

April 30, 2009

**Virginia Coastal Zone Management Program  
Semiannual Section B Report on Core Agency Implementation Activities  
For the Period from October 1, 2008 – March 31, 2009**

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## A. STATE AGENCY MONITORING

### 1) DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ)

#### a) DEQ – Virginia Coastal Zone Management Program

Virginia CZM Program staff continued to work with our partner agencies to implement the Program over the last 6 months. For a full description of staff activities, please refer to the Section A report for Task 1. During this period one of the two Coastal Planner positions remained vacant due to an unsuccessful recruitment process over the winter. The position was re-advertised and interviews will be conducted during the week of May 4<sup>th</sup>.

#### b) DEQ – Water Permitting Programs

The Virginia Pollution Abatement permit (VPA) is required for facilities that handle wastewater, animal waste or biosolids, and do not have a discharge from the site. For example, an agricultural facility that temporarily stores wastewater to be land applied as part of an irrigation/fertilization program. On January 1, 2008, the Biosolids Use Regulation was transferred to DEQ and incorporated into the VPA Regulation. During the period October 1, 2008 and March 31, 2009, 9 applications were submitted to land apply biosolids in the Coastal Zone Management area under the VPA Regulation. No biosolids permits have been issued to date.

VPDES/VPA/VWP - October 1, 2008 – March 31, 2009										
	Permits Issued / Avg Proc. Days		Permits Reissued / Avg Proc. Days		Permits Modified / Avg Proc. Days		Denied / Avg Proc. Days		Permits Reissue Pending / Avg Proc. Days	
VPDES	0	n/a	14	141	5	55	0	n/a	15	n/a
VPA	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a
VWP IPs	16	353	0	n/a	8	155	0	n/a	4	n/a
VWP GPs	108	126	0	n/a	25	42	1	150	0	n/a

The Virginia Pollution Discharge Elimination System (VPDES) permit is required for all point sources of water discharge. There are 267 individual municipal and industrial CZM area VPDES permits. This number and the numbers in the table above represent typical activity in the program (i.e. there is no particular reason for increases or decreases in numbers from the last reporting period). There are also numerous facilities registered under general permits in CZM areas including 29 car wash facilities, 65 concrete products facilities, 5 cooling water discharges, 75 single family homes, 20 nonmetallic mineral mining facilities, 3 petroleum and hydrostatic testing discharges, 58 seafood processors, 421 industrial storm water discharges and 1 coin

operated laundry. These also represent typical numbers for general permit registrants in CZM areas in Virginia.

The Virginia Water Protection Permit (VWPP) Program is required for water withdrawals and activities in wetlands and surface waters that may or may not require Clean Water Act section 401 water quality certifications. The table above describes the activity for each of these permits. For the VWPP Program, the column “Permits Reissue Pending / Avg Proc. Days” represents water supply permit permits whose applications are currently being processed for reissuance. The processing days cannot be calculated until the permits are actually reissued.

Compared to the April 2008 - September 2008 reporting period, approximately 50 fewer general permit authorizations were issued during the current reporting period, and the average processing time increased. This is largely due to several general permit authorizations issued during the reporting period that required an unusual amount of processing time. Delays were mainly due to untimely applicant response, suspension of the permit process due to inadequate project information, threatened and endangered species concerns and/or coordination, coordination under the State Program General Permit process, and inadequate mitigation proposals. The number of individual permits issued during the current reporting period was half the number issued in the previous reporting period, and the average processing time was about the same. This is largely due to threatened and endangered species concerns and/or coordination, incomplete applications, suspension of the permit process due to inadequate project information, hearings/State Water Control Board meetings required, and sediment contamination issues.

Significantly less permits or permit authorizations were modified during this reporting period, and the average time to process these requests continued to be in line with program guidelines for issuance (no regulatory deadlines for processing changes to general permit authorizations or individual permits). No individual permits were reissued during the current reporting period. General permit authorizations are not reissued in the VWPP program. One applicant was denied a permit during the current reporting period. The VWPP program staff conducted inspections of a variety of sites and for a variety of reasons. Inspection data is available from DEQ Quarterly and annual reporting made to the Administration division, and is also provided to the Virginia Department of Accounts on a fiscal year basis. This data can be provided if necessary for the purposes of this report.

### **c) DEQ – Water Program Enforcement and Compliance**

DEQ continues to apply both informal and formal enforcement measures in the enforcement program. Informal measures, such as Warning Letters and Letters of Agreement, are used in those cases where non-compliance is not significant in nature and where compliance can be achieved in a short period of time. For the period October 1, 2008 through March 31, 2009, DEQ issued 175 Warning Letters and three (3) Letters of Agreements for violations of VPDES, VPA and VWPP program requirements.

Formal enforcement actions are used in those cases where non-compliance is more serious or may take a significant amount of time to correct. Formal measures generally involve the issuance of a Notice of Violation followed by a Consent Order, or an Executive Compliance Agreement in the case of a state agency. In some cases, Unilateral Administrative Orders or court orders may be sought. Between October 2008 and March 2009, DEQ issued 73 Notices of Violation for violations of VPDES, VPA and VWPP program requirements. During the same period, the agency concluded enforcement cases with the issuance of 10 Consent Orders and one Administrative Unilateral Order, assessing a total of \$168,678 in civil charges.

<b>Measure</b>	<b>Action Type</b>	<b>Count</b>	<b>Total Civil Charges Assessed</b>
Informal	Warning Letters	175	n/a
Informal	Letters of Agreement	3	n/a
Formal	Notices of Violation	73	n/a
Formal	Consent Order	10	\$158,678
Formal	Administrative Unilateral Order	1	\$ 10,000
<b>Total</b>		<b>262</b>	<b>\$168,678</b>

**d) DEQ – Air Permitting Program**

**OFFICE OF AIR PERMIT PROGRAMS  
PERMITS ISSUED REPORT**

**Period: October 1, 2008 – March 31, 2009**

<b>Permit Type</b>	<b>Number of Permits Issued</b>	<b>Average Processing Time (Days)</b>
PSD & NA	0	NA
Major	0	NA
Minor	39	27
Administrative Amendment	8	26
Exemptions	52	12
State Operating	19	65
Federal Operating (Title V)	1	135

Acid Rain (Title IV)	0	NA
<b>Total Number Permits Issued</b>	<b>119</b>	

\* The average processing time is determined by computing the difference between when the application was deemed administratively complete and when the permit was issued.

Note: The information provided for this report includes data from the Fredericksburg Satellite Office, Northern Virginia Regional Office, Piedmont Regional Office and Tidewater Regional Office only.

Definitions:

Prevention of Significant Deterioration (PSD) = A source which emits **250 tons or more** per year of any regulated pollutant or combination of regulated pollutants, or who is one of 28 specific industries listed in the state regulations and will emit 100 tons per year of a regulated pollutant.

Major = A source which emits, or has the potential to emit, **100 tons or more** per year of any air pollutant.

Minor = A source which emits, or has the potential to emit, **less than 100 tons** per year of any air pollutant.

State Operating= Application for permit written pursuant to 9 VAC 5-80-800.

Administrative Consent Agreement = An agreement that the owner or any other person will perform specific actions to diminish or abate the causes of air pollution for the purpose of coming into compliance with regulations, by mutual agreement of the owner or any other person and the Board.

Administrative Amendment = Changes made to the permit to clarify or correct an issued permit. For example, equipment references, improved control equipment, reductions of allowed emissions below the exemption levels, etc.

Exemption = Facilities meeting are exempted from permitting requirements by exemption levels defined in 9 VAC 5-80-11.

Federal Operating (Title V) = a source that emits **10 tons or more** per year of any hazardous air pollutant, **or 25 tons** per year of any combination of hazardous air pollutants or emits criteria pollutants above major source levels.

Acid Rain (Title IV) = tightens the annual emissions limits for SO<sub>2</sub> and NO<sub>x</sub> which are imposed on large higher emitting electric utility plants and sets restrictions on smaller, cleaner plants fired by coal, oil, and gas.

**PERMITS PENDING REPORT**

**Permits Pending as of March 31, 2009**

<b>Permit Type</b>	<b>Number of Permits Pending</b>
PSD & NA	2
Major	0
Minor	36
Administrative Amendment	9
Exemptions	13
State Operating	17
Federal Operating (Title V)	6

Acid Rain (Title IV)	1
<b>Total Permits Pending</b>	<b>84</b>

Note: The information provided for this report includes data from the Fredericksburg Satellite Office, Northern Virginia Regional Office, Piedmont Regional Office and Tidewater Regional Office only.

## PERMITS WITHDRAWN AND APPLICATIONS DENIED REPORT

Period: October 1, 2008 – March 31, 2009

Permit Type	Number of Permits Withdrawn	Number of Applications Denied
PSD	0	0
Major	0	0
Minor	5	0
Administrative Amendment	1	0
Exemptions	1	0
State Operating	2	0
Federal Operating (Title V)	0	0
Acid Rain (Title IV)	0	0
<b>Total Permits Rescinded</b>	<b>9</b>	<b>0</b>

Note: The information provided for this report includes data from the Fredericksburg Satellite Office, Northern Virginia Regional Office, Piedmont Regional Office and Tidewater Regional Office only.

### e) DEQ – Air Program Enforcement and Compliance

DEQ continues to apply both informal and formal enforcement measures in its enforcement program. Reference Table 2 below. Informal measures include Requests for Corrective Action, Informal Correction Letters, Warning Letters, and Letters of Agreement. These actions are used in those cases where non-compliance is not significant in nature and where compliance can be achieved in a short period of time. During the six-month period beginning October 1, 2008, and ending March 31, 2009, DEQ issued 38 Requests for Corrective Action and 29 Warning Letters.

Formal enforcement actions are used in those cases where non-compliance is more serious or may take a significant amount of time to correct. Formal measures generally involve the issuance of a Notice of Violation and negotiation of a Consent Order, or an Executive Compliance Agreement in the case of a state agency. In some cases, Unilateral Orders or court orders may be pursued. Between October 1, 2008, and March 31, 2009, DEQ initiated nine (9) new formal enforcement actions via issuance of Notices of Violation. In addition, the agency issued six (6) Consent Orders; these orders assessed a total of \$62,295 in civil charges.

<b>Measure</b>	<b>Action Type</b>	<b>Count</b>	<b>Total Civil Charges Assessed</b>
Informal	Request for Corrective Action	38	n/a
Informal	Warning Letter	29	n/a
Formal	Notice of Violation	9	n/a
Formal	Consent Order	6	\$62,295
<b>Total</b>		<b>82</b>	<b>\$62,295</b>

## **2) VIRGINIA MARINE RESOURCES COMMISSION (VMRC)**

### **a) VMRC – Habitat Management Division**

During the period October 1, 2008 through March 31, 2009, the Habitat Management Division received 821 applications for projects involving State-owned submerged lands, wetlands or dunes. These applications were for projects such as piers, boathouses, boat ramps, marinas, dredging and shoreline stabilization. As the clearinghouse for the Joint Permit Application, all applications were assigned a processing number by the Division and forwarded to the appropriate agencies, including, local wetlands boards, the Norfolk District of the U.S. Army Corps of Engineers, the Department of Environmental Quality, VIMS and others as necessary.

A public interest review was initiated and site inspections were conducted for those projects requiring a permit from the Marine Resources Commission. Likewise, Habitat Management staff also conducted site inspections for all projects requiring a local wetlands board permit and evaluated each local board decision for Commissioner review. Habitat Management staff also conducted compliance inspections on permits issued by VMRC and local wetlands boards. Five sworn complaints were issued during the period.

The Habitat Management Staff completed actions on 966 applications received during the period. Action on most applications was completed within 90 days after they were received. As such, a number of the actions taken during the period were for applications received prior to October 2008. Similarly, those applications received near the end of the current reporting period are still under review.

In addition to staff actions, the Full Commission considered 87 projects. During the reporting period, the Commission considered 32 protested projects or projects requiring a staff briefing, including four appeals of a local wetlands board decision. The Commission also approved 49 projects over \$50,000.00 in value for which staff had completed the public interest review and for which there was no objection.

### **b) VMRC – Fisheries Management Division**

At its October meeting, the Commission established measures for the Virginia winter recreational 2008 striped bass fishery. The Commission adopted a 1-striped bass limit, from December 21 through 31, with 2 fish

allowed at other times in December, following a public hearing. The Commission established measures for the Winter II trip limit for scup. The Commission reduced the Winter II trip limit from 3,500 pounds to 2,000 pounds, following a public hearing. The Commission discussed modifying black sea bass quotas as follows: Modify the limited entry commercial fishery, directed and bycatch fishery quotas. This was a request for public hearing. At its November meeting, the Commission established a black sea bass directed fishery quota of 218,683 pounds, of which a bycatch quota of 40,000 pounds was established, from January 1 through April 30, with 10,000 pounds from May 1 through December 31. Further the Commission voted to reduce the bycatch trip limit to 100 pounds after 75% of the bycatch quota has been harvested, following a public hearing.

At its October meeting, the Commission also discussed implementing a new ASMFC Shark Fishery Management Plan. At its January meeting, the Commission decided that the public hearing would be heard, but a final decision would be made at the February meeting. Proposed amendments to Regulation 4VAC20-490-10 et seq., "Pertaining to Sharks," to comply with the Interstate Fishery Management Plan for Atlantic coastal sharks was part of the January public hearing. Necessary compliance changes to the regulation were numerous and include commercial and recreational size limits, a season closure for both commercial and recreational, plan specific permitted shark gear, definition of a recreation shore angler and vessel angler for the purpose of determining individual possession limits, changes to the list of restricted species of shark, requirement that all shark be landed with all fins attached, restrictions for smooth dogfish and a provision to close commercial shark fishery in state waters once the federal quota has been projected and announced. VMRC staff explained that coordination between state and federal regulations is necessary to ensure sustainable populations of coastal sharks. He provided the board with a copy of the draft regulation prepared by staff and reviewed the changes. He said the proposed regulations would result in conservation. At its February meeting, the Commission amended the shark regulation to state that the tail and fins must remain naturally attached to the carcass, except for the dogfish, through landing. This action was in addition to the adoption of all other ASMFC requirements outlined by VMRC staff at the January public hearing.

At its January meeting, the Commission discussed modifying the 2009 recreational summer flounder size and catch limits, as compared to 2008 measures. The commission established a February 2009 public hearing, for the adoption of one of the following options:

- A 19-inch, five fish, no closed period
- B 18-1/2 inch, five fish, 7/21 – 8/3 closed season
- C 18-1/2 inch, five fish, no closed period

At its February meeting, the Commission established measures for the size and catch limit of summer flounder. The Commission adopted a 5 flounder catch limit, 19 inches in size with an open season, following a public hearing. The Commission also discussed amending the American Shad Bycatch Fishery regulation to remove the reference to the year 2008 and replace it with 2009 as follows: At its March meeting, the Commission amended the American Shad Bycatch Fishery regulation to allow the limited by-catch of American shad, in areas above the first bridge in the James, York and Rappahannock rivers, excluding spawning areas, in 2009, following a public hearing.

At its February meeting, the Commission discussed amending the size limit for the recreational black sea bass fishery, from 12 inches to 12½ inches. At its March meeting, the Commission amended the recreational size limit for black sea bass increase from 12 inches to 12 ½ inches, following a public hearing.

### **c) VMRC – Law Enforcement Division**

Enforcement under "Other Agency" refers to summons issued for other agencies' laws, code or regulation sections. The majority of the summons in this category are for DGIF regulations on boating safety laws, expired boat registration, no life jackets, flares, etc.

Summons under "Police Powers" are all criminal vs. fisheries such as reckless driving, drunk driving, driving without a license/ suspended license, and possession of cocaine, marijuana, etc. An officer is assigned to the Drug Enforcement Agency's local Task Force in an effort to interdict drug trafficking on Virginia's tidal waterways.



