrades and expansion of the building would be designed to demonstrate environmental sustainability in construction and cost savings. The building would be certified by Leadership in Energy Environmental Design, operating and certifying the world's greenest buildings, at the gold or platinum level. This would require design and construction practices that significantly reduce or eliminate the negative impact of the building on the environment and occupants in five broad areas: sustainable site planning; safeguarding water and water efficiency; energy efficiency and renewable energy; conservation of materials and resources; and indoor environmental quality.

CAPITAL REQUEST

FUNDING

	STATE	FEDERAL	OTHER
FY 2013	\$500,000	\$0	\$0
FY 2014	19,500,000	0	0
TOTALS	\$20,000,000	\$0	\$0

8. Fenwick Island State Park Parking Expansion \$200,000

PROJECT DESCRIPTION

Funding will be requested for the redesign of the Fenwick Island State Park parking lot to accommodate more parking, allow for more queuing of cars off the roadways and allow for express shuttle bus access to the lot for drop-offs and pick-ups without waiting in the queue. It is not uncommon for traffic waiting to enter the park to backup along the shoulder of Route 1 creating a significant public safety hazard. The design would be completed in Fiscal Year 2013 and the division would seek implementation funding in Fiscal Year 2014.

This project has the potential to develop mutually beneficial multi-agency support and cooperation including Sussex County, Department of Transportation and local municipalities.

CAPITAL REQUEST

FUNDING

	STATE	FEDERAL	OTHER
FY 2013	\$200,000	\$0	\$0
FY 2014	900,000	0	0
TOTALS	\$1,100,000	\$0	\$0

9. Cape Henlopen Fishing Pier Design and Implementation \$2,000,000

PROJECT DESCRIPTION

Funding is requested to begin the design and permitting necessary to replace the deteriorated fishing pier at Cape Henlopen State Park. The division has recently completed stop-gap measures to repair some of the deteriorated pilings with assistance of federal Fish and Wildlife funds. This temporary repair is envisioned to

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provide safe access for fisherman for only the next 4-8 years at which point funding would be necessary to completely replace this facility and demolish the existing structure.

CAPITAL REQUEST FUNDING

	STATE	FEDERAL	OTHER
FY 2013	\$2,000,000	\$0	\$0
FY 2014	12,000,000	0	0
TOTALS	\$14,000,000	\$0	\$0

FISCAL YEAR 2014

1. Critical Facility Needs **\$6,500,000**

See Project Description for Fiscal Year 2012.

2. Water Quality Management **\$24,000,000**

See Project Description for Fiscal Year 2012.

3. Redevelopment of Strategic Sites **\$3,000,000**

See Project Description for Fiscal Year 2012.

4. Recreational Enhancement/Maintenance **\$5,000,000**

See Project Description for Fiscal Year 2012.

5. Storm Protection **\$6,500,000**

See Project Description for Fiscal Year 2012.

6. Minor Capital Improvement and Equipment **\$3,000,000**

See Project Description for Fiscal Year 2012.

7. Planning and Design to Upgrade and Expand the R&R Building for L.E.E.D. **\$19,500,000**

See Project Description for Fiscal Year 2013.

8. Cape Henlopen State Park Parking Expansion **\$900,000**

See Project Description for Fiscal Year 2013.

9. Cape Henlopen Fishing Pier Design and Implementation **\$12,000,000**

See Project Description for Fiscal Year 2013.