**VIRGINIA MARINE POLICE  
ARRESTS/CONVICTIONS SUMMARY BY CATEGORY**

REPORT FORMAT: FEDERAL FISCAL YEAR  
START PERIOD: 10/01/2004  
END PERIOD: 09/30/2009

Category	2004/2005		2005/2006		2006/2007		2007/2008		2008/2009	
	Convictions	Arrests	Convictions	Arrests	Convictions	Arrests	Convictions	Arrests	Convictions	Arrests
Buyers	3	5	2	2	0	0	0	0	0	0
Casting Garbage/Trash	0	1	1	2	1	1	0	0	0	0
Clams	2	2	4	5	4	4	0	0	0	0
Commercial Fishing License	3	4	3	4	5	6	2	3	1	3
Conchs	1	1	4	4	0	0	0	0	0	0
Crabs	147	163	81	89	67	76	137	168	10	11
Fish	218	251	284	304	318	378	258	308	49	72
Fishing without a license/revoked license	117	121	59	59	22	24	10	11	2	2
Habitat/Wetlands	0	0	0	0	0	0	0	0	0	0
Landing License	0	0	0	0	0	0	0	0	0	0
License Tags	6	9	4	9	6	7	0	0	1	2
Mandatory Reporting	0	0	1	1	3	3	0	0	0	0
Misc	0	0	1	1	0	0	0	1	0	0
Non-residents	1	1	0	0	0	0	0	0	0	0
NSSP	0	0	0	0	0	0	0	0	0	0
Other Agencies	714	769	670	729	691	750	495	559	45	67
Other Police Powers	0	0	0	0	0	0	0	0	0	0
Oysters	87	100	80	82	55	68	53	71	12	16
Piers	0	0	0	0	0	0	1	1	0	0
Police Powers	112	137	61	69	87	99	49	52	5	7
Removal of Obstructions	2	2	5	6	0	1	0	0	0	0
Resisting officer	0	0	0	1	0	0	0	0	0	0
Shellfish	3	3	0	2	0	0	0	0	0	0
SW Recreational Licenses	305	322	398	414	479	495	308	327	20	20
<b>TOTALS:</b>	<b>1721</b>	<b>1891</b>	<b>1658</b>	<b>1783</b>	<b>1738</b>	<b>1912</b>	<b>1313</b>	<b>1501</b>	<b>145</b>	<b>200</b>
<b>PERCENT OF CONVICTIONS:</b>	<b>91.01%</b>		<b>92.99%</b>		<b>90.90%</b>		<b>87.48%</b>		<b>72.50%</b>	

Print Date: Tuesday April 7, 2009

**3) VIRGINIA DEPARTMENT OF HEALTH (VDH) – DIVISION OF SHORELINE SANITATION**

From October 2008 through March 2009, the VDH shellfish program had 258 acres of shellfish grounds closed to harvesting. There were 3894 acres of shellfish grounds reopened. Let me know if you have any questions or need additional information.

**4) Department of Conservation and Recreation (DCR)**

**a) DCR - Division of Soil and Water Conservation**

The Department of Conservation and Recreation (DCR), Division of Soil and Water Conservation (DSWC) administers numerous enforceable and non-enforceable programs that help the Commonwealth of Virginia

manage its coastal resources. The following is a summary of key program activities conducted by DCR staff during the period of October 1, 2008 through March 31, 2009.

## **Regulatory Programs**

### **Stormwater Management Program**

The consolidation of the Virginia's stormwater management programs into DCR streamlines program implementation, increases program efficiencies and compliance, builds on successful online initiatives, and improves water quality. During the past six month period, staff assigned to the field within Tidewater localities provided services that include review of erosion and sediment control (ESC) and stormwater management plans, on site inspections, complaint response, enforcement support, and technical/regulatory training via the classroom and Internet.

DCR staff has been working with eleven large/medium (Phase I) Municipal Separate Storm Sewer Systems (MS4s), during the past six months, to develop and reissue the individual permit for the storm sewer systems. The eleven localities are the cities of Chesapeake, Hampton, Newport News, Norfolk, Portsmouth and Virginia Beach and the counties of Arlington, Chesterfield, Fairfax, Henrico, and Prince William. In addition, DCR staff accepted new registration statements from the small (Phase II) MS4s in order to authorize discharge under the new general permit effective July 9, 2008.

DCR staff is responsible for processing registration statements for land-disturbing activities that are covered by the General Permit for Discharges of Stormwater from Construction Activities. For the reporting period, approximately 939 land disturbing activities were issued General Permit coverage. During this time period, DCR staff also completed approximately 375 site inspections for compliance with the General Permit.

A major focus of Stormwater Management Program staff during this reporting period has been the development of the General Permit for Stormwater Discharges from Construction Activities (Part XIV of the Stormwater Management Regulations). A Technical Advisory Committee was formed to provide review and recommendations for Part XIV of the regulations. The Virginia Soil and Water Conservation Board, at the March 19, 2009 meeting, approved the final regulations related to Part XIV.

Urban Program staff continued to educate government officials, private contractors, and consultants in the essential elements of Erosion and Sediment Control (ESC) via classroom training and the online "Responsible Land Disturber (RLD) Certificate of Competence" Program. Approximately 497 people completed classroom training and approximately 2,800 people were certified or recertified for the RLD Program. In addition, approximately 411 individuals were certified through the examination process as Inspectors, Plan Reviewers, Program Administrators and Combined Administrators.

### **Nutrient Management Regulations**

DCR Nutrient Management Staff have been active in developing and reviewing nutrient management plans and other nutrient reduction activities to achieve the Commonwealth's nutrient reduction commitments of Chesapeake Bay tributary strategies. In the coastal zone of Virginia, DCR staff developed nutrient management plans covering 32,563.97 acres during the reporting period. The plan acreage developed by coastal watershed is summarized in the following table:

## Nutrient Management Plans Completed

	Crop	Hay	Pasture	Specialty
Atlantic Coastal	1,677.80	0	0	0.4
Chesapeake Bay Coastal	5,325.80	0	130.2	0
Chowan River	3,267.83	18.3	28.9	0
Lower James River	3,605.66	43.8	157.5	0
Lower Potomac River	944.08	59.7	15	0
Rappahannock River Tidal	13,344.19	147.51	162.9	0
York River Tidal	3,634.40	0	0	0
Totals	31,799.76	269.31	494.5	0.4

In addition to developing site specific nutrient management plans for farmers, the department reviews all permit applications for proposed biosolids application sites to check for consistency with nutrient management criteria and address site features. Nutrient management plans are now required on all biosolids application sites in Virginia prior to land application of the biosolids.

Under the Poultry Waste Management Act, the department is charged with approving enforceable site-specific nutrient management plans for poultry farms having at least 20,000 chickens or 11,000 turkeys (200 animal units). Nutrient management plans have been approved for 84 poultry operations located in the coastal zone. The nutrient management plans require site-specific manure rates of application, control the time of application to coincide with crop nutrient uptake, and require covered manure storage to protect water quality. Since the feed ration largely controls the amount of phosphorus excreted in poultry waste, DCR recently entered into Memoranda of Agreement with each of the six major poultry processors in Virginia to encourage the companies to reduce phosphorus levels contained in the feed. In these agreements, the companies agree to achieve a goal of at least a 30% reduction in phosphorus excreted in poultry litter by December 2010. DCR monitors the litter nutrient content by using manure analyses conducted for the development of NMPs.

DCR operates a nutrient management training and certification program to promote plan development by persons employed in the private sector. As of the February 2009 Nutrient Management Certification exam, there are 324 total certified planners in the state. As a requirement of the department's regulations, plans prepared by certified planners were reviewed for technical consistency with standards and criteria. The number of certified individuals by category of employment is summarized in the following table:

### Certified Nutrient Management Planners by Category

Category	Number of Planners
Biosolids	12
Consultants	54
Dept of Corrections	1
County Government	1
DCR Nut. Mgt Staff	20
DCROther	6
DEQ Staff	34
Dept of Health	1
Educators	6

Extension	10
Fertilizer Industry	50
Individuals	28
NRCS	59
SWCD	41
VDACS	1
<b>Total Planners</b>	<b>324</b>

## NON-REGULATORY PROGRAMS

### Coastal Nonpoint Source Program

The responsibility of the Coastal NPS Program Manager is to coordinate the Coastal Nonpoint Source Program implementation and administration of grants and grant budgets and provide technical support to the Division of Soil and Water within DCR relating to coastal zone ecology, management, and restoration. The position continues to serve as a liaison between DCR, the Center for Environmental Studies at VCU, and the Virginia Coastal Zone Management Program to promote joint, applied research and outreach projects on coastal nonpoint source pollution, coastal zone ecology, management, and restoration.

The CNP Program Manager participated, planned or attended various meetings including the Coastal Policy Team, Coastal PDC meetings, Virginia Stream Alliance, NPSAC, and Healthy Waters, HB1150. The CNP Program Manager has continued participating in the development of the Healthy Waters and Healthy Lands Initiative. The CNP Program Manager was invited to present, to the NOAA OCRM Director, the status of the Virginia Network for Education of Municipal Officials, its role in assisting local government and the development of a Climate Change presentation. The CNP Program Manager continued to undertake the development of the Virginia Network for Education of Municipal Officials (VNEMO) Program through a coordinated effort between Chesapeake NEMO, Virginia Cooperative Extension and Virginia partners.

Currently, the VNEMO Program resources include a number of “canned” presentations that may be modified to suit specific needs of a locality as well as a subcontracted service provider pool that is supported by the National Fish and Wildlife Foundation. The presentations currently available include:

- 1) Linking Land, Water and Growth
- 2) Planning the Direction of your Community
- 3) Forest Resources

The VNEMO Program is partnering with the CNEMO Program in the development of additional presentations. These are:

- 1) Economics of LID
- 2) Climate Change Adaptation

Currently, the demand for VNEMO assistance is growing at an ever increasing rate. The current level of requests is exceeding the available resources. Fortunately, the VNEMO Program is a networked program with significant resources beyond the limited coastal zone funding and can access various partners to meet the requests. These project locations, in the coastal zone, include:

- City of Hampton—Bay Act assistance
- Fredericksburg—LID Education
- Hopewell—Public Open Space Planning and Strategic Planning assistance
- Mathews County (1)—(Program Pilot Site) Comprehensive Planning assistance

Mathews County/Middle Peninsula Planning District Commission (2)—Aquaculture Policy Development  
N. Potomac Shoreline/Northern Virginia Regional Commission—Climate Change Adaptation Strategy for  
Local Officials

Richmond County—Comprehensive Planning assistance and Integration of Bay Model Data

The CNP Program Manager worked with local partners in developing National Fish and Wildlife Foundation (NFWF) Small Watershed Grant applications, including an application for Low Impact Development implementation, demonstration and education at the Science Museum of Virginia. Most recently, the Program Manager worked to develop a \$1.7M NFWF Chesapeake Bay Innovation application for low impact development implementation, demonstration, education/certification at the Science Museum of Virginia. This application, if funded, would fit with the soon to be released Stormwater Rules and serve as a central location of demonstrating and training those to implement the technologies as listed in the BMP manual.

The VDCR entered into a contractual agreement the Alliance for the Chesapeake Bay to support the development of the Chesapeake Watershed Network web based communication tool ([www.chesapeakenetwork.org](http://www.chesapeakenetwork.org)). The funding supported the development of a coordination tool to provide the communication between those seeking services and those rendering services and for the project management capabilities. This site utilizes Web 2.0 communication tools to correspond effectively through the use of shared documents, groups, forums, blogs, Wikis and email blasts. The VNEMO program produced travelling displays and three palmcard handouts (VNEMO; Linking Land Water and Growth; and Planning the Direction of your Community) and a web site ([www.virginianemo.net](http://www.virginianemo.net)).

## **b) DCR – Division of Natural Heritage**

This report lists projects and activities conducted by the Department of Conservation and Recreation, Division of Natural Heritage (DCR-NH) during this period that were not funded by, or otherwise reported to, the VCZMP.

### **Inventory**

#### *A Systematic Pre-assessment for Candidate Species Selection, Task 3: Final Ranking – 10/08:*

The final report of a three stage project, entitled "A Systematic Pre-assessment for Candidate Species Selection, Task 3: Final Ranking" was completed for the U.S. Fish and Wildlife Service. The purpose of the project was to develop an objective approach to identify the highest priority species in need of conservation action. Relying upon data maintained in the BIOTICS database across the network of Natural Heritage programs and Conservation Data Centers, and incorporating expert opinion, fifteen species were selected and ranked in order of conservation priority. The final list is comprised of 15 species including: 10 invertebrates (2 Amphipoda, 3 Coleoptera, 1 Decapoda, 1 Isopoda, 1 Lepidoptera, 1 Mollusca 1 Myriapoda), 3 vascular plants, and 2 vertebrates (both fish). All of the species occur in Virginia (a criteria for being considered) with eight species being endemic to the Commonwealth. Nine of these species have fewer than 4 known occurrences in the world.

#### *Rare Plants Located at False Cape State Park – 10/08:*

Back Bay marshes at the southern end of False Cape State Park were explored by boat and on foot in late September in search of rare plants. Known as Big Ball Island, Little Ball Island, Horse Island, and Buckle Island, these are highly diverse marshes with fresh to slightly brackish salinities. Populations of Elliott's aster (*Symphyotrichum elliottii*) and elongated lobelia (*Lobelia elongata*), first found in 1990, were relocated. Both of these state-rare species were found over a much larger area than previously reported. Rare plants found for the first time on the islands are winged seedbox (*Ludwigia alata*) and white-topped sedge (*Rhynchospora colorata*). Both of these state-rare plants are known from elsewhere in the Park.

*Reports on surveys for Federal/State-listed plants submitted to VDACS - 02-09:*

DCR-DNH field botanists completed and submitted to VDACS reports on the three plant surveys conducted in 2008 that were funded by the USFWS and administered by VDACS: *Corallorhiza bentleyi* (Bentley's coralroot, G1G2/S1/NL/LE), *Carex juniperorum* (juniper sedge, G3/S1/NL/LE), and *Helenium virginicum* (Virginia sneezeweed, G3/S2/LT/LE). The surveys for *Corallorhiza bentleyi* and *Carex juniperorum* focused on finding new populations, while the surveys for *Helenium virginicum* focused on determining the status of known populations, a continuation of work begun in 2006.

Bentley's coralroot is a state-listed endangered orchid known only from two counties in West Virginia and three counties in Virginia, Giles, Alleghany, and Bath. In 2008, surveys were conducted in Craig, Highland, and Alleghany counties. Despite the presence of appropriate roadside and forested habitat, no new locations were found by DCR-DNH. As was true for surveys conducted in 2007, the drought experienced by this section of Virginia may have affected germination and emergence of plants this year as plant numbers were reported to be reduced in the known occurrences.

*Carex juniperorum* is a recently-described sedge found in openings and woodlands underlain by limestone or dolomite in only three U.S. states, Ohio, Kentucky, and Virginia, and in Ontario, Canada. In Virginia only three occurrences are known from the western counties of Montgomery and Botetourt and the City of Radford and it is state listed Endangered. Surveys conducted on slopes underlain by Elbrook Formation dolomite in Montgomery County and Botetourt County in 2008 produced no new occurrences or colonies of *C.*

*juniperorum*. The survey did result in one new and one expanded colony in a known occurrence of the federal/state listed species *Echinacea laevigata*, (smooth cone flower G2/S2/LE/LT) in Montgomery County, one new occurrence of the state rare herb *Astragalus neglectus* (Cooper's milkvetch, G4/S2), and updates on several other rare plants species.

*Helenium virginicum*, a plant with a disjunct distribution in Virginia and Missouri, is found in Shenandoah Valley Sinkhole Ponds and disturbed seasonal wetlands in the counties of Augusta and Rockingham in Virginia. Based on field visits made in September 2008, *H. virginicum* was shown to still occur at 12 of the 15 wetlands visited in this status survey. One new location with a few plants was found in a wetland drawn-down due to the drought. An additional location in a powerline right-of-way was reported by a private landowner. Based on this status survey and the previous surveys in 2006, *H. virginicum* has now been documented in Virginia at a total of 34 locations representing 18 occurrences and was observed in 2006 or 2008 at 26 of the 30 wetlands revisited (and one reported non-wetland outlier). Although population numbers at some sites are in the thousands, major population declines have been observed at some of the disturbed wetlands over the last 20 years, probably related to hydrological changes, changes in vegetation management, as well as reductions in selective cattle grazing; *H. virginicum* may be unpalatable to cattle leading to dense concentrations in the actively grazed farm pond habitats, but fewer numbers as grazing declines. Threats to *H. virginicum* in Virginia continue to be mostly from hydrological modifications generally associated with increased development in this species' central Shenandoah Valley distribution. During the 2008 survey, updates were also made on other rare plant occurrences associated with the *H. virginicum* habitat.

*Region 1 State Parks Inventory Work – 02/09:*

A letter summarizing work completed by DCR-DNH inventory biologists on Region 1 State Parks in 2008 was completed and sent to the District 1 Resource Manager. Occurrence information for three state rare plants and seven globally rare communities were updated at False Cape SP. Similarly, one state rare animal and one globally rare plant were updated at First Landing and Kiptopeke state parks respectively. This marks the third year in which DCR-DNH has assisted DCR-SP Region 1 with identification of its rare natural resources. As the data is incorporated into DCR Natural Heritage Biotics database, it will also be provided to State Parks as part of normal data update.

*Richmond Battlefield Inventory Completed – 03/09:*

A report detailing the findings of a Natural Heritage inventory of two units of Richmond National Battlefield Park has been submitted to the National Park Service. The areas surveyed are the Cold Harbor Unit and the recently acquired Totopotomoy Creek Unit, both located in Hanover County. Only one Natural Heritage

resource was located – a significant Coastal Plain / Piedmont Acidic Seepage Swamp natural community along Bloody Run in the Cold Harbor Unit. The report includes recommendation for the management and preservation of this resource.

### **Natural Areas Protection**

#### *Route 460 / Antioch Pines Meeting – 01/09:*

DCR staff met with Dept of Transportation staff to discuss the proposed new alignment for Rt 460 adjacent to Antioch Pines NAP in Isle of Wight County. VDOT staff indicated the project is out for proposals as a public – private partnership project and that alignment adjustments would now be up to the private firm if one elects to proceed with the 55 mile construction project – this will be known in August and 3 firms are very seriously pursuing the project. Mandatory use of prescribed fire is needed for the Commonwealth to maintain its 1016 acre natural area purchased at a cost of \$2,145,153, and smoke from prescribed burning is a serious issue. Hopefully steps can be taken to achieve better advanced planning with VDOT so that all issues are well understood and addressed before these types of decisions are made.

### **Prescribed Burning**

#### *Staff Assist with DOF Fire Training – 01/09:*

Division of Natural Heritage stewardship staff served as instructors at the Virginia Department of Forestry's Certified Burn Managers Program training in Charlottesville which was held January 13-15, 2009. Rick Myers taught a 2-hour section on fire ecology and Claiborne Woodall taught a 2-hour section on fire weather and fire behavior. In addition to DCR, the instructor cadre was comprised of staff from DOF, DGIF, Virginia Tech, and The Nature Conservancy. Students ranged from state and federal agency personnel, private contractors, to private landowners.

### **Natural Area Preserves Stewardship**

#### *Fall Ecosystem Services Stakeholder Workshop – 11/08:*

Natural Heritage participated in the Fall Ecosystem Services Stakeholder Services workshop on November 6th, at the Dept. of Forestry offices in Charlottesville, Virginia. A DOF-led interagency team, including DCR-Directors office and DCR-Natural Heritage staff, has organized this workshop to help promote an ecosystem service philosophy in land management programs, and position Virginia landowners and State agencies to better manage our natural resources. The workshop presented a web tool being developed by Virginia Tech and the VA DOF, called EcoMetrix, which will utilize various GIS models developed by DCR-Natural Heritage, to begin to assess Virginia's Ecosystem Services. This workshop engaged a variety of partners to assure that future endeavors are inclusive of multiple stakeholder interests.

#### *Managed Deer Hunt – Savage Neck Dunes Natural Area Preserve – 01/09:*

DCR natural area staff conducted a successful managed deer hunt at the 298 acre Savage Neck Dunes Natural Area Preserve. A total of 54 hunters over 28 days harvested 32 deer.

#### *Elklick Woodland Natural Area Preserve Management Plan Development in Progress – 01/09:*

Fairfax County, owner of the Elklick Woodlands Natural Area Preserve (EWNAP), has contracted with Lardner/Klein Landscape Architects, P.C. in association with Environmental Systems Analysis, Inc. to develop a management plan for the 226-acre preserve. The plan is being developed in consultation with DCR Natural Heritage staff and following DCR Natural Area Preserve Management Guidelines (DCR 2000). The Northern Virginia Conservation Trust (worked with Fairfax County and DCR to dedicate this preserve in 2003) and Dominion Power (manage a utility right of way through the preserve) are also participating in management plan development. Public meetings to solicit input and recommendations from Fairfax citizens are being scheduled for February 2009. Major management issues associated with EWNAP include invasive species control, deer

population management, and public access and use. Invasive species in need of control on the preserve include Japanese stilt-grass and tree-of-heaven. Emerald ash borer is now known to be established in Fairfax County and this exotic pest insect is likely to impact preserve resources in the near future. The preserve is part of the County's extensive open-space and park landholdings that are being reviewed for recreational and outdoor educational development. The preserve management plan will guide public access development and public uses of the preserve. EWNAP supports one of the best remaining examples of a globally rare natural community known as a Northern Hardpan Basic Oak-Hickory Forest with a natural range restricted to northern Virginia and Maryland's piedmont. Most examples of this community type have disappeared due to urban and suburban growth of the area.

*Chainsaw Safety and Maintenance Training – 02/09:*

On February 11, 2009, four of DCR's Natural Heritage staff members had the opportunity to attend chainsaw safety and maintenance training under a Cooperative Fire Agreement between the US Fish and Wildlife Service and DCR. The training was held at the Great Dismal Swamp National Wildlife Refuge and provided by representatives from STIHL®. Topics covered included personal protective equipment, safety features and pre-operation safety checks on chainsaws, maintenance of the chainsaw and parts, chain sharpening and basic chainsaw operation characteristics. In addition to DCR-NH staff, personnel from Great Dismal Swamp NWR, Blackwater NWR in Maryland, and The Nature Conservancy attended.

*Permit Violation adjacent to Savage Neck Dunes Natural Area Preserve – 02/09:*

DCR has worked with the applicant, VMRC and others for some time on the construction of an offshore breakwater by the landowners directly adjacent to the Savage Neck Dunes NAP. VMRC and the Army Corps issued the permit for construction to begin. While understanding the VMRC Commission would vote to issue the permit, DCR officially objected based on the advice from the OAG to protect the Commonwealth's interest, as the structure is very likely to cause erosion and loss of land on the natural area preserve.

To assure that the large amount of sand deposited in the Chesapeake Bay as part of this construction is compatible with the federally listed tiger beetle, the permit specified among other things the specifications for sand grain size. The permit also specified that DCR was to be informed before sand was deposited, and DCR was to have the opportunity to independently test the sand for grain size. Two permit violations have occurred to date.

- 1) 1,000 cubic yards, 8-10 truck loads, see photo, of sand was dumped in the bay and DCR was not notified, or given an opportunity to have it tested.
- 2) When finally sampled by the construction company and DCR the sand grain size was too small, thus making it incompatible for the federally listed tiger beetle, and out of compliance with the permit. Natural Heritage staff have spoken with VMRC, they report ACOE is the permit enforcer, not them. Staff have spoken with ACOE and USF&WS and requested a stop work order. A site visit will be conducted with DCR, the Corps, USF&WS and the contractor on March 2.

*Update: Savage Neck Dunes Breakwater Project Violations – 03/09:*

As listed in last week's report, two violations occurred on February 20, 2009 as part of the breakwater project immediately adjacent to Savage Neck Dunes Natural Area Preserve. On Tuesday, March 3rd, DCR was told by the U.S. Army Corps of Engineers (Robert Cole) that they had issued a stop work order to the applicant as a result of the applicant's two violations. Subsequently, daily site inspections by DCR reveal that in spite of the Corps' stop work order, work has continued, including the running of heavy equipment into the bay and the dumping of rock. DCR submitted a letter via email to the Corps of Engineers on Wednesday, March 4th seeking clarification on the stop work order and the process for getting the applicant back into compliance. The letter, email and a subsequent phone message on Friday, March 6th have, to date, gone unanswered. Savage Neck Dunes NAP is one of the Chesapeake Bay's most outstanding dune communities and public beaches with an exemplary population of federally listed species. DCR continues to seek clarification on the Corps role in enforcing its permit and to protect the Commonwealth's resources.

*Volunteers at Magothy Bay NAP and Mutton Hunk Fen NAP – 03/09:*

University of Rochester students, participating in an “Alternative Spring Break” and members of the Eastern Shore Master Naturalist Chapter, assisted with 2 restoration projects on the Eastern Shore. Fallow agricultural fields at Magothy Bay NAP and Mutton Hunk Fen NAP were planted in wax myrtle (*Morella cerifera*) shrubs. The goal is to return the fields to migratory neo-tropical songbird habitat.

Neo-tropical songbirds fly down the Eastern Shore to breeding grounds in South America during the fall migration season, stopping to build up energy stores and rest before crossing the Chesapeake Bay. The fragmentation of forest cover for residential development and agriculture has reduced the protective cover and natural food sources required by neo-tropical migrants. Wax myrtle was planted because it grows rapidly and will provide quick cover and abundant berries. It will also serve as a perch for resting songbirds, resulting in the dispersal of desirable volunteer plant species.

Seventy-five acres were planted at Magothy Bay NAP and 35 acres were planted at Mutton Hunk Fen NAP. The students and Master Naturalists worked diligently through heat, rain and snow. Their volunteer efforts will result in 110 acres of migratory songbird habitat and considerable monetary savings to Natural Heritage



**Invasive Species**

*Virginia Invasive Species Working Group – 12/08:*

The Virginia Invasive Species Working Group met on Thursday December 18. The group heard report on the increasing threat to Virginia’s forest from the Emerald Ash Borer, considered steps to stem the tide of incoming forest pests transported by firewood – and the group will be exploring in detail the merits of a statewide ban on importation of untreated firewood considering the tremendous economic and ecological impacts posed by this pathway, heard about the efforts by Wetland Studies and Solutions Inc to single handedly control purple loosestrife on the Dulles Toll Road when they were unable to gain assistance from the Dept of Transportation; and discussed a proposed General Assembly bill to codify a group to address the mounting cost and damage from invasive species.

*Invasive Plants and Their Control – 01/09:*

Stewardship Manager Rick Myers presented an invited talk on “Invasive Plants and Their Control” at the Appalachian Division of the Society of American Foresters winter meeting Pesticide Re-certification Workshop on January 21, 2009 in Newport News. The talk focused on three plant species that are especially problematic for forest managers and forest landowners in Virginia: tree-of-heaven, Japanese stilt-grass, and Phragmites.

## **Information Management**

### *National Audubon Society Collaboration – 11/08:*

A DCR University class held in August, "For the Birds", led to a collaboration between Natural Heritage and National Audubon Society. Natural Heritage Database Manager Megan Rollins produced a statewide GIS layout and poster displaying Natural Heritage Bird Conservation Sites along with Audubon Important Bird Areas as part of this seminar. National Audubon supplied the GIS layer of Important Bird Areas and was very interested in acquiring a similar product to support their bird conservation efforts statewide. However, due to a lack of GIS staff and resources, Audubon was unable to produce this tool. Natural Heritage developed a large scale poster for an upcoming Audubon event on December 4th at the Library of Virginia entitled, "An Evening with John James Audubon". Digital copies were also provided with which Audubon will develop outreach brochures and other materials for future educational efforts.

### *Protected Area Database – United States – 01/09:*

As a reflection of DCR's good work with managing information on conservation lands in Virginia, Division Director, Tom Smith, attended a steering committee meeting of the Protected Area Database of the United States. The group discussed future actions to develop at the national level what Virginia has done to compile and maintain information on all conservation lands, and make it readily available on the Internet.

### *Biodiversity Presentation at EPA Conference – 02/09:*

On February 10, Joe Weber delivered an invited presentation on coarse and fine filter approaches to biodiversity conservation at the first green infrastructure workshop for the mid-Atlantic region. The theme of the workshop, which was hosted by the Environmental Protection Agency Office of Research and Development, was "Linking People, Nature and Landscapes through Sound Science", and one of its objectives was formation of the Mid-Atlantic Green Infrastructure Consortium (MAGIC). This Community of Practice (CoP) will facilitate interaction among citizens, governments, scientists, and non-profit organizations while striving towards the common goal of a green infrastructure network throughout the mid-Atlantic region. The presentation discussed how a natural land network resulting from a landscape-scale analysis could be combined with an occurrence-based analysis of rare species habitats and natural communities to identify lands harboring the majority of biodiversity in a region. The workshop organizers recognized Virginia as a leader in these types of analyses and expressed interest in expanding this work.

### *Land Conservation Information – 03/09:*

DCR Natural Heritage staff continue to scour Virginia for previously undiscovered/reported permanently protected lands. Staff recently completed a thorough review of Virginia Outdoors Foundation manual files which resulted in the following additional acres to be added to the following goals:

Chesapeake Bay 2000 Goal: 1,145.91 acres

Governor's 400,000 acre Goal: 1,320.65 acres

Numerous additional easements were also picked up but these were from non-bay counties and were recorded long before the start of the Governor's goal. Natural Heritage staff continues to add acreage to both goals by pursuing other data leads.

## **Natural Heritage Data Management Totals**

### **Activity 10/01/07-03/31/08**

New Mapped Locations (EO) - **15**

Updated Mapped Locations (EOs) - **93**

New Conservation Site - **7**

Updated Conservation Sites - **17**

**Total Number in Database 03/31/08:**  
 Animal Mapped Locations (EOs) – **1,079 (for CZM area)**  
 Plant Mapped Locations (EOs) – **1,159 (for CZM area)**  
 Community Mapped Locations – **362 (for CZM area)**  
 Conservation Sites – **784 (for CZM area)**  
 Managed Areas: **3680 (statewide)**  
 VOF Easements: **2453 (statewide)**  
 Mapped Tracts (total): **8274 (statewide)**

**Project Review**

The table below provides information pertaining to Natural Heritage project review within the Coastal Zone for October 1, 2008 through March 31, 2009.

	<b>Requests directly to Natural Heritage</b>	<b>Requests through DCR-PRR</b>	<b>Total Responses</b>
<b>Federal</b>	46	2	48
<b>Localities</b>	32	0	32
<b>Consultants</b>	113	0	113
<b>Private Individuals</b>	1	0	1
<b>Non-Profits</b>	1	0	1
<b>State:</b>			
<b>VDOT</b>	37		37
<b>VMRC</b>	0	66	66
<b>DEQ</b>	61	69	130
<b>Other</b>	13	12	25
<b>TOTALS</b>	<b>304</b>	<b>149</b>	<b>453</b>

**c) DCR – Division of Planning and Recreation Resources**

Unfortunately no report was available from this Division for this period. This division does not administer any of the enforceable policies of the Virginia CZM Program but an attempt will be made to report activities from this division in the next semiannual report.

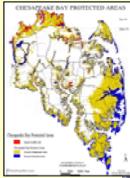
**d) DCR- Division of Chesapeake Bay Local Assistance**

During the reporting period, the Division of Chesapeake Bay Local Assistance continued to make significant progress in overseeing local government compliance with the implementation of the Chesapeake Bay Preservation Act. The Division also enhanced its education and training for both local government staff and consultants involved with administering the Act through local codes and development review processes. The following is a summary of activities for this period.

## Program Description:

The Bay Act requirements fall into three implementation phases. Phase I consists of local governments designating and mapping Chesapeake Bay Preservation Areas (CBPAs) and adopting land use and development performance criteria to protect those features. CBPAs include Resource Protection Areas (RPAs) and Resource Management Areas (RMAs). RPAs are made up of tidal wetlands, tidal shores, nontidal wetlands connected and contiguous to tidal wetlands or perennial streams and a 100-foot fully vegetated buffer. RMAs include lands adjacent to RPAs that are made up of land features such as highly erodible soils, steep slopes and floodplains. Roughly half of all the Tidewater localities have identified their entire jurisdiction as an RMA. Phase II consists of the review and revision of local comprehensive plans to incorporate water quality protection measures. Phase III involves the review and revision of local land use codes to include specific standards that implement water quality performance criteria.

### Elements of Local Government Chesapeake Bay Program Implementation



- **Phase I:** Description and mapping of Chesapeake Bay Preservation Areas and adoption of management program in local ordinances:
  - ☐ Resource Protection Area
  - ☐ Resource Management Area
- **Phase II:** Adoption of Comprehensive Plan components
- **Phase III:** Review & revision of local codes for inclusion of specific standards that implement the water quality performance criteria



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### Comprehensive Plan Elements

- The location of Chesapeake Bay Preservation Areas
- Physical constraints to development
- Commercial and recreational fisheries and other aquatic resources
- Shoreline and stream bank erosion problems
- Existing and proposed land uses
- Public and private waterfront access areas
- Protection of potable water supply
- Local policy on land use issues relative to water quality protection



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In its review of local Bay Act programs, the Chesapeake Bay Local Assistance Board (CBLAB) adopts two kinds of determinations. When a locality is deemed **consistent**, it means the local ordinances are in place to designate CBPAs and to require that the performance criteria be met. When the Board deems a local program **compliant**, it means that the locality is properly implementing the required code or comprehensive plan provisions.

## Consistency Reviews

The revisions to the Regulations in 2001 required all 84 local governments to adopt corresponding revisions to their local Bay Act ordinances by December 31, 2003. As of the period October 1, 2008 through March 31, 2009, CBLAB has determined all 84 local amended Phase I programs to be consistent with the revised Regulations. As indicated in previous reports, all 84 local comprehensive plans are also consistent with the Regulations.

## Compliance Evaluations

For the period October 1, 2008 through March 31, 2009, 9 localities were deemed by CBLAB to be fully compliant with Phase I of the Bay Act, bringing the total number of compliant localities to 62. As of March 31, 2009, 18 localities are not fully compliant but are addressing conditions to achieve full compliance. Therefore, a total of 80 of the 84 Bay Act localities are now either fully compliant or addressing conditions for compliance. Two localities were deemed non-compliant by CBLAB during the reporting period, but the Department is working closely with the staff from those localities to assist them in addressing identified compliance issues. Finally, compliance evaluations are currently in progress for 2 localities. As a reflection of the progress made by localities on compliance with the Bay Act regulations, 69 of 84 (80%) of the Tidewater localities with on-site septic systems are meeting this septic pump-out provisions of the Regulations. This represents an increase of 18% from 2008. Also, 75 of 84 (89%) of these localities have compliant BMP maintenance programs.

## **Site Plan Review**

For the period between October 1, 2008 and March 31, 2009, 158 federal and/or state Environmental Impact Reports, Environmental Assessments, and Environmental Impact Statements were reviewed and commented upon. Staff routinely responds to technical inquiries from local government staff and from consulting firms in conjunction with these reviews. Several inquiries are typically fielded in any given week, which generally involve questions regarding water quality BMPs, buffers or interpretation of the technical aspects of the regulations and guidelines. In addition to the review of state and federal projects, staff reviewed 38 site plans at the request of local governments. The Chesapeake Bay Preservation Act contains a requirement that the Department provide site plan review assistance when requested by a locality.

## **Technical Assistance and Outreach**

DCBLA continues to actively provide technical assistance to local staff as well as education and outreach to local staff, elected and appointed officials, consultants and advocacy groups. During the reporting period, Department staff conducted 38 technical assistance site visits, 7 education & outreach events and 2 training workshops in order to promote a greater understanding and implementation of the Chesapeake Bay Preservation Act. Further, DCBLA staff liaisons regularly attend meetings of and maintain productive working relationships with the 8 Planning District Commissions within Tidewater Virginia. The staff liaisons also work closely with those PDCs to enhance local assistance efforts.

## **Financial Assistance**

In December of 2008, CBLA staff released a Request for Proposals (RFP) for the 2008 EPA's Chesapeake Bay Implementation Grants. The total amount available to the Division for this grant was \$50,000. The purpose of this year's grant is to provide funding to localities and PDCs to assist low-to-moderate income individuals with the septic tank pump-out requirements and, further, to provide funding for land development ordinance reviews that identify and promote code and ordinance provisions that support Phase III effort discussed above. At this point, the Bay Implementation Grant, unfortunately, is the only source of funding the Department is able to make available to localities toward Bay Act implementation.

Based on the review of the submitted proposals a total of 7 grants were awarded. Surry, Charles City, Isle of Wight and New Kent Counties all received \$5,000 each to assist low-to-moderate income homeowners with the cost of pumping their septic tanks. The Middle Peninsula and Northern Neck PDC's both received \$12,000 each to continue their regional septic pump-out programs.

In addition, the Friends of the Rappahannock received a \$6,000 grant to conduct a water quality code and ordinance review, working with Caroline and Lancaster Counties. This grant will result in draft ordinance language to protect water quality through reducing impervious cover, preserving indigenous vegetation and minimizing land disturbance being recommended for adoption for Caroline and Lancaster Counties. It is hoped that the process employed in both of these counties can serve as a model for other localities in how to implement Phase III of the Bay Act. Staff is also working with the Chesapeake Bay NEMO (Network for Education of Municipal Officials) program to provide assistance to the City of Fredericksburg in developing a low impact development ordinance.

## **Initiatives**

### **Code and Ordinance Reviews**

As has been previously reported, the Division continues to work on the development of the Bay Act program for the review and revision, as necessary, of local codes to address water quality protection. This element of

Bay Act implementation is known as Phase III and is a regulatory requirement. The staff, working with a local government advisory committee, developed a code and ordinance checklist to identify sample ordinance provisions program that localities may adopt to comply with this component of the Bay Act Regulations. While the approach for this program is currently being revised, the Department still intends to use the checklist as a tool to conduct code and ordinance reviews. Sample ordinance provisions that will be reviewed include provisions for the maintenance of open space, limits on the number and size of parking spaces, establishment of buffers on intermittent as well as perennial streams and measures to reduce impervious cover. During the initial phase of this effort, Division staff will work with local staff to review their codes and identify measures that may be added or amended that will help to protect water quality. It is hoped that this process will begin by the end of 2009.

#### Next round of Compliance Evaluations

DCR Chesapeake Bay Local Assistance staff is also working on the revision of the tools used for determining local compliance with the Bay Act. In 2009 the initial round of compliance evaluations will have been completed for all 84 Bay Act localities. Since the compliance process was developed and initiated 6 years ago, staff is identifying areas where the process can be improved. The second round of compliance evaluations will begin either the last quarter of calendar year 2009 or the first quarter of 2010.

### **5) Department of Game and Inland Fisheries (DGIF)**

#### **Recreational Fishing:**

##### *Fisheries Stream Sampling Summary*

During this reporting period, VDGIF conducted survey work, using primarily boat electrofishing techniques, on sections of a multitude of streams which drain into the geographic area covered by the CZMP. Extensive sampling of stream fish communities was performed in the James, Rappahannock, Shenandoah, and York drainages. In addition to relative abundance indices, additional parameters were examined for recreationally important species, including analyses of age structure and growth rates based on examination of otoliths. This work has been completed, and a report detailing results is being prepared under Sportfish Restoration Grant F-111-R.

##### *Tidal Chickahominy River F<sub>1</sub> Hybrid Largemouth Stocking Study*

In 2008, VDGIF biologists entered into year-4 of a multiyear project to assess the use of supplemental stocking to offset recruitment variability in this largemouth population. Activities included continued assessment of the 2005, 2006, and 2007 stockings. Although initial mortality rates were apparently quite high for the 2005 cohort of stocked fish, returns of the 2006 and 2007 cohorts of stocked fish have been outstanding – with consistent contribution of stocked fish to the year-class and robust catch rates. As a result, rather than two less than average year classes, the combined (stocked and natural-spawn) year-classes were unusually strong – by 2009 these fish will have fully recruited to the adult population, and the fishery.

##### *American Shad Restoration Program*

Otoliths collected while monitoring adult American shad populations in the James (n=72) and Pamunkey (n=151) rivers during the spring, 2008 spawning run were processed. The overall percentage of hatchery fish in the vicinity of the James River fall line was 66%, which is a substantial decrease from last year (80%). However, it's possible that these results fluctuate substantially primarily due to small sample sizes, although the passing of dominant year classes through the population undoubtedly affects the estimates as well. Only 8 of the 19 fish (42%) caught near the Benjamin Harrison Bridge (approximately 50 km downstream from the fall line) were of hatchery origin. Interestingly, this value is approximately half way between the proportion observed at the fall line by VDGIF (66%) and that observed by VIMS in their gill net sampling close to the mouth of the River (25%). This may reflect the presence of other river stocks of shad near the river mouth and the presence of a remnant mid-river spawning group that has not been supplemented with hatchery fish and does not migrate up to the fall line. Virginia Commonwealth University is conducting genetic studies that may

shed further light on this situation. Ageing of the adult shad otoliths collected in the fall line area of the James River (n=54) indicated a continued shift in the stock towards younger fish that began in 2007. Only one age 9, three age 8, and three age 7 fish were collected in 2008. The vast majority (87%) were 4-6 years of age. The same trend was observed in the Pamunkey River samples. Only two 9-year-old and two 8-year-old fish were aged. Up until 2006, the age structure had been broadening and included fish up to 11 years of age in 2005 and 12 years of age in 2006. This was an important sign of stock recovery, and it was disappointing to see this trend continue to reverse. Relative abundance of the overall spawning stock in the James River could not be estimated for 2008 given that gill net sampling near the fall line was not conducted with adequate effort. However, anecdotal reports from anglers fishing near the fall line, catch data from VIMS' lower-river gill net survey, and the numbers of American shad passed at Boshers's Dam Fishway all indicated that abundance in the James River continued to remain much lower than that observed prior to 2003. Gill net catch rates for both females and males during brood stock collection in the Pamunkey River suggest that the same declining trend is occurring there, as it has in many river systems on the East Coast. The specific reasons for this decline are not known, but summer drought, increased predation, and ocean fishery by-catch are thought to be the most likely suspects. Adult monitoring via gill net sampling near the fall line in the James River will be re-initiated during the spawning run in 2009.

Although our Fish Passage crew has been monitoring anadromous fish spawning runs in the Rappahannock River for ten years, 2008 was the first year in which the VDGIF conducted a targeted sampling program for adult American shad in the Rappahannock River since the stocking program began there in 2003. Of the 35 fish collected during this effort (32 by electrofishing and three confiscated from anglers by VDGIF Law Enforcement), 11 were found to be OTC tagged (31% of hatchery origin). The prevalence of wild fish in this sample was surprising and encouraging.

#### *Stream Monitoring, Juvenile Alosines*

Juvenile alosine sampling using a bow-mounted push net was conducted from June through October 2008 on the James and Rappahannock rivers. Boat electrofishing was also conducted in the upper James and tidal Rappahannock in the fall to collect shad and herring juveniles. Electrofishing is more effective for larger alosine juveniles later in the year when the fish are better at avoiding the push net. Sampling resulted in the collection of target species from both rivers. Otoliths were extracted from the American shad juveniles and examined under a black light microscope to determine origin. Oxytetracycline treatment results in a visible ring in the otoliths under black light. To date, a total of 145 otoliths have been read from the Boshers pool and 100% were of hatchery origin. In 2007, 5.2% of 155 shad from the Boshers pool were wild. To date, 13 otoliths have been read from the tidal James and 84.6% were hatchery and 15.4% were wild. To date, a total of 48 otoliths have been read from the tidal Rappahannock. Of these, 54.2 % were hatchery and 45.8% were wild. In 2006 70.8% were wild and in 2007, 62.7% were wild.

#### *Stream Monitoring, Adult Anadromous Fishes*

Weekly boat electrofishing for adult anadromous fish was begun in February 2008 on the James and Rappahannock rivers in the fall zones. Less frequent sampling was also conducted on other streams such as the Mattaponi River. A major highlight of the 2008 monitoring is that adult American shad were found 28 river miles upstream of the former Embrey Dam site on the Rappahannock River at Kelly's Ford where fry stocking began in 2003. Both wild and hatchery shad were found at Kelly's Ford. One of the wild fish was determined to be six years old indicating that it was actually spawned downstream of Embrey Dam before the removal.

#### **Boshers Dam Fishway:**

In 2007, 37 American shad were counted using the fishway. Gizzard shad were again numerically dominant with 112,148 passing. The total number of fish counted in 2007 was 123,800. To date, over 50 American shad have been counted from the 2008 video. Since 1999, at least 23 species of fish have used the fishway including striped bass (one seen in 2007) and sea lamprey, a native anadromous fish, commonly seen using the fishway.

Through 2007, over 873,000 fish have been counted at the fishway with the vast majority being gizzard shad. The fishway was recently reopened in March for the 2009 migration season.

### **Fish Passage Projects:**

A preliminary engineering report was recently completed concerning the proposed removal of Harvell Dam, the first dam encountered by migratory fish on the Appomattox River. The sediments were found to be clean and the volume of sediment is relatively low. The owner has agreed, in principle, to the removal project. The next steps are to secure implementation funding, complete final design, obtain permits including planning for historical mitigation, and prepare bid documents.

### **Wetlands:**

#### *Mitigation Banking*

VDGIF continues to participate on the Wetland Mitigation Banking Review Team and provide input on new banks all over Virginia, including the coastal zone. Numerous proposals have been made for new banks and/or additions to existing banks within the coastal region of Virginia.

### **Geographic Information Systems/Data Management:**

DGIF continued to maintain spatial datasets of wildlife locations and resources in the coastal zone. An updated version of the Threatened and Endangered Species Waters (TEwaters) dataset was completed and released. This GIS layer shows the location of stream reaches known to support federal or state listed species. DGIF continued the review and update of imperiled species distributions. The result of this effort will be detailed distribution information for over 450 species of greatest conservation need, using fine scale watersheds. Currently being reviewed by DGIF's Taxonomic Committees, the final distributions should be available in June 2009. The Northeast Habitat Classification and Mapping Project, covering 14 jurisdictions and managed by DGIF, was completed. The resulting regional terrestrial habitat classification system, regional aquatic habitat classification system, regional aquatic habitat GIS dataset, and GIS dataset of secured are available at: <http://www.rcngrants.org/node/38>

DGIF developed a new Collections permit data submission application. Scientific and T&E Collections, as well as Salvage permit holders will use this new Excel based form to submit their required annual results to DGIF. This new form is expected to increase quality of the data received as well as decrease data entry effort. DGIF is also developing spatial information for recreational opportunities, including the nearly complete comprehensive boating access database.

### **Wildlife Mapping:**

To date, the WildlifeMapping program has trained over 1,450 volunteers and has generated over 58,000 observations of wildlife and their habitats. The coastal region is the most represented region, both in terms of volunteers and observations, providing approximately 40% of the incoming data. Since 2008, most WildlifeMapping workshops are being conducted in conjunction with chapters of the Virginia Master Naturalist Program. Currently, the Virginia Master Naturalist program has 25 active chapters, with two of the newest chapters in the Coastal Zone, the Arlington Regional chapter and the Peninsula chapter based in Newport News. With nine of the 25 chapters in the Coastal Zone, it is anticipated this region will continue to dominate in the quantity of WildlifeMapping data received from Master Naturalists. These Master Naturalists can also be expected to provide many hours of volunteer service to the Coastal Zone natural resource community. As an example, Master Naturalists from the Historic Rivers and Riverine chapters will serve as mentors to schools in the Coastal Zone who will be participating in a box turtle monitoring project under joint supervision of DGIF and VCU. DGIF has now acquired control of the WildlifeMapping database. It is anticipated that additional user-friendly features will soon be added to the current program.

### **Virginia Birding and Wildlife Trail (VBWT):**

The VBWT is designed to support wildlife conservation efforts in Virginia by providing Virginians and visitors with increased access and opportunities to view wildlife throughout the state. Staff is continuing to visit trail sites and arrange meetings with site managers and tourism officials across Virginia. These meetings allow for full cooperation and coordination for the VBWT. In addition, two Master Naturalist volunteers completed calling over 450 VBWT site owners/managers to update contact information and inquire about site signage needs. Web site updating will begin this fall. A contractor completed all road signage in April 2007. This road signage enhances the ease of use for trail users and has produced an increased interest in the Trail statewide.

The Conservation Management Institute at Virginia Tech completed their contract with DGIF to design and implement a user survey of the VBWT. The data show that conservatively, the Trail brings about \$8.5 Million into the state economy each year. Visitors are usually couples with a mean age of about 50 years old. They have median annual income exceeding \$75,000. Most visitors on the Trail are less than intermediate birders. The portion of the survey sent to local planning and tourism officials show that DGIF needs to do more to educate localities about the Trail. While Tourism staffs are familiar with the Trail effort, most other local officials are not as familiar with it. A copy of the full survey results is available on the Department's Web site at [www.dgif.virginia.gov/vbwt](http://www.dgif.virginia.gov/vbwt).

DGIF Watchable Wildlife program staff performed avian surveys at 6 VBWT sites from May-July 2008. These surveys occurred at sites that had existing data regarding avian populations pre-dating the development of the VBWT. The purpose of these surveys was to determine if the VBWT has had any effect on avian populations. The report is being compiled but preliminary analysis does not indicate any detectable negative impact. The results from this survey should be viewed conservatively as they are:

- based on a small dataset with no controls on other potential variables
- are utilizing disparate historical datasets that preclude rigorous statistical analysis

Upon completion the report will be shared with partner groups and made available on the Department's Web site at [www.dgif.virginia.gov/vbwt](http://www.dgif.virginia.gov/vbwt).

The year 2009 marks the fifth anniversary of the completion of the VBWT. DGIF personnel are planning to celebrate this landmark throughout the state. A series of "Getting to Know You" tours are being implemented by partner groups throughout the Commonwealth. These tours will highlight the VBWT in various communities, promoting ecotourism for participating localities. Each tour will be planned by local groups such as bird clubs, Master Naturalist Chapters and convention and visitor bureaus. DGIF Watchable Wildlife staff will provide logistical support to these efforts.

A media event will be planned for fall 2009 to further increase awareness of the VBWT as an important tool to develop sustainable tourism and enhance conservation efforts. DGIF Watchable Wildlife staff has updated all display materials to reflect the 5<sup>th</sup> anniversary focus. These materials will be displayed at events and festivals throughout the Commonwealth.

Watchable Wildlife staff has coordinated with DGIF Information Technology and GIS personnel to update the VBWT website to reflect the addition of new sites to the trail. A downloadable Google earth dataset of all VBWT sets is in development and will allow users to create personalized itineraries and explore the VBWT via the web. DGIF has also worked with the Cornell eBird program to integrate the VBWT into their product. eBird provides an online portal whereby visitors can record detailed site lists of avian species. This information is used by birders to track their own observations as well as see what birds are being seen at other locations. The information also provides an important tool for researchers in tracking avian population trends.

By ensuring that all VBWT sites are listed as such in the eBird portal the profile of both programs is raised. Birders will be able to view site specific checklists to aid in trip planning and will more easily be able to record their data – enhancing the overall picture of avian populations within Virginia.

## **Non Game Species Monitoring and Research:**

### *Delmarva fox squirrels*

One of the recovery objectives for the federally endangered Delmarva fox squirrel (*Sciurus niger cinerus*; DFS) is to restore populations throughout its historic range, which includes Virginia's Eastern Shore. At present, Chincoteague National Wildlife Refuge harbors the only known self-sustaining DFS population in the state of Virginia. The translocation of DFSs on lands that currently do not support squirrels have proven to be a successful means of expanding and increasing DFS populations within the species' historic range. Many of the forests that may serve as suitable translocation sites Virginia's Eastern Shore are privately owned. Several years ago, DGIF was awarded federal funding under the Private Landowner Incentive Program to develop and implement a Safe Harbor Program that would provide private landowners with legal assurances that they will not be held accountable if translocation efforts fail, and funding to conduct habitat management activities on their lands that would benefit future introductions of DFS. In 2007, DGIF entered into a contractual agreement with a locally owned environmental consulting firm (hereafter referred to as contractor) to assist with the project. Below is a summary of actions taken towards the establishment of a DFS safe harbor program on Virginia's Eastern Shore during this reporting period.

The contractor completed a DFS habitat suitability analysis on the northernmost properties in Accomack County that were identified as potential DFS translocation sites during the previous year's GIS-based landscape analyses (hereafter referred to as Area I). These sites are in close proximity to viable DFS populations located just north of the VA/MD border. The analyses revealed that approximately 630 acres are presently suitable for DFS occupation, but with proper land management, the area of suitable habitat could more than double in the next 10-20 years. The contractor is currently working with the major landowners in the area to encourage them to participate in the DFS safe harbor program.

The contractor also completed a draft land management plan for one of the large private landowners in Area I. This landowner is in support of the project and has expressed interest in having DFS released on his property. In addition, he recently placed a conservation easement on his land and the Eastern Shore Land Trust, which negotiated the easement, has agreed to incorporate the DFS management plan into the easement's management conditions.

The Contractor is working with the Sustainable Conservation Inc. (SCI), the largest landowner in Area I, to encourage them to agree to allow for the release of DFS on the portion of their property that is currently suitable for DFS. SCI is a subsidiary of The Conservation Fund and is the same company that worked with Maryland Department of Natural Resources to develop a DFS management plan for state-owned lands. Thus far, the SCI representatives for Virginia have shown a reluctance to participate in the Safe Harbor Program for reasons not entirely clear; however, we are hopeful that discussions at higher levels of authority may produce more positive results. Lastly, DGIF complete a first draft of a draft Safe Harbor Agreement application to be submitted to the US Fish and Wildlife Service once it is reviewed by Virginia's Attorney General.

### *American Oystercatcher Winter Surveys*

DGIF and The Nature Conservancy's – Virginia Coast Reserve (VCR) continued to conduct an annual winter American Oystercatcher survey in late fall. Since 2002, the winter population estimates ranged between 1600 – 2500 oystercatchers, which represent approximately 15% - 23% at the Atlantic coast population.

### *American Oystercatcher Resighting Surveys*

The U.S. Shorebird Plan (Brown et al. 2001) classified the Atlantic coast American Oystercatcher (*Haematopus palliatus palliatus*) to be a high priority, at-risk species. The American Oystercatcher Working Group (AOWG), a group of shorebird biologists, researchers, graduate students and managers from Massachusetts to Florida, came together several years ago to address the apparent decline in the oystercatcher population. AOWG developed a list of research and monitoring objectives to determine seasonal movement patterns,

distribution and survivorship. One of those objectives included marking adults and young with field-readable color bands throughout the species' Atlantic coast range and conducting post-breeding resighting surveys on high tide roosts from Virginia to Florida.

In 2003, The Nature Conservancy's – Virginia Coast Reserve (VCR) initiated an oystercatcher banding project in Virginia, which targeted primarily unfledged young (< 35 days old) that were captured by hand on breeding territories during the day. In the first year, VCR staff applied unique combinations of multiple, UV resistant single layer darvic plastic wrap around color bands on the right and left metatarsus and tibiotarsus along with a size 5 or size 6 BBL band on the right metatarsus. Soon afterwards, researchers throughout the species range discovered that oystercatchers were able to remove the single layer wrap-around bands which made it impossible to identify individuals with lost color bands. In 2004, the wrap around color bands were replaced with 15 mm high, color bands made of a triple-layer, UV-resistant darvic plastic. Each band is engraved twice with field-readable two-digit alpha-numeric codes and duplicated to form a set two of identically coded bands. Each bird receives two identical color bands, one on each tibiotarsus, and a BBL band on the right or left metatarsus. States were assigned a different color to help identify banding locations. Virginia's band color scheme is black with white engraved codes and the BBL band is applied on the right metatarsus. Since 2004, a total of 476 American Oystercatchers (456 hatch year birds and 20 adults) were banded in Virginia by VCR, DGIF, USFWS and John Weske, a private researcher.

In the fall of 2005, DGIF and VCR staff began conducting post-breeding resighting surveys of banded American Oystercatchers at all known high tide roost sites in the seaside lagoon system from Chincoteague Bay to Magothy Bay. Five water-based routes were established to ensure all sites were visited in a systematic fashion. We attempted to run each route every 12 – 14 days when high tide occurred between 0700 and 1300 hours. We used 10 x 40 binoculars and 32x – 60x spotting scopes to view birds from the boat, or when safe anchorage was possible, from land. After recording flock size, we carefully scanned the flock for banded birds. On most occasions, band readings were verified by two observers. In 2007, USFWS staff began assisting with re-sighting efforts which enabled us to extent regular coverage to all routes and increase the number of routes to seven. The seven routes currently encompass 75 roost sites.

To date, a total of 288 (60%) individuals banded in Virginia have been re-sighted at least once, 68% (n = 196 individuals) of which were resighted multiple times. We also re-sighted 110 individuals that were banded out-of-state. Over half of the fledged young banded in Virginia remain in-state as juveniles and subadults. Smaller proportions of banded young disperse to states to the south (NC – FL). During this reporting period, we re-sighted 44% of the birds banded as chicks in 2004, indicating that a high portion of fledged young do survive to adulthood (oystercatchers reach sexual maturity between 3-4 years of age).

We plan to continue these post-breeding survey efforts until we have a sample size large enough that will allow us to calculate survivorship, establish age at first breeding, and obtain a better understanding of local movement patterns.

### *Literature Cited*

Brown, S., C. Hickey, B. Harrington, and R. Gill, eds. 2001. The U.S. Shorebird Conservation Plan, 2<sup>nd</sup> ed. Manomet Center for Conservation Sciences, Manomet, MA.

### *Endangered or Threatened Birds*

The department continues to maintain, improve, and expand activities related to endangered and threatened birds. Program activities are accomplished through education, research, monitoring, species management, and coordination with the private sector, NGOs, and other governmental agencies.

Several educational presentations concerning endangered and threatened birds were made to public schools, conservation agencies and the private sector. Topics ranged from Bald Eagle management, Peregrine Falcon

restoration, and the avifauna of the James River. Further, this is the third year that we, in partnership with the Norfolk Botanical Gardens, have maintained a webcam/website at an active Bald Eagle nest. This webcam, offers real time video to a web-site, which has generated tremendous interest in Bald Eagles by the public. Further, we maintained a webcam for a breeding pair of Peregrine Falcons in Richmond for the third consecutive year as well. The nest-cam also offers real time video to a web-site, which has also spurred significant interest in falcon restoration.

We continued our efforts related to Bald Eagle protection and management. Over the past year we provided significant guidance and comments to the USFWS concerning population monitoring, habitat management, and take permits under the Bald and Golden Eagle Protection Act. VDGIF, in partnership with the USFWS Virginia Field Office, revised Bald Eagle Protection guidelines for Virginia. These guidelines are similar to the federal guidelines but are tailored specifically for management issues unique to the Chesapeake Bay Region (CBR) (e.g., intensive shoreline development, protection of concentration areas, etc.). VDGIF and the USFWS Field Office held a one day fieldtrip/meeting with USFWS Migratory Bird Staff. This meeting entailed a boat trip on the James River Bald Eagle Concentration Area, presentations on monitoring/management, discussions concerning habitat management and implementation, and long term management challenges faced in the CBR

The department's Nongame Bird Projects Coordinator has been serving on the Atlantic Flyway Council's Nongame Technical Section (NTS). A large portion of the work with the NTS has involved commenting on Bald Eagle de-listing, the Bald and Golden Eagle draft regulatory process, National Bald Eagle Management Guidelines, the National Bald Eagle Monitoring Plan, bird banding regulations, and Peregrine Falcon take by falconers.

We continued our Peregrine Falcon restoration efforts this year. Our focus and goal is to restore populations in the Appalachian Mountains. Hacks were once again conducted at Breaks Interstate Park and Shenandoah National Park during 2008. The Breaks Interstate Park location is near a historic eyrie and we, along with park staff and volunteers, successfully conducted one hack at the park this year. At Shenandoah one hack were completed as well. We will continue to focus our effort on the historic range of peregrines in Virginia in successive years.

Our Avian Conservation Biologist continued to make progress this year through the Virginia All Bird Conservation Initiative (VABCI). VABCI is a step-down process of regional and national bird conservation initiatives to the state level. VABCI is serving as the major conduit for implementation of avian research and conservation projects within Virginia. Meetings were held with our conservation partners to discuss priority species, research and monitoring needs, and habitat/land acquisition projects.

#### *Bald Eagle Concentration Zone Surveys* Seasonal Abundance Patterns

Since the summer of 2007 we have investigated the seasonal abundance patterns and distribution of Bald Eagles on the Potomac River and Rappahannock River Bald Eagle concentration areas. We attempted to conduct monthly surveys over a 12 month period. We were unable to conduct 12 surveys per river over the course of the past year due to weather cancellations and logistical constraints. However, we were able to survey each river during each season of the year, thus capturing the periods of time when eagle use was near peak abundance and periods when abundance was near its yearly low. The Potomac River was surveyed 7 out of 12 months and the Rappahannock River was surveyed 9 out of 12 months (Figure 1). Buehler (1990) documented peaks in Bald Eagle abundance at Aberdeen Proving Grounds in Maryland during mid-summer and mid winter. Our results generally follow Buehler's conclusions.

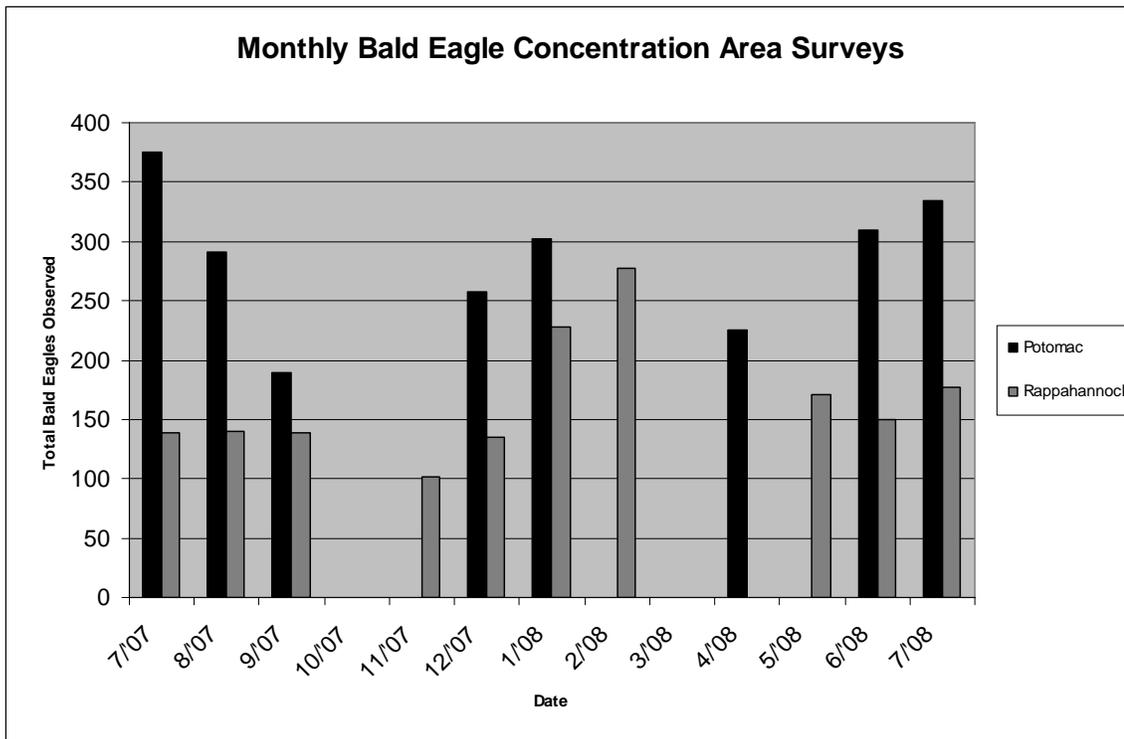


Figure 1. Monthly Bald Eagle surveys on the Potomac and Rappahannock rivers.

### Winter Surveys

In February of 2009, DGIF conducted aerial surveys for bald eagles along the major tributaries of the Chesapeake Bay. The surveys are a continuation of winter bald eagle aerial surveys conducted in 2007 and 2008 in order to assess abundance trends in bald eagle concentration areas along the tidal freshwater/oligohaline reaches of the Rappahannock, James and Potomac Rivers. Although these areas were included in the 2009 surveys, the surveys were more comprehensive in scope, extending across salinity zones of these rivers and including the York River. Surveys were conducted from a high-wing Cessna 172RG aircraft flown parallel to the shoreline and along tidal creeks along the following river segments: Rappahannock River on Feb 2 from Mount Swamp to the Chesapeake Bay; Potomac River on Feb 8 and 9 from Mason Neck State Park to Taskmakers Creek on the Virginia shore, and from Potomac Heights to Point Lookout on the Maryland shore; York River on Feb 17 from Rte 360 on the Mattaponi River and Pamunkey Rivers to the Chesapeake Bay; and James River on Feb 24 from Rte 295 to Craney Island, including the Chickahominy River but excluding the Nansemond River. The location of all bald eagles observed was recorded on 1:50,000 USGS and National Geographic topographic maps. Eagles were identified as adults and sub-adults. Bald eagle nests and their occupancy status were also recorded. Data are in the process of being analyzed.

### **Literature Cited**

Buehler, D.A. 1990. Bald Eagle Distribution, Abundance, Roost Use and Response to Human Activity on the Northern Chesapeake Bay, Maryland. Ph.D. Dissertation. Virginia Polytechnic Institute and State University 131 pp.

### *Monitoring Bald Eagle Use on Cat Point Creek*

Recently the Virginia Department of Transportation (VDOT) proposed to replace the two lane bridge that crosses CPC on route 624 (Newland Rd.) in Richmond County, VA. Currently, the existing bridge does not allow passage of large watercraft and minimizes boat traffic upstream due to the low height of the bridge above the waterline. The proposed replacement bridge would be characterized by a greater height above the waterline. During the environmental review and permit process, the VDGIF and the U.S. Fish and Wildlife Service (USFWS) expressed concern about the increased height of the new bridge on the grounds that it could allow

passage of larger vessels and lead to increases in boat traffic both upstream and downstream. Research conducted on Virginia's tidal rivers, by the Center for Conservation Biology at the College of William and Mary, indicated a negative relationship between Bald Eagle shoreline use and boat use (Watts 1998). Increases in boat traffic during the summer and winter Bald Eagle concentration periods (May – August and November – March) could possibly result in changes in the distribution and use by Bald Eagles on CPC. Because of this potential adverse impact, the USFWS and VDGIF recommended that a sub-structure be added to the new bridge to abate increased boat traffic and prevent passage of larger vessels upstream of the bridge. However, VDOT was reluctant to comply with the recommendation due to concerns they expressed about bridge maintenance and safety issues. As a result the USFWS required that five years of Bald Eagle monitoring be conducted on CPC within 750 feet of the Rt. 624 Bridge in order to evaluate any potential negative impacts that the increased bridge height may have on eagle shoreline use and distribution.

VDOT provided VDGIF with funding to conduct the required monitoring within a 750 foot radius of the Rt. 624 Bridge. However, the VDGIF thought the scope of monitoring was too narrow and felt the entire creek (from the mouth of CPC to Menokin Bay) should be monitored, since the boat traffic on CPC originates from launch sites at both of these locations. As a result VDGIF has and will conduct required monitoring within the 750 foot radius from the bridge site using VDOT funding, but is also conducting an expanded survey of the entire creek using other project funds and volunteer efforts. This report will include results from the required monitoring area as well as the expanded survey.

### **Study Objectives**

The objectives of this project are three-fold. They include: 1) document the seasonal distribution and abundance patterns of Bald Eagles along CPC within 750 feet of the Rt. 624 Bridge (required monitoring area) and the navigable extent of the CPC (the mouth of the creek to Menokin Bay) before, during, and after bridge construction; 2) determine the level of human recreational and commercial use on CPC from the mouth of the creek to Menokin Bay and within 750 feet of the Rt. 624 Bridge before, during and after construction; 3) evaluate changes, if any, in the distribution and abundance of Bald Eagles, people and boats along CPC and near the Rt. 624 Bridge as result of increased bridge height.

### **Methods**

The study area includes the section of CPC within 750 feet of the Rt. 624 Bridge (both upstream and downstream) and the expanded survey area that includes the entire creek from the mouth of CPC to Menokin Bay. Shoreline surveys are conducted by operating a Jon Boat parallel to the shoreline. One observer operates the boat and helps to spot eagles, while the other observer spots and maps eagles, boats, and people. All Bald Eagles observed are plotted on 7.5 minute USGS quad sheets. Eagles are aged by year class (young of year, second year, third year, fourth year, and adult). Eagles that are unable to be aged are classified as unknown juveniles or Bald Eagles of undetermined age. The distance between the observer and all perched Bald Eagles is recorded. In addition, the distance from the survey boat at which birds flush is recorded. For birds that do not flush, their minimum distance from the survey boat is also recorded. This information will be used to calculate flush probabilities along CPC and near the Rt. 624 Bridge.

Human use of CPC and near the Rt. 624 Bridge is documented by mapping all people observed along the shoreline and categorizing their activities. Activities are classified as 1) recreating, 2) working, or 3) fishing. Further, all boats in operation during the survey are mapped. Boats are classified as follows: 1) sport boat, 2) jet ski, 3) Jon Boat, and 4) pontoon boat. Size classes of boats (<20ft. and 20-50ft.) and their activity status (a. fishing, b. recreating, and c. working) are recorded. All spatial data is currently being entered into a Geographical Information System for spatial analysis. Wilcoxon rank-sum analysis was conducted to test for differences between weekday versus weekend eagle abundance, weekday versus weekend human activity (human shoreline use and boat traffic), and weekday Bald Eagle shoreline occupancy versus weekend Bald Eagle shoreline occupancy (Buehler 1990).

Bald Eagle surveys began in November 2006 and will continue on a monthly basis over the next four years. Further, weekend surveys, which are paired with weekday surveys on a monthly basis, began in March 2007 and will continue throughout the entire five year monitoring period. Data collected will be used to evaluate the changes in Bald Eagle and human shoreline use along CPC and near the Rt. 624 bridge prior to and following bridge construction, as well as seasonal changes in the distribution of Bald Eagles, people and boats.

### Results and Discussion

Eighteen surveys have been conducted on CPC during weekdays on a monthly basis from November 2006 through April 2008 and 14 surveys have also been conducted on weekends on a monthly basis from March 2007 through April 2008 (32 total surveys). A total of 1,130 (42% adults, 55% immature, and 3% unknown age birds) Bald Eagle observations were documented during the 32 surveys conducted. The lowest numbers of Bald Eagles occurred in July 2007 during weekday surveys (16) and in August 2007 during the weekend surveys (8). The highest number of eagles was documented in February 2007 (145) (Table 2). This is the greatest number of Bald Eagles ever documented on CPC and represents an extremely high abundance for an area that is relatively small. A pair-wise comparison of Bald Eagle Abundance, using Wilcoxon Sum Rank Test, from March 2007 – April 2008 revealed significantly higher numbers of eagles during weekday surveys than during weekend surveys ( $P = 0.005$   $W = -85.000$   $T+ = 10.000$   $T- = -95.000$ ) (Figure 4). Higher abundance on weekdays may be due to less boat traffic and human use during weekdays. As we gather more data we will investigate the effect that human use has on eagle abundance along CPC.

**Table 2.** Monthly shoreline survey results along Cat Point Creek (weekend surveys results are italicized and bolded).

Date	Adults	Immature Bald Eagles	Unknown Age	Total Bald Eagles Observed	No. Eagles within 750 ft. Radius of Rt. 624
11/29/2006	10 (59%)	7 (41%)	3	20	0
12/19/2006	17 (40%)	26 (60%)	5	48	6
1/10/2007	13 (42%)	18 (58%)	5	36	4
2/22/2007	50 (35%)	91 (65%)	4	145	5
3/22/2007	21 (41%)	30 (59%)	0	51	1
<b>3/24/2007</b>	<b>15 (34%)</b>	<b>29 (66%)</b>	<b>0</b>	<b>44</b>	<b>3</b>
4/11/2007	31 (35%)	57 (65%)	1	89	1
<b>4/14/2007</b>	<b>10 (77%)</b>	<b>3 (23%)</b>	<b>0</b>	<b>13</b>	<b>0</b>
5/16/2007	20 (49%)	21 (51%)	4	45	2
<b>5/12/2007</b>	<b>22 (61%)</b>	<b>14 (39%)</b>	<b>0</b>	<b>36</b>	<b>0</b>
6/18/2007	12 (80%)	3 (20%)	1	16	0
<b>6/22/2007</b>	<b>5 (56%)</b>	<b>4 (44%)</b>	<b>1</b>	<b>10</b>	<b>0</b>
7/18/2007	16 (100%)	0 (0%)	0	16	0
<b>7/14/2007</b>	<b>9(100%)</b>	<b>0 (0%)</b>	<b>0</b>	<b>9</b>	<b>0</b>
8/30/2007	17 (68%)	8 (32%)	1	26	1
<b>8/11/2007</b>	<b>7 (88%)</b>	<b>1 (12%)</b>	<b>0</b>	<b>8</b>	<b>1</b>
9/26/2007	15 (71%)	6 (29%)	2	23	3
<b>9/23/2007</b>	<b>7 (78%)</b>	<b>2 (22%)</b>	<b>0</b>	<b>9</b>	<b>0</b>
10/16/2007	11(52%)	10(48%)	0	21	0
<b>10/20/2007</b>	<b>5 (50%)</b>	<b>5 (50%)</b>	<b>0</b>	<b>10</b>	<b>0</b>
11/18/2007	12 (67%)	6 (33%)	0	18	0
<b>11/18/2007</b>	<b>9 (60%)</b>	<b>6 (40%)</b>	<b>0</b>	<b>15</b>	<b>2</b>
12/11/2007	14 (42%)	19 (58%)	0	33	0

<b>12/15/2007</b>	<b>8 (24%)</b>	<b>26 (76%)</b>	<b>0</b>	<b>34</b>	<b>1</b>
1/16/2008	19 (24%)	60 (76%)	3	81	1
<b>1/6/2008</b>	<b>22 (48%)</b>	<b>24 (52%)</b>	<b>0</b>	<b>46</b>	<b>3</b>
2/21/2008	17 (35%)	32 (65%)	1	50	0
<b>2/6/2008</b>	<b>10 (31%)</b>	<b>27 (69%)</b>	<b>1</b>	<b>33</b>	<b>0</b>
3/21/2008	16 (35%)	30 (65%)	0	46	0
<b>3/22/2008</b>	<b>10 (28%)</b>	<b>26 (72%)</b>	<b>0</b>	<b>36</b>	<b>1</b>
4/24/2008	12 (50%)	12 (50%)	0	24	0
<b>4/19/2008</b>	<b>16 (44%)</b>	<b>20 (56%)</b>	<b>0</b>	<b>36</b>	<b>0</b>

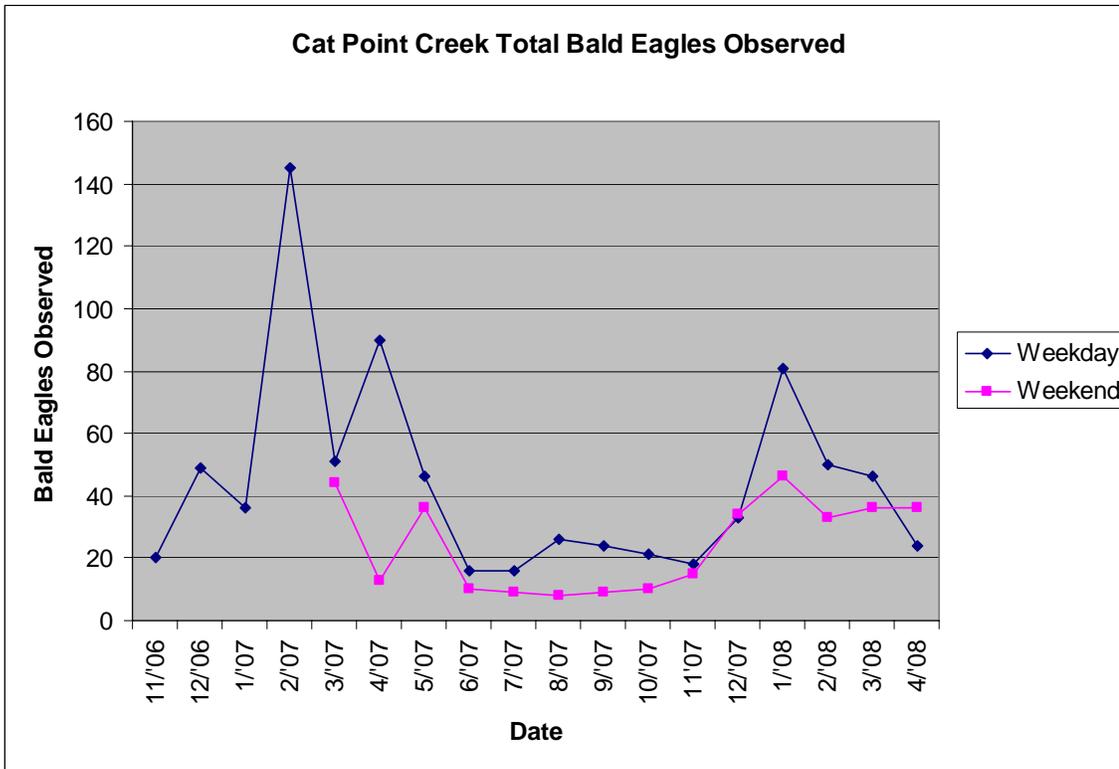


Figure 4. Monthly Bald Eagle observations along the expanded survey route during weekend and weekday surveys.

## B. FEDERAL CONSISTENCY

During the first half of FY 2008, the Office of Environmental Impact Review/Federal Consistency (OEIR) reviewed 132 development projects and management plans for consistency with the VCP. This represents 81.5% of the total amount of projects (162) reviewed during this period. Major state projects accounted for 48 projects, 54 were federal actions, and 30 were federally funded projects (predominantly local government projects). The 54 federal projects included 51 direct federal actions and 3 federal activities (licenses and approvals).

The OEIR continues to maintain a webpage for Federal Consistency for the Commonwealth. This can be accessed through DEQ's main website or found at <http://www.deq.virginia.gov/eir>. The webpage includes the Commonwealth's Federal Consistency information package, a project list with project descriptions and public notices of Federal consistency reviews. The webpage is updated weekly.

**Table 1** depicts federal projects in Tidewater, Virginia reviewed from October 1, 2008 through March 31, 2009.

<b>TYPE OF FEDERAL PROJECTS REVIEWED*</b>	<b>NUMBER OF PROJECTS COMPLETED</b>	<b>REVIEW PERIOD</b>
*Direct Federal Actions	51	30-60 Days
** Federal Activities (approvals & permits)	3	90 Days
Federally Funded Projects	30	30 Days
Outer Continental Shelf	0	45-60 Days
<b>TOTAL</b>	84	<b>30-90 DAYS</b>

\*Includes HUD Mortgage Insurances reviewed as a residual category of Subpart C of the Regulations.

\*\*These projects do not include permits issued pursuant to Section 404 of the Clean Water Act administered by the U.S. Army Corps of Engineers. Such permits are reviewed by the regulatory agencies under a separate interagency coordinated review process (coordinated by the Norfolk District U.S. Army Corps of Engineers).

**SIGNIFICANT FEDERAL PROJECTS REVIEWED FOR CONSISTENCY WITH THE VCP FROM OCTOBER 1, 2008 – MARCH 31, 2009**

**I. Federal Agency Projects**

*The following projects are examples of federal agency projects subject to Subpart C of 15 CFR 930.33(a)*

Prison Construction at Naval Support Activity Northwest Annex – In accordance with Base Realignment and Closure (BRAC) recommendations, the Navy proposes to construct a regional correctional facility at the Naval Support Activity Northwest Annex (NSA-NW) in the City of Chesapeake. During the course of DEQ’s coordinated review of the federal consistency determination (FCD), the DEQ-Tidewater Regional Office (TRO) determined that the consistency document did not provide sufficient information related to the wetlands management enforceable policy. For example, the FCD did not provide supporting documentation for the conclusion by the Navy that no wetlands were located at the project site. Furthermore, this conclusion contradicts information available on National Wetland Inventory maps. Accordingly, DEQ requested clarification. On November 19, 2008, the Navy submitted additional information. As allowed by the Coastal Zone Management Act, DEQ requested a 15-day extension in order to review the additional information submitted by the Navy. After review of the new information, it was determined that it was still inadequate to support the Navy’s conclusion. Therefore, on December 2, 2008, the Navy requested an extension of the federal consistency determination review period and DEQ agreed. The Navy was unable to complete the wetland delineation during this first 60-day extension so a second extension was requested by the Navy on January 21, 2009. The new deadline for completing the review was March 10, 2009. Despite several deadline extensions, the Navy has not provided the necessary information or requested another extension of the March 10, 2009 deadline. Accordingly, DEQ objected based on insufficient information related to the wetlands management enforceable policy of the VCP. DEQ will lift the objection if the Navy provides adequate

information to complete the federal consistency review. On March 16, 2009, DEQ received additional information from the Navy. However, the information provided was still inadequate for DEQ to lift the objection since the wetlands delineation was not conducted using the required Army Corps of Engineers' (Corps) Atlantic and Gulf Coastal Plain Regional Supplement and the delineation had not been confirmed by the Corps. DEQ believes that the Corps' confirmation of the presence or absence of wetlands should be a prerequisite of land-disturbing activities at this site.

Constructing and Operating Explosive Ordnance Field Training – DEQ completed a coordinated review of a final Environmental Assessment (EA), which included a federal consistency determination (FCD), on a proposal by the Army to add 1,025 acres to the explosives ordnance disposal field training area at Fort A.P. Hill, Caroline County. The expansion would include training sites, observation bunkers, training towers, and a range of new buildings including new barracks. About 278 acres of largely undeveloped, forested land would be cleared for the project. As proposed, the subaqueous lands management, wetlands management, non-point source pollution control, shoreline sanitation, air pollution control and coastal lands management enforceable policies may be affected. Based on the information provided in the EA and FCD, and the comments of reviewing agencies, DEQ concurs that the proposed activity is consistent with the VCP, provided that Fort A.P. Hill complies with all requirements of applicable permits and other authorizations that may be required. In addition to the coordination required for the proposed actions to remain consistent with the enforceable policies of the VCP, additional coordination by Fort A.P. Hill with Virginia's natural resource agencies will be necessary to ensure protection of natural heritage and wildlife resources.

Implementation of Measures to Reduce Ship Strikes to Right Whales – DEQ completed the coordinated review of a Final Environmental Impact Statement (FEIS) submitted by the National Marine Fisheries Service (NMFS) for the implementation of vessel operational measures to reduce ship strikes to North Atlantic right whales. Six alternatives are evaluated in the FEIS with Alternative 6 being the preferred alternative. The measures considered in Alternative 6 include the following: Seasonal Management Areas (SMAs) - predetermined and established areas within which seasonal speed restrictions apply; Dynamic Management Areas (DMAs) - temporary areas consisting of a circle around a confirmed right whale sighting; and Routing Measures - consisting of a set of routes designed to minimize the co-occurrence of right whales and ship traffic. The DEQ response contained historical information on ship strikes, ship traffic, and whale migration routes in Virginia coastal waters. The response includes the recommendation that the NMFS coordinate closely with the U.S. Fish and Wildlife Service and the Virginia Department of Game and Inland Fisheries to ensure that impacts on protected species including whales, sea turtles and marine mammals are adequately avoided and minimized.

Integrated Support Command Portsmouth facility - DEQ completed the coordinated review of a federal consistency determination submitted by the Coast Guard to rehabilitate waterfront bulkheads at the Integrated Support Command Portsmouth facility. The Facility is located southwest of the confluence of Craney Island Creek and the Elizabeth River. The work includes cleaning and recoating 388 linear feet of existing sheet pile bulkhead, installing timber pile-supported timber fender panel, removing and replacing existing waterfront utilities and removing and replacing the existing gas and diesel fuel piping, pumps, and dispensers. Based on reviewers' comments, DEQ concurs that the proposal is consistent with the enforceable policies of the VCP. DEQ made several recommendations including mitigation of impacts on Chesapeake Bay Protection Areas and the proper use of erosion and sediment control measures.

Sonar Training - DEQ completed the Commonwealth's coordinated review of the Navy's Final Environmental Impact Statement (EIS)/Overseas Environmental Impact Statement (OEIS) to evaluate the potential environmental effects associated with sonar training for the Atlantic Fleet. The Navy continues to support the "No Action Alternative," as its preferred alternative since it does not require the Navy to change the geographic limits of the areas in which it currently trains. Reviewers continue to disagree with this choice. The Commonwealth previously reviewed and responded to the Draft EIS/OEIS for this project on March 27, 2008 and to the Federal Consistency Determination on October 16, 2008. Reviewing agencies reiterate their previous

comments that the Navy's preferred alternative, is the least protective of the four alternatives analyzed and the Commonwealth recommended that the Navy, 1) restrict sonar training exercises by designating areas of seasonal operation (Alternative 2) or areas of increased awareness (Alternative 3), or a combination of these alternatives, 2) investigate the potential of other areas within the study area which may be suitable for sonar training, and 3) conduct further research into particularly sensitive areas and seasonal shifts in species aggregations to determine which of the three alternatives (1, 2 or 3) is the most protective of marine life.

Undersea Warfare Training Range – DEQ completed the coordinated review of a draft Overseas Environmental Impact Statement/Environmental and Impact Statement and federal consistency determination submitted by the U.S. Navy for an undersea warfare training range off the U.S. coast. The Navy proposes to place undersea cables and transducer nodes in a 500-square-nautical-mile area of the ocean to create an undersea warfare training range for anti-submarine warfare training. The Navy is considering four locations for the training range: Site A (preferred)-offshore of northeastern Florida; Site B-offshore of central South Carolina; Site C-offshore of southeastern North Carolina; and Site D-offshore of northeastern Virginia at Wallops Island, Accomack County. The trunk cable would be installed either directly buried in an armored cable or encased in a protective pipe at the NASA Wallops Flight Facility. Should the Navy choose the Virginia site, the DEQ response recommends that the Navy coordinate closely with the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, Virginia Department of Game and Inland Fisheries and the Department of Conservation and Recreation to ensure that impacts on protected species including sea turtles, whales and marine mammals are adequately avoided and minimized. Furthermore, the response recommends that the Navy coordinate this proposal with the Department of Mines, Minerals and Energy and the Virginia Coastal Energy Research Consortium with respect to planned or proposed offshore energy activities.

Navy Flight Testing - DEQ completed a coordinated review of the Navy's negative determination for the flight testing of a new aircraft. The Navy proposes to demonstrate the airworthiness of the clean (no weapons loaded) P-8A Poseidon Aircraft prior to making a decision to enter into production and deployment. The demonstration would be accomplished by conducting flight testing in the Virginia Capes Operation Area (VACAPES OPAREA). All flights will either originate from Naval Air Station Patuxent River (NAS PAX River) in Maryland or in California for warm-weather testing. Flight testing would be conducted over a two-year period beginning in the third quarter of 2009. Approximately 309 total flights, 103 test flights and 206 support aircraft flights, are proposed. Testing involves ground and airworthiness checks and air-to-air refueling. When weather conditions warrant, flights into and out of NAS PAX River will transit through Virginia airspace. No in-flight testing or any fuel dumps below 6,000 feet would occur within Virginia airspace. According to information in the document, the proposed activity would have no effect on the enforceable policies of the Virginia Coastal Resources Management Program (VCP). Therefore, DEQ concurs with the Navy's negative determination and agrees that a federal consistency determination is not necessary.

Missile Replacement Facility – DEQ completed a coordinated review of a federal consistency determination (FCD), proposed by the Navy, to consolidate three of its computer systems programs into one facility at Naval Support Facility Dahlgren. Construction would add 55,000 square feet of new space to the existing building and 11,000 square feet of the existing building would be renovated. Associated infrastructure to be constructed includes utilities, sidewalks and landscaping, additional parking and stormwater management facilities. The Department of Conservation and Recreation (DCR) commented that the document was unclear regarding impacts on lands which are analogous to Resource Protection Areas (RPAs) as defined under the Chesapeake Bay Preservation Area Designation and Management Regulations. DEQ requested and obtained additional information from the Navy that indicates that RPAs would not be affected. Based on the additional information provided, DCR agrees that RPAs would not be affected. Accordingly, DEQ concurs that the proposal is consistent with the enforceable policies of the Virginia Coastal Resources Management Program, provided that the Navy complies with all requirements of applicable permits and other authorizations that may be required. DEQ's response also includes guidance on minimizing impacts to wetlands, proper use of erosion and sediment control, and requirements for mitigation of hazardous waste, including asbestos and lead-based paint.

National Museum of the United States Army – DEQ completed the coordinated review of a draft Environmental Assessment and federal consistency determination submitted by the U.S. Army for construction of the National Museum of the United States Army at Fort Belvoir in Fairfax County. The EA evaluates two sites at Fort Belvoir; the Pence Gate site and Gunston site. The DEQ response concludes that the proposal has the potential to impact water quality, wetlands, Chesapeake Bay Preservation Areas, air quality, wildlife resources, historic resources, and transportation infrastructure. However, based on comments from agencies responding to the proposal these impacts can be mitigated. DEQ recommends that the Army coordinate with the appropriate federal and state natural and cultural resources agencies, the Virginia Department of Transportation and Fairfax County to ensure that the proposed development is undertaken in a manner that minimizes the impacts on resources of the Commonwealth.

Hydro-Impact Basin - DEQ completed the Commonwealth's coordinated review of the National Aeronautics and Space Administration's (NASA) environmental assessment and consistency determination to construct a Hydro-Impact Basin at NASA's Langley Research Facility. The proposed water-filled basin would have a maximum depth of 25 feet and would hold 1.2 million gallons of water. If necessary, eight dewatering wells would be installed to reduce the inward pressure of groundwater on the walls of the basin. The basin would be in service for 5 years and then be deactivated. However, the concrete walls and floor would be left intact to allow for reactivation of the basin in case of future water-impact testing. DEQ's response includes the recommendation that NASA should consider alternatives to filling the basin with potable water that would still meet the standards required for underwater photography. In addition, guidance was provided on the requirements for the possible modification to NASA's Virginia Pollutant Discharge Elimination System permit and for the mitigation of hazardous waste management, including possible heavy metal contamination, asbestos and lead-based paint.

Oyster Restoration in the Chesapeake Bay – DEQ completed the coordinated review of a draft Programmatic Environmental Impact Statement (PEIS) submitted by the Army Corps of Engineers, Norfolk District for the restoration of oysters in the Chesapeake Bay through the use of native and/or nonnative oysters. The Virginia Marine Resources Commission and the Maryland Department of Natural Resources were also lead agencies with the Corps in the preparation of the PEIS. The proposed action is to introduce a nonnative species, the Suminoe oyster, and continue efforts to restore the native Eastern oyster. The Suminoe oyster is a native of the China Sea that has environmental requirements and tolerances similar to those of the Eastern oyster but is resistant to diseases that have adversely affected the Eastern oyster. Eight alternatives including three combination alternatives that would involve both oyster species individually or together were evaluated. Based on the information provided in the PEIS, although agencies support actions to improve water quality, substrate, and the natural resources of Chesapeake Bay, and the continued efforts to restore the native Eastern oyster throughout Chesapeake Bay, however, several reviewers are concerned about the introduction of non-native species such as the Suminoe oyster and recommend precautionary measures that may be necessary to prevent adverse impacts on native species.

Infantry Platoon Battle Course – DEQ completed the coordinated review of a draft Environmental Assessment and federal consistency determination submitted by the U.S. Army for the construction and operation of an Infantry Platoon Battle Course (IPBC) at Fort A.P. Hill in Caroline County. The IPBC would be constructed on a 642-acre site and would be used to train and test infantry platoons on the skills necessary to conduct tactical movement techniques, and detect, identify, engage, and defeat stationary and moving infantry and armor targets in a tactical array. The document identified possible wetland impacts and committed the Army to conducting a wetland inventory of the project site for Corps approval. DEQ noted that a Virginia Water Protection Permit would be required for any water quality and wetland impacts. DEQ's response also recommended coordination with the Department of Game and Inland Fisheries due to possible impacts to the bald eagle, and with the Virginia Department of Agriculture and Consumer Services and the U.S. Fish and Wildlife Service for a survey of the swamp-pink, to ensure compliance with protected species legislation.

Natural Resources Management Plan - DEQ completed the Commonwealth's coordinated review of an environmental assessment and consistency determination for the implementation of an Integrated Natural Resources Management Plan (INRMP) at the U.S. Army Garrison, Fort A. P. Hill (FAPH). The purpose of the INRMP is to provide a proactive plan that guides staff at the Fort in achieving natural resource management goals, mission requirements and compliance with environmental regulations and policies. An INRMP is required for each military installation where significant natural resources occur. Based on reviewers' comments, DEQ concurs that the proposal is consistent with the enforceable policies of the VCP. The Commonwealth's response included recommendations to coordinate individual projects with state agencies and to protect resources such as threatened and endangered species and historic resources.

Dredging of Norfolk Harbor Channel - DEQ completed the Commonwealth's coordinated review of the Navy's Final Environmental Impact Statement (EIS) and federal consistency determination to dredge a five-mile portion of the Norfolk Harbor Channel and Federal navigation channel in the Southern Branch of the Elizabeth River. The northern extent of the dredging is at Lamberts Bend and the southern limit is at the southern end of the Norfolk Naval Shipyard. The purpose of the deepening is to give nuclear-powered Navy aircraft carriers continuous access to the Shipyard and to the Navy's Lamberts Point Deperming Station. The preferred disposal site for the dredge material is Craney Island Dredged Material Management Area (CIDMMA). Reviewing agencies noted several deficiencies in the Draft EIS that should be rectified in the Final EIS. Recommendations include quantifying the extent of hydraulic versus mechanical dredging, discussing the potential conflicts with the Corps' and the Virginia Port Authority's Craney Island Eastward Expansion project and discussing the management techniques to be employed at the CIDMMA to prevent the reintroduction of contaminants to the Elizabeth River and Hampton Roads. The Virginia Port Authority (VPA) supports the project because the proposed deepening of the Channel would allow the VPA to accommodate deep draft vessels at its Portsmouth Marine Terminal and will help provide fill material necessary to construct VPA's proposed Eastward Expansion of Craney Island.

Forestry Management Activities - DEQ completed the Commonwealth's coordinated review of an environmental assessment and consistency determination for the implementation of the FY 2009-2013 Forest Management Activities plan at the U.S. Army Garrison, Fort A. P. Hill (FAPH). The purpose of the forestry management plan is to support its military mission by providing ecologically sustainable and viable training lands. The Army proposes to conduct timber harvests on 12,915 acres, prescribed burns on 53,820 acres, and timber stand improvement activities on 3,364 acres. The timber stand improvement activities include 258 acres of crop tree release, 1,657 acres of pre-commercial thinning and 1,449 acres of herbicide vegetation control treatments. These actions would require the creation of new forest access roads and firebreaks and the clearing and grading of existing forest access roads. Based on reviewers' comments, DEQ concurs that the proposal is consistent with the enforceable policies of the VCP. The Commonwealth's response included recommendations to coordinate with state agencies to protect resources such as threatened and endangered species and historic resources.

Naval Special Warfare Explosive Center of Excellence - DEQ completed the coordinated review of an Environmental Assessment and federal consistency determination submitted by the U.S. Army Garrison at Fort A.P. Hill for the construction of the Naval Special Warfare Explosive Center of Excellence (NSWECE) in Caroline County. The facility would provide training in unconventional warfare, direct action, counter-drug operations, personnel recovery and maritime visit-board-search and seizure activities. The total land area proposed for the NSWECE would be 20 acres divided into three separate areas, including (1) an administrative area; (2) a training area; and (3) a demolition area. DEQ's response noted that the report indicates that wetlands have been identified and delineated throughout the installation on the National Wetland Inventory (NWI) map. Therefore, DEQ reminded the Army that NWI maps do not represent the legal boundaries of jurisdictional surface waters since these maps are often inaccurate. Instead, the boundaries of jurisdictional wetlands

regulated by DEQ are determined by a wetland delineation that is confirmed by the Army Corps of Engineers. In addition, the portions of the project located within areas which are analogous to Resource Management Areas are subject to the general performance criteria the regulations implementing the Chesapeake Bay Preservation Act. These performance criteria include: minimizing land disturbance; preserving indigenous vegetation; and minimizing impervious cover.

## **II. Residual Category**

*The following consistency determinations were submitted as a residual category of Subpart C pursuant to the federal consistency regulation 15 CFR 930.31(c).*

Reid's Prospect Apartments - DEQ completed the coordinated review of a federal consistency determination submitted by the U.S. Department of Housing and Urban Development (HUD) for the construction of a multifamily housing complex in Prince William County. HUD is processing an application for mortgage insurance to finance the private construction of the apartment complex which includes five buildings with 200 dwelling units, parking and additional stormwater management facilities. The 7.34-acre parcel is undeveloped, although the majority of the site has been cleared. Previous construction at the site includes roads and stormwater management facilities. DEQ concurred that the proposal is consistent with the enforceable policies of the VCP provided the applicant complies with the performance criteria of the County's Chesapeake Bay Preservation Area Designation and Management Regulations, one of the enforceable policies of the VCP.

Residential Development by Habitat for Humanity- DEQ completed the Commonwealth's review of a Federal Consistency Certification for residential development in Chesterfield County. Habitat for Humanity proposes to construct 1- and 2-story single-family residences on approximately 4.87 acres of land at the northern terminus of Kingsport Lane. About half of the area to be cleared for the development is comprised of woodlands and wetlands. The U.S. Department of Housing and Urban Development will provide funding for the project. Based on reviewers' comments, DEQ conditionally concurs that the proposal is consistent with the enforceable policies of the Virginia Coastal Resources Management Program (also called Virginia Coastal Zone Management Program). The conditional concurrence is based on the Applicant's need to: (i) obtain all approvals not yet secured that are applicable to the enforceable policies, (ii) adhere to all the conditions of any applicable Virginia Water Protection permit, and (iii) carry out the subsequent development consistently with the Coastal Lands Management enforceable policy governed under the Chesapeake Bay Preservation Act and the regulations that implement the Act. In accordance with these regulations, unless specifically permitted by the Regulations and the local ordinance, non-water dependent development is not allowed within Resource Protection Areas.

MTC East – DEQ coordinated the Commonwealth's review of a federal consistency determination submitted by the U.S. Department of Housing and Urban Development (HUD). HUD proposes to provide mortgage insurance for the construction of the proposed MTC East multi-family apartment complex in Chesterfield County. The project site is located on Winterfield Road and consists of 8.124 acres of partially graded and developed land with a stormwater detention basin and construction debris from previous development. Further development of the site would consist of the construction of a nine-building, 246-unit multi-family apartment complex and one building of approximately 1,010 square feet for commercial space. According to the project consultant, there are no permits on file with Chesterfield County for the previous grading and development except for an expired land disturbance permit. DCR's Division of Chesapeake Bay Local Assistance (DCBLA) indicated that the report shows a wetland to the northwest of the project site as a Resource Protection Area (RPA) feature. However, the proposed development plan does not show the 100-foot vegetated RPA buffer associated with the wetland. Accordingly, the proposed development plans should be revised to properly reflect the preservation and re-establishment, where necessary, of the 100-foot vegetated RPA buffer. According to

DCBLA, no land disturbance (to include clearing of vegetation) or development is to occur within the 100-foot RPA buffer unless specifically permitted by the Bay Act Regulations and the local ordinance.

The Arlington at Chesapeake Apartments - DEQ completed the Commonwealth's review of a federal consistency determination for residential development in the City of Chesapeake. The U.S. Department of Housing and Urban Development (HUD) will provide mortgage insurance to a private developer for the construction of eight buildings with 190 units, parking, a clubhouse and pool on approximately 12.5 acres of land. Based on reviewers' comments, DEQ conditionally concurs that the proposal is consistent with the enforceable policies of the Virginia Coastal Resources Management Program (also called Virginia Coastal Zone Management Program). The conditional concurrence is based on the Applicant's need to: (i) obtain all approvals not yet secured that are applicable to the enforceable policies, (ii) adhere to all the conditions of any applicable Virginia Water Protection permit, and (iii) carry out the subsequent development consistently with the Coastal Lands Management enforceable policy governed under the Chesapeake Bay Preservation Act and the regulations that implement the Act. In accordance with these regulations, unless specifically permitted by the Regulations and the local ordinance, non-water dependent development is not allowed within Resource Protection Areas.

Harrison Creek Apartments - DEQ completed the coordinated review of a federal consistency determination submitted by the U.S. Department of Housing and Urban Development for the construction of a multifamily housing complex in Petersburg. HUD is processing an application for mortgage insurance to finance the private construction of the apartment complex which includes 14 buildings, community center, putting green, access roads, parking areas and stormwater management ponds. The 36.2-acre parcel is undeveloped, with 20 percent of the site wooded and the rest is covered with light vegetative growth, mulch piles and an abandoned pump house that was used to irrigate the golf course that was previously located at the proposed project site. DEQ's response included guidance on minimizing impacts to wetlands, limiting emissions of ozone precursors, proper use of erosion and sediment control and requirements for petroleum storage tank removal or registration.

### **III. Federal Activities (Permits, Licenses and Approval)**

*These projects were reviewed pursuant to Subpart D of the Consistency Regulations (15 CFR §930.53)*

Combined License for North Anna Power Station Unit 3 - DEQ completed the coordinated review of a draft Supplemental Environmental Impact Statement (SEIS) submitted by the Nuclear Regulatory Commission (NRC) for the construction of the Economic Simplified Boiling-Water Reactor, Unit 3, at the North Anna Power Station (NAPS) in Louisa County. In November 2007, NRC approved issuance of an Early Site Permit (ESP) for two additional nuclear units (3&4) at the NAPS site. In the state's response to the SEIS, reviewers noted that the document did not address the Instream Flow Incremental Methodology study (IFIM) conducted by Dominion in cooperation with state natural resource agencies. The SEIS did not discuss the proposed operating rules developed from the IFIM study, particularly with respect to the effect of a proposed three inch rise in normal lake storage. The Department of Game and Inland Fisheries intends to continue to work with Dominion, the permitting agencies, and other natural resource agencies to develop operating rules that avoid adverse impacts upon downstream resources, including recreational uses, or to mitigate unavoidable impacts. Authorization by DEQ under the Virginia Water Protection Permit program is likely due to anticipated water and wetland impacts, and a modification to the NAPS Virginia Pollutant Discharge Elimination System permit would be required. Other omissions that should be adequately addressed in the final SEIS include a discussion of the state-listed small whorled pogonia; a discussion of the expected traffic distribution (for construction-related traffic and for operations) and the effects upon the state highways and intersections; and the discussion of an updated evacuation plan that addresses the area of impact in the event of an emergency. The applicant indicated that the federal consistency certification will be submitted in the near future.

Exposed Pipe Remediation in Chesterfield County – DEQ completed the coordinated review of a federal consistency certification submitted by Columbia Gas Transmission Corporation for the remediation of a section of an existing ten-inch natural gas pipeline (Line VM-113) located adjacent to an unnamed tributary of Falling Creek in Chesterfield County. The pipeline has become exposed for approximately eighteen feet within the expanding channel of the ephemeral tributary as a result of an increase storm flows due to upstream development. During the course of the review, Columbia submitted an amendment to the proposal after the company identified more significant erosion at the site than originally determined. The consistency review included consultations between DEQ, Columbia, the Corps of Engineer, Department of Conservation and Recreations (DCR-DCBLA), and Chesterfield County on issues involving the Corps’ authority under the Clean Water Act and Chesapeake Bay Preservation Area impacts. The Corps confirmed that the proposed remediation activities qualified for a Nationwide Permit for which DEQ has provided Water Quality certification. In addition, DCR-DCBLA agreed that the proposed action is consistent with the Chesapeake Bay Preservation Act and Regulations. Based on the outcome of the consultations, DEQ concurred that the proposal is consistent with the enforceable policies of the VCP.

EPG Single Circuit 230 kV Transmission Line – DEQ completed the coordinated review of a State Corporation Commission application submitted by Virginia Electric and Power Company for a Certificate of Public Convenience and Necessity to build a new single circuit 230 kV transmission line in Fairfax County. The construction of the new transmission facility is to provide electrical service to the proposed expanded workforce of approximately 18,000 people at Fort Belvoir’s Engineer Proving Ground (EPG). The proposed transmission line would be approximately 0.45 mile long, from the Company’s existing double circuit Possum Point-Hayfield 230 kV Line #215 to a new 230-34.5 kV substation at the EPG. Three alternative routes are under consideration: the Proposed Route; the Proposed Route with Alternative Segment; and the Alternate Route. Based on comments from reviewers, the Proposed Route is recommended by the Department of Environmental Quality, Department of Conservation and Recreation, Department of Game and Inland Fisheries, the Virginia Department of Agriculture and Consumer Services, the Department of Forestry and the Department of Historic Resources. In general, this alternative will result in fewer impacts on wetlands, streams, natural heritage resources, wildlife, forests, historic and archaeological resources, and protected plant and animal species. The Virginia Department of Transportation supports the Alternate Route because the Proposed Route has the potential to conflict with planned roadway improvements. The applicant was advised of the need to submit a federal consistency certification prior to implementing the project.

#### **IV. OCS Reviews**

Geological and Geophysical Exploration on the Atlantic Outer Continental Shelf – DEQ coordinated the development of scoping comments for the preparation of a Programmatic Environmental Impact Statement (PEIS) by the U.S. Minerals Management Service (MMS) for geological and geophysical (G&G) oil and gas exploration on the Atlantic Outer Continental Shelf (OCS). The MMS also invited other federal agencies, state, tribal, and local governments to consider becoming cooperating agencies in the preparation of the PEIS. The MMS also solicits information from industry on any potential interest for future G&G activities on the Atlantic OCS, including seismic surveys (high resolution surveys as well as various types of seismic exploration and development surveys), side-scan sonar surveys, all types of electromagnetic surveys, geological and geochemical sampling, and remote sensing (including gravity and magnetic surveys) and the geographic areas of these activities. The DEQ response reiterates the Commonwealth’s energy policy supporting gas-only exploration greater than fifty miles off the Virginia coast, and includes information and discussion of environmental, biological, and geological (including natural hazard areas) conditions, and potential use conflicts.

Outer Continental Shelf Proposed Oil and Gas Lease Sale 220 Off Virginia – DEQ submitted scoping comments on behalf of the Commonwealth to the Department of the Interior’s Minerals Management Service (MMS) for the proposed oil and gas lease sale 220 on the outer continental shelf off the Virginia coast. The state’s

response provided MMS with information for the Interest/Nominations (Call) and the Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) for the lease sale. The Call and the NOI are the initial information-gathering steps in a process that incorporates planning and analysis for the lease sale. In addition to providing information on the environmental, biological, and geological conditions in the program area, the response notes that the MMS proposal to start the leasing process could lead to production of both natural gas and oil and therefore does not comport with Virginia's offshore energy policy which supports federal efforts to determine the extent of offshore natural gas resources only. The response recommends the development of a comprehensive energy plan that includes oil, gas, wind, wave and other energy alternatives. In particular, the MMS should include offshore wind energy development within the scope of the EIS. The response also expresses the Commonwealth's interest in entering into discussion with MMS on possible cooperating agency status in the preparation of the lease sale EIS.

### **C. PROGRAM CHANGES**

During the reporting period Virginia CZM program staff worked with staff from the agencies responsible for implementing the various laws, regulations and policies of the Virginia CZM Program to review the program change packages previously developed by the Environmental Law Institute (ELI). Agencies included the Department of Environmental Quality (DEQ), the Virginia Marine Resources Commission (VMRC), and the Department of Game and Inland Fisheries. The agencies were asked to review the packages and concur that the changes documented by ELI were accurate. The agencies reviewed packages covering changes to the Tidal Wetlands Act (VMRC), the Tidal Wetlands Mitigation Policy (VMRC), the Coastal Primary Sand Dunes and Beaches Act (VMRC), various state fisheries statutes (VMRC and DGIF), Virginia Air Pollution Control Board Statutes (DEQ), and NPDES Regulations (DEQ). DEQ Environmental Impact Review staff also reviewed the packages. To date, comments have been received from all but one of the agencies. During the next reporting period, the proposed program changes will be public noticed and submitted to NOAA for review and approval.

An issue of increasing concern is the lack of any species protection laws in Virginia's CZM Program. As offshore energy development pressure increases, it may be more and more important to have endangered species protection incorporated into the Virginia CZM Program. Another issue that has arisen is the increase in offshore breakwater construction, which can affect the habitat of the endangered tiger beetle. Inclusion of state protection laws within the Virginia CZM Program would provide more protection against issuance of inappropriate state and federal permits. This issue was discussed at the November 5, 2008 Coastal Policy Team meeting, and consideration of a program amendment to include these laws in the Virginia CZM Program will continue. A proposal for funds to address this, or other program changes/amendments, was included in the draft 2009 application